AUSTRALIAN COMPETITION & CONSUMER COMMISSION

Airport Monitoring Report 2016-17

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Australian Competition and Consumer Commission
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Contents

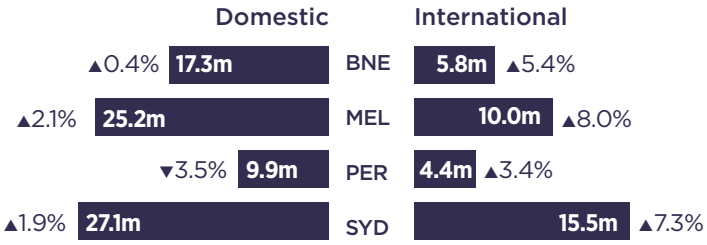
Glossary

ACCC	Australian Competition and Consumer Commission
Aerobridge	Allows passengers to board and disembark aeroplanes directly from/to the terminal gate lounge. Avoids need for passengers to go outside and use the apron.
Aircraft-related services and facilities	Services and facilities provided by airports that are specifically utilised by aircrafts (e.g. runways, aircraft parking bays and taxiways). The full list of aircraft-related services and facilities for monitoring purposes are listed in the *Airports Regulations 1997*.
Airline surveys	Each year, the ACCC sends domestic and international airlines a survey in which they are asked to rate on a scale of 1 to 5 the availability and standard of services and facilities provided by the monitored airports.
Airports Act	*Airports Act 1996.*
Airports Regulations	*Airports Regulations 1997.*
Airside	Refers to areas specifically in the airport that are dedicated to the provision of aircraft-related services and facilities and most passenger-related services and facilities e.g. terminal buildings, runways and taxiways.
Aeronautical services and facilities	As defined under the *Airports Regulations 1997,* services and facilities at an airport that are necessary for the operation and maintenance of civil aviation at the airport (including both passenger-related and aircraft-related services and facilities).
Apron	Airport aprons are areas where planes park and are refuelled, passengers embark and disembark and/or where planes are loaded and unloaded
BARA	Board of Airline Representatives of Australia
BITRE	Bureau of Infrastructure, Transport and Regional Economics
CCA	*Competition and Consumer Act 2010 (Cth)*
CPI	Consumer Price Index
DTL	Domestic terminal lease
EBITA	Earnings before interest, tax and amortisation
EBITDA	Earnings before interest, tax, depreciation and amortisation
FAC	Federal Airports Corporation
General aviation	Aircraft operations that are not regular public transport, such as private charter and aircraft training flights, and Royal Flying Doctor Services.
GST	Goods and Services Tax
Landside	Parts of an airport that are not airside areas e.g. access roads and walkways within airport precincts.

LIS	Line in the sand approach. A regulatory approach to valuing airport assets under which the value of an airport's aeronautical asset base for monitoring purposes is the value of tangible non-current aeronautical assets reported to the ACCC as at 30 June 2005, plus new investments, less depreciation and disposals.
Monitored airports	Airports which are subject to price and quality of service monitoring and are specified in Parts 7 and 8 of the *Airports Regulations 1997*; currently Brisbane, Melbourne, Perth and Sydney airports.
MTOW	Maximum take-off weight
Objective indicators	Airport services and facilities listed in the *Airports Regulations 1997* to be monitored and evaluated by the ACCC and of which monitored airports are required to keep records. Includes both physical infrastructure (e.g. the number of check-in desks and flight information display screens) and other measurements (e.g. number of passengers during peak hour).
On-carriage passengers	Passengers that arrive on one flight and depart on another flight generally without leaving the airport.
Overall quality of service	A metric derived by aggregating the quality of service monitoring results sourced from objective indicators and surveys of airlines and passengers on the quality of services and facilities provided by the monitored airports.
Passenger-related services and facilities	Services and facilities provided by airports that are specifically utilised by passengers (e.g. check-in desks, aerobridges and gate lounges). The full list of passenger-related services and facilities for monitoring purposes are listed in the *Airports Regulations 1997*.
Passenger surveys	The monitored airports arrange for annual passenger surveys to be conducted by market research companies in order to provide information to the ACCC as required under the Airports Regulations. These surveys ask passengers to rate on a scale of 1 to 5 the availability and standard of services and facilities.
Peak hour	The hour that, on average for each day in the financial year, has the highest number of (arriving/departing / total of both) passengers.
Profit	Earnings before interest, tax and amortisation (EBITA).
Profit margin	Ratio of EBITA relative to revenue.
Real terms	A value expressed in the money of a particular base time period (e.g., 2016–17 dollars) in order to remove the impact of inflation.
SLA	Service level agreement
Taxiway	A road for aircraft that connects runways with airport facilities including ramps, hangers and terminals

Airport Monitoring Report 2016–17

PASSENGER VOLUMES

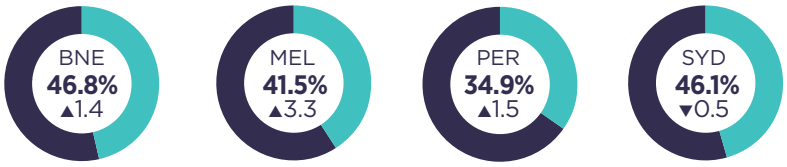


QUALITY OF SERVICE*

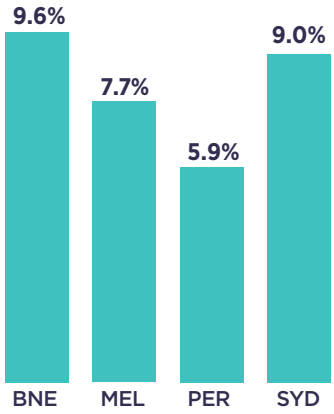
	2016-17	2015-16
BNE	Good	Good
MEL	Satisfactory	Satisfactory
PER	Good	Good
SYD	Satisfactory	Satisfactory

AERONAUTICAL SERVICES

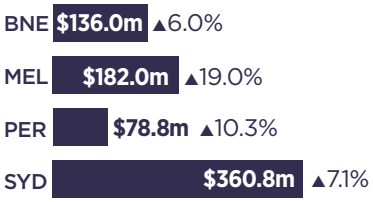
Operating profit margin



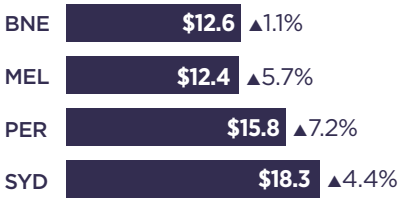
Aeronautical investment**



Operating profit



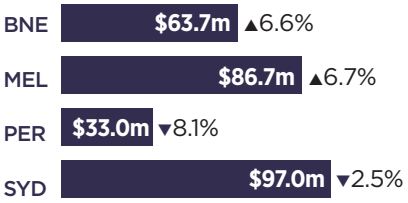
Revenue per passenger



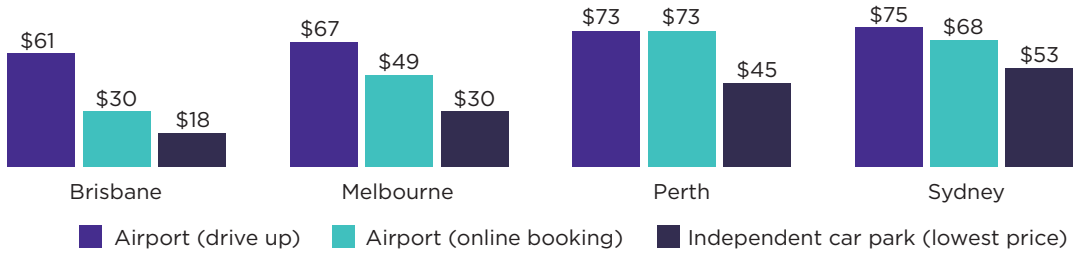
CAR PARKING

Operating profit margin

Operating profit



Indicative prices (3 days)



* The five rating scales for quality of service are: Very Poor, Poor, Satisfactory, Good, and Excellent. 2015-16 overall quality of service results have been revised for Sydney and Melbourne airports.

** Additions as a % of tangible non-current assets for aeronautical services.

Note: Operating profit refers to earnings before interest, tax, and amortisation. Operating profit margin changes are in percentage points.

Key Findings

All airports rated as either 'good' or 'satisfactory' for overall quality of service

The quality of services provided by the airports can be rated as very poor, poor, satisfactory, good or excellent. Both Perth and Brisbane airports maintained their 'good' ratings for overall service quality during 2016 17. Perth Airport overtook Brisbane Airport to be the highest rated airport for the first time. Perth Airport's significant improvement in quality of service ratings over the past three years has coincided with a substantial investment program.

Sydney and Melbourne airports were again rated 'satisfactory' for overall quality of service in 2016–17. Their ratings have remained relatively unchanged over the past few years, sitting slightly below the threshold for 'good'.

High yielding international passengers driving growth in demand and revenue

Aggregate passenger numbers for the four monitored airports grew by 2.7 per cent to 115.2 million passengers during 2016–17. This was primarily driven by strong growth in international passengers (6.7 per cent), while domestic passengers only grew by 0.9 per cent. Both Sydney and Melbourne airports had growth of close to 4 per cent in total passenger numbers. However Perth Airport experienced a decline in passengers for the third year in a row.

The stronger growth in higher yielding international passengers (relative to domestic passengers) over the past decade has contributed to rising average aeronautical revenue collected by the airports for each of their passengers. Across the four airports combined, this figure has increased by 25.9 per cent (in real terms) over the decade. In 2016–17, aeronautical revenue per passenger for Perth Airport jumped by 7.2 per cent to $15.8, while for Sydney Airport, this measure increased by 4.4 per cent to $18.3.

Operating profits from aeronautical services increased at all airports

In this report, operating profit is measured by earnings before interest, tax and amortisation (EBITA). Operating profit margin refers to operating profit as a percentage of revenue.

Operating profits from aeronautical activities increased as a result of growing passenger numbers and airports collecting more in revenue from each passenger on average. The four monitored airports made a combined $757.6 million in operating profits from aeronautical activities in 2016–17, up 9.9 per cent. Sydney Airport grew its aeronautical operating profit by 7.1 per cent to $360.8 million, a total which was nearly twice as high as that of the next highest airport.

Aeronautical profit margins increased for all monitored airports except Sydney Airport in 2016–17. They ranged from 34.9 per cent at Perth Airport to 46.8 per cent at Brisbane Airport in 2016–17.

Profit margins for car parking remained very high across all airports

Profit margins for car parking ranged from 52.4 per cent for Perth Airport to 71.9 per cent for Sydney Airport in 2016–17. While Melbourne and Brisbane airports reported improvements to car parking margins, Perth and Sydney airports reported modest declines.

Sydney Airport made an operating profit of $97.0 million from its car parking operations in 2016–17, down slightly from the previous year. Melbourne Airport

made $86.7 million and Brisbane Airport made $63.7 million. Both Perth and Sydney airports reported moderate falls in their car parking revenue in 2016–17.

Performance of each monitored airport in 2016–17

Brisbane Airport

Brisbane Airport's passengers grew by 1.6 per cent to 23.1 million. This was driven by a 5.4 per cent increase in international passenger traffic.

Aeronautical revenue increased by 2.8 per cent in real terms to $290.5 million, which contributed to a 6.0 per cent increase in aeronautical operating profit. Brisbane Airport had the highest aeronautical profit margin of the four monitored airports (46.8 cents for every dollar of aeronautical revenue collected). Aeronautical revenue per passenger also increased modestly to $12.60. Brisbane Airport's return on aeronautical tangible non-current assets was 7.0 per cent for 2016–17.

Brisbane Airport reported a profit of $63.7 million for its car parking operations on $93.5 million in car parking revenue.

Brisbane Airport maintained its 'good' overall quality of service rating, but was overtaken by Perth Airport as the highest ranked airport among the four monitored airports. While both the international and domestic terminals also maintained a 'good' rating in 2016–17, ratings for aircraft-related services and facilities have fallen for two consecutive years and remained in the 'satisfactory' range.

Melbourne Airport

Total passenger numbers at Melbourne Airport increased by 3.7 per cent to 35.2 million in 2016–17, the second highest total after Sydney Airport. The primary driver of this rise was an 8.0 per cent increase in international passengers.

Total aeronautical revenue increased by 9.5 per cent in real terms to $438.2 million during 2016–17. This equated to $12.44 per passenger (up 5.7 per cent). Despite higher expenses, the aggregate aeronautical profit increased by 19 per cent to $182 million. Melbourne Airport made an operating profit of 41.5 cents for each dollar of aeronautical revenue earned during 2016–17, up from 38.2 cents the previous year. Melbourne Airport's return on aeronautical tangible non-current assets was 9.7 per cent for 2016–17.

Car parking revenue increased by 5.4 per cent in real terms to $145.1 million during 2016–17. Car parking operating profit grew by 6.7 per cent to $86.7 million despite higher expenses. Operating profit margin increased slightly to 59.7 per cent.

Melbourne Airport's overall quality of service rating remained relatively unchanged within the 'satisfactory' range during 2016–17. While domestic terminals maintained a 'good' rating, both international terminal and aircraft-related services and facilities were rated 'satisfactory' during 2016–17.

Perth Airport

Total passenger numbers at Perth Airport fell by 1.4 per cent to 14.3 million. This drop was driven by a 3.5 per cent decrease in domestic passengers, which more than offset the growth in international passenger numbers (3.4 per cent).

Total aeronautical revenue grew by 5.7 per cent in real terms to $225.7 million, despite a drop in aircraft movements and passengers. Revenue per passenger rose by 7.2 per cent in real terms to $15.79. This figure has grown 61.8 per cent in just six years.

Aeronautical operating profit was up 10.3 per cent to reach $78.8 million, following a decline last year. Perth Airport made an operating profit of 34.9 cents for each dollar of aeronautical revenue, slightly up from 33.5 cents last year. Perth Airport's return on aeronautical tangible non-current assets was 7.8 per cent for 2016–17.

Perth Airport invested $60.7 million in aeronautical assets in 2016–17. This was significantly lower compared with the previous four years, with 2016–17 marking the completion of the airport's $1 billion redevelopment.

Perth Airport's investment program has likely contributed to the notable improvements in its quality of performance measures over the past three years. The airport's overall quality of service rating continued to improve within the 'good' category and is the highest of the monitored airports for the first time. The airport was rated as 'good' for both its international and domestic terminals, while aircraft-related services were rated as 'good' for the first time in the last decade.

Car parking revenue fell 2.5 per cent to $63.0 million in 2016–17 and has now declined for three years in a row. Car parking operating profit declined by 8.1 per cent to $33.0 million, which is the lowest level since 2011–12. The airport made a profit of 52.4 cents per dollar of car parking revenue, the lowest recorded for the airport in the past decade.

Sydney Airport

Sydney Airport continued to be the largest Australian airport with total passenger numbers increasing by 3.8 per cent to 42.7 million in 2016–17. For the second consecutive year, international passenger growth exceeded 7 per cent (7.3), which drove total passenger increases. Domestic passengers grew 1.9 per cent.

Total aeronautical revenue grew by over 8 per cent in real terms for the second consecutive year to $782.3 million. Aeronautical profit increased by 7.1 per cent to $360.8 million. Sydney Airport earned an operating profit of 46.1 cents per dollar of aeronautical income collected during 2016–17. Sydney Airport's return on aeronautical tangible non-current assets was 11.0 per cent for 2016–17

A fall in car park throughput resulted in car parking revenue decreasing by 0.9 per cent in real terms to $134.8 million. Operating profit from the car park fell 2.5 per cent in 2016–17 to $97.0 million. The airport made an operating profit of 71.9 cents for each dollar of car parking revenue.

Sydney Airport's overall quality of service rating remained relatively unchanged in 2016–17. In the past decade, the overall rating has sat within the 'satisfactory' category, slightly below the threshold for 'good'. The average rating for aircraft-related services remained at 'satisfactory', but has shown improvement in each of the last two years. The standard of management responsiveness improved to 'good' in 2016–17. The rating for international terminals also increased to 'good', while domestic terminals' rating remained at 'satisfactory'.

Airports appear to be managing the challenge of congestion

The significant growth in demand for air traffic in Australia has put pressure on airport infrastructure for aeronautical services as well as car parking and landside access.

While total passenger numbers have gone up by around 30 million across the four airports in the past 10 years, various measures indicate that the airports appear to be managing the challenge to date, with investments such as the Terminal 4 precinct in Melbourne and Perth Airport's Terminal 1 Domestic Pier.

In addition, three of the four airports are at various stages of building a new runway, which would enable them to cope with further increase in demand in future. The $1.3 billion runway at Brisbane Airport is scheduled to be operational in 2020.

With demand for air traffic projected to grow further over the next 10 to 15 years, continued investment in airport infrastructure is needed to expand capacity to meet increasing demand.

A down year for aeronautical investment following several years of significant capital expansion

Following a number of years of significant expansion and investment across a number of the airports, aeronautical investment was notably lower in 2016–17. Sydney Airport had the highest level of investment in 2016–17 at $294 million. Brisbane Airport had the highest rate of investment at 9.6 per cent of the aeronautical asset base.

Considering its large size and growth in passengers, Sydney Airport has invested at a much lower rate than the other monitored airports over the last decade.

Operational constraints on significant pieces of infrastructure like airports should be avoided where possible

As the only airport currently servicing Australia's largest city, Sydney Airport faces ongoing challenges with respect to aeronautical congestion and demand management. Some of the regulatory mechanisms currently in place—namely those that control aircraft noise and protect regional airlines—can, to various degrees, constrain the airport's ability to both manage congestion and maximise operational efficiency more generally.

While there may be good social policy reasons for certain constraints on nationally important infrastructure, they can also impose significant costs on users and the broader economy. They should be regularly reviewed to ensure that they provide a net benefit to society.

Furthermore, every effort should be made in the planning stage of the Western Sydney Airport to ensure that similar constraints will not be required.

Booking online and independent car parks provide cheaper alternatives to airport car parking drive-up rates

Motorists looking to save money on long-term car parking should consider either booking their airport car park online, or look to use one of the many independent car parks outside the airports' grounds.

The ACCC found that compared to paying drive-up rates at the airport, motorists could save around 20 per cent on average if they booked their long-term parking at the airport online.

Independent car parks operating around the airports provide the opportunity for further discounts. The ACCC found that motorists could save around 40 per cent on average compared to paying drive-up rates for the airports' own car parks at a distance from the terminals. Available discounts varied by airport and the duration of the parking. Motorists in Melbourne can choose from 15 different car parks operating near the airport, while there are fewer choices near the other airports.

The current airport regulatory regime to be reviewed by the Productivity Commission for the first time since 2011

In 2018, the government is expected to ask the Productivity Commission to conduct its first review of the economic regulation of airports since 2011. In the past the ACCC has raised concerns that the current monitoring regime did not provide an effective constraint on the airports' market power.

A key issue for the inquiry will likely be examining the cost and benefit of potential regulatory remedies for constraining the airports' market power in aeronautical and car parking services.

The ACCC will make a submission to the upcoming Productivity Commission inquiry.

Key performance indicators 2016–17

Table 1: Key aeronautical indicators for the monitored airports for 2016–17

Airport	Passenger numbers (m)	Aero revenue ($m)	Aero revenue per passenger ($)	Aero profit (EBITA) ($)	Aero profit (EBITA) margin (%)	Overall rating for quality of service
Brisbane	23.1	290.5	12.60	136.0	46.8	Good
Melbourne	35.2	438.2	12.44	182.0	41.5	Satisfactory
Perth	14.3	225.7	15.79	78.8	34.9	Good
Sydney	42.7	782.3	18.34	360.8	46.1	Satisfactory

Note: The rating categories are: very poor, poor, satisfactory, good and excellent.

Table 2: Changes in key aeronautical indicators from 2015–16 to 2016–17

Airport	Passenger numbers (%)	Aero revenue (%)	Aero revenue per passenger (%)	Aero profit (EBITA) (%)	Aero profit (EBITA) margin (pp)	Overall rating for quality of service
Brisbane	▲1.6	▲2.8	▲1.1	▲6.0	▲1.4	▼
Melbourne	▲3.7	▲9.5	▲5.7	▲19.0	▲3.3	▼
Perth	▼1.4	▲5.7	▲7.2	▲10.3	▲1.5	▲
Sydney	▲3.8	▲8.4	▲4.4	▲7.1	▼0.5	▲

Note: Changes for financial data are presented in real terms (base year = 2016–17)
▲ indicates an increase; ▼ indicates a decrease; — indicates no change. *Rating changed by a category over the period.

Table 3: Key car parking indicators for the monitored airports for 2016–17

Airport	Revenue ($m)	Profit (EBITA) ($m)	Profit (EBITA) margin (%)	Car parking spaces	Revenue per car park space ($)	Profit (EBITA) per car park space ($)	Revenue share of total airport revenue (%)
Brisbane	93.5	63.7	68.2	16 703	5 596	3 817	13.8
Melbourne	145.1	86.7	59.7	26 443	5 487	3 277	15.6
Perth	63.0	33.0	52.4	22 645	2 784	1 459	11.6
Sydney	134.8	97.0	71.9	17 094	7 885	5 673	9.5

Table 4: Changes in key car parking indicators from 2015–16 to 2016–17

Airport	Revenue (%)	Profit (EBITA) (%)	Profit (EBITA) margin (pp)	Car parking spaces (%)	Revenue per car park space (%)	Profit (EBITA) per car park space (%)	Revenue share of total airport revenue (pp)
Brisbane	▲3.3	▲6.6	▲2.1	▲5.5	▼2.1	▲1.0	▼0.1
Melbourne	▲5.4	▲6.7	▲0.7	▲2.1	▲3.2	▲4.5	▼0.5
Perth	▼2.5	▼8.1	▼3.2	▼0.5	▼2.0	▼7.6	▼2.3
Sydney	▼0.9	▼2.5	▼1.2	▲7.3	▼7.6	▼9.1	▼0.8

Note: (1) pp = percentage points; (2) Changes for financial data are presented in real terms (base year = 2016–17).

Introduction

The ACCC's monitoring role

This report presents the results of the ACCC's monitoring of the quality, prices, costs and profits relating to the supply of aeronautical and car parking services at Brisbane, Melbourne (Tullamarine), Perth and Sydney (Kingsford Smith) airports for 2016–17.

The ACCC's monitoring functions originate from directions issued by the Assistant Treasurer pursuant to section 95ZF of the *Competition and Consumer Act 2010* and from Part 8 of the *Airports Act 1996*.

The price monitoring regime was established in 2002 following the consideration of the recommendations of a Productivity Commission inquiry. The move from a price regulation regime to a monitoring regime was intended to facilitate investment and innovation, while retaining some oversight of the exercise of market power by the airports in their dealings with airlines and other customers.

It is generally accepted that Australia's four major airports have market power and control access to monopoly infrastructure. As a result, there is a concern that at some airports, airlines do not possess enough bargaining power to ensure appropriate commercial outcomes.

An unconstrained airport would be expected to exercise its market power to earn monopoly profits to the detriment of the broader Australian economy. For example, an airport could seek to charge high prices and/or provide lower quality services and facilities. It could also under-invest in key infrastructure so as to artificially restrict supply and potentially lead to higher prices. An unconstrained airport may also operate inefficiently by allowing its costs to rise or not adopting cost-saving or innovative technologies.

Price monitoring provides some transparency over the airports' performance and allows for some general observations to be made regarding whether they are taking advantage of the lack of competition. This is most relevant for informing the Australian Government which may determine that some form of regulation is required to better protect consumers. Transparency of performance may also assist airlines in their negotiations with airports regarding prices and service standards.

However, monitoring is limited in its ability to address behaviour that is detrimental to consumers. As it is not price regulation, monitoring does not directly restrict the airports from increasing prices and allowing service quality to decline. In particular, it does not provide the ACCC with a general power to intervene in the airports' setting of terms and conditions of access to the airports' infrastructure. Other limitations of monitoring are discussed in appendix A4.

Terminals within the scope of monitoring program

The ACCC's monitoring role for aeronautical services and facilities relates only to those terminals that are owned and operated by the four monitored airports.

Typically most domestic terminals operate through common-user arrangements where all airlines can access the terminals subject to agreement with the airport operator. However, some of the domestic terminals at the monitored airports are operated on an exclusive basis by a single airline under a domestic terminal leases (DTL). The terminals operating under DTLs are not subject to the ACCC's monitoring.

The ACCC does not collect quality of service ratings for these terminals. Further, while the airport revenues, costs and profits associated with the leased terminals are included in the report's 'total airport' figures, they are not included in figures that specifically represent aeronautical services. Passenger numbers and aircraft movements are reported on a total airport basis and therefore include those associated with DTL terminals.

Table 1 sets out which terminals at the four monitored airports are included in the monitoring program.

Table 1: Terminal operational arrangements for the monitored airports

Airport	Terminal	Type	Subject to ACCC monitoring
Brisbane	Domestic Terminal[1]	Qantas DTL	No
		Virgin DTL	No
		Common-user	Yes
	International Terminal	Common-user	Yes
Melbourne	Terminal 1 Domestic	Qantas DTL	No
	Terminal 2 International	Common-user	Yes
	Terminal 3 Domestic	Common-user	Yes
	Terminal 4 Domestic	Common-user	Yes
Perth	Terminal 1 International & Domestic	Common-user	Yes
	Terminal 2 Domestic	Common-user	Yes
	Terminal 3 Domestic	Common-user	Yes
	Terminal 4 Domestic	Qantas DTL	No
Sydney	Terminal 1 International	Common-user	Yes
	Terminal 2 Domestic	Common-user	Yes
	Terminal 3[2] Domestic	Qantas	Yes

Note:
(1) Qantas and Virgin Australia occupy and operate the majority of the domestic terminal under lease. The remainder of the domestic terminal is a common-user area.
(2) Primary responsibility for the Qantas domestic terminal 3 reverted back to Sydney Airport in late 2015. It therefore became subject to the ACCC's monitoring for the 2015–16 year.

The structure of this report

The structure of the report is as follows:

- Chapter 1 looks at relevant airport industry developments and observations
- Chapter 2 provides an overview of the prices, revenues, costs, profits and quality of service indicators at the four monitored airports
- Chapters 3 to 6 present more detailed results for each monitored airport
- Appendix A1 discusses the history of airport regulation in Australia
- Appendix A2 provides background on the current regulatory framework including the legislative basis for the ACCC's monitoring of airport performance
- Appendix A3 outlines the services provided by the airports and
- Appendix A4 presents the methodology used by the ACCC in the analysis of airports in this report.

This and past airport monitoring reports can be found on the ACCC website at www.accc.gov.au/regulated-infrastructure/airports-aviation/airports-monitoring. The webpage for each report will include links to supplementary information such as the regulatory accounts for the monitored airports for that year and the various forms of data used in that report.

1. Industry observations and developments

Key points

- Congestion is becoming a bigger challenge for the monitored airports as the number of passengers has grown 34.9 per cent over the last decade. Various measures suggest that the airports are managing the challenge to date, with investments such as the Terminal 4 precinct in Melbourne and Perth Airport's Terminal 1 Domestic Pier. In addition to the construction of a new airport in Western Sydney, three of the monitored airports are in the process of building or planning an additional runway. The most significant of these is the $1.3 billion runway scheduled to be operational at Brisbane Airport in 2020.
- Sydney Airport faces a number of regulatory constraints over its operations such as an overnight curfew and limits on the number of aircraft movements per hour. Such constraints on nationally important infrastructure can impose significant costs on users and the broader economy. While there may be social policy reasons for these constraints on Sydney Airport, they should be regularly reviewed given advances in noise reduction technologies. More importantly, every effort should be made to ensure that similar constraints are not required for the new airport being built in Western Sydney.
- Motorists looking to save money on car parking for the airport should consider using one of the many independent car parks outside the airports' grounds. The ACCC found that motorists could save between 30 and 70 per cent for 3 days of parking, compared to paying drive-up rates for the airports' own car parks at a distance from the terminals. Motorists in Melbourne can choose from 15 different car parks operating near the airport, while there are fewer choices near the other airports
- Following the decision by Sydney Airport to decline the Australian Government's offer, the government set up a government owned enterprise (WSA Co) with an expected investment of $5.3 billion to build a new Western Sydney Airport by 2026. WSA Co expects to sign contracts worth at least $300 million for design and construction works by the end of July 2018.
- In 2018, the government is expected to ask the Productivity Commission to conduct its first review of the economic regulation of airports since 2011. A key issue for the inquiry will likely be examining the costs and benefits of possible regulatory remedies for constraining the airports' market power in aeronautical and car parking services.

1.1. Airports facing the challenge of congestion

Congestion has become an emerging challenge for the four monitored airports as the number of people flying has continued to grow. Various measures suggest that the airports are managing this challenge to date, however it is an issue that will require ongoing investment into the future.

Other sections in this chapter also consider matters related to congestion. Section 1.2 looks at how congestion is a bigger challenge for Sydney Airport because of externally imposed limitations on its operations. Sections 1.3 and 1.4 then consider significant investment projects that could help alleviate congestion in the future with respect to the construction of new runways and the new airport in Western Sydney.

1.1.1. Passenger growth creating congestion challenges for airports

Over the past decade, Australia has seen a significant increase in demand for air traffic. Total passenger numbers at the monitored airports reached 115 million in 2016–17, up by 30 million (or 34.9 per cent) since 2007–08. This is nearly the current total patronage of

Melbourne Airport (35 million). Aircraft movements across the monitored airports reached 0.9 million, up 20.0 per cent since 2007–08.

The significant growth in demand has put pressure on airport infrastructure for aeronautical services as well as car parking and landside access. Some of the facilities at the airports such as landside areas and runways have experienced congestion as a result.

Much of this increase in aircraft and passenger volumes has occurred during peak periods. This creates a particular challenge for airports, which have found it difficult to persuade airlines to take on non-peak slots. One reason for this is that passengers have strong preferences for flying at certain times. Another factor is Australia's location at the end of long distance routes, which necessitates overnight flights (with morning arrivals) and scheduling based around the needs of connecting international airports.

Programs such as the Airport Capacity Enhancement program, implemented by Airservices Australia in collaboration with the airports and airlines, have significantly increased the peak number of movements at a number of airports through improved efficiency in the utilisation of existing aeronautical infrastructure. For example, the peak number of movements per hour increased by 6.8 per cent at Brisbane Airport[1].

1.1.2. Airports appear to be managing the challenge

The ACCC raised concerns a few years ago that investment was needed at the airports as systematic congestion across the major airports had been developing.[2] In particular, the ACCC noted declines in overall quality of service ratings and that on-time performance of domestic flights at the airports had been worsening overtime as the number of flights continued to increase.[3]

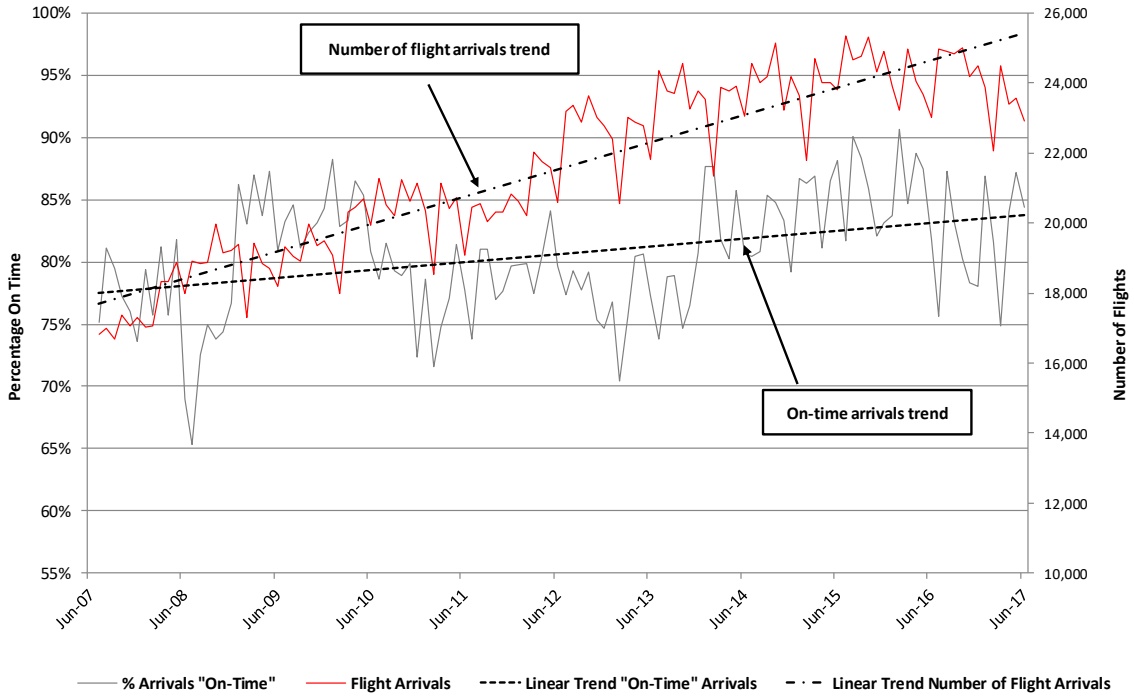
More recently, the on-time performance trend at the airports appears to be improving (see figure 1.1.1). The percentage of on-time arrivals for domestic flights has been higher since 2012–13. While this improvement may reflect a number of factors such as airline performance, weather and lower growth in the number of domestic flights, the significant capital expansion undertaken by the airports may have also contributed to the improvements.

1 http://www.airservicesaustralia.com/services/airport-capacity-enhancement-ace/, viewed on 7 October 2017.

2 See chapter 2 of the ACCC's Airport monitoring reports 2011–12 and 2012–13.

3 ACCC, Airport monitoring report 2011–12, pp. 57–58.

Figure 1.1.1: On-time arrival performance and the number of flights (domestic services)—monitored airports, June 2007–June 2017



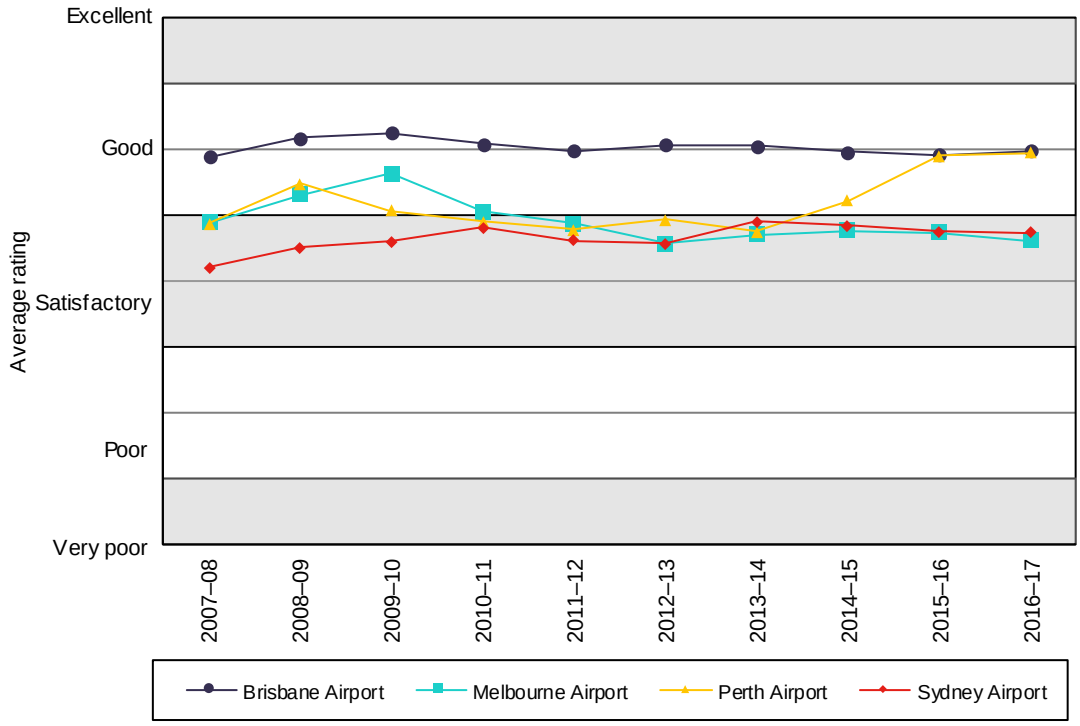
Source: Bureau of Infrastructure, Transport and Regional Economics, Domestic airline on-time performance monthly reports, June 2017.

As discussed in section 1.3, three of the four monitored airports are at various stages of building a new runway. Sydney Airport has limited ability to further increase its runway capacity due to its location, but the Australian Government will build a new Western Sydney Airport by 2026 (see section 1.4).

The airports have also invested in other areas to improve their capacity to meet increased demand for aeronautical and landside services. This includes the new domestic terminal T4 and the multi-level transport hub at Melbourne Airport, Perth Airport's Terminal 1 Domestic Pier, and improvements to domestic terminals, improved taxiways, aprons and aircraft parking at the airports.

The ACCC's monitoring results indicate that the monitored airports' ratings for 'availability of total airport services and facilities' have been relatively stable. Figure 1.1.2 shows that these ratings have been either 'good' or near the top of the 'satisfactory' range over the recent years. While Brisbane Airport has generally been ranked the highest in that measure, Perth Airport has seen its rating moving up notably in the past few years. Sydney and Melbourne airports ratings remained relatively unchanged in 2016–17.

Figure 1.1.2: Average ratings for availability of total airport services and facilities: 2007–08 to 2016–17



Source: Airline surveys, passenger surveys and objective measures obtained from the monitored airports.

Congestion can also be reflected in the number of aborted landings at an airport. While aborted landings are often due to weather, they can occur more frequently if the windows for landing on the runway need to be more finely managed between aircraft. Airservices Australia data showed that the total number of aborted landings at the major airports increased by 10 per cent in 2016.[4] In particular, Sydney Airport accounted for 38 per cent of aborted landings.[5]

1.1.3. Projected demand growth requires continued investment

It is projected that passenger number and aircraft movements will continue to grow over the next 10 to 15 years. Passenger numbers at the monitored airports are forecast to increase by 67 per cent between 2016–17 and 2030–31 (or an average of 3.7 per cent per annum) and reach 203.2 million passengers.[6] Aircraft movements at the monitored airports are forecast to increase by an average of 2.2 per cent per annum between 2016–17 and 2029–30 and reach over 1.34 million movements.[7]

Such sustained growth in demand will put further pressure on airport infrastructure, potentially leading to increasing congestion and costs to the community. In the short-term, a range of measures such as peak-period pricing (or congestion pricing) and slot management may be adopted to manage demand in order to relieve congestion.

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4 The Australian, Aborted landings rise as airport congestion builds, 21 April 2017.

5 Ibid.

6 Bureau of Infrastructure, Transport and Regional Economics (2012), *Research Report 133: Air passenger movements through capital and non-capital city airports to 2030–31*, BITRE, Canberra, p. 3.

7 Bureau of Infrastructure, Transport and Regional Economics (2010), *Research Report 117: Aircraft movements through capital city airports to 2029–30*, BITRE, Canberra, p. xv.

In the long-term, continued investment is needed to expand capacity to meet increasing demand. However, because the monitored airports have natural monopoly characteristics and face limited competition, they may not have sufficient incentive to undertake investment in a timely manner.

1.2. Operational constraints at Sydney Airport

As the only airport servicing Australia's largest city, Sydney Airport faces ongoing challenges with respect to aeronautical congestion and demand management. Some of the regulatory mechanisms currently in place—namely those that control aircraft noise and protect regional airlines—can constrain the airport's ability to both manage congestion and maximise operational efficiency more generally. It is likely that these operational restrictions have accelerated the need to deliver a second airport in Western Sydney by 2026.

1.2.1. Noise controls at Sydney Airport

Due to Sydney Airport's proximity to residential areas and the CBD, a number of controls have been established by the government to limit the impact of aircraft noise generated at the airport. These include:

- a curfew that restricts jet aircraft from taking off or landing between 11 pm and 6 am (under the *Sydney Airport Curfew Act 1995*)
- a cap that limits aircraft movements to 80 per hour (under the *Sydney Airport Demand Management Act 1997*), or 20 movements per 15 minutes. The 'cap within a cap' also means that in the event of a disruption, the airport cannot make up for lost productivity later in that hour.

Sydney Airport is one of four airports in Australia (along with Adelaide, Gold Coast and Essendon), and the only one among the monitored airports, with a curfew on aircraft operations. It is also the only airport in Australia with a cap on aircraft movements.

Sydney Airport, Qantas, Virgin Australia and the Tourism and Transport Forum have all recently pushed for a review of these restrictions, arguing that they limit the airport's ability to support growing demand, particularly in the international passenger market which is experiencing historic growth. The Board of Airline Representatives of Australia (BARA) has also raised similar concerns around the impact of placing additional operating restrictions at Sydney Airport on the industry's overall productivity and commercial viability.[8] Sydney Airport has also emphasised the need to optimise efficiencies and review operating restrictions as part of its future growth plan.

In comparison, Melbourne Airport, which competes with Sydney Airport for international flights, has no aircraft movement restrictions or an overnight curfew and operates a significant number of international flights between 11 pm and 6 am. This operational freedom may have helped contribute to stronger growth in international passengers at Melbourne Airport with an average annual rate of 9.2 per cent over the five years to 2016–17. This compares with 5.4 per cent at Sydney Airport over the same period.[9]

1.2.2. Protection of regional airlines' access to services at Sydney Airport

The ability for Sydney Airport to cater to growing passenger numbers has also likely been hampered by protections for regional flights at the airport.

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8 Board of Airline Representatives Australia 'Supporting commercially viable International Air Services at Western Sydney Airport', September 2016, www.bara.org.au/wp-content/uploads/2016/09/BARA-Position-Statement-Supporting-Commercially-Viable-International-Air-Services-at-Western-Sydney-Airport.pdf.

9 Bureau of Infrastructure, Transport and Regional Economics, Airport Traffic Data, October 2017.

The airport is required to guarantee certain slots for regional aircraft, which are required for an aircraft to land or take-off. The airport's Slot Management Scheme is governed by the *Sydney Airport Demand Management Act 1997.*

Under the Slot Management Scheme, a certain number of slots are designated 'permanent regional service series' (PRSS), which means that they are reserved for regional services, including during peak operating hours (6–11 am and 3–8 pm on weekdays). A PRSS must prioritise an operator that conducts a regional service before offering the slot to a non-regional service. The 'ring fencing' provisions under the Scheme work to ensure the peak hour PRSS allocations do not progressively get moved to non-peak hour slots over time.[10]

As a result of these arrangements, regional movements account for 23 per cent of slots during the morning peak and 35 per cent of slots during the evening peak.[11]

Reserving slots for regional airlines during peak time has likely limited overall passenger numbers, as regional services typically use smaller aircraft. With exception to PRSS, slots are allocated according to priorities under the Slot Management Scheme, namely that slots are first allocated to international services operating larger aircraft. Regional aircraft also require longer gaps between flights when following a large jet, thereby reducing overall efficiency in air traffic movements.

Regional airlines are also protected in relation to price increases from Sydney Airport. Services provided by Sydney Airport to regional airlines operating in New South Wales are declared under the price notification regime contained within Part VIIA of the *Competition and Consumer Act 2010*. This means that Sydney Airport needs to seek the ACCC's assessment before it increases charges for regional air services. Under a related Ministerial direction, proposed price increases for these services are not to exceed the increase in the Consumer Price Index. This declaration was recently extended by the Treasurer until June 2019.

To date, the price notification regime has maintained the nominal prices paid for regional air services at Sydney Airport since May 2001. This compares to a nominal increase in average revenue per passenger of 95 per cent since 2001–02 for the airport as a whole. This disparity in pricing is likely to have increased demand for slots by regional aircraft compared to larger domestic and international aircraft, which contributes to a reduction in overall passenger movements at the airport.

The Productivity Commission may consider the merits of applying the price notification regime to regional services at Sydney Airport when it undertakes its review of airport regulation later in 2018. While some form of regulatory oversight is appropriate for monopoly services such as those provided by Sydney Airport, it is unclear whether there is a net benefit when the oversight is only applied to certain customers.

1.2.3. Future opportunities

While the regulatory mechanisms used at Sydney Airport may contribute to the achievement of certain government policy objectives, they can come at a cost with respect to operational efficiency. It is important for government to regularly review these mechanisms to not only ensure that the benefits continue to outweigh the costs, but that the controls are appropriate designed to maximise the net benefit. This includes monitoring the impact of external factors such as technological improvements, demand growth and infrastructure investment.

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[10] Sydney Airport, 'Sydney Airport Slot Management Administration Manual, version 1.1 July 2013' https://infrastructure.gov.au/aviation/airport/planning/files/Sydney_Airport_Slot_Administration_Manual.pdf.

[11] Parliament of New South Wales, 'Report 38 – Regional Aviation services – 23 October 2014' www.parliament.nsw.gov.au/committees/DBAssets/InquiryReport/ReportAcrobat/5586/Report%2038%20-%20Regional%20aviation%20services%20-%2023%20Octobe.pdf.

For example, continued improvements to aircraft technology have resulted in the use of increasingly quieter aircraft over recent years, which may contribute to a reduction in the overall noise impact at the airport. Furthermore, modern aircraft such as the Airbus A380 are larger, which means more passengers can fly per movement, thereby potentially contributing to overall efficiency. BARA has also identified options for reduced noise impacts within existing arrangements, such as through applying Required Navigation Performance (RNP) technology that allows the pilot to adjust the glide path to the best glide angle, thereby reducing the need for engine thrust, noise and fuel consumption.[12]

1.2.4. The need to avoid operational restrictions at Western Sydney Airport

Sydney Airport's operational restrictions have been implemented due to its proximity to urban development including residential housing. It is vital that the proposed $5.3 billion international airport at Western Sydney is not hampered by similar restrictions. There have already been a number of calls for a curfew even though the opening of the airport is nine years away.

The Badgerys Creek airport site (1780 hectares) is almost twice the size of Sydney Airport (900 hectares) and has been preserved from urban development for an airport for nearly 30 years. It is important that the benefits of this planning are fully realised by an airport that can operate at all hours of the day, and that this operational freedom is not jeopardised in future by insufficient protection from urban development. The airport itself should also be designed to minimise environmental and noise impacts. This can be addressed by adopting thoughtful runway design and factoring in technologies such as RNP.

Major airports are very expensive and important pieces of infrastructure for both the state and the nation more broadly. It is vital that governments do everything they can to ensure that airports can operate to their full capacity to maximise the benefits to the wider community and economy.

1.3. Investment in runway capacity

Investment in new runways is a key way for airports to create additional capacity to meet growing demand and manage congestion in the long term. Three of the four monitored airports are currently in various stages of building or planning for a new runway. Widely-spaced, parallel runways are considered to offer the best opportunity to make airport operations as efficient as possible and deliver better noise outcomes.[13]

1.3.1. Brisbane Airport

Of the four monitored airports, Brisbane Airport is in the process of building the most significant aeronautical project with a new $1.3 billion parallel runway under construction and scheduled to be operational by 2020. It has been reported that the new runway will double existing capacity from 50 to over 100 movements per hour during peak times. This is greater than the existing capacity at both Sydney (80 movements per hour) and Melbourne (60 movements per hour) airports.[14] The runway is part of Brisbane Airport's broader $3.8 billion investment over 10 years (to June 2021) on capacity-related infrastructure.[15]

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[12] Board of Airline Representatives of Australia, Safe and Efficient Air Navigation Services, May 2016 , www.bara.org.au/wp-content/uploads/2016/05/Safe-and-efficient-air-navigation-services.pdf.

[13] Board of Airline Representatives of Australia, 'Airline views June 2017', www.bara.org.au/wp-content/uploads/2017/06/Airline-Views-June-2017.pdf.

[14] Passmore, D., 2017, Courier Mail, 'Brisbane Airport: New Runway and more global destinations', 30 August 2017, www.couriermail.com.au/news/queensland/future-brisbane/brisbane-airport-new-runway-and-more-global-destinations/news-story/06c4fb80d7c4bdf776fb6632155a8ce8?nk=30ee2547f49b7e0109485fdca54ca2ce-1508109425.

[15] Brisbane Airport Corporation, 'Brisbane Airport Major Infrastructure Projects' January 2017, www.bne.com.au/sites/all/files/content/files/BAC2225%20Major%20Project%20Updates%20Jan%2017%5BWEB%5D_0.pdf.

The existing airfield at Brisbane Airport comprises a major runway that is sufficient for large, wide-bodied aircraft, and a minor runway which is restricted to smaller aircraft. Once completed, the new runway will be 3.3km long and located 2km west of, and parallel to, the existing major runway. The project will also deliver all necessary airfield infrastructure including 12km of taxiways, navigational aids, drainage, security fencing, control systems and around 300 hectares of airfield landscaping.[16]

The first phase of construction commenced in 2012 and prepared the ground for construction of the runway. This involved clearing vegetation, major new drainage and placing around 11 million cubic metres of sand across the site to create a stable platform for pavement construction. Although the first phase was completed in 2015, the second and final phase of construction did not commence until 2017 when the softest parts of the site had reached the desired level of settlement.

The second phase of construction involves removing over 4 million of the 11 million cubic metres of sand left over from the first phase, followed by the construction of a major underpass near the domestic terminal to allow vehicle access to cross between the runway and terminals which commenced in March 2017, along with construction of the runway and taxiways.[17]

Brisbane Airport considers the new parallel runway project an opportunity to lead the development of new airspace design in Australia, by factoring in emerging aviation technology to ensure aircraft can operate safely and efficiently while minimising noise impacts.[18,19]

1.3.2. Perth Airport

Perth Airport commenced work in 2015 on plans for a third runway. It is proposed that the new runway will be 2.7km long and 45m wide, which runs two kilometres parallel to the existing main runway on the east side of the airport. The project is currently in preliminary design phase, with a plan anticipated to be released for public comment and Commonwealth Government approval in early 2018. Perth Airport is planning to complete the approvals process and commence construction by 2019 in order to have the new runway operational between 2023 and 2027.[20] This will be subject to projected demand as passenger numbers have fallen by 4.1 per cent at Perth Airport over the past three years in association with a fall in mining activity in Western Australia.

This project is a key part of a broader $2.5 billion expansion plan for Perth Airport, which also includes additional taxiways and an expanded international terminal.[21]

1.3.3. Melbourne Airport

Melbourne Airport is planning its development of a parallel east-west runway system. Currently, there are two runways at the airport—a north-south runway and an east-west

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16 Brisbane Airport Corporation, 'Brisbane's New Runway', www.bne.com.au/corporate/bne-major-projects/brisbanes-new-runway.

17 Brisbane Airport Corporation, 'Brisbane's New Runway – Next Stage of Construction Begins', September 2016, www.bne.com.au/sites/all/files/content/files/Next%20Stage%20of%20Construction%20P2%20-%20Fact%20Sheet%20-%20FINAL.pdf.

18 Brisbane Airport Corporation, 'Brisbane's New Runway – Airspace Design Fact Sheet', July 2017, www.bne.com.au/sites/all/files/content/files/Brisbanes-New-Runway_Airspace-Design-Fact-Sheet.pdf.

19 Brisbane Airport Corporation, 'Brisbane's New Runway – Operations Fact Sheet', July 2017, www.bne.com.au/sites/all/files/content/files/Brisbanes-New-Runway_Operations-Fact-Sheet.pdf.

20 Perth Airport, 'New runway project', /www.perthairport.com.au/Home/corporate/planning-and-projects/projects/new-runway-project.

21 Thomas, G., Perth Now, 'Perth Airport unveils $2.5b expansion plan', October 7 2017, www.perthnow.com.au/news/western-australia/perth-airport-unveils-25b-expansion-plan/news-story/8c3fa86d793f1f5a8e6c5c9927d65e80.

runway. The new plan includes an extension (from 2.2km to 3km) and widening (from 45m to 60m) of the existing east-west runway and provision for a third 'offset' runway running two kilometres parallel and to the south of the existing east-west runway. A plan is set to be released for public comment and Australian Government approval in 2018. Subject to planning approval, Melbourne Airport expects construction to commence by 2019 in order to have the runway operational between 2022 and 2024.[22]

1.4. Update on Western Sydney Airport

In April 2014 the Australian Government announced that a new international airport would be built in Western Sydney at Badgerys Creek to meet the projected demand growth for air travel. During privatisation of Sydney Airport in 2002, the government granted the buyer (Sydney Airport Group) a 30-year right of first refusal to build and operate a second airport within 100 kilometres of Sydney's CBD. On 20 December 2016 the government issued a 'Notice of Intention (NOI)' to the Sydney Airport Group in line with the right of first refusal.[23] The NOI sets out the formal contractual terms Sydney Airport must follow to build and administer the airport, should it choose to do so.

Sydney Airport Group declined the offer to build the proposed airport in May 2017. On 2 May 2017 the government announced that it will build and operate Western Sydney Airport. On 7 August 2017, a government-owned company, WSA Co, was created to build the Western Sydney airport with an equity investment of up to $5.3 billion.

The WSA Co is currently seeking to engage a 'delivery partner' to manage and deliver key aspects of the project on its behalf. It expects to sign contracts worth at least $300 million for design and construction works by the end of July 2018, followed by a spend of at least $2.5 billion on design and construction by May 2025. [24]

About $75 million has been set aside from the Federal Budget to reduce the impact of aircraft noise around the new airport and potentially compensate its nearby residents who are affected.[25] The federal and New South Wales governments will also jointly fund a $7 billion north-south rail link to connect the new airport to Sydney's rail network, which will boost productivity and improve the quality of life of the residents of the region.[26]

1.5. Independent car parks near the airports

Motorists who choose to park at the airport are increasingly pre-booking online to obtain a discount, instead of paying drive-up parking rates. However, motorists could potentially save further by using one of the independent car parks that service each of the monitored airports. Most independent operators also offer a discount for customers who pre-book online, with some offering online bookings exclusively. These car parks represent an alternative to the car parking services provided by each of the airports and can encourage more competitive pricing for these services by the airports.

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22 Melbourne Airport 'Runway Development Program', www.melbourneairport.com.au/developments/runway-development-program/overview.html.

23 Fletcher, P., 'Notice of Intention' another key milestone towards delivery of Western Sydney Airport, 20 December 2016, www.minister.infrastructure.gov.au/pf/releases/2016/December/pf092_2016.aspx.

24 Australian Financial Review, Private partner to manage Western Sydney Airport build due to labour shortages, 30 January 2018, http://www.afr.com/business/infrastructure/airports/private-partner-to-manage-western-sydney-airport-build-due-to-labour-shortages-20180130-h0qdix.

25 Sydney Morning Herald, Compensation set aside for residents near new Badgerys Creek airport, 26 February 2018, https://www.smh.com.au/national/nsw/compensation-set-aside-for-residents-near-new-badgerys-creek-airport-20180226-p4z1sd.html.

26 Guardian Australia, $7bn pledge for Badgerys Creek airport rail link to Sydney's west, 4 March 2018, https://www.theguardian.com/australia-news/2018/mar/04/7bn-pledge-for-badgerys-creek-airport-rail-link-to-sydneys-west.

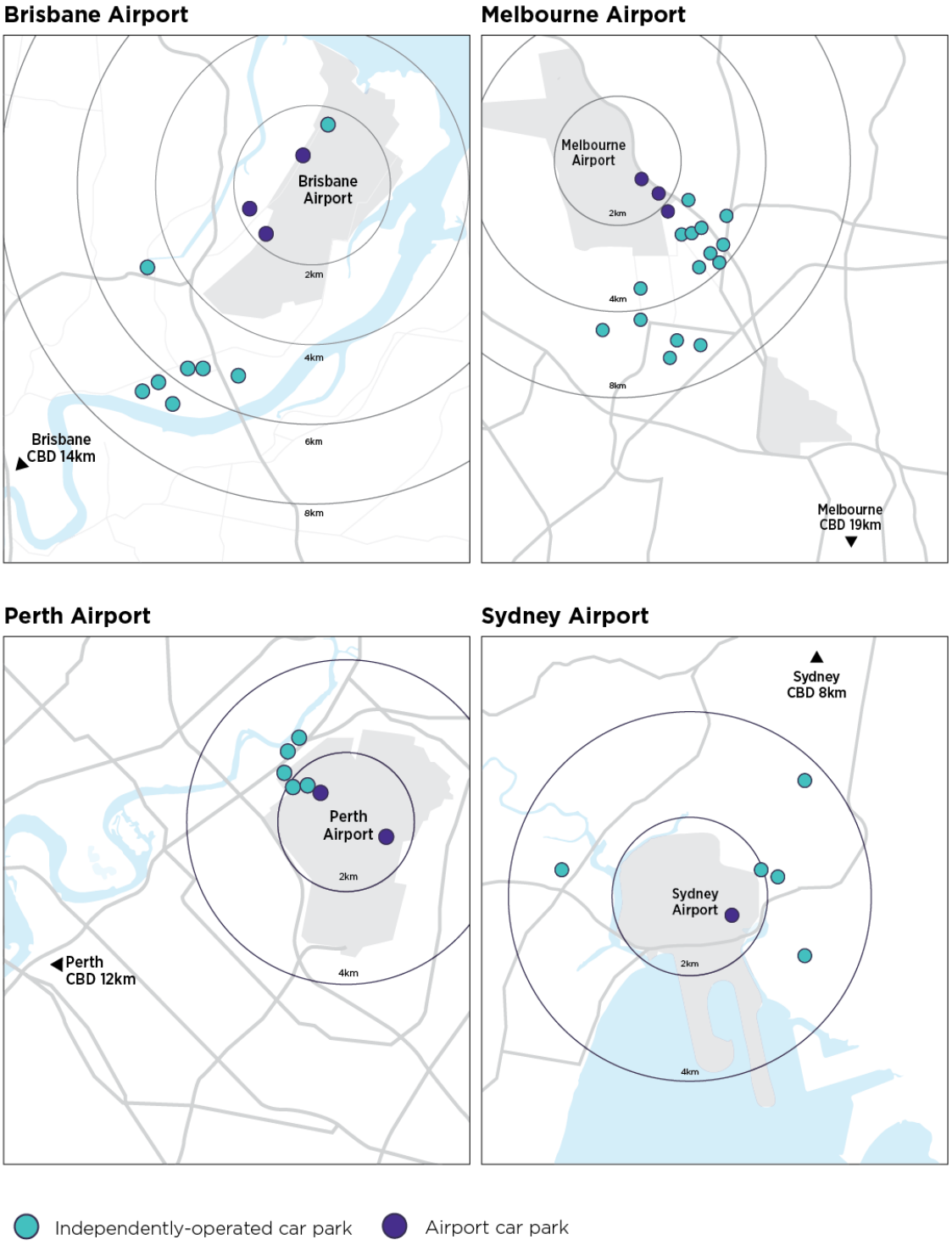
1.5.1. Comparison with airport car parking facilities

Each of the airports offers different parking options to the public, ranging from short-term parking located within walking distance from airport terminals, to long-term at-distance car parking facilities. At-distance car parks are not located within walking distance of airport terminals and therefore require shuttle bus access.

Independent car parks are similar to the long-term, at-distance parking options provided by airports. They are often in reasonably close proximity to the airport—that is, in the suburbs surrounding the airport—and provide a pick-up and drop-off shuttle bus service for users. While many independent operators cater to consumers who require short-term parking services (i.e. less than one day), most focus on providing a competitive offering for long-term parking services (i.e. one day or more).

Figure 1.5.1 summarises the car parking options available at and around each of the four airports, including independent car parks. It shows that Melbourne Airport has the most off-site car parks with 15 independent providers operating in 2016–17. Melbourne Airport is followed by Brisbane (8), Sydney (5) and Perth (4). The relatively lower number of competitors at Sydney Airport may be reflective of limited land supply in the area, while the market catering to Brisbane, Melbourne and Perth airports are more reflective of passenger numbers and overall demand. As shown in figure 1.5.1, these providers are located in proximity to the airport but further away when compared to the long-term, at-distance parking facilities provided by the airport.

Figure 1.5.1: Locations of long-term car parking facilities—Brisbane, Melbourne, Sydney and Perth: 2017



1.5.2. Potential savings by booking online for airport parking or using independent car parks

Table 1.5.1 summarises selected parking charges at independent and airport car parks. For each airport, it compares the lowest available prices observed at independent car parks with the average amount paid by motorists for the airport's open-air, at-distance car parking in 2016–17. Both the average online and drive-up rates offered by each airport are presented.

Independent operators offer much cheaper rates than airports. This includes the online and drive-up rates offered by all airports across all of the selected durations, which could save motorists between 30 and 70 per cent for 3 days of parking, when compared to the drive-up rates of the airports' own car parks at a distance from the terminals.

Table 1.5.1: Selected prices for at-distance, long-term car parking facilities at independent and airport car parks—Brisbane, Melbourne, Sydney and Perth: 2016–17

Airport	Indicative parking charges		
	Up to 1 day	3 days	7 days
Brisbane			
Independent operators – lowest price[(a)]	$10.00	$18.00	$42.00
Airport – average online price	$10.79	$30.24	$69.17
Airport – average drive-up price	$22.98	$61.07	$116.03
Discount – independent compared to drive-up[(b)]	*–56%*	*–71%*	*–64%*
Melbourne			
Independent operators – lowest price	$15.00	$30.00	$54.00
Airport – average online	$18.61	$49.00	$78.30
Airport – average drive-up price	$26.64	$67.21	$93.30
Discount – independent compared to drive-up	*–44%*	*–55%*	*–42%*
Perth			
Independent operators – lowest price	$24.00	$45.00	$89.00
Airport – average online	$25.00	$73.00	$120.56[(c)]
Airport – average drive-up price	$25.00	$73.00	$134.47
Discount – independent compared to drive-up	*–4%*	*–38%*	*–34%*
Sydney			
Independent operators – lowest price	$17.50	$52.50	$105.00
Airport – average online	$30.09	$67.59	$105.45
Airport – average drive-up price	$31.33	$75.20	$137.92
Discount – independent compared to drive-up	*–44%*	*–30%*	*–24%*

Note: (a) Car parking listed prices as observed on 12 October 2017. (b) Calculations in table may be affected by rounding. (c) Based on data for 3+ days parking.

Some providers monitor airport prices and adjust throughout the year for seasonality. While many independent operators did offer discounted rates compared to each airport, there were also some big differences in prices observed between operators. This could reflect convenience levels, with some car parks located further away from the airport than others.

Independent car park operators have the potential to provide significant savings for customers, and can promote market competition, particularly for longer stays. In 2016–17, more than half of customers using long-term, at-distance car parks at Melbourne, Sydney and Brisbane airports booked online.

In comparison, consumers who choose to use short-term car parking services are less price sensitive and more likely to prefer the convenience of driving up and walking to the terminal rather than pre-booking online, or accessing the terminal via shuttle bus. With less competition, airports likely possess a greater degree of market power with respect to short-term parking.

1.6. Roadworks to improve road access to the airports

The increase in demand at the airports has contributed to congestion in road networks both outside airports and within airport precincts. A number of major road related projects are either underway or have recently been completed around the major airports.

While road projects are expected to ease congestion and improve capacity to meet future growth, some may temporarily disrupt travel patterns and worsen congestion when works are being carried out.

A study by Infrastructure Partnerships Australia (IPA) using Uber travel time data showed that transport network efficiency (measured by its Travel Times Index) worsened in Sydney and Melbourne between mid-2015 and mid-2016.[27] Further, the study found that the congestion in Melbourne was most severe on the route between the CBD and Melbourne Airport among the routes studied. Compared with off-peak time, a 16-minute delay is expected when travelling from the airport to the CBD and a 29-minute delay is expected when travelling from the CBD to the airport in the evening peak.[28] In releasing the study, the Chief Executive of the IPA, Brendon Lyon, noted that major transport projects in Melbourne such as the widening of the Tullamarine Freeway have contributed to increased travel times.[29]

1.6.1. Melbourne Airport

Melbourne Airport has recently completed a number of key projects to improve access to its landside areas. In addition to the eight-level transport hub adjacent to the Terminal 4 and the first stage of Melbourne's elevated loop road, the 3.3km extension of Airport Drive was opened on 1 July 2016. The extension provides a second major entry to the airport and direct access to the airport from Melbourne's western suburbs.

In addition, the $1.28 billion project to widen CityLink and the Tullamarine Freeway between Melbourne Airport and the CityLink (managed by Transurban and VicRoads) is scheduled to be completed in 2018. The project will add extra lanes in each direction between the Bolte Bridge and Melbourne Airport. It is expected to increase the capacity by up to 30 per cent and reduce travel time between Melbourne Airport and the West Gate Freeway by 16 minutes in the morning peak and 17 minutes in the afternoon peak.[30] The CityLink section was completed in October 2017.[31]

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27 Infrastructure Partnerships Australia, Driving change, Australia's cities need a measured response, October 2016, p. 15.

28 Ibid, p. 16.

29 The Age, Traffic congestion: Uber trip data shows big projects have slowed Melbourne to a crawl, 10 October 2016. http://www.theage.com.au/victoria/traffic-congestion-uber-trip-data-shows-big-projects-have-slowed-melbourne-to-a-crawl-20161009-gry4xn.html, viewed on 17 October 2017.

30 CityTullaWidening – project overview, http://citylinktullawidening.vic.gov.au/__data/assets/pdf_file/0003/40791/project_overview.pdf, viewed on 29 March 2018.

31 http://citylinktullawidening.vic.gov.au/project-updates/more-lanes-open-citylink, viewed on 29 March 2018.

1.6.2. Sydney Airport

As a key component of Sydney Airport's ground transport solutions in its five year investment plan, the road network in the domestic terminal precinct has been reconfigured to one-way roads, which also provides a dedicated entrance and exit roadway to improve traffic flows. In the international terminal precinct, works have been completed to separate parking traffic and create a dedicated and specially configured public pick-up area.

In the medium to longer term, the NSW government's WestConnex motorway project is expected to allow some non-airport traffic to bypass the airport and provide greater reliability around journey times to and from the CBD to the airport precincts. The WestConnex motorway project is a priority in the state government's Long Term Transport Master Plan. A number of upgrades to the airport road network will be needed to enable the links between Sydney Airport and the WestConnex Motorway. In 2014, the NSW Government announced a $500 million package of ground transport solutions (some of which would be undertaken by Sydney Airport) to improve traffic flow in and around Sydney Airport, with the government contributing more than $282 million in road projects around the airport precinct.[32]

1.7. Expected review of airport regulation in 2018

The Productivity Commission conducts periodic inquiries into the economic regulation of airports in Australia. The government is expected to ask the Productivity Commission to commence a new inquiry in 2018, the first since 2011.[33]

The key issue for the inquiry will likely be whether the current regulatory regime (including monitoring) is effective in constraining the airports' market power. An unconstrained monopoly is likely to have the incentive to charge excessive prices, which may result in fewer people flying than otherwise. Unconstrained monopolies may also not face sufficient incentives to maintain or improve service standards.

1.7.1. Airlines are likely to push for regulation that improves their ability to negotiate with the airports

It appears that airlines are getting ready for the inquiry. In 2017, Qantas and Virgin, together with Air New Zealand, Jetstar, Tigerair and Regional Express, established an industry group 'Airlines for Australia and New Zealand (A4ANZ)' to advocate on key public policy issues. Qantas Chief Executive Officer Alan Joyce said that the goal of A4ANZ is 'to achieve regulatory reform that will promote a competitive and sustainable airline industry'.[34]

Some airlines have raised concerns in the past that the current monitoring regime, combined with what they consider to be only a limited threat of regulation under the national access regime under Part IIIA of the *Competition and Consumer Act 2010*, does not address the imbalance in negotiating power between the airports and airlines.

Qantas has called for a fundamental change in the current regulatory regime to protect airport users from monopolistic behaviour and bring about constructive commercial engagement between airports and airport users.[35] Qantas proposed that airports be deemed to be declared under the national access regime, which would avoid the uncertainty and

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[32] Duncan Gay MLC, Minister for Roads and Freight, media release, Easing congestion around Sydney Airport: $500m for ground transport solutions, 29 June 2014.

[33] This is stated in 'Government response to Productivity Commission Inquiry into economic regulation of airport services', announced 30 March 2012.

[34] ABC News, Airline group to fight airport fees, taxes: Qantas, Air New Zealand key members, 9 March 2017, http://www.abc.net.au/news/2017-03-09/major-airlines-form-group-to-advocate-reform-policy/8338646.

[35] Qantas Group (2015), *Qantas Group submission on Harper Review Recommendations*, 26 May 2015, http://www.treasury.gov.au/~/media/Treasury/Consultations%20and%20Reviews/Consultations/2015/Competition%20Policy%20Review%20Final%20Report/Submissions/PDF/Qantas%20Group%20Submission.ashx.

delays associated with applying for a service to be regulated. Currently no airport services are declared under the national access regime.

Virgin Australia has advocated in the past for the adoption of a negotiate/arbitrate access model[36] for airports, with declaration under Part IIIA remaining as a safeguard until such a model is implemented.[37] A negotiate/arbitrate model is one which provides independent arbitration if an access seeker and access provider cannot reach agreement through negotiation.

1.7.2. Key considerations for the inquiry

A key consideration for the Productivity Commission will likely be the significant increase in aeronautical revenue per passenger (a proxy for airport charges) across the monitored airports. Average revenues per passenger have increased by 25.9 per cent in real terms across the four airports over the last decade.

The last year's ACCC airport monitoring report noted that the four monitored airports had received an extra $1.57 billion additional payments in real terms from airlines over a decade due to increasing prices beyond inflation (for the same passenger volumes).[38] Further, these price increases had not been accompanied by any significant increases in the overall quality of service ratings (except for Perth Airport), which generally range from 'satisfactory' to 'good'.

The Productivity Commission is also likely to carefully consider concerns about consistently high operating profit (EBITA) margins for airport car parking operations. In 2016–17, car parking operating profit margins across the monitored airports ranged from 52.4 per cent at Perth Airport to 71.9 per cent at Sydney Airport.

The ACCC has in the past raised its concern that the current regulatory regime was not an effective constraint on airports' market power in the supply of aeronautical, car parking and landside access services. The ACCC proposed adoption of a negotiate/arbitrate model, which would facilitate a more balanced negotiating environment between airports and airlines.[39] The Productivity Commission is likely to examine the costs and benefits of this and other potential regulatory remedies to address the airports' market power.

Another issue the Productivity Commission inquiry is likely to look at is the level of investment at the airports. Given the significant growth in demand experienced at the major airports and projected continued strong growth, it is important to ensure that the airports continue to invest and expand capacity to prevent excessive congestion from developing.

The ACCC expects to provide a submission to the upcoming inquiry.

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36 'Negotiate/arbitrate' regulatory models are those where an access provider and access seeker first attempt to negotiate the terms of access to the relevant service. Arbitration by a third party (such as the ACCC) is available if agreement is not reached.

37 Virgin Australia (2015), *Virgin Australia Airlines – submission on the Competition Policy Review Final Report*, 26 May 2015 http://www.treasury.gov.au/~/media/Treasury/Consultations%20and%20Reviews/Consultations/2015/Competition%20Policy%20Review%20Final%20Report/Submissions/PDF/Virgin_Australia.ashx.

38 The ACCC 2015–16 airport monitoring report, p. 7.

39 See for example ACCC 2013–14 airport monitoring report pp. 16–17.

2. Performance across the four airports

Key points

Aeronautical activity

- Total passenger numbers across the four monitored airports increased by 2.7 per cent to 115.2 million passengers during 2016–17. The growth was primarily driven by increasing international passengers (6.7 per cent), while domestic passengers only grew by 0.9 per cent.
- Both Sydney (3.8 per cent) and Melbourne (3.7 per cent) airports grew at similar rates, while Perth Airport experienced a fall in passengers for the third year in a row.

Quality of service

- Both Perth and Brisbane airports maintained their 'good' ratings for overall service quality during 2016–17. Perth Airport overtook Brisbane Airport to be the highest rated airport for the first time. Perth Airport's significant improvement in quality of service ratings over the past three years has coincided with a substantial investment program.
- The overall quality of service ratings for Sydney and Melbourne airports have remained relatively unchanged over the past four years. The ratings of both airports were again 'satisfactory' in 2016–17, just short of 'good'.

Aeronautical services and facilities

- All monitored airports reported increases in aeronautical revenue per passenger in real terms. Revenue per passenger for Perth Airport increased by 7.2 per cent to $15.8, while for Sydney Airport, this measure increased by 4.4 per cent to $18.3.
- The four airports made a combined $757.6 million in operating profits (EBITA) from aeronautical activities in 2016–17, up 9.9 per cent. Sydney Airport grew its operating profit from aeronautical activities by 7.1 per cent to $360.8 million. The airports increased their combined profits across all operations by 10.9 per cent to a record $2.1 billion.
- Operating profit margins for aeronautical services ranged from 34.9 per cent at Perth Airport to 46.8 per cent at Brisbane Airport in 2016–17. Melbourne, Brisbane and Perth airports reported higher profit margins than the previous year.
- Investment across the airports was lower in 2016–17 following a number of years of significant expansion. Sydney Airport had the second highest rate of investment, with new additions representing 9.0 per cent of the aeronautical asset base.

Car parking services and facilities

- Sydney Airport made an operating profit of $97.0 million from its car parking operations in 2016–17, down slightly from the previous year. Melbourne Airport made $86.7 million and Brisbane Airport made $63.7 million. Both Perth (2.5 per cent) and Sydney (0.9 per cent) airports reported falls in their car parking revenue in 2016–17.
- Operating profit margins from car parking remained high, Profit margins ranged from 52.4 per cent for Perth Airport to 71.9 per cent for Sydney Airport. While Melbourne and Brisbane airports reported improvements to car parking margins, Perth and Sydney airports reported modest declines.

2.1. Introduction

This chapter presents an overview of the performance of Brisbane, Melbourne, Perth and Sydney airports in the supply of aeronautical, car parking and landside services.

The chapter is structured as follows:

- Section 2.2 presents data on passenger and aircraft movements
- Section 2.3 reports on revenues, prices, costs, profits, assets and investments for aeronautical services
- Section 2.4 presents pricing and the financial results for airport car parking services
- Section 2.5 presents prices and revenues from landside activities.
- Section 2.6 provides selected high level quality of service ratings
- Section 2.7 contains a chart that compares each airport's aeronautical revenue per passenger with quality of service ratings for aeronautical services.

In general, the monitored airports are only required to provide information to the ACCC in relation to the terminals that are directly operated by the airports. This means that the terminals operated by airlines under domestic terminal leases are generally excluded from the data contained within this report (see Introduction). The only exceptions are:

- the data presented in section 2.2 in relation to aeronautical activity, and
- where figures are presented for total airport operations.

While comparisons between airports can provide useful information about their performance, it should be recognised that some measures may enable more direct comparisons between airports than others. Various factors such as airport size, terminal configuration, accounting practices and approaches to data collection may influence an airport's reported performance.

Unless otherwise noted, dollar values presented throughout this report are in 2016–17 dollars, with all movements having been adjusted for inflation.

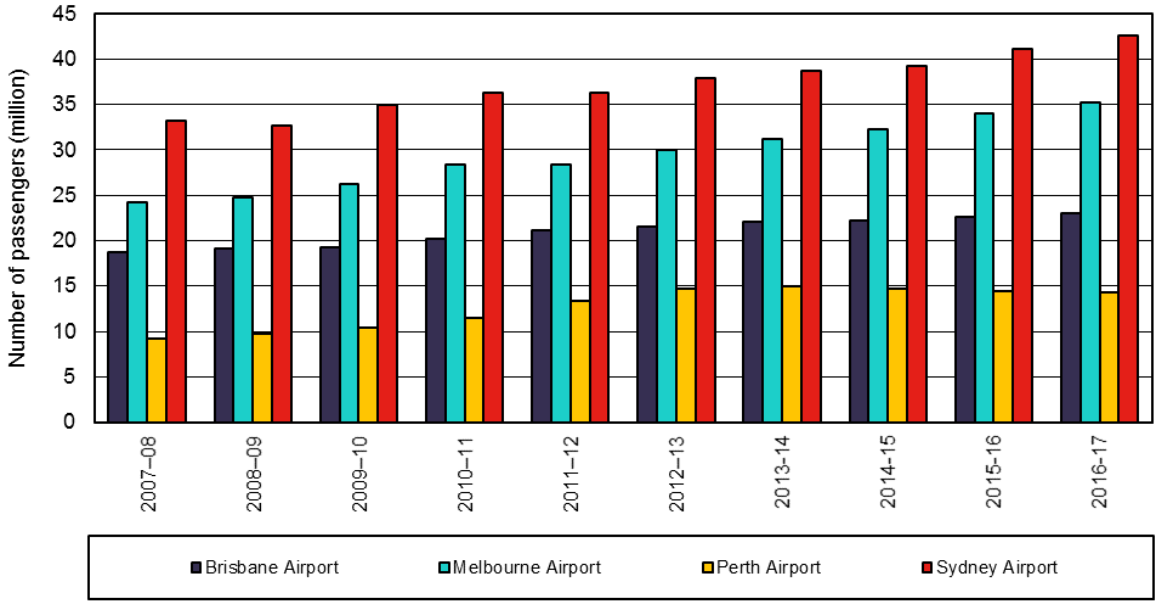
2.2. Aeronautical activity

2.2.1. Passenger volumes

Total passenger numbers across the four monitored airports increased by 2.7 per cent to 115.2 million passengers during 2016–17. International passenger growth was relatively stronger with an increase of 6.7 per cent to 35.7 million passengers and was the main driver of the overall passenger growth. Domestic passenger growth was relatively flat with a rise of 0.9 per cent to 79.5 million passengers in 2016–17. This is the fourth year in a row when the aggregate international passenger growth outpaced that of domestic passengers.

Figure 2.2.1 shows total passenger numbers for each monitored airport over the past decade. Sydney Airport reported the largest passenger growth during 2016–17 with a rise of 3.8 per cent to 42.7 million passengers. Growth in international passengers of 7.3 per cent was the main driver for Sydney Airport's passenger increase. Domestic passenger numbers at Sydney Airport rose by 1.9 per cent in 2016–17.

Figure 2.2.1: Volume of passengers: 2007–08 to 2016–17



Melbourne Airport reported overall passenger growth of 3.7 per cent to 35.2 million passengers during 2016–17. The airport had an 8.0 per cent increase in international passengers and a 2.1 per cent increase in domestic passengers.

For the third consecutive year, Perth Airport experienced a fall in total passenger numbers (by 1.4 per cent) to 14.3 million passengers during 2016–17. It had a 3.5 per cent decrease in domestic passengers, which was associated with the slowdown in the resources sector that led to declining demand for fly-in-fly-out workers. In contrast, international passengers at Perth Airport increased by 3.4 per cent during 2016–17.

The total passenger volumes at Brisbane Airport increased by 1.6 per cent to 23.1 million during 2016–17. International passenger growth was strong (up 5.4 percent to 5.8 million), while growth in domestic passengers was marginal (up 0.4 percent to 17.3 million).

2.2.2. Aircraft movements

Total aircraft movements across the four monitored airports remained relatively constant at 932 101 in 2016–17. While total domestic aircraft movements fell by 1.3 per cent to 667 856 during the year, total international aircraft movements grew by 5.3 per cent to 170 851. General aviation aircraft movements fell by 0.6 per cent to 93 394. All four monitored airports reported declines of varying degrees in domestic aircraft movements during 2016–17.

Sydney Airport experienced the largest growth in total aircraft movements of 1.4 per cent to 347 100. Melbourne Airport's aircraft movements also grew (up 0.7 per cent to 239 298).

Brisbane Airport reported its third consecutive decrease in aircraft movements (1.0 per cent), while Perth Airport reported its fourth straight decline (3.8 per cent). These falls were largely driven by reductions in domestic aircraft movements.

The average number of passengers per aircraft movement grew by 2.6 per cent to 122. Melbourne airport reported the highest number of passengers per aircraft movement at 147.

2.3. Aeronautical prices and financial results

This section presents the key financial results in relation to the aeronautical operations of the monitored airports. These operations directly relate to the provision of aviation services

including runways, aprons, aerobridges, departure lounges, check-in facilities and baggage handling facilities.

2.3.1. Revenue

Aeronautical revenue

Airports earn most of their aeronautical revenue from charges to airlines accessing airport services and facilities such as runways, aircraft parking, aerobridges and terminals. Charges are typically applied on a per-passenger basis or by aircraft weight.

Total aeronautical revenue for the monitored airports increased 7.3 per cent in real terms to $1.7 billion in 2016–17. This represents an increase of 69.8 per cent in real terms since 2007–08.

All airports reported real increases in total aeronautical revenue in 2016–17. Melbourne Airport reported the largest percentage increase in aeronautical revenue for the second year in a row, increasing 9.5 per cent to $438.2 million. Sydney (up 8.4 per cent to $782.3 million) and Perth (up 5.7 per cent to $225.7 million) airports also reported significant increases in total aeronautical revenue. Brisbane Airport reported the smallest increase with 2.8 per cent to $290.5 million.

Over the past decade, Sydney Airport has consistently collected significantly higher aeronautical revenue than other airports. Indeed, over the period, Sydney Airport has often generated double the aeronautical revenue of the airport of the next highest revenue (Melbourne Airport). However, aeronautical revenue growth over the decade has been the lowest at Sydney Airport with 48.2 per cent. Perth Airport has had the highest growth in aeronautical revenue over this period with 147.1 per cent.

Aeronautical revenue per passenger

All monitored airports provide airlines with similar services and facilities such as runways, aircraft parking and terminal access. However, comparing charges across airports is complicated by the various types of charges employed by each airport. As a result, the ACCC uses aeronautical revenue per passenger as a proxy for analysing movements in an airport’s average price over time.

Box 2.3.1 A note on per-passenger figures

The ACCC reports aeronautical revenues, costs and operating profits in both aggregate and on a per-passenger basis. In particular, revenue per passenger is a useful measure of average price and provides information on whether an airport's wide range of prices is going up or down.

It is important to understand how per-passenger figures are calculated for this report.

The ACCC calculates the per-passenger figures by dividing the aeronautical revenue/expenses reported by the airport by the total passenger numbers for the airport.

The airports provide the ACCC with the number of passengers travelling through any of their terminals.

However, the monitored airports are only required to report aeronautical revenues and costs that relate to terminals that they directly operate. This means that the reported figures do not include that which relates to the leased Qantas and Virgin parts of the domestic terminal in Brisbane, or the Qantas terminals in Sydney (until late 2015), Melbourne and Perth. The most notable item excluded is rent collected from the lease with the airline. This means that per-passenger figures in this report understate the true values to some degree.

This should also be kept in mind when making comparisons between the four airports. For example, for part of 2015–16 and all of 2016–17, Sydney Airport's revenues and expenses include those that relate to the Qantas terminal after the airport took back responsibility for its operations. This may make the per-passenger figures for Sydney Airport appear higher than the other three airports which do not report revenues and costs for all terminals.

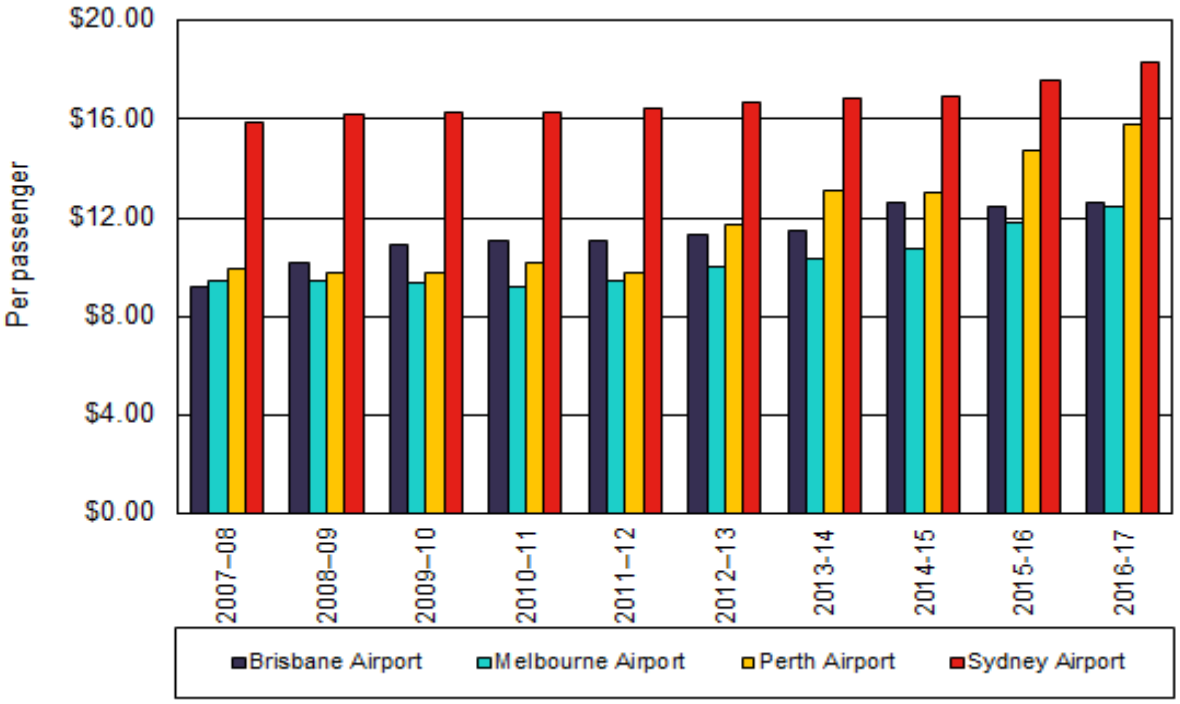
Furthermore, it is common for airports to separately levy airfield and terminal charges. While revenues collected through terminal charges relating to a leased terminal are not included as part of aeronautical revenue in this report, revenues from airfield charges applied to aircraft going to leased terminals are typically included (as airfield charges are independent of a particular terminal). Because some airports collect relatively more revenue from these activities, care must be taken when comparing the airports.

For example, Brisbane Airport's approach to pricing—which include runway and infrastructure charges that are independent of a particular terminal—means that aircraft that proceed to a leased terminal are effectively paying almost as much per-passenger as aircraft going to a terminal operated directly by the airport. This means that Brisbane Airport's per-passenger figures in this report may not be understating the true values by as much as other airports. The same can also apply to costs, where airports may have different approaches to allocating costs of infrastructure to particular terminals.

The ACCC has explored alternative approaches to calculating per-passenger figures, but these too had their limitations. The issue is expected to disappear over the next few years as the domestic terminal leases expire and the airports have direct operational responsibility for all terminals.

Figure 2.3.1 shows that on average, aeronautical revenue per passenger at each monitored airport has increased since 2007–08. Sydney Airport continued to earn the highest revenue per passenger among the monitored airports with its 2016–17 revenue per passenger increasing by 4.4 per cent in real terms to $18.3. While Sydney Airport was the only airport whose aeronautical charges per passenger consistently increased in real terms year on year for the past decade, its growth over the same period was the least of the four airports (15.3 per cent).

Figure 2.3.1: Aeronautical revenue per passenger in real terms: 2007–08 to 2016–17



Note: This does not include revenue from leased terminals (see box 2.3.1). Values in 2016–17 dollars.

Perth Airport's aeronautical revenues per passenger increased the most of all monitored airports in 2016–17 after it recorded a 7.2 per cent increase to $15.8. This figure has increased 61.8 per cent in just six years.

Melbourne Airport's average aeronautical charges per passenger increased 5.7 per cent in real terms to $12.4 in 2016–17, bringing its increase to 31.4 per cent for the past decade.

Brisbane Airport collected an average of $12.6 per passenger in 2016–17. This represents an increase of 1.1 per cent in real terms from the previous year and 36.3 per cent from a decade ago.

Total airport revenue

The monitored airports have multiple revenue sources in addition to aeronautical revenue. This includes revenues from car parking, retail leases and commercial property, as well as payments under the domestic terminal leases.

Table 2.3.1 presents both aeronautical and total revenue for the years 2007–08 and 2016–17. Sydney Airport received total revenues of over $1.4 billion in 2016–17, followed by Melbourne Airport with $929.3 million. Perth Airport had the strongest percentage growth, increasing 114.3 per cent to $541.5 million. The chart shows that aeronautical revenue has become more relatively more important for each airport than it was 10 years ago.

Table 2.3.1: Aeronautical and total airport revenue in real terms: 2007–08 and 2016–17

	Revenue in 2007–08 ($million)				
	Brisbane	**Melbourne**	**Perth**	**Sydney**	**Total**
Aeronautical	173.6	229.8	91.3	528.0	1022.7
Total revenue	482.4	536.5	252.6	1262.2	2533.7
Aero as % of total	36.0%	42.8%	36.2%	41.8%	40.4%
	Revenue in 2016–17 ($million)				
	Brisbane	**Melbourne**	**Perth**	**Sydney**	**Total**
Aeronautical	290.5	438.2	225.7	782.3	1736.7
Total revenue	678.9	929.3	541.5	1417.1	3566.8
Aero as % of total	42.8%	47.2%	41.7%	55.2%	48.7%

Note: Values in 2016–17 dollars.

2.3.2. Expenses

Total airport expenses

Expense items incurred by monitored airports include depreciation, salaries and wages, services and utilities and property/leasing maintenance-related expenses. With respect to total airport operations, expenses among the four monitored airports reached $1487.8 million in 2016–17. This represents a 5.1 per cent increase from the previous year.

Sydney Airport's 7.8 per cent increase in total expenses to $558.7 million was the most significant of the monitored airports in 2016–17. Melbourne Airport had total expenses of $395.2 million, followed by Brisbane Airport with $282.6 million and Perth Airport with $251.3 million.

Aeronautical expenses

In 2016–17, aeronautical expenses across all of the monitored airports increased 5.5 per cent in real terms to $979.1 million.

Of the monitored airports, Sydney Airport reported the highest level of total aeronautical costs at $421.5 million, an increase of 9.5 per cent in real terms during the year. Melbourne Airport reported a 3.7 per cent increase in aeronautical expenses to $256.2 million, while Perth Airport reported a 3.4 per cent increase to $146.9 million. Aeronautical expenses were relatively stable at Brisbane Airport at $154.6 million.

2.3.3. Operating profits

The main indicator that the ACCC uses to assess profitability of airports is earnings before interest, tax and amortisation (EBITA). This is referred to as 'operating profit' in this report.

The ACCC uses EBITA for its airport monitoring reports because it is not affected by management decisions regarding capital structures and taxation arrangements which vary substantially among different airports. However, if the ACCC had a price setting role as it does in some industries, it would also use other measures to enable the assessment of whether the costs reported by the airports are efficient and whether rates of return are appropriate for the level of risk they face.

Total airport operating profit

In 2016–17, total airport profit increased at all four monitored airports. Perth Airport posted the largest real increase in total profits, rising 30.5 percent to $290.2 million. This result follows a 4.5 per cent profit decline in the previous year. Melbourne Airport reported an increase of 13.3 per cent to $534.1 million. Sydney Airport reported an increase of 7.3 per cent to $858.4 million, while Brisbane Airport recorded the smallest increase in total profit with 3.9 per cent to $396.3 million.

The aggregate of total profits for all the monitored airports rose for the third consecutive year in 2016–17, increasing by 10.9 per cent in real terms to reach a record high of $2.1 billion.

Total airport operating profit margins

In 2016–17, total airport profit margins increased at all monitored airports except Sydney. Perth Airport reported the most significant increase, rising 5.7 percentage points to 53.6 per cent, following equally significant real increases in its total revenue. Melbourne Airport's total operating profit margin increased by 2.3 percentage points to 57.5 per cent, while Brisbane Airport's profit margin grew 0.1 percentage points to 58.4 per cent.

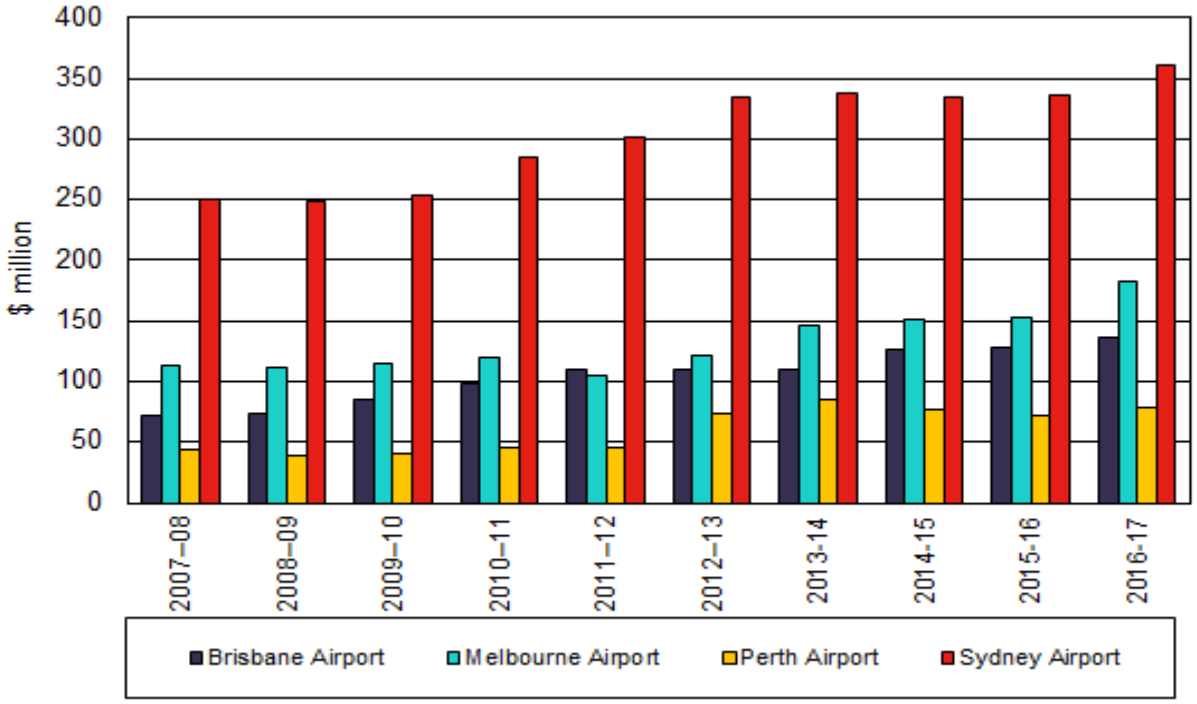
Despite its total airport profit margin falling slightly in 2016–17, Sydney Airport's 60.6 percent total margin continues to be the highest among the monitored airports.

Aeronautical operating profit

The monitored airports increased their combined operating profit from aeronautical activities by 9.9 per cent in 2016–17 to $757.6 million.

Figure 2.3.2 shows that in 2016–17, Sydney Airport continued its trend of earning significantly higher levels of aeronautical operating profit than the other airports. During the year, Sydney Airport's aeronautical operating profit grew 7.1 per cent to $360.8 million.

Figure 2.3.2: Aeronautical profit in real terms: 2007–08 to 2016–17



Note: Values in 2016–17 dollars.

Of the monitored airports, Melbourne Airport recorded the most significant real increase in aeronautical operating profit in 2016–17, rising 19.0 per cent to $182.0 million. This result was driven by the greater increase in the airport's aeronautical revenue relative to expenses. Perth Airport's aeronautical profit also showed a significant increase of 10.3 per cent to $78.8 million, arresting two consecutive years of profit decline. Brisbane Airport reported a 6.0 per cent increase to $136.0 million.

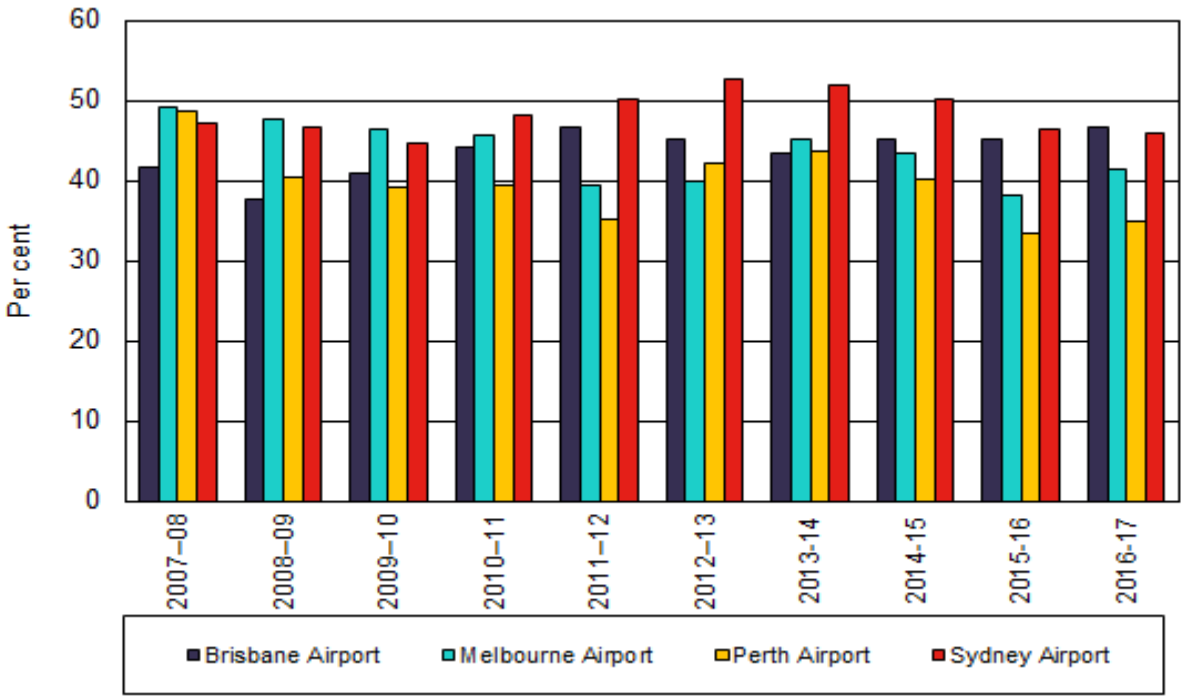
In each year over the past decade, Sydney Airport has typically made more than double the operating profit from aeronautical services than the next most profitable airport. Sydney Airport has accumulated over $3 billion in operating profit from aeronautical services during this period.

Real growth in aeronautical operating profit over the decade was highest in Brisbane Airport with 87.1 per cent, while Sydney Airport had the least growth 44.1 per cent. The growth rate for Perth and Melbourne Airports were 76.5 and 60.5 per cent, respectively.

Aeronautical operating profit margins

Operating profit margin is calculated as EBITA as a percentage of revenue. Figure 2.3.3 shows that the airports have consistently earned high operating profit margins in aeronautical activities over the last decade. Brisbane Airport reported the highest aeronautical profit margin among the monitored airports in 2016–17 after its margins rose 1.4 percentage points to 46.8 per cent.

Figure 2.3.3: Aeronautical profit margins in real terms: 2007–08 to 2016–17



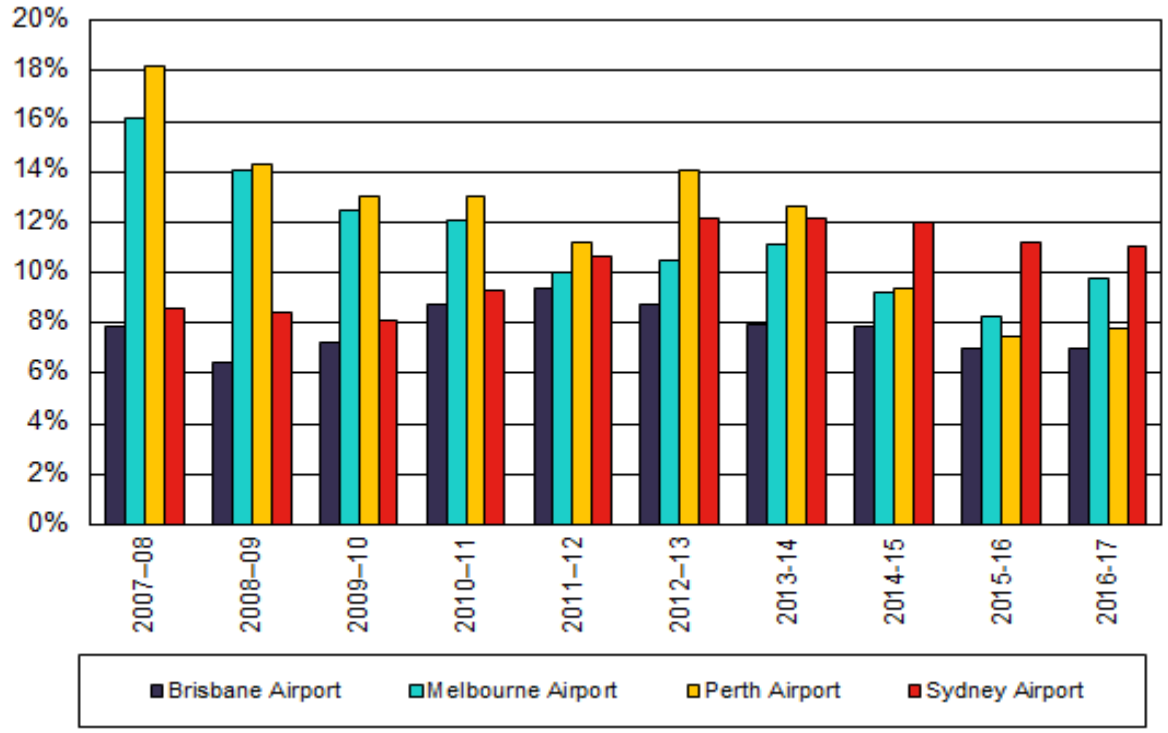
Sydney Airport posted a 0.5 percentage point fall in its aeronautical profit margin in 2016–17 to 46.1 per cent. This result is the fourth consecutive year that Sydney Airport's aeronautical profit margin has eroded and also marks the first since 2010–11 that the airport's result was not the largest among the monitored airports. Melbourne (41.5 per cent) and Perth (34.9 per cent) airports both reported recoveries in aeronautical profit margins in 2016–17 after two years of decline.

Return on aeronautical assets

Return on assets is calculated by dividing EBITA by average value of tangible non-current assets over the year. This measure needs to be interpreted carefully partly due to the potentially different approaches that airports have historically taken in valuing their assets. In this report, airports' aeronautical return on assets are reported exclusively using a 'line in the sand' approach to asset valuation (see box 2.3.2).

Figure 2.3.4 illustrates a downward trend in return on aeronautical assets for both Perth and Melbourne airports over the past decade. Return on assets for Perth Airport fell 10.4 percentage points over the period, while Melbourne Airport's return fell 6.4 percentage points. However, both airports have reported large additions to their asset bases over the period. Brisbane Airport's return on assets has fluctuated over the period, but ultimately trended slightly downwards.

Figure 2.3.4: Return on aeronautical assets: 2007–08 to 2016–17



In 2016–17, Sydney Airport reported the highest return on aeronautical assets of 11.0 per cent (down 0.2 percentage points). The return on assets for Melbourne Airport increased 1.5 percentage points to 9.7 per cent. Perth Airport had a return on assets of 7.8 per cent, while Brisbane Airport had a return of 7.0 per cent.

2.3.4. Asset value and investment

Aeronautical services

Tangible non-current aeronautical assets are assets that are directly utilised for the supply of aeronautical services. These include runways, taxiways, parking bays, aprons and terminal facilities. The ACCC reports asset values using a line-in-the-sand approach (see box 2.3.2).

In 2016–17, the aggregate value of the tangible non-current aeronautical assets across the four monitored airports increased by 1.9 per cent in real terms to $8.2 billion. This is the sixth consecutive year that the airports' combined aeronautical asset base has grown.

Box 2.3.2 The use of a line-in-the-sand approach to aeronautical asset valuations

The Productivity Commission noted in its 2006 report into the review of price regulation of airport services that since the privatisation of major airports, most of the monitored airports had revalued above ground assets. The Productivity Commission said that one possible effect of these revaluations would be to provide justification for higher charges over time.[40] For instance, an upward revaluation of airports' aeronautical assets usually results in a lower return on assets measure. The lower rate of return on average assets could be used to argue for the raising of airport charges.

The Productivity Commission recommended that under the monitoring regime, the value of an airport's asset base should be rolled forward as follows:

- the value of tangible (non-current) aeronautical assets reported to the ACCC as at 30 June 2005, adjusted as necessary to reflect the proposed service coverage of the new regime;
- plus new investment;
- less depreciation and disposals.

The line in the sand approach removes the effect of revaluations of aeronautical assets by airports for monitoring purposes. For example, an upward revaluation of a tangible non-current aeronautical asset is recognised in the regulatory accounts prepared under Australian International Financial Reporting Standards (AIFRS) but not in the line in the sand asset base after 30 June 2005. As a result, to the extent that subsequent revaluations took place, the line in the sand asset base will be lower. There is also a flow-on effect of a lower value of depreciation and, therefore, lower operating expenses.

The ACCC required airport operators to provide information regarding the aeronautical asset base under the line-in-the-sand approach for the first time in the 2007–08 report. This information was required in addition to the airport operator's regulatory accounts based on AIFRS which included any revaluations to the assets recorded since 20 June 2005.

Since this time, only Sydney and Brisbane airports have revalued their assets. Past monitoring reports have presented two sets of financial accounts for these airports: one based on the line-in-the-sand approach and one based on AIFRS. However, the 2016–17 monitoring report only presents the line-in-the-sand data to support the rationale for the recommendation by the Productivity Commission.

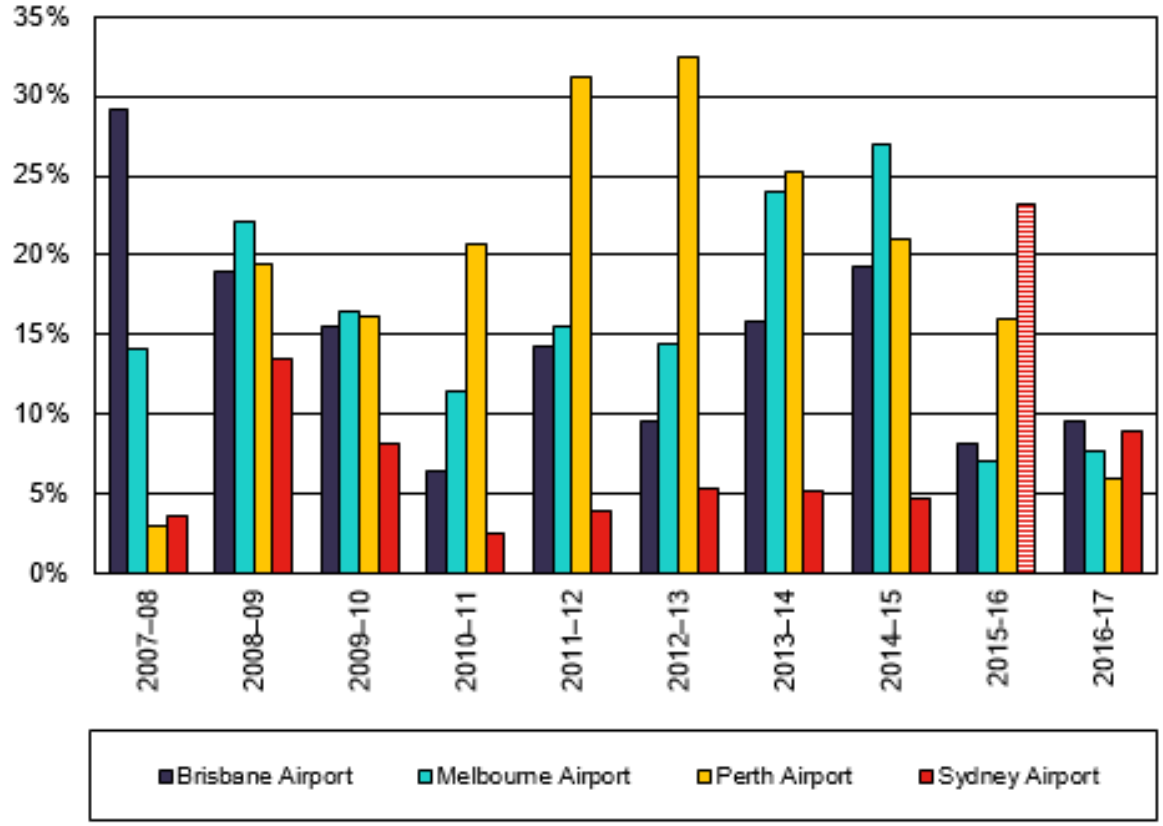
For Sydney Airport, landfill assets were not included in the asset base as at 1 July 2005. However, Sydney Airport has advised that the value of landfill is included in the asset base that was used in the pricing modelling for airport charges for airlines. This report presents data which reflects the exclusion of the landfill assets unless otherwise specified.

Sydney Airport's aeronautical asset value is by far the largest of the monitored airports with $3.3 billion. Brisbane and Melbourne airports' asset values are $2.0 billion and $1.9 billion respectively. Perth Airport's asset value in 2016–17 stood at $1.0 billion.

Figure 2.3.5 shows investment in aeronautical assets made by each monitored airport each year from 2007–08, represented as a percentage of the total value of aeronautical assets. New investment has clearly declined in the last two years following a number of years of significant expansion. The spike for Sydney Airport in 2015–16 was primarily due to its purchase of the Qantas domestic terminal.

[40] Productivity Commission, (2006), Review of price regulation of airport services, No 40, 14 December (page XXII), http://www.pc.gov.au/__data/assets/pdf_file/0019/20638/airportservices.pdf

Figure 2.3.5: Additions as a percentage of tangible non-current assets for aeronautical services: 2007–08 to 2016–17[41]



Brisbane Airport's new investment as a percentage of its aeronautical asset base was 9.6 per cent in 2016–17, the highest of the monitored airports. Sydney Airport reported 9.0 per cent, while Melbourne Airport had 7.7 per cent and Perth Airport had 5.9 per cent.

Over the past 10 years, total additions to aeronautical assets by the monitored airports has been in excess of $7.0 billion, with Sydney Airport reporting the largest aeronautical additions over the period with $2.4 billion (including the purchase of the Qantas domestic terminal). Melbourne ($2.0 billion) and Brisbane ($2.0 billion) airports also reported significant aeronautical capital expenditure over the past decade. Perth Airport invested $1.1 billion.

Total airport

In 2016–17, the aggregate value of the total airport tangible non-current assets across the four monitored airports increased to $26.3 billion, up 1.3 per cent (in real terms) from the previous year. Sydney Airport's asset value reached $14.9 billion, more than the total of the other three airports combined. Perth Airport's asset valued was the lowest among the four airports ($2.8 billion).

In terms of investment, the four monitored airports combined invested nearly $1b billion on a total airport basis in 2016–17. The aggregate level of investment was 43.5 per cent lower than the peak reached in 2015–16. Sydney Airport invested $380.5 million followed by Brisbane Airport ($289.9 million) and Melbourne Airport ($ 228.7 million) and Perth Airport invested ($75.5 million).

[41] Sydney Airport's investment in 2015–16 includes its purchase price of the Qantas domestic terminal (T3).

2.4. Airport car parking prices and financial results

Each of the four monitored airports provides on-site car parking facilities, along with other forms of landside access to the airport, such as passenger pick up and drop off zones, rail links, taxis and buses (discussed in more detail in section 2.5). Since privatisation, car parking has been an important source of revenue for the airports. In 2016–17, car parking accounted for between 9.5 and 15.6 per cent of each airport's total revenue.

This section provides an overview of the ACCC's monitoring results of the prices, revenues, costs and profits relating to car parking at the airports. More detailed information on the car parking facilities at each airport is provided in chapters 3 to 6. In addition to the car parking facilities provided on-site by each airport, a number of independent car park operators are located in proximity to each airport and are accessible to the public. See section 1.5 for further information on parking facilities provided by independent operators.

2.4.1. Car parking throughput and spaces provided

Each day, an average of 32 839 cars entered the monitored airports' carparks in 2016–17. Sydney Airport reported the highest throughput at 11 856 vehicles per day, followed by Melbourne (8729), Brisbane (6681) and Perth (5573) airports. Sydney, Brisbane and Perth airports reported falls in the daily throughput of their carparks in 2016–17. Car parking throughput has been on a gradual decline in recent years as passengers find other ways to get to and from the airport.

Table 2.4.1 shows the number of car parking spaces at the monitored airports. There were increases in the number of car parking spaces at Brisbane, Melbourne and Sydney airports during 2016–17. The largest increase was at Sydney Airport, which was mostly due to the completion of construction of additional levels at the P3 car park in the domestic precinct.

Table 2.4.1: Total car parking spaces in 2017 and changes from previous years

Airport	Total car parking spaces			Percentage change	
	30 June 2008	30 June 2016	30 June 2017	10 years	1 year
Brisbane	10 321	15 825	16 703	▲ 62%	▲ 5.5%
Melbourne	19 895	25 900	26 443	▲ 33%	▲ 2.1%
Perth	8 806	22 763	22 645	▲ 157%	▼ 0.5%
Sydney	10 851	15 933	17 094	▲58%	▲ 7.3%

Over the past decade there has been a substantial increase in the number of parking spaces at all the airports. The largest increase over this period was at Perth Airport, where current car parking capacity is more than double what it was in June 2008.These increases have helped the airports accommodate increases in passenger numbers over the past decade. Since 2007–08, percentage increases in car parking spaces at Brisbane and Perth airports have exceeded that in passenger numbers, while parking capacity growth at Melbourne and Sydney airports have been more comparable to passenger growth.

2.4.2. Car parking prices

Car parking prices at airports are determined by a number of factors including the length of stay, whether a car park is covered or open, the proximity of the car park to the terminals and seasonality.

All of the monitored airports offer the option to pre-pay for parking online, typically at a discount compared with the drive-up rate. The ACCC collects information on total drive-up

and online booking revenue to calculate average drive-up[42] and online booking prices per vehicle. The ACCC also calculates the average price per vehicle combining both drive-up and online charges.

Short-term[43] car parking

Table 2.4.2 shows the average drive-up, online and average price at short-term car parking. Perth Airport had the cheapest drive-up prices of the four airports, while Sydney had the most expensive. The airports which offered the ability to book online for short-term parking (all excluding Perth) offered cheaper rates compared to the drive-up price for an equivalent length of stay. The average discount across Brisbane, Melbourne and Sydney was 25 per cent, with the largest discounts offered for 3–4 hour stays at Melbourne (55.8 per cent) and Sydney (38.7 per cent) airports; and 31 to 60 minute stays at Sydney Airport (38.1 per cent).

Table 2.4.2: Average drive-up and online car parking prices in 2016–17, short-term car parking

	Short-term car parking								
	31–60 minutes			2–3 hours			4–24 hours		
	Drive up	Online	Combined average	Drive up	Online	Combined average	Drive up	Online	Combined average
Brisbane	$15.06	$14.32	$15.06	$24.26	$17.29	$24.08	$53.02	$43.32	$50.81
Melbourne	$14.05	$10.44	$13.99	$28.79	$16.48	$27.37	$57.76	$47.32	$55.47
Perth[(a)]	$10.83	–	–	$17.71	–	–	$40.81	–	–
Sydney	$17.33	$10.72	$17.14	$33.68	$20.65	$31.71	$58.42[(b)]	$54.36	$57.59

Note: (a): Perth Airport charges at a full day (24 hour) rate for parking less than 24 hours when booked online.
(b): Sydney Airport charged a flat drive up rate for 3 to 24 hours of parking.

For the three airports offering online bookings, the combined average of online and drive-up prices for stays of 31 to 60 minutes were similar to the drive-up prices. This indicates that most customers were not using online booking services for shorter stays. For 2–3 and 4–24 hour stays, the combined average prices were relatively lower than drive-up prices, indicating that customers were more likely to book online for longer stays. The overall number of online bookings, however, remains a small percentage (between 3 and 5 per cent) of the total number of vehicles using short-term parking.

At-distance car parking

Each of the airports offers at-distance car parking facilities to the public. At-distance car parking is defined as parking that is not located within walking distance of airport terminals and therefore requires shuttle bus access. Of the parking facilities provided by each of the airports, it is often considered to offer the best value for money.

Table 2.4.3 shows the average drive-up, online and combined average prices for these facilities at each of the airports. Of the four monitored airports, Brisbane offered the cheapest rates at its new at-distance car park, Airpark.

[42] The average drive-up price is calculated from total drive-up revenue divided by the number of vehicles accessing each car park. This differs from the airports' listed drive-up prices.

[43] The ACCC defines short-term car parking as parking durations of up to 24 hours, and long-term car parking as parking durations of 24 hours or more.

Table 2.4.3: Average drive-up and online terminal car parking prices in 2016–17, at-distance car parking

	At-distance car parking[1]								
	1 to 2 days			2 to 3 days			6 to 7 days		
	Drive up	Online	Combined average	Drive up	Online	Combined average	Drive up	Online	Combined average
Brisbane	$42.22	$21.32	$24.11	$61.07	$30.24	$33.80	$116.03	$69.17	$75.24
Melbourne	$48.18	$36.10	$42.72	$67.21	$49.00	$58.07	$93.30	$78.30	$84.43
Perth[2]	$50.00	$50.00	$50.00	$73.00	$73.00	$73.00	$134.47	$120.56	$125.81
Sydney	$62.81	$57.78	$61.02	$75.20	$67.59	$71.46	$137.92	$105.45	$113.37

1. At-distance car parking is defined as open air car parking only. Data for the following car parks is used in this table: Airpark (Brisbane), Long-term car parks (Melbourne), T1/T2 long-term car parks (Perth) and Blu-Emu (Sydney).
2. Average prices at Perth Airport are based on data for 3+ days of parking.

As with short-term car parking, airports offered cheaper rates for online bookings. Online prices for at distance car parking were discounted by around 22 per cent on average. This represents an even larger saving than for short-term parking. In particular, Brisbane and Melbourne airports reported significantly lower average online prices, with Brisbane Airport offering the largest discount of 50.5 per cent for two to three days of parking.

Brisbane Airport reported the lowest drive up prices for one to two days duration, while Melbourne had the lowest drive-up price for 6 to 7 days of parking.

Table 2.4.4 shows the change in listed drive-up car parking prices in real terms over the last year. Perth was the only airport to increase all selected short and long-term car parking charges. The most significant changes were to short-term car parking prices, which increased by 37.6 per cent for 31 to 60 minutes (from $9.15 to $12.60) and two to three hour (from $15.26 to $21.00) parking durations. Long-term parking prices at Perth Airport increased modestly in comparison with short-term parking prices, by up to 1.1 per cent (for two to three days of parking).

Table 2.4.4: Change in selected listed drive-up prices, short and long-term car parking from 30 June 2016 to 30 June 2017

Airport	Short-term car parking			Long-term car parking		
	Up to 1 hour	2 to 3 hours	7 to 8 hours	Up to 1 day	2 to 3 days	6 to 7 days
Brisbane[1]	▲ 4.9%	▲ 2.4%	▼ 1.7%	▼ 1.7%	▼ 17.3%	▼ 1.7%
Melbourne	▼ 1.7%	▼ 26.9%	▼ 18.3%	▼ 1.7%	▼ 1.7%	▼ 1.7%
Perth	▲ 37.6%	▲ 37.6%	▲ 15.7%	▲ 0.3%	▲ 1.1%	▲ 0.0%
Sydney	▼ 4.6%	▼ 3.2%	▼ 17.4%	▲ 4.7%	▲ 2.3%	▲ 0.5%

Note: Changes are calculated using prices in real terms.

In contrast, Melbourne Airport reported decreases to all listed drive up car parking prices in real terms. The listed drive up price for two to three hours of parking fell 26.9 per cent (from $39.67 to $29.00). Sydney Airport decreased short-term car parking prices but increased long-term car parking prices.

Motorists booking their car parking online

As indicated in the previous section, there is a trend towards motorists pre-booking their car parking online, particularly for longer stays. In 2016–17, the share of total car parking revenue sourced from online car park bookings ranged from 20 per cent to 40.5 per cent.

This represents an increase from last year for Brisbane, Melbourne and Sydney airports. Perth Airport did not provide revenue data for online bookings in 2015–16, but reported that 20 per cent of car parking revenue came from online bookings in 2016–17.

Online bookings continue to be more popular for customers using long-term, at-distance car parking options, accounting for between 23.6 per cent (at Perth Airport) and 82.6 per cent (at Brisbane Airport) of total revenue in 2016–17. Online bookings may be less attractive for short-term car parking customers, as it may be difficult to know the precise timing of their stay due to possible aircraft delays or traffic congestion.

The percentage of customers booking online for short-term car parking (that is, stays of up to one day) remains at just a few per cent, but has increased from last year at the three airports that offered these services. During 2016–17, revenue from short-term car parking bookings made online as a proportion of total short-term car parking revenue ranged from a low of 5.2 per cent to a high of 11.8 per cent at these airports.

Although more consumers are booking online at the four airports, a significant proportion of consumers continue to pay drive-up prices and could still potentially benefit from significant discounts by booking car parking online.

2.4.3. Car parking revenues, costs and profits

Table 2.4.5 presents car parking revenue, expenses and operating profits (EBITA) in 2016–17 for the monitored airports, as well as changes from 2015–16.

Table 2.4.5: Car parking revenue, expenses and operating profit in 2016–17

Airport	Revenue ($million)	Percentage change from 15–16	Expenses ($million)	Percentage change from 15–16	Operating profit ($million)	Percentage change from 15–16
Brisbane	93.5	▲ 3.3%	29.7	▼ 3.1%	63.7	▲ 6.6%
Melbourne	145.1	▲ 5.4%	58.4	▲ 3.5%	86.7	▲ 6.7%
Perth	63.0	▼ 2.5%	30.0	▲ 4.6%	33.0	▼ 8.1%
Sydney	134.8	▼ 0.9%	37.8	▲ 3.4%	97.0	▼ 2.5%

Note: Changes are calculated using prices in real terms.

In 2016–17 of the four monitored airports, Melbourne and Sydney generated the highest revenues from car parking, of $145.1 million and $134.8 million respectively. This resulted in operating profits from car parking of $86.7 million for Melbourne Airport and $97.0 million for Sydney Airport.

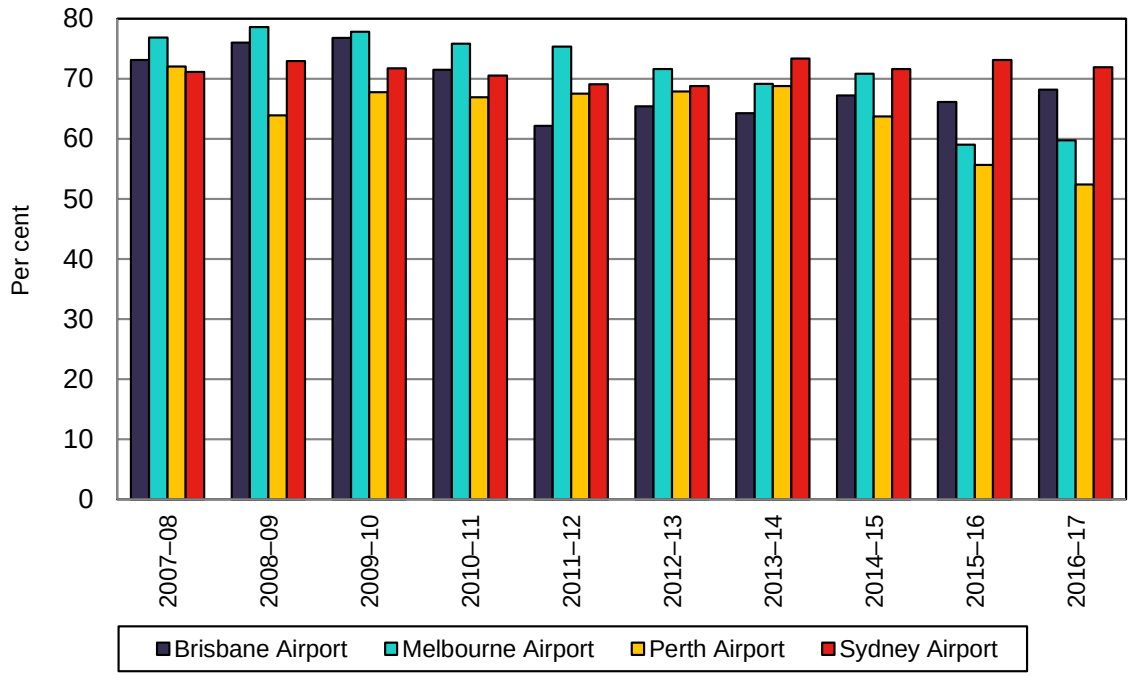
Both airports have consistently reported the highest revenues and operating profits from car parking over the last decade. In particular, Melbourne Airport has reported the highest car parking revenue for each year over the reporting period, and the highest operating profit for seven of the last 10 years.

Car parking revenue at all of the four monitored airports has grown significantly over the last decade. Since 2007–08, car parking revenue has increased at Sydney Airport by 27.3 per cent, at Melbourne Airport by 29.9 per cent, and at Brisbane Airport by 73.5 per cent. Over the past decade, Perth Airport more than doubled its car parking revenue to $63.0 million in 2016–17. The rise at Perth Airport took place even with a drop in car parking revenue over the last few years that coincides with a fall in passenger numbers.

Car parking continues to earn significant operating profit margins (EBITA as a percentage of revenue) for the four monitored airports, despite these margins trending downwards over the

last decade. Figure 2.4.1 presents the operating profit margins from car parking for each of the four monitored airports from 2007–08 to 2016–17.

Figure 2.4.1: Car parking operating profit margin: 2007–08 to 2016–17



Note: Calculated from real values in 2016–17 dollars.

Sydney Airport reported the highest operating profit margin from car parking for the fourth consecutive year at 71.9 per cent, although it was slightly lower than the previous year. Brisbane Airport reported the second highest operating profit margin from parking, at 68.2 per cent, up 2.1 percentage points from 2015–16. Melbourne Airport had an operating profit margin of 59.7 per cent, while Perth Airport reported 52.4 per cent (a 3.2 percentage points drop from 2015–16). The operating profit margin for Melbourne Airport has been lower since a revised approach to cost allocation in 2015–16.

2.4.4. Revenues, costs and profits per vehicle

Table 2.4.6 shows car parking revenue, expenses and operating profit per vehicle for each airport in 2016–17. Consistent with trends in total car parking revenue, Melbourne Airport reported the highest revenue per vehicle in 2016–17, at $45.54. This was 18 per cent higher than the next highest airport (Brisbane Airport at $38.33). This could reflect higher prices, cars parking for longer durations, or more motorists choosing products such as premium car parks located closer to the terminals.

Table 2.4.6: Car parking revenue, costs and operating profit per vehicle in 2016–17

Airport	Revenue ($)	Percentage change from 15–16	Expenses ($)	Percentage change from 15–16	Operating profit ($)	Percentage change from 15–16
Brisbane	38.33	▲ 6.2%	12.19	▼ 0.4%	26.14	▲9.6%
Melbourne	45.54	▲ 5.3%	18.34	▲ 3.4%	27.20	▲ 6.5%
Perth	30.99	▲ 6.1%	14.74	▲ 13.8%	16.25	▲ 0.0%
Sydney	31.15	▲ 7.8%	8.74	▲ 12.5%	22.41	▲ 6.1%

Note: Changes are calculated using prices in real terms.

On a per vehicle basis, revenue and operating profits increased for all of the monitored airports during 2016–17. Apart from Brisbane Airport, expenses per vehicle also increased at all of the airports, with Perth Airport experiencing the biggest jump (by 13.8 per cent) to $14.74 per vehicle over the year. This led to a relatively unchanged outcome with respect to profit for Perth ($16.25 per vehicle), while for all of the other airports there were relatively larger increases in profit per vehicle over the year. Brisbane Airport reported the largest increase (9.6 per cent) to generate $26.14 in profit per vehicle.

2.5. Landside access revenues

Access to airport landside areas (e.g. forecourt and transport hubs) is required by alternative transport modes to pick up and drop off passengers. These modes include taxis, off-airport car parking, terminal pick-up and drop-off, hire cars, limousines, public and private buses, trains, and more recently, ride-share services. These transport modes compete with airports' own car parks to varying degrees.

Airports levy charges for operators of alternative transport modes to access landside areas at airports. The level of these charges, and the quality of the access provided, can affect landside operators' ability to compete with airports' own car parking businesses, and in some cases may even impact the viability of landside operators.

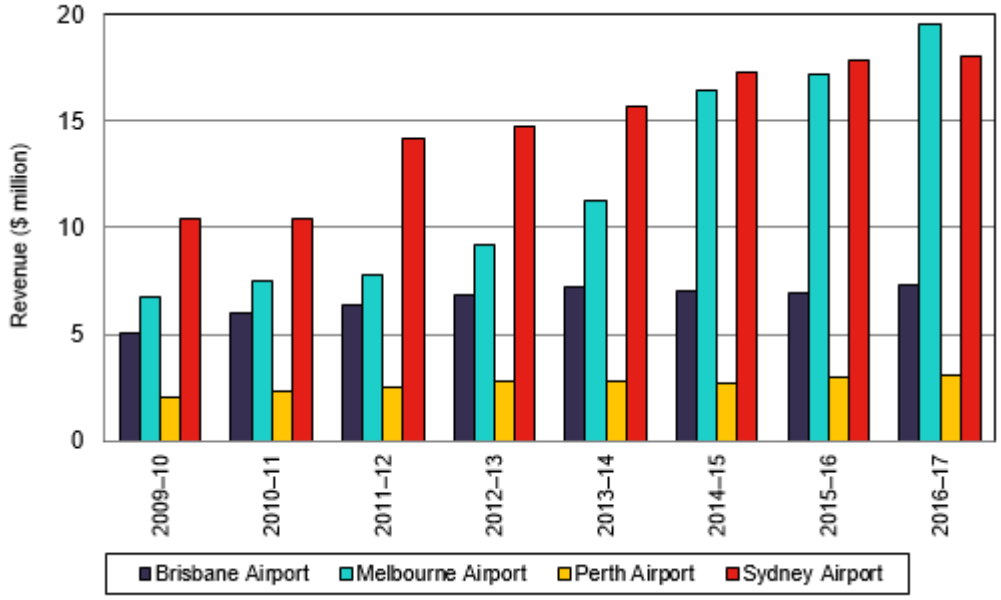
This section examines recent trends in landside access revenues at each of the monitored airports. Unlike aeronautical activities, landside access revenue data is provided by airports on a voluntary basis. As a result, the data is not fully consistent in terms of its coverage of services across the airports. Indeed, revenue from car rental operations is not reported because airports have inconsistent methods for reporting this information.

In previous monitoring reports, the ACCC has reported on the quality of service provided by airports to companies seeking access to landside areas. Since 2013–14, service level outcomes were measured through an annual survey targeted at various landside access seekers. However, due to consistently poor response rates from businesses and representative associations, this survey has been discontinued.

2.5.1. Total landside revenue

Figure 2.5.1 shows that in 2016–17, total landside access revenue at each of the monitored airports increased in real terms. However, during the year, only Melbourne Airport reported a significant increase in revenue of 13.4 per cent to $19.5 million. Melbourne Airport's revenue result was driven largely by a 30.4 per cent increase in the taxi access charge beginning 1 November 2016.

Figure 2.5.1: Total landside access revenue: 2009–10 to 2016–17



Note: Values in 2016-17 dollars.

Since 2009–10, there has been a general upward trend in total landside access revenue collected at all of the monitored airports. Melbourne and Sydney airports' revenues have increased the most over this period, with increases of 188.5 per cent and 73.7 per cent respectively. The stronger growth trajectories in these airports' revenues are due to higher growth rates in the provision of landside access services compared to the other airports.

2.5.2. Revenue by transport mode

Revenues generated from landside access charges vary depending on the level of the charges set by airports on the different transport modes, as well as the throughputs for each mode.

Table 2.5.2 details the total revenues collected by airports from access charges on various transport modes over the past year. In 2016–17, there were significant increases in Sydney Airport's revenues from private car operators (26.3 per cent). The revenue collected by Melbourne Airport from taxis increased by 24.1 per cent to almost $6.9 million. Both Brisbane Airport and Melbourne Airport significantly increased their revenues from private buses (25.7 per cent and 15.5 per cent respectively).

Table 2.5.2: Landside access revenue by mode: 2015–16 to 2016–17

Transport mode	Year	Brisbane Airport ($'000)	Melbourne Airport ($'000)	Perth Airport ($'000)	Sydney Airport ($'000)
Taxi	2016–17	3 933.3	6 869.0	2 711.1	11 858.0
	2015–16	4 031.6	5 533.9	2 672.9	12 300.6
	% change	▼ 2.4	▲ 24.1	▲ 1.4	▼ 3.6
Public bus	2016–17	323.0	0.0	0.0	0.0
	2015–16	350.9	0.0	0.0	0.0
	% change	▼ 8.0	n/a	n/a	n/a
Private bus	2016–17	2 397.9[(a)]	7 803.0[(b)]	0.0	2 490.0[(c)]
	2015–16	1 908.2[(a)]	6 757.5[(b)]	0.0	2 657.7[(c)]
	% change	▲ 25.7	▲ 15.5	n/a	▼ 6.3
Train	2016–17	165.2	n/a	n/a	n/a
	2015–16	164.8	n/a	n/a	n/a
	% change	▲ 0.3	n/a	n/a	n/a
Private car operator	2016–17	n/a	2 443.0	334.8	3 676.0
	2015–16	n/a	2 424.7	347.8	2 910.2
	% change	n/a	▲ 0.8	▼ 3.8	▲ 26.3

Notes: Values in 2016–17 dollars:
(a) Includes revenue from off-airport car parking and private car operators
(b) Includes revenue from off-airport car parking and Skybus service
(c) Includes revenue from off-airport car parking.

Since data was first collected in 2009–10, different transport modes have contributed varying levels of revenue to total landside access revenue for airports. Taxi charges have typically contributed the most significant amount due to higher take-up rates for the service. Public buses have typically not been charged for landside access at airports, while the availability of train services at the airports are not uniform.

2.6. Quality of service

This section summarises each of the four monitored airport's quality of service monitoring results for aeronautical services. To evaluate airports' service quality, the ACCC collects both subjective and objective information on aircraft- and passenger-related services and facilities.

Airport users, including airlines and passengers, are the principal sources for the ACCC's quality of service assessment survey data. The respondents of these surveys are asked to rate their level of satisfaction with airport services and facilities on a scale of 1 to 5. These are then converted into five ratings ranging from 'very poor' to 'excellent', as shown in table 2.6.1.

Table 2.6.1: Ratings of satisfaction for airport facilities and services

Score	1–1.49	1.50–2.49	2.50–3.49	3.50–4.49	4.50–5
Rating	Very poor	Poor	Satisfactory	Good	Excellent

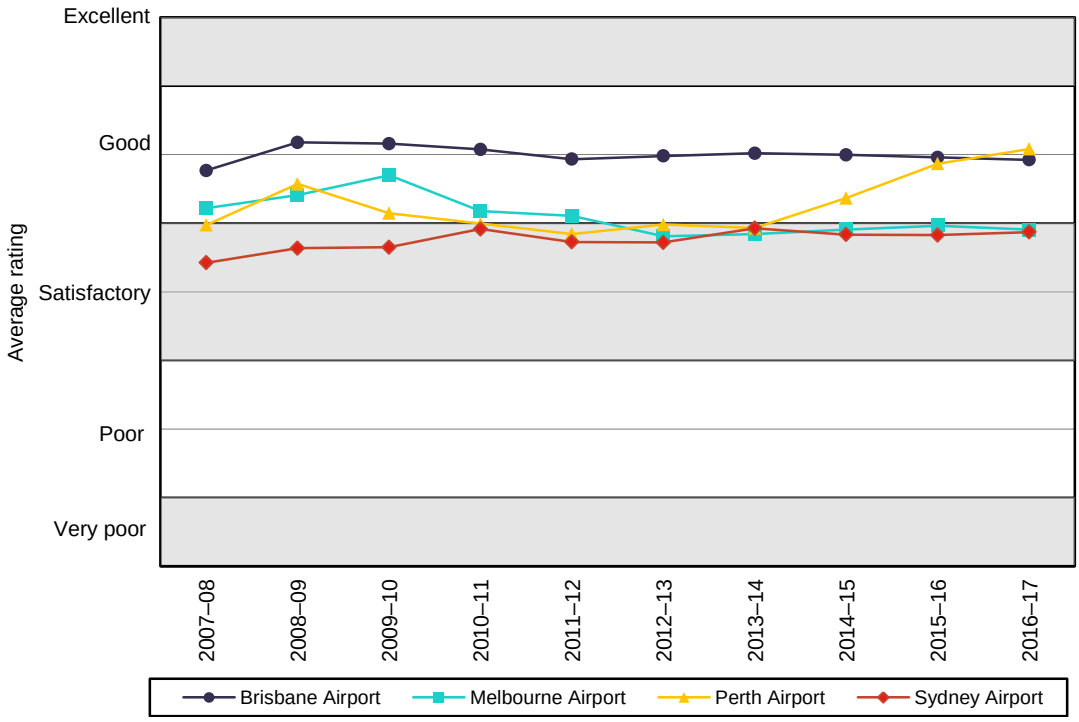
The ACCC also collects data from the airport operators on a wide range of objective indicators quality of service. An example of these indicators is the number of departing passengers per check-in desk, kiosk and bag drop facility.

2.6.1. Total airport services

For each airport, the ACCC calculates a single overall quality of service rating. This overall rating covers aeronautical, car parking and, to a lesser degree, landside operations. The overall rating represents the average score that the airport achieved across the many measures based on airline surveys, passenger surveys and objective indicators. The methodology for calculating this rating is explained in section A4.2.3 in appendix 4.

Figure 2.6.1 shows the overall quality of service ratings for the four monitored airports since 2007–08. Perth Airport was rated the highest and overtook Brisbane Airport for the first time, with both maintaining their 'good' ratings during 2016–17.

Figure 2.6.1: Overall quality of service rating: 2007–08 to 2016–17



Source: Airline surveys, passenger surveys, and objective indicators.

Over the past decade, Brisbane Airport has consistently achieved a 'good' rating. Perth Airport has shown significant improvement in the overall quality of service rating in the past few years, which coincides with significant investments in the terminals. Perth Airport and Brisbane Airport received the International Airport Review's inaugural 'passenger experience award' and 'construction and design award' respectively in 2017.

The overall quality of service ratings for Sydney and Melbourne airports remained relatively unchanged over the past four years. The ratings of both airports were again 'satisfactory' in 2016–17, just short of 'good'.[44] Sydney and Melbourne airports received the lowest aggregate service quality rating among the four monitored airports in 2016–17.

2.6.2. Passenger ratings of the airports quality of service

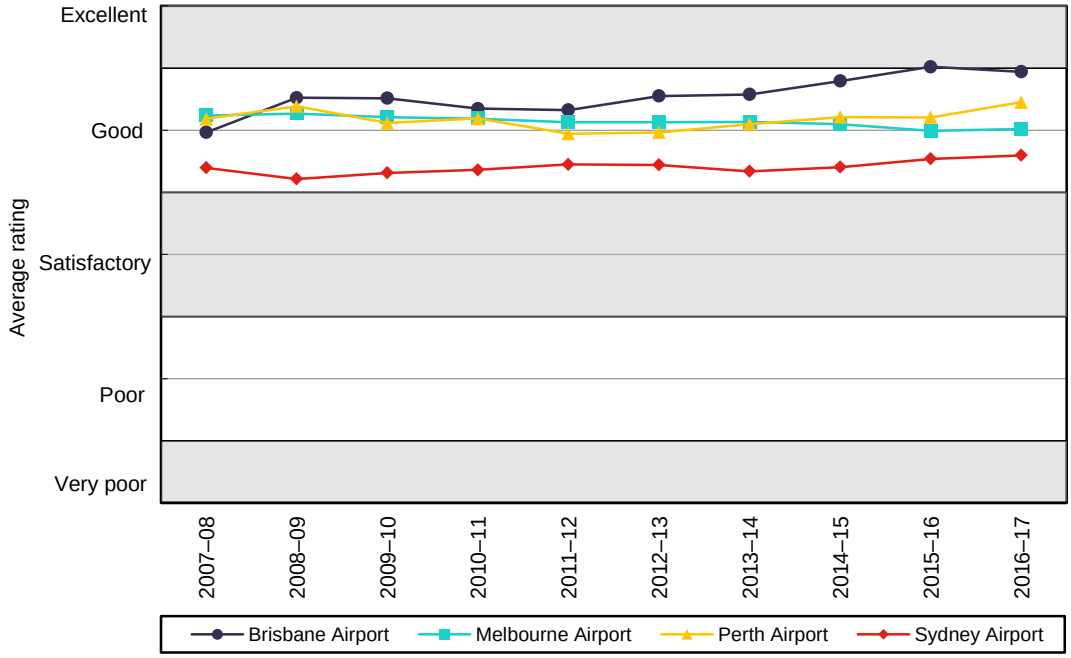
The ACCC's assessment of airport quality of service is informed by survey results of passenger perceptions of quality of services and facilities at the monitored airports.

[44] The 2015–16 airport monitoring report stated that Sydney and Melbourne Airport recorded a 'good' overall quality of service rating in 2015–16. A minor correction to the calculation of this score by the ACCC has seen it fall slightly. This minor fall moved the rating into the 'satisfactory' category.

Passenger perception can be affected by service providers operating at the airports such as the airlines, ground handling services, some security providers and border force personnel other than the airport operators themselves.

Figure 2.6.2 shows the average passenger ratings on the quality of service for each monitored airport for the past decade. The average ratings were calculated by drawing on passenger survey responses with respect to passenger-related aeronautical services, car parking services and landside services such as taxi pick-up and drop-off facilities.

Figure 2.6.2: Average passenger ratings of quality of service: 2007–08 to 2016–17



Source: Passenger surveys.

All four airports were rated ‘good’ by passengers during 2016–17. Brisbane Airport was rated the highest for the ninth consecutive year. However, Brisbane Airport’s passenger ratings decreased marginally which was sufficient for the rating to move from the ‘excellent’ to ‘good’ category during 2016–17. Perth and Sydney airports improved on their passenger ratings during 2016–17, with Perth Airport experiencing the largest increase.

Passenger ratings on the quality of service at the monitored airports have been very consistent, particularly when compared to airline ratings (discussed in section 2.6.3). Except for Brisbane where its rating broke through into the ‘excellent’ range in 2015–16, all airports have received ‘good’ ratings from passengers in the past decade. Sydney Airport has been consistently rated the lowest by passengers over the last decade.

2.6.3. Airline ratings of the airports’ quality of service

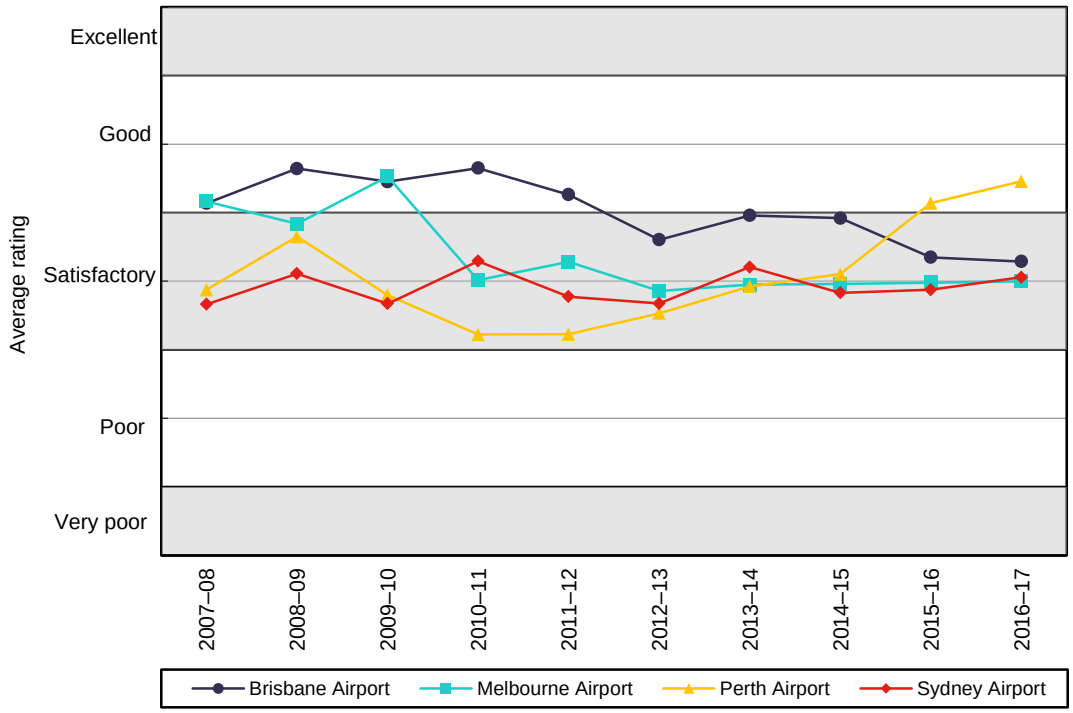
Airlines are the direct users of airport services and facilities. They provide an informed view of the quality of the airports’ aeronautical infrastructure such as runways, taxiways and associated terminal infrastructure. Because airlines are frequent users of airport services, they are in a good position to assess the quality of services provided by the monitored airports.

However, the ACCC is mindful that customers of airport services such as airlines may be strategically motivated to rate the quality of services downwards at individual airports. In

contrast to passenger ratings, airline ratings have generally been much more volatile and lower over the past decade.

Figure 2.6.3 presents the average airline ratings on the quality of service for each monitored airport over the past decade. The average rating has been calculated using airline survey responses with respect to aircraft- and passenger-related aeronautical services and airport management.

Figure 2.6.3: Average airline ratings of quality of service: 2007–08 to 2016–17



Source: Airline surveys.

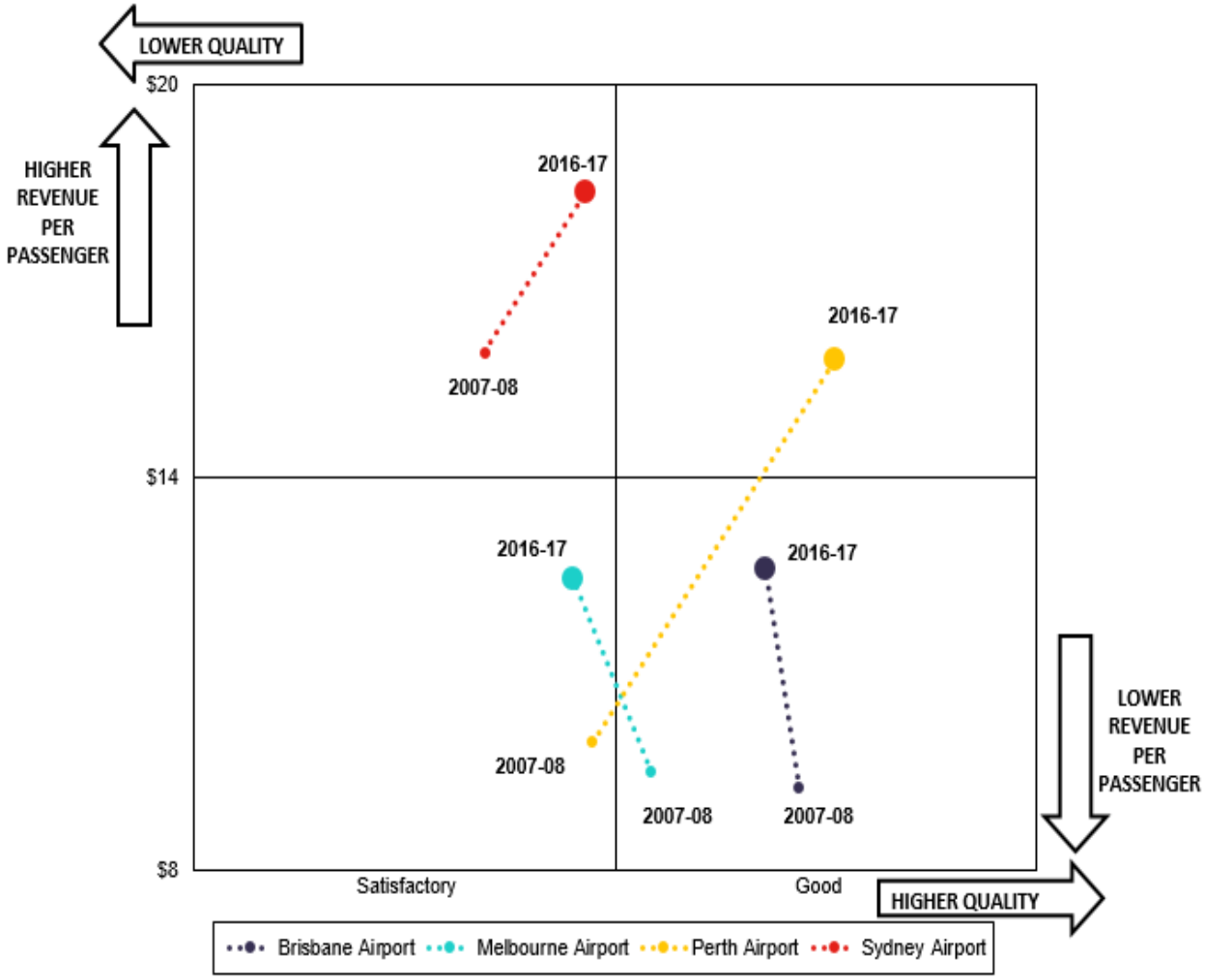
Perth Airport experienced significant increase in airline ratings in the past two years, jumping from the 'satisfactory' to 'good' category first time in 2015–16. For the past two years, Perth Airport has achieved the highest airline rating among the monitored airports. It has now increased its ratings for five years in a row. The other three monitored airports were rated 'satisfactory' by airlines during 2016–17. Sydney Airport's ratings improved marginally for the second consecutive year. This was enough to overtake Melbourne Airport, which received the lowest rating from airlines in 2016–17. Although Brisbane Airport has been rated highest for six of the 10 years since 2007–08, its rating has clearly trended downwards over the period.

2.7. Comparing trends in revenue per passenger with aeronautical quality of service

A monopoly infrastructure operator may seek to earn excess profits by charging higher prices and/or lowering its service levels. Figure 2.7.1 shows the trends in the overall ratings of the quality of aeronautical services in relation to the movements in the aeronautical revenue per passenger (a proxy for aeronautical prices) in the past decade. The measure of overall rating for aeronautical services is calculated using a similar approach as the overall rating for total airport services in figure 2.6.1 but excludes indicators related to car parking and landside services.

The most favourable outcomes for customers of the airports such as airlines would be in the lower right quadrant in the chart, which shows lower prices and higher quality. The least favourable outcome is the upper left quadrant reflecting lower quality and higher prices.

Figure 2.7.1: Aeronautical revenue per passenger and aeronautical quality of service rating for the monitored airports: 2007–08 and 2016–17



Note: Revenue per passenger is presented in 2016-17 prices.

All four airports have drifted upwards over the 10-year period reflecting increasing average aeronautical revenue per passenger at the airports.

Brisbane Airport is the only airport that has remained in the bottom right quadrant (i.e. higher quality and lower revenue per passenger) during the entire period. In contrast, Sydney Airport has remained in the top left quadrant (i.e. lower quality and higher revenue per passenger) in the same period. Perth Airport has achieved notable increases in service level, particularly in recent years, with the airport earning higher average revenue per customer.

3. Brisbane Airport

Key Points—2016–17

- In 2016–17, Brisbane Airport's passenger traffic grew by 1.6 per cent to 23.1 million. This was driven by a 5.4 per cent increase in international passenger traffic to 5.8 million and a relatively modest increase of 0.4 per cent in domestic passenger traffic to 17.3 million.
- Total aeronautical revenue increased by 2.8 per cent to $290.5 million, which contributed to an overall increase in aeronautical operating profit (EBITA) of 6.0 per cent, to $136 million. This equated to an operating profit margin of 46.8 cents for every dollar of aeronautical revenue collected, the highest of the four monitored airports. Aeronautical revenue per passenger also increased, but at a lower rate (1.1 per cent) to $12.60.
- Brisbane Airport invested $192.3 million in aeronautical capital expenditure in 2016–17, which contributed to a $91 million increase in the net asset base. Brisbane Airport's rate of return on tangible non-current aeronautical assets remained unchanged at 7.0 per cent during 2016–17 and has not increased since 2011–12. This was again the lowest rate of return among the four monitored airports.
- Brisbane Airport maintained its 'good' overall quality of service rating, which has been very stable in recent years. While both the international and domestic terminals also maintained a 'good' rating in 2016–17, ratings for aircraft-related services and facilities have fallen for two consecutive years and remain in the 'satisfactory' range.
- Total car parking revenue increased by 3.3 per cent to $93.5 million and car parking expenses decreased by 3.1 per cent. This contributed to an overall increase in car parking operating profit by 6.6 per cent to $63.7 million, equating to an operating profit margin of 68.2 per cent.

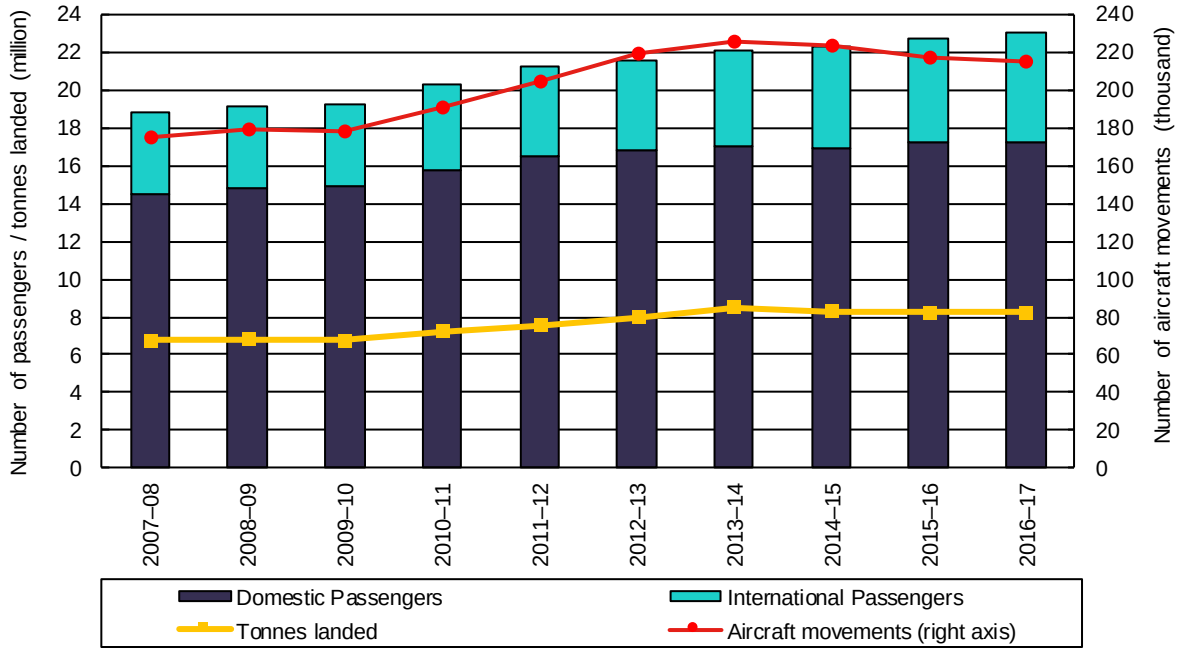
3.1. Airport overview and major investments

This section provides an overview of Brisbane Airport and its activity and investment during 2016–17. It covers the volume of passengers, tonnes landed and aircraft movements (section 3.1.1), terminal configurations and car parking facilities (Section 3.1.2) and major airport investments (section 3.1.3).

3.1.1. Aeronautical activity levels

Figure 3.1.1 shows the volume of passengers, aircraft movements and tonnes landed at Brisbane Airport since 2007–08. In 2016–17, Brisbane Airport's passenger traffic grew by 1.6 per cent to 23.1 million. This was driven by a 5.4 per cent increase in international passenger traffic to 5.8 million, which is higher than the average annual growth rate in international passengers of 3.2 per cent over the past decade. There was also a relatively small increase of 0.4 per cent in domestic passenger traffic to 17.3 million.

Figure 3.1.1 Brisbane Airport—volume of passengers, tonnes landed and aircraft movements: 2007–08 to 2016–17



The volume of tonnes landed and aircraft movements both decreased slightly, by 0.1 per cent (to 8.2 million) and 1.0 per cent (to 215 588) respectively in 2016–17. This has been driven by a decline in domestic movements which also affected the volume of tonnes landed, which was not offset by the growth in international movements.

3.1.2. Terminal configurations and car parking facilities

Terminal configurations

Brisbane Airport is characterised by one common-user international terminal for all international airlines flying in and out of the airport. There is also a single domestic terminal, largely occupied and operated by Qantas and Virgin Australia under lease. The remainder of the domestic terminal is comprised of common-user areas that are mainly used by Jetstar, Tiger Airways and regional airlines.

The airline-operated areas of the domestic terminal are not subject to monitoring and are therefore not included in this report beyond airport activity data.

Car parking facilities

Brisbane Airport provides three separate car parking precincts to the public. Two are located within walking distance to the terminals and one is located remotely, with access to and from the terminals via a free, regular shuttle bus service.

The two facilities located in proximity to the terminals are both multi-level car parks that offer undercover and open air parking. One is located near the international terminal and offers short-term, long-term and valet car parking services. The other is located near the domestic terminal and offers short-term, long-term, premium and valet car parking services (at P1) and long-term parking (at P2).

The third car park precinct is an open air carpark called ‘Airpark’, and offers long-term car parking services at distance to the terminals. The shuttle bus service that provides access to both terminals operates every 20 minutes.

3.1.3. Airport investments

Table 3.1.1 presents selected aeronautical investments that were completed, initiated or planned during 2016–17.

Table 3.1.1 Brisbane Airport—selected investments in aeronautical services and facilities

Description of investment	Value ($m)	Started	Completed
Runway 01/19 overlay	33	2015	2017
New parallel runway	1300	2012	*2020*
International Terminal Building – Northern concourse expansion	85	2014	*2018*
International Apron Bays 69 to 71	34	2014	*2018*
Baggage handling – development strategy	40	*2016*	*2023*

Brisbane Airport was named the 2017 winner of the Construction and Design category of the inaugural International Airport Review Awards for the runway 01/19 overlay project, which was completed in 2017.[45]

In 2017, Brisbane Airport commenced the second phase of construction on the new parallel runway, a $1.3 billion project which is scheduled to be completed and operational by 2020. Stage 2 includes construction of a major underpass near the domestic terminal to allow vehicular access to cross between the runway and terminals, as well as construction of the runway and taxiways. Refer to section 1.3 for further information on the parallel runway project.

Brisbane Airport has also invested around $120 million into expanding the international terminal northern precinct which is due for completion in 2018. This includes the $85 million international terminal northern concourse expansion which will provide additional capacity by delivering six additional boarding areas for the terminal, as well as extra gate lounges, fixed links and four new aerobridges. Airside works are also underway as part of the international terminal expansion, which will see 55 000m^2 of new aircraft apron and taxiways, as well as three new parking bays (69 to 71).

Table 3.1.2 lists selected car parking and landside access investments completed or planned during 2016–17. Brisbane Airport has planned significant investments into car parking facilities to meet increased demand expected with the completion of the new parallel runway. This includes expansion of the multi-level parking facilities at the domestic ($250 million) and international ($85 million) terminals.

[45] Brisbane Airport. *Brisbane Airport recognised at inaugural International Airport Review Awards,* 29 November 2017, viewed 2 January 2016, http://newsroom.bne.com.au/brisbane-airport-recognised-at-inaugural-international-airport-review-awards/.

Table 3.1.2 Brisbane Airport—selected investments in car parking and landside access services

Description of investment	Value ($m)	Started	Completed
Domestic car parks upgrade	1.9	Q3 2016	Q2 2017
CCTV for car parks and ground transport areas	3.5	Q1 2017	*Q4 2017*
Stage 3 Staff car park	14	*Q4 2017*	*Q1 2018*
International multi-level car park 2	85	*Q3 2016*	*2020*
Domestic multi-level car park 3	250	*Q3 2021*	*2025*

3.2. Aeronautical price monitoring and financial performance results

This section presents Brisbane Airport's aeronautical price monitoring and financial reporting results. These results are categorised into prices (section 3.2.1), revenues, costs and profits per passenger (section 3.2.2), and in total (section 3.2.3), assets (section 3.2.4), percentage change in the asset base (section 3.2.5) and the rate of return on tangible non-current assets (section 3.2.6). Note that all pricing and financial data is presented in real terms with values in 2016–17 dollars.

3.2.1. Prices

Brisbane Airport's pricing agreements with domestic and international airlines have been in place since 2012. The runway system is under a 25-year agreement, and 'terminals, aprons and related infrastructure' are under a five year agreement. A cost-based building block method has been used to set charges for these agreements, meaning that prices are adjusted as investment expenditure is incurred.

Table 3.2.1 shows Brisbane Airport's aeronautical charges for 2016–17, as well as the indexed list prices between 2012–13 and 2016–17. Airlines may pay less than these list prices under their own commercial agreements.

Brisbane Airport increased all aircraft parking fees in 2016–17. The most significant changes applied to parking fees for lighter weight aircraft; that is, aircraft weighing from 0 to 5000 kg and 5001 kg to 20 000 kg, which increased by 54.9 per cent and 29.1 per cent respectively. This is the second consecutive year that these specific fees have increased—since 2014–15, parking prices for these aircraft categories have increased by 169.5 per cent and 66.6 per cent respectively.

With the exception of aircraft parking fees, all other aeronautical charges decreased in 2016–17. Most of these charges decreased by up to 8 per cent, except government mandated security charges for domestic passengers at the Qantas/Virgin terminal, which decreased by 22.4 per cent.

Although many charges did decrease over the past year, most aeronautical charges have increased significantly since 2012–13. These charges include aircraft parking fees (as noted above), landing fees (up 32.1 per cent), runway charges (84 per cent), and security charges at the domestic common-user terminal (23.3 per cent).

Table 3.2.1 Brisbane Airport—schedule of aeronautical charges and indexed average list prices (including GST): 2012–13 to 2016–17

	Charge per unit $	Indexed list prices (2016–17 base year = 100)				
		2012–13	2013–14	2014–15	2015–16	2016–17
Landing fees						
Freight landing fees (per MTOW)	18.43	75.7	93.7	107.6	107.0	100.0
General aviation landing fees (per MTOW)	18.43	75.7	93.7	107.6	107.0	100.0
Rotary wing landing fees (per MTOW)	11.06	75.7	93.7	107.7	107.1	100.0
International private charter and non-scheduled air service landing fee (per MTOW)	18.43	75.7	93.7	107.6	107.0	100.0
Aircraft parking fees						
0 to 5 000kg	100.87	38.8	37.7	37.1	64.6	100.0
5 001 to 20 000kg	103.90	62.7	61.1	60.0	77.5	100.0
20 001 to 40 000kg	107.64	90.8	88.4	86.9	92.6	100.0
40 001 to 100 000kg	158.95	98.4	96.2	94.5	96.8	100.0
100 001 to 250 000kg	362.84	98.8	96.2	94.6	96.8	100.0
250 001 to 400 000kg	527.78	98.8	96.2	94.6	96.8	100.0
400 001kg+	699.22	98.8	96.2	94.6	96.8	100.0
Noise surcharge (applies to all aviation charges)—excluding GST	50%	91.5	100.0	100.0	100.0	100.0
Runway charges						
Domestic runway charge (per passenger)	3.39	54.5	80.7	106.2	108.3	100.0
International runway charge (per passenger	6.01	54.2	78.4	103.6	107.3	100.0
Terminal charges						
Domestic terminal infrastructure charge (per passenger)	4.86	81.4	88.7	98.0	103.8	100.0
International passenger service charge (per passenger)	22.33	119.7	113.2	106.0	102.2	100.0
Domestic passenger service charge common user terminal—including aerobridge (per passenger)	8.42	101.7	102.6	104.2	104.7	100.0
Domestic passenger service charge common user terminal—excluding aerobridge (per passenger)	7.82	99.7	101.3	103.8	104.7	100.0
Government mandated security charges[1]						
International passenger government mandated security charge (per passenger)	3.52	113.7	117.4	124.8	101.7	100.0
Domestic passenger government mandated security charge	2.45	81.1	81.3	96.4	103.0	100.0

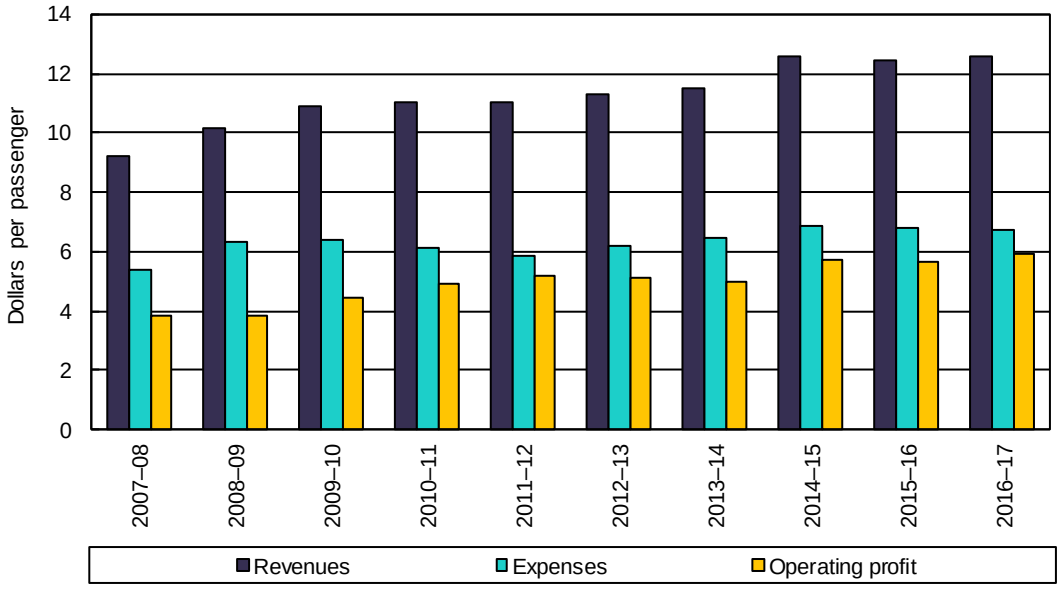
	Charge per unit $	Indexed list prices (2016–17 base year = 100)				
		2012–13	2013–14	2014–15	2015–16	2016–17
common user terminal (per passenger)						
Domestic passenger government mandated security charge Qantas/Virgin terminal (per passenger)	0.15	97.0	83.9	123.7	128.8	100.0
Other charges						
Peak period minimum movement charge	220.00	107.7	104.9	103.1	101.7	100.0

Notes: Real indexed prices are in 2016–17 dollars.

3.2.2. Revenues, costs and profits per passenger for aeronautical services

Figure 3.2.1 displays the aeronautical revenue, expenses and operating profit per passenger at Brisbane Airport over the past decade under the line-in-the-sand approach to asset valuations (see box 2.3.2). This allows for a more consistent approach across all monitored airports with regard to revaluations of assets after 2005.

Figure 3.2.1: Brisbane Airport—Aeronautical revenues, expenses, and operating profit per passenger: 2007–08 to 2016–17



Note: Real values in 2016-17 dollars.

In 2016–17, aeronautical revenue per passenger increased by 1.1 per cent to $12.60, following a 1.2 per cent decrease in the previous year. This was likely to be driven by the strong growth in international passengers over the past year, as they tend to generate higher charges than domestic passengers. Over the past decade, aeronautical revenue per passenger has increased by 36.3 per cent.

Aeronautical expenses per passenger decreased for a second consecutive year (by 1.5 per cent) to $6.70. This contributed to an increase in aeronautical profit per passenger of 4.3 per

cent, to $5.90. Of the four monitored airports, Brisbane Airport had the lowest aeronautical expenses per passenger.

3.2.3. Revenues, costs and profits for aeronautical and total airport services

Table 3.2.2 presents the revenues, costs and profits for aeronautical services and the total airport (under the line-in-the-sand approach to asset valuations) over the past decade.

In 2016–17, total aeronautical revenue increased by 2.8 per cent to $290.5 million. This follows the modest growth of 0.7 per cent observed in the previous year, which was also the lowest increase since 2001–02. Prior to this, there was a steady period of much stronger revenue growth—between 2007–08 and 2014–15—the average annual growth rate was 7.1 per cent. This growth was attributable to significant increases in aeronautical charges over the seven year period (refer to section 3.2.1 on prices) which translated into significant increases in aeronautical revenue.

Although there was limited growth in aeronautical expenses of 0.2 per cent in 2016–17, the relatively larger increase in aeronautical revenue over the year contributed to an overall increase in aeronautical profit (EBITA) of 6.0 per cent, to $136 million. This is 87.1 per cent higher than the aeronautical profit reported in 2007–08.

Brisbane Airport's aeronautical operating profit margin was 46.8 per cent in 2016–17, increasing by 1.4 percentage points from the previous year. This was the highest margin reported of the four monitored airports, and the third consecutive year that Brisbane Airport has reported an increase in the aeronautical operating profit margin.

3.2.4. Assets for aeronautical and total airport services

Table 3.2.3 sets out Brisbane Airport's tangible non-current assets for aeronautical and total airport services (under the line-in-the-sand approach to asset valuations) over the past decade.

Total aeronautical tangible non-current assets increased by 4.8 per cent to just under $2.0 billion. This was driven primarily by an increase in the value of property, plant, and equipment and to a lesser extent, increases in other non-current assets.

3.2.5. Additions as a percentage of tangible non-current assets

Figure 3.2.2 presents asset additions as a percentage of tangible non-current assets since 2007–08. Brisbane Airport invested $192.3 million in aeronautical capital expenditure in 2016–17, representing around 9.6 per cent of total aeronautical tangible non-current assets. The majority (64.5 per cent) of these additions were assets under construction with a value of $124.2 million, reflecting the investments currently underway (see section 3.1.3).

Additions as a percentage of tangible non-current assets fell from 29.1 per cent in 2007–08 to 6.4 per cent 2010–11, and have fluctuated since. These trends are reflective of lumpy infrastructure investment over the past decade as well as a growing asset base. However, an increase is expected in the future with the construction of the new parallel runway and associated investments.

Figure 3.2.2: Brisbane Airport—additions as a percentage of tangible non-current assets for aeronautical and total airport services: 2007–08 to 2016–17

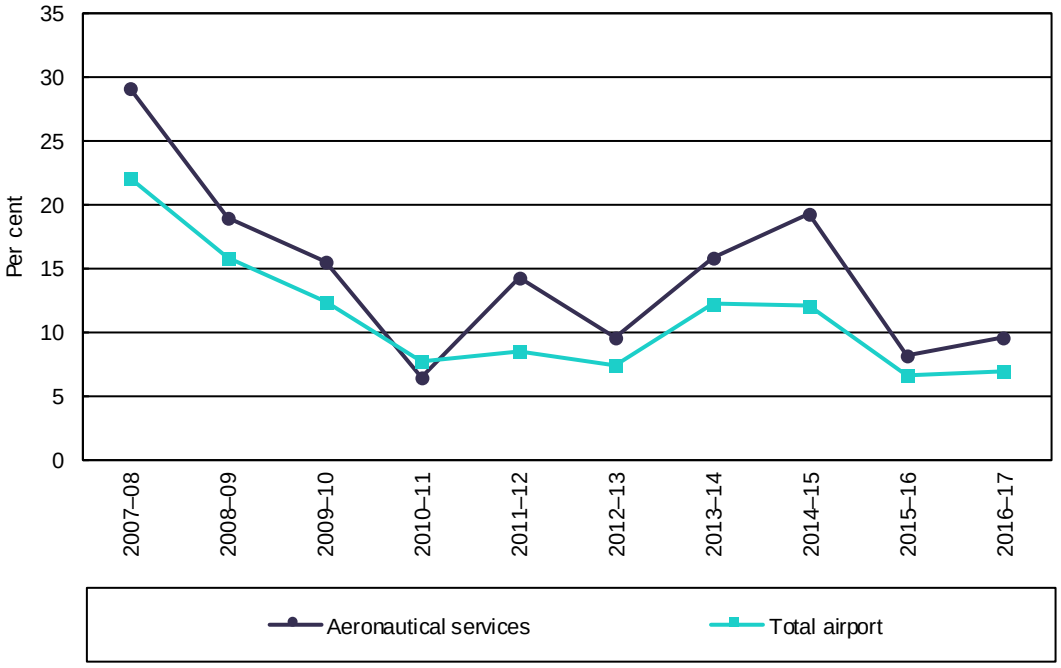


Table 3.2.2: Brisbane Airport—revenues, expenses and profits for aeronautical and total airport services—line in the sand approach: 2007–08 to 2016–17

		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Revenue ($m)	Total aeronautical	173.6	194.5	209.4	223.8	234.0	244.8	253.5	280.7	282.6	290.5
	Total airport	**482.4**	**454.1**	**492.4**	**514.6**	**535.5**	**567.6**	**591.6**	**629.7**	**654.0**	**678.9**
	Aeronautical % of total airport	36.0	42.8	42.5	43.5	43.7	43.1	42.9	44.6	43.2	42.8
Expenses ($m)	Total aeronautical	101.0	121.1	123.4	124.7	124.4	134.1	143.0	153.4	154.3	154.6
	Total airport	**163.6**	**196.5**	**200.1**	**207.9**	**213.0**	**233.8**	**246.2**	**262.2**	**272.5**	**282.6**
EBITA profit ($m)	Total aeronautical	72.7	73.4	86.0	99.1	109.7	110.8	110.5	127.2	128.3	136.0
	Total airport	**318.8**	**257.6**	**292.3**	**306.7**	**322.5**	**333.8**	**345.4**	**367.5**	**381.5**	**396.3**
EBITA profit % of total revenue	Aeronautical	41.8	37.7	41.1	44.3	46.9	45.2	43.6	45.3	45.4	46.8
	Total airport	**66.1**	**56.7**	**59.4**	**59.6**	**60.2**	**58.8**	**58.4**	**58.4**	**58.3**	**58.4**
Revenue per passenger ($)	Total aeronautical	9.24	10.18	10.88	11.05	11.04	11.33	11.47	12.60	12.46	12.60
Expenses per passenger ($)	Total aeronautical	5.37	6.34	6.41	6.16	5.87	6.21	6.47	6.89	6.80	6.70
EBITA profit per passenger ($)	Total aeronautical	3.87	3.84	4.47	4.89	5.17	5.13	5.00	5.71	5.65	5.90

Note: Real values in 2016–17 dollars.

Table 3.2.3: Brisbane Airport—non-current assets for aeronautical services and total airport services—line in the sand approach: 2007–08 to 2016–17

		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Investment property ($m)	Aeronautical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total airport	**703.8**	**792.8**	**820.0**	**894.3**	**983.3**	**1 080.3**	**1 119.0**	**1 172.6**	**1 267.2**	**1 265.0**
Land ($m)	Aeronautical	31.2	30.8	29.6	28.5	28.7	64.5	61.7	62.0	67.0	63.0
	Total airport	**80.5**	**77.4**	**74.8**	**71.9**	**69.4**	**106.3**	**103.1**	**100.6**	**103.8**	**101.0**
Property, plant and equipment ($m)	Aeronautical	1 012.7	1 169.0	1 097.8	1 089.0	1 183.8	1 238.5	1 389.5	1 639.5	1 730.5	1 815.1
	Total airport	**1 477.7**	**1 622.8**	**1 659.0**	**1 734.7**	**1 861.9**	**1 892.6**	**2 119.8**	**2 424.0**	**2 506.7**	**2 620.5**
Intangibles ($m)	Aeronautical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total airport	**1 009.2**	**978.7**	**956.5**	**927.7**	**906.8**	**886.6**	**863.2**	**848.6**	**837.1**	**823.0**
Other tangible non-current assets ($m)	Aeronautical	0.0	48.8	4.5	18.3	0.0	23.9	16.8	78.6	106.9	117.4
	Total airport	**116.7**	**121.2**	**10.8**	**48.0**	**0.0**	**88.3**	**111.4**	**251.2**	**340.5**	**255.5**
Total tangible non-current assets ($m)	Aeronautical	1 043.9	1 248.6	1 131.8	1 135.8	1 212.4	1 326.9	1 468.0	1 780.1	1 904.4	1 995.4
	Total airport	**2 378.7**	**2 614.2**	**2 564.6**	**2 748.9**	**2 914.5**	**3 167.5**	**3 453.3**	**3 948.4**	**4 218.2**	**4 242.0**
Total non-current assets ($m)	Aeronautical	1 043.9	1 248.6	1 131.8	1 135.8	1 212.4	1 326.9	1 468.0	1 780.1	1 904.4	1 995.4
	Total airport	**3 387.9**	**3 592.9**	**3 521.2**	**3 676.5**	**3 821.3**	**4 054.1**	**4 316.5**	**4 797.0**	**5 055.2**	**5 065.0**

Note: Real values in 2016–17 dollars.

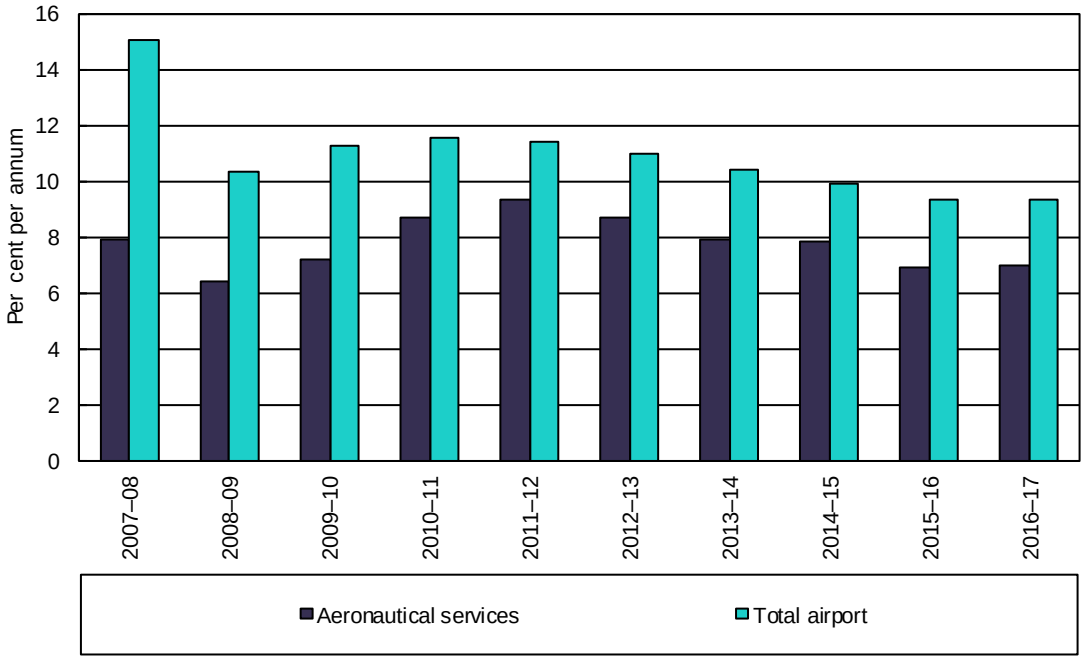
3.2.6. Rates of return on tangible non-current assets

The ACCC calculates the rate of return on tangible non-current assets using earnings before interest, tax and amortisation (EBITA) on average assets. For aeronautical services, this figure remained at around 7.0 per cent in 2016–17 and has not increased since 2011–12 when the rate was at 9.3 per cent (figure 3.2.3).

For total airport services, the rate of return has also remained relatively steady at around 9.4 per cent. However, this is 5.6 percentage points lower than it was in 2007–08.

Brisbane Airport has consistently reported the lowest rate of return on aeronautical tangible non-current assets since the ACCC began the airports monitoring program.[46]

Figure 3.2.3: Brisbane Airport—rate of return (EBITA) on tangible non-current assets for aeronautical and total airport services: 2007–08 to 2016–17



3.3. Quality of aeronautical and total airport services

Both passengers and airlines are surveyed to gauge the quality of service provided by each airport. Quality of service ratings are derived using these survey results, as well as from various objective indicators collected from monitored airports.

This section presents Brisbane Airport's overall average ratings (section 3.3.1), followed by ratings for terminal and aircraft-related services and facilities (section 3.3.2), and ratings for passenger-related services and facilities for each terminal (section 3.3.3).

3.3.1. Total airport services

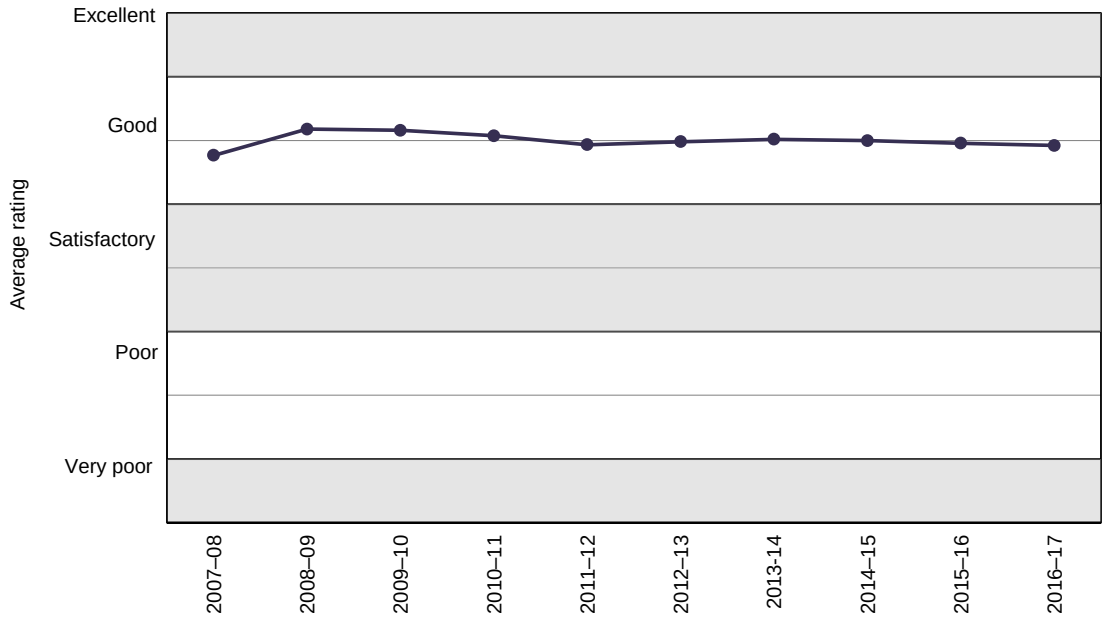
Figure 3.3.1 presents Brisbane Airport's overall quality of service rating. This overall rating covers aeronautical, car parking and, to a lesser degree, landside operations. The overall rating represents the average score that the airport achieved across the many measures

[46] Note: This refers to line in the sand accounts from 2007–08 to 2016–17, and non-line in the sand accounts from 2001–02 to 2006–07.

based on airline surveys, passenger surveys and objective indicators. The methodology for calculating this rating is explained in section A4.2.3 in appendix 4.

Brisbane Airport has consistently performed well in terms of overall quality of service, and has often achieved the highest ratings of the four monitored airports. In 2016–17, the airport achieved 'good' ratings across all three indicators for overall quality of service. This rating has remained very stable over the decade.

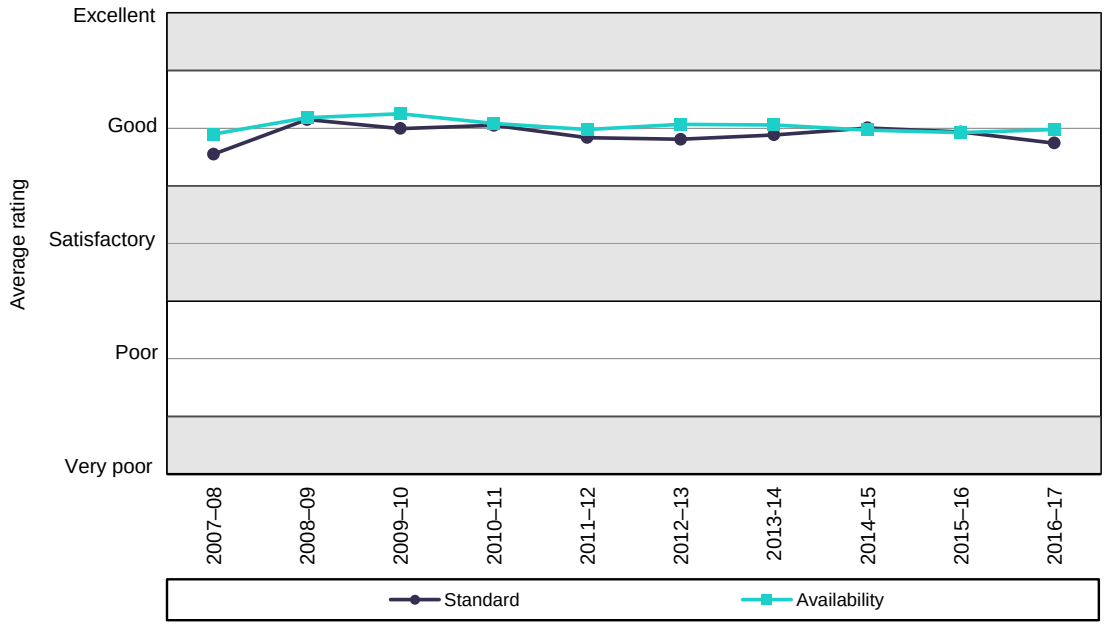
Figure 3.3.1: Brisbane Airport—overall quality of service rating: 2007–08 to 2016–17



Source: Airline surveys, passenger surveys and objective indicators obtained from Brisbane Airport.

Figure 3.3.2 presents Brisbane Airport's average ratings in measures that relate specifically to either the availability or standard of services and facilities over the past decade. As with the overall quality of service rating, these also remained relatively unchanged within the 'good' category in 2016–17, with the rating for availability of total aeronautical services improving slightly from the previous year.

Figure 3.3.2: Brisbane Airport— average ratings for standard and availability of total airport services and facilities: 2007–08 to 2016–17



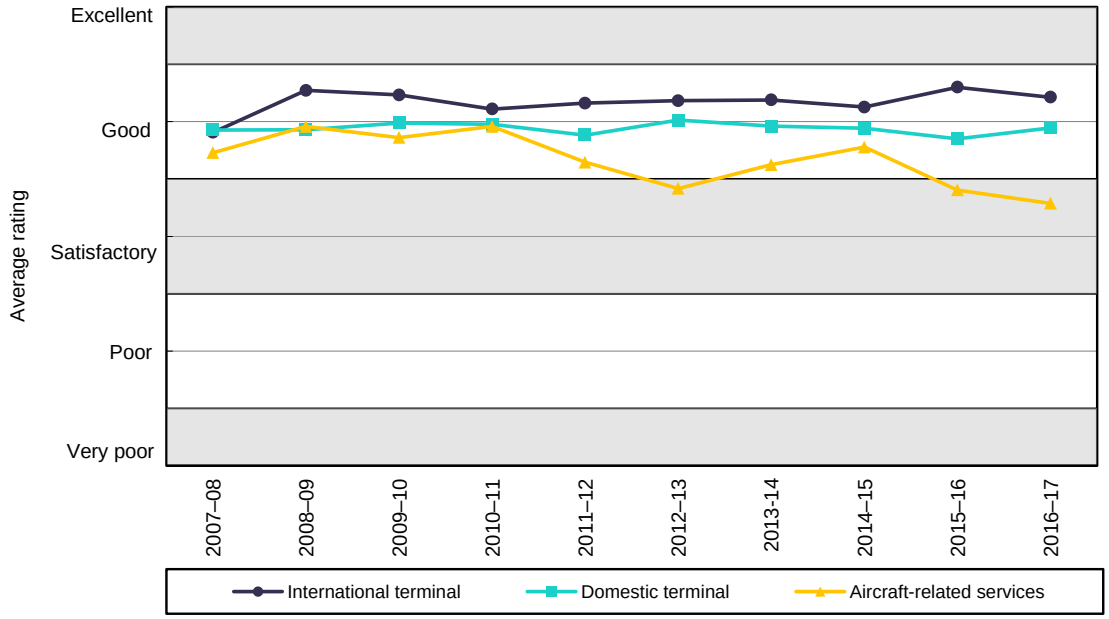
Source: Airline surveys, passenger surveys and objective indicators obtained from Brisbane Airport.

3.3.2. Terminals and aircraft-related services and facilities

Figure 3.3.3 shows the quality of service ratings for domestic terminal services and international terminal services. Both terminals maintained a 'good' rating in 2016-17. Brisbane Airport completed a number of passenger-side investments in 2016–17, including 48 new self-service check-in kiosks and 16 automatic bag drops at the international terminal, redevelopment and expansion of the Qantas Lounge precinct, and an upgrade to the entry control point at International arrivals.[47]

[47] Brisbane Airport Corporation Annual Report 2017, p. 13.

Figure 3.3.3: Brisbane Airport—average ratings for international and domestic terminal facilities, and aircraft-related services and facilities: 2007–08 to 2016–17



Source: Airline surveys, passenger surveys and objective indicators obtained from Brisbane Airport.

Figure 3.3.3 also shows average ratings by airlines of the quality of aircraft-related services at Brisbane Airport. In comparison to terminal services, the average rating for aircraft-related services and facilities has fallen for two consecutive years and is currently at its lowest level since 1997–98. Table 3.3.1 looks at how airlines have rated specific elements of aircraft-related services.

Table 3.3.1 provides more detail on the views of airlines on aircraft-related services and facilities at Brisbane Airport. The ratings for aircraft-related services and facilities declined across most indicators in 2016–17, and across all indicators since 2007–08. In particular, ratings for five out of 12 indicators moved from the ‘good’ to ‘satisfactory’ category in 2016–17. Airlines noted increased air traffic demand in peak periods, including congestion, longer holding times and aircraft parking bay availability as key reasons.

Table 3.3.1: Brisbane Airport—airline ratings of quality of individual aircraft-related services and facilities

	Indicator	Rating category 2016–17	1-year change	Change since 2007–08
Runway	Availability	Satisfactory	▲	▼*
	Standard	Good	▲*	▼
Taxiways	Availability	Good	▲*	▼
	Standard	Good	▼	▼
Aprons	Availability	Satisfactory	▼*	▼*
	Standard	Good	▼	▼
Aircraft parking	Availability of facilities and bays	Satisfactory	▼	▼
	Standard of facilities and bays	Satisfactory	▼	▼
Ground handling	Availability of services and facilities	Satisfactory	▼*	▼*
	Standard of services and facilities	Satisfactory	▼*	▼
Management responsiveness	Availability	Satisfactory	▼*	▼*
	Standard	Satisfactory	▼*	▼

Note: The rating categories are: very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change
*Rating changed by a category over the period.

The availability and standard of both ground handling and management responsiveness declined in 2016–17, all moving down in ratings from the 'good' to 'satisfactory' category. While some airlines noted that management responsiveness had been positive during 2016–17, others reported slow response times in regard to Brisbane Airport management providing long term, strategic solutions.

Apron availability also dropped from 'good' to 'satisfactory' during 2016–17. This is the second year in a row that ratings have declined for this service and may reflect the persistence of congestion issues experienced by airlines. Although ratings for the availability of aircraft facilities and bays remained unchanged, some airlines commented on the insufficient number of aircraft parking bays available during peak periods.

Despite runway availability being tight during peak periods, some airlines commented that issues were actively managed and sufficient notice was provided for any disruptions. As a result, the availability and standard of runways ratings improved this year, with the rating for runway standard moving up into the 'good' category. Taxiways availability was the only other indicator that improved in ratings this year, moving from 'satisfactory' to 'good'.

3.3.3. Passenger-related services and facilities

International terminal

Table 3.3.2 summarises the quality of service ratings for passenger-related services and facilities at Brisbane Airport's international terminal.

Passengers continued to rate the quality of services and facilities at the international terminal of Brisbane Airport favourably in 2016–17. Of the 13 indicators rated in the passenger survey, 10 were considered 'excellent', including inbound and outbound waiting times, information (including display screens and signage), inbound baggage reclaim and security. The remaining three indicators (check-in waiting time, seating in lounge area and standard of washrooms) achieved a 'good' rating.

Table 3.3.2: Brisbane Airport—indicators of quality of passenger-related services and facilities—international terminal: 2016–17, 1-year change and change since 2007–08

Category	Indicator	Data source	Indicator result 2016–17	1-year change	Change since 2007–08
Check-in	Check-in availability	Airline survey	Good	▼	▲*
	Check-in standard	Airline survey	Good	▼	▼
	Check-in waiting time	Passenger survey	Good	▼*	▲
	Number of departing passengers per check-in desk, kiosk and bag drop facility (peak hour)	Objective indicator	6.1 passengers	▲	▲
Immigration	Waiting time in outbound Immigration area	Passenger survey	Excellent	▼	▲*
	Number of departing passengers per outbound Immigration desk (peak hour)	Objective indicator	191.5 passengers	▼	▼
	Waiting time in inbound Immigration area	Passenger survey	Excellent	▲*	▲*
	Number of arriving passengers per inbound Immigration desk (peak hour)	Objective indicator	102.5 passengers	▼	▼
	Waiting time in inbound baggage inspection area	Passenger survey	Excellent	▼	▲*
	Number of arriving passengers per baggage inspection desk (peak hour)	Objective indicator	43.2 passengers	▲	▲
Information	Flight information display screens	Passenger survey	Excellent	▼	▲*
	Number of passengers per flight information display screen (peak hour)	Objective indicator	3.4 passengers	▲	▲
	Number of passengers per information point (peak hour)	Objective indicator	598.7 passengers	▼	▼
	Signage and wayfinding	Passenger survey	Excellent	▼	▲*

Notes: The rating categories are: very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change
* Rating changed by a category over the period. ** Rating changed by two categories over the period.

Table 3.3.2: Brisbane Airport—indicators of quality of passenger-related services and facilities—international terminal: 2016–17, 1-year change and change since 2007–08 (cont.)

Category	Indicator	Data source	Indicator result 2016–17	1-year change	Change since 2007–08
Baggage	Baggage processing facilities availability	Airline survey	Satisfactory	▲	▼*
	Baggage processing facilities standard	Airline survey	Satisfactory	—	▼*
	Average throughput of outbound baggage system (per hour)	Objective indicator	412.1 items	▼	▲
	Circulation space for inbound baggage reclaim	Passenger survey	Excellent	▼	▲*
	Information display for inbound baggage reclaim	Passenger survey	Excellent	▼	▲*
	Number of arriving passengers per m^2 of inbound baggage reclaim area (peak hour)	Objective indicator	0.4 passengers	—	N/A
	Findability of baggage trolleys	Passenger survey	Excellent	▼	▼
	Number of passengers per baggage trolley (peak hour)	Objective indicator	0.9 passengers	—	▲
Gate lounges	Seating in lounge area (quality and availability)	Passenger survey	Good	▼*	▲*
	Number of departing passengers per seat in gate lounges (peak hour)	Objective indicator	0.6 passengers	▼	▲
	Crowding in lounge area	Passenger survey	Excellent	▼	▲**
	Number of departing passengers per m^2 of lounge area (peak hour)	Objective indicator	0.1 passengers	—	—
Amenities	Standard of washrooms	Passenger survey	Good	▼*	▲
	Number of departing passengers per washroom (peak hour)	Objective indicator	52.2 passengers	▼	N/A
Aerobridges	Aerobridges availability	Airline survey	Satisfactory	▼	▼
	Aerobridges standard	Airline survey	Satisfactory	▲	▲*
	Percentage of arriving international passengers using an aerobridge	Objective indicator	100.0%	▲	▲
	Percentage of departing international passengers using an aerobridge	Objective indicator	96.6%	▼	▼
Security	Quality of security search process	Passenger survey	Excellent	▼	▲*
	Number of departing passengers per security clearance system (peak hour)	Objective indicator	21.7 passengers	▼	▲

Notes: The rating categories are: very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change
* Rating changed by a category over the period. ** Rating changed by two categories over the period.

Despite the strong performance overall, passenger ratings declined slightly within their respective categories across most indicators during 2016–17. However, this follows significant improvements in ratings during 2015–16 that may be attributed to some of the investments made by Brisbane Airport in recent years. This includes a $15 million refurbishment of the international terminal, upgrades to check-in kiosks and the addition of information points and signage.

Airlines' ratings of the quality of passenger-related services at the international terminal were less favourable, with all relevant categories achieving either a 'good' or 'satisfactory' rating. However, improvements were seen in the availability of baggage processing facilities and the standard of aerobridges during 2016–17.

Aerobridge availability ratings have continued to decline and are considered 'satisfactory', but only slightly better than a 'poor' rating. While aerobridge standard ratings improved, airlines raised concerns such as the evidence of wear and tear, the observation of leaks during rains, and gates that are unsuitable for wide bodied aircraft, all of which contributed to the lower rating in 2016–17. However, the ratings for both aerobridge standard and availability may improve in the future with the airside investment underway at the international terminal (refer to section 3.1.3 for more information on major airport investments).

Domestic terminal

Table 3.3.3 summarises the quality of service ratings for passenger-related services and facilities at Brisbane Airport's domestic terminal. Consistent with trends observed since 2012–13, the domestic terminal did not rate as highly as the international terminal in 2016–17. Passenger ratings were mostly 'good', while airlines' ratings were mostly 'satisfactory'.

Passenger ratings for check-in and baggage categories ratings declined within their respective categories, but improved for indicators in the gate lounges, amenities and security categories. Most notably, passengers rated the quality of the terminal's security search process as excellent, which represents continued improvement since 2015–16.

Airline ratings for aerobridge availability increased from 'satisfactory' to 'good'. However, they continued to rate the availability of baggage processing facilities at the domestic terminal 'poor', although there was an improvement within the rating in 2016–17. Airlines noted that both aerobridges and baggage processing facilities were congested, particularly during peak periods.

Table 3.3.3 Brisbane Airport—indicators of quality of passenger-related services and facilities—domestic terminal: 2016–17, 1-year change and change since 2007–08

Category	Indicator	Data source	Indicator result 2016–17	1-year change	Change since 2007–08
Check-in	Check-in availability	Airline survey	Satisfactory	—	N/A
	Check-in standard	Airline survey	Satisfactory	▼	N/A
	Check-in waiting time	Passenger survey	Excellent	▼	▲*
	Number of departing passengers per check-in desk, kiosk and bag drop facility (peak hour)	Objective indicator	17.9 passengers	▲	▲
Baggage	Baggage processing facilities availability	Airline survey	Poor	▲	N/A
	Baggage processing facilities standard	Airline survey	Satisfactory	▼	N/A
	Circulation space for inbound baggage reclaim	Passenger survey	Good	▼	▲
	Information display for inbound baggage reclaim	Passenger survey	Good	▼	▼*
	Number of arriving passengers per m^2 of inbound baggage reclaim area (peak hour)	Objective indicator	2.8 passengers	▲	N/A
	Findability of baggage trolleys	Passenger survey	Good	▼	▼*
	Number of passengers per baggage trolley (peak hour)	Objective indicator	2.9 passengers	▲	▲
Information	Flight information display screens	Passenger survey	Good	▼	▲
	Number of passengers per flight information display screen (peak hour)	Objective indicator	5.0 passengers	▲	▲
	Number of passengers per information point (peak hour)[(a)]	Objective indicator	N/A	N/A	N/A
	Signage and wayfinding	Passenger survey	Good	▼	▲
Gate lounges	Seating in lounge area (quality and availability)	Passenger survey	Good	▲	▼
	Number of departing passengers per seat in gate lounges (peak hour)	Objective indicator	0.7 passengers	▲	—
	Crowding in lounge area	Passenger survey	Good	▲	▲
	Number of departing passengers per m^2 of lounge area (peak hour)	Objective indicator	0.1 passengers	—	—
Amenities	Standard of washrooms	Passenger survey	Good	▲	▲
	Number of departing passengers per washroom (peak hour)	Objective indicator	152.5 passengers	▲	N/A
Aerobridges	Aerobridges availability	Airline survey	Good	▲**	▼
	Aerobridges standard	Airline survey	Satisfactory	▼	▼
	Number of arriving domestic passengers per aerobridge (peak hour)	Objective indicator	305.0 passengers	▼	▲
	Number of departing domestic passengers per aerobridge (peak hour)	Objective indicator	305.0 passengers	▼	▲
Security	Quality of security search process	Passenger survey	Excellent	▲	▲*
	Number of departing passengers per security clearance system (peak hour)	Objective indicator	46.9 passengers	▲	▲

Notes: The rating categories are; very poor, poor, satisfactory, good and excellent. ▲ indicates an improvement; ▼ indicates a decline; — indicates no change, *Rating changed by a category over the period. ** Rating changed by two categories over the period. [(a)] Brisbane Airport does not have any information point in domestic terminal during 2016–17.

3.4. Car parking and landside services

This section reviews Brisbane Airport's car parking and landside services and facilities, including car park activity (section 3.4.1), pricing (section 3.4.2), revenues and profits (section 3.4.3), quality of service outcomes (section 3.4.4) and other transport options (section 3.4.5).

3.4.1. Car park activity

Table 3.4.1 summarises the number of car parking spaces available and throughput of car parking facilities at Brisbane Airport over the last 10 years.

In total, car parking spaces increased by 5.5 per cent to 16 703 spaces in 2016–17. The capacity of Airpark increased by 13.6 per cent to 2 500 spaces.

The average daily throughput decreased by 2.4 per cent in 2016–17 to 6681 vehicles. This was the airport's lowest throughput rate in five years, despite consistent growth in passenger numbers over the same period.

The decrease in throughput activity over the year was driven by decreases in daily throughput over the year at the international terminal (by 3.4 per cent) and the domestic terminal short-term car park (by 4.3 per cent). In contrast, average daily throughput increased for the Airpark car park by 73.8 per cent. This may be due to a growing awareness of the facilities by passengers since Airpark opened in June 2015. However, the decreases observed in short-term parking facilities in particular also indicate that consumer preferences may have changed, with many people opting to use public pick up and drop off points rather than parking to 'meet and greet', or choosing long-term parking options.

Table 3.4.1 Brisbane Airport—number of car park spaces and average daily throughput: 2007–08 to 2016–17

		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Number of car park spaces	International combined short-term and long-term	1 740	1 740	1 740	1 740	1 740	2 202	2 202	2 137	2 123	2 123
	Domestic short-term	858	810	976	1 133	1 690	1 119	1 119	1 074	1 366	1 013
	Domestic long-term	4 148	4 635	4 410	4 410	6 948	7 616	7 616	7 428	6 971	7 491
	Remote Long-term (Airpark)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2 200	2 500
	Staff	3 575	2 730	2 484	2 484	2 484	3 038	3 038	3 038	3 165	3 576
	Total airport	**10 321**	**9 915**	**9 610**	**9 767**	**12 862**	**13 975**	**13 975**	**13 677**	**15 825**	**16 703**
Annual throughput of car park facilities (thousand)[48]	International combined short-term and long-term	607	705	673	662	663	751	751	735	762	734
	Domestic short-term	1 031	960	912	839	758	1 381	1 327	1 162	1 105	1 055
	Domestic long-term	356	362	511	533	533	652	725	657	613	605
	Remote long-term (Airpark)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	26	44
	Total airport	**1 994**	**2 028**	**2 096**	**2 035**	**1 954**	**2 784**	**2 804**	**2 555**	**2 507**	**2 438**
Average daily throughput of car park facilities	International combined short-term and long-term	1 659	1 932	1 845	1 815	1 811	2 058	2 057	2 014	2 082	2 011
	Domestic short-term	2 817	2 631	2 498	2 298	2 070	3 784	3 637	3 185	3 020	2 890
	Domestic long-term	972	993	1 399	1 462	1 457	1 785	1 987	1 801	1 675	1 658
	Remote Long-term (Airpark)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70	122
	Total airport	**5 448**	**5 557**	**5 742**	**5 574**	**5 338**	**7 627**	**7 681**	**7 000**	**6 848**	**6 681**

[48] Annual throughput data for staff car parking was unavailable.

3.4.2. Car parking prices

This section assesses trends in Brisbane Airport's drive-up car parking charges at the international and domestic terminals since 2007–08.

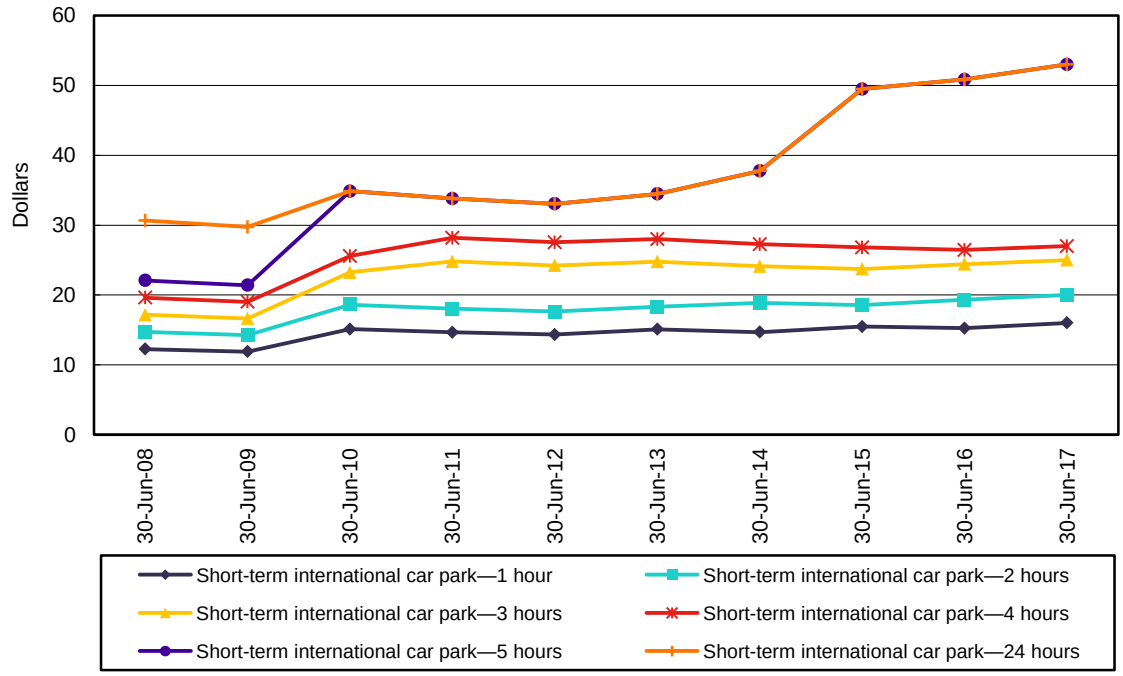
As Brisbane Airport offers customers the ability to pre-purchase car parking online at a discounted rate, the ACCC has also compared drive-up rates with online rates and average charges for each of the terminal's car parking facilities for the year.

This will also be the first year that comparisons can be made to Airpark's prices over time, since this long-term car park opened in June 2015.

International terminal car parking precinct

The international terminal car park is a multi-level car park comprising of both short and long-term[49] car parking. Figure 3.4.1 shows that all selected short-term parking prices at the car park increased in 2016–17. The biggest change was to the listed price for one hour parking, increasing by 4.9 per cent from $15.26 to $16. The listed price of parking for longer durations (that is more than 5 hours) increased by 4.2 per cent to $53.

Figure 3.4.1: Brisbane Airport international terminal car parking precinct—short-term parking prices (drive-up): 30 June 2008 to 30 June 2017

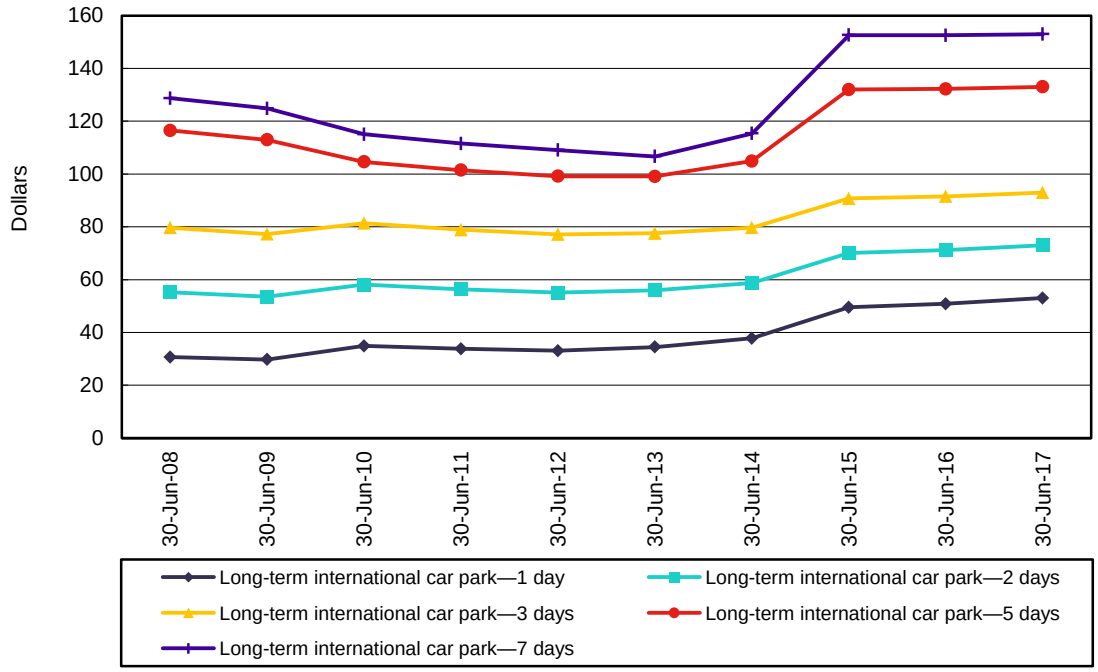


Note: Real values in 2016–17 dollars.

Figure 3.4.2 shows that selected listed prices for long-term parking at the international terminal remained relatively stable for the second consecutive year to 2016–17. This follows the significant increases in prices across all selected parking durations in 2014–15. Brisbane Airport notes that this increase was to align car parking prices at the international terminal with the domestic terminal.

[49] The ACCC defines short-term car parking as parking durations of up to 24 hours, and long-term car parking as parking durations of 24 hours or more.

Figure 3.4.2: Brisbane Airport international car park— selected long-term parking prices (drive-up): 30 June 2008 to 30 June 2017



Note: Real values in 2016–17 dollars.

Table 3.4.2 compares drive-up and online charges for long-term parking at the international terminal in 2016–17. The biggest discount occurs for parking booked online for a period of six to seven days, which is 28.1 per cent cheaper than to drive-up rates.

Table 3.4.2: Brisbane Airport— drive-up, online and average parking charges at the International terminal car park: 2016–17

Length of stay	Average drive-up ($)	Average online ($)	Weighted average of drive-up and online ($)
4–24 hours	51.56	45.51	51.17
1–2 days	72.73	60.57	69.82
2–3 days	92.41	67.26	82.40
3–4 days	112.14	99.78	106.74
4–5 days	131.71	106.03	118.85
5–6 days	142.04	110.20	123.78
6–7 days	151.72	109.11	124.41

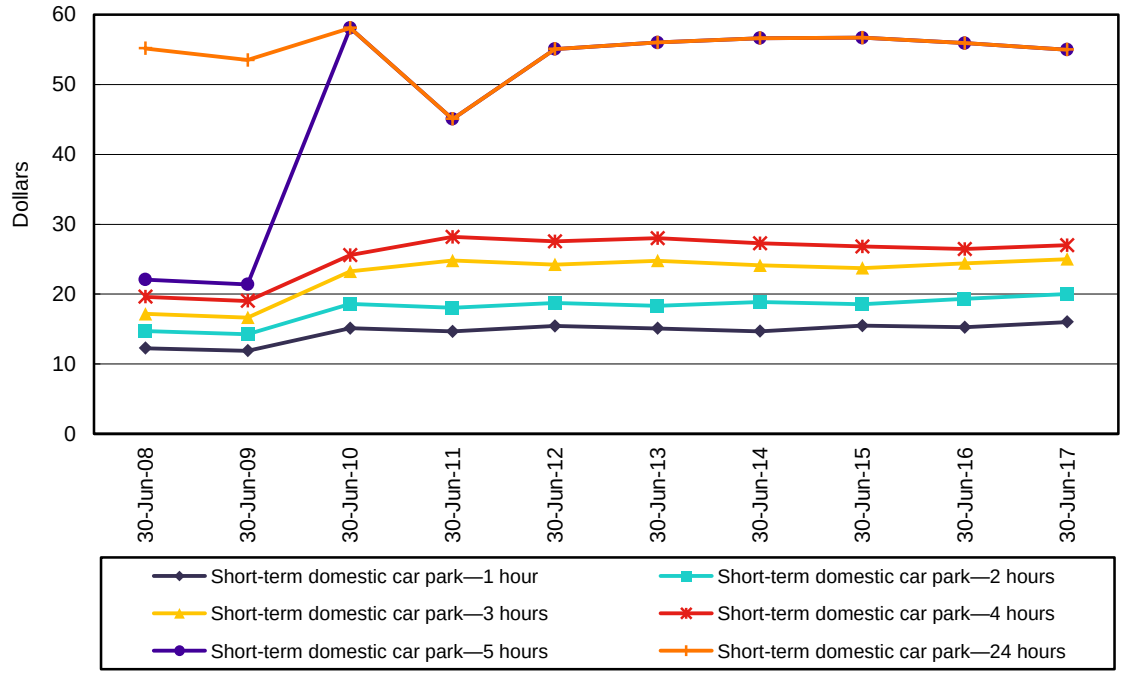
Note: Average car parking charges are calculated as the weighted average of drive-up and online charges.

Domestic terminal car park

The domestic terminal car park precinct comprises two multi-level car park buildings, P1 and P2. Car park P1 is used for short-term, long-term and premium valet parking. Car park P2 is intended for long-term car parking.

Figure 3.4.3 shows that with the exception of one hour parking which increased from $15.26 to $16 (or 4.9 per cent) in 2016–17, listed prices at the domestic car park remained stable, ranging from a 1.7 per cent decrease to a 3.5 per cent increase in 2016–17 and have been relatively stable over the past decade.

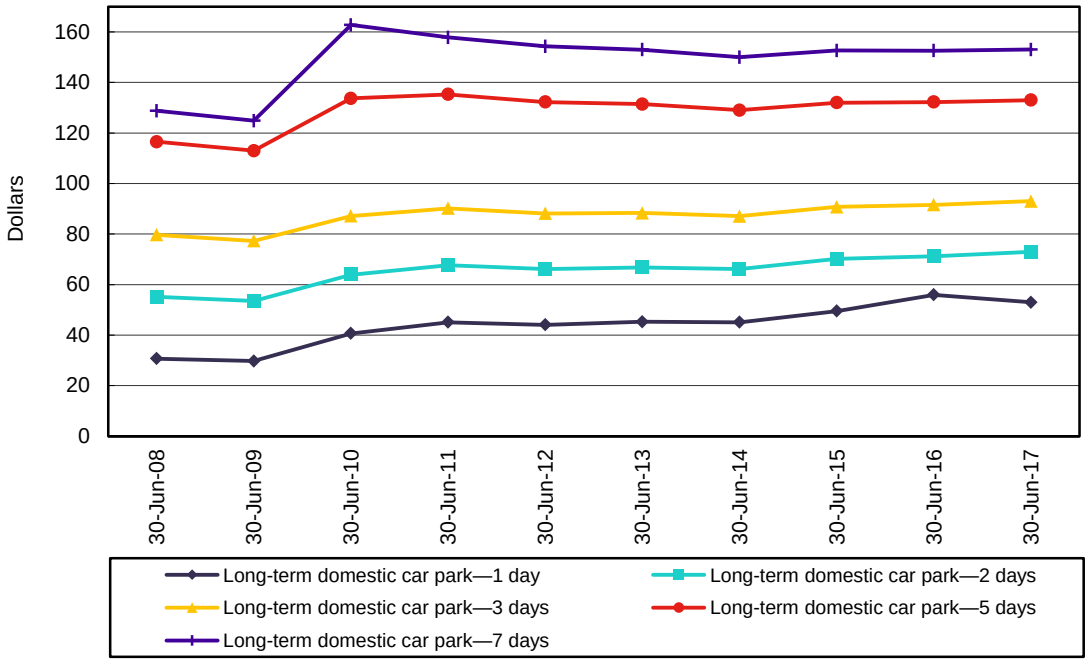
Figure 3.4.3: Brisbane Airport domestic car park— selected short-term parking prices (drive-up) in real terms: 30 June 2008 to 30 June 2017



Note: Real values in 2016–17 dollars.

Figure 3.4.4 shows selected listed long–term car parking prices at the domestic terminal (car park P2) over the last decade. The price for one day of parking decreased by 5.3 per cent in 2016–17, to $53. All other parking durations increased by between 0.3 per cent and 2.5 per cent.

Figure 3.4.4: Brisbane Airport domestic car park— selected long-term parking prices (drive-up): 30 June 2008 to 30 June 2017



Note: Real values in 2016–17 dollars.

Table 3.4.3 displays the drive-up charges, average online charges and the weighted average of drive-up and online charges for long-term parking at the domestic terminal in 2016–17. As with long-term parking at the international terminal, substantial discounts are available for booking online, with larger discounts of up to 41 per cent provided for longer durations.

Table 3.4.3: Brisbane Airport— drive-up, online and average parking charges at the domestic terminal car park: 2016–17

Length of stay	Average drive-up ($)	Average online ($)	Weighted average of drive-up and online ($)
4–24 hours	53.07	42.29	50.80
1–2 days	74.06	61.80	71.06
2–3 days	94.03	67.26	83.54
3–4 days	113.81	101.71	108.90
4–5 days	132.76	100.16	116.85
5–6 days	143.21	108.22	123.13
6–7 days	154.60	102.13	118.64

Note: Average car parking charges are calculated as the weighted average of drive-up and online charges.

In addition to at-terminal, long-term parking, Brisbane Airport provides some at-distance long-term parking to the public also known as Airpark. Airpark provides access to and from terminals via shuttle bus and offers cheaper rates for the same durations when compared to at-terminal options. For example, the average drive-up and online prices for up to one day of uncovered parking at Airpark were $22.98 and $10.79 respectively, compared to $53.07 for the same duration of parking at the domestic terminal car park in 2016–17.

3.4.3. Car park revenues, costs and operating profits

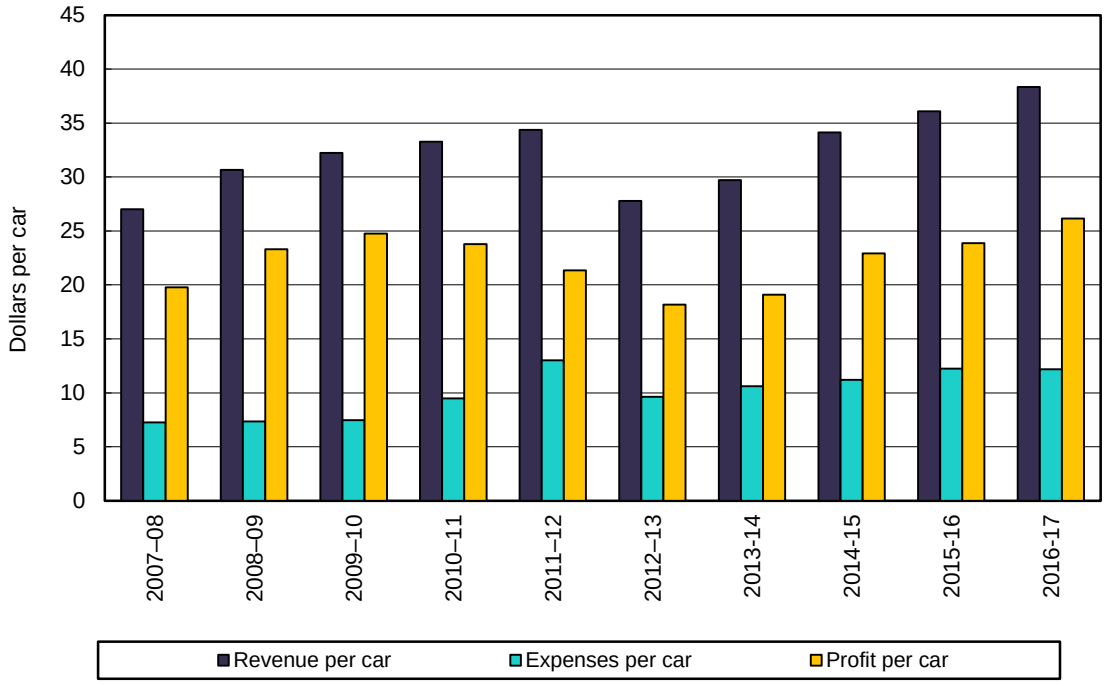
Table 3.4.4 outlines Brisbane Airport's revenues, expenses and operating profits (EBITA) for car parking and total airport services over the last decade. In 2016–17, total car parking revenue increased by 3.3 per cent to $93.5 million and car parking expenses decreased by 3.1 per cent. This contributed to an overall increase in car parking profit by 6.6 per cent to $63.7 million. Since 2006–07, car parking profit has increased by an average of 5.5 per cent each year.

The airport made an operating profit of 68.2 cents for each dollar in car parking revenue, which represents an increase of 2.1 percentage points from the previous year's profit margin of 66.1 per cent.

On a per-car park space basis, revenue decreased by 2.1 per cent to $5 596 and expenses fell 8.2 per cent to $1 779 in 2016–17. Operating profit per car park space remained relatively stable, increasing by 1.0 per cent to $3 817 per car park space.

Figure 3.4.5 presents Brisbane Airport's revenues, expenses and operating profits per car. There was a slight decrease in expenses per vehicle in 2016–17, by 0.4 per cent to $12.19. The average airport revenue collected from each car that visited an airport car park during 2016–17 increased by 6.2 per cent to $38.33. This contributed to an increase in the average profit collected from each car during 2016–17 to $26.14, up 9.6 per cent from the previous year.

Figure 3.4.5: Brisbane Airport—car park revenue, costs and profit per car: 2007–08 to 2016–17



Note: Real values in 2016–17 dollars.

Table 3.4.4: Brisbane Airport—revenues, expenses and operating profits for car parking and total airport services: 2007–08 to 2016–17

		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Revenue ($m)	Car parking	53.9	62.2	67.6	67.7	67.1	77.4	83.3	87.2	90.5	93.5
	Total airport	**482.4**	**454.1**	**492.4**	**514.6**	**535.5**	**567.6**	**591.6**	**629.7**	**654.0**	**678.9**
	Car parking % of total	11.2	13.7	13.7	13.2	12.5	13.6	14.1	13.8	13.8	13.8
Expenses ($m)	Car parking	14.5	14.9	15.7	19.3	25.4	26.8	29.8	28.6	30.7	29.7
	Total airport	**169.8**	**200.8**	**204.3**	**213.4**	**218.2**	**236.8**	**248.4**	**267.1**	**273.9**	**284.9**
EBITA profit ($m)	Car parking	39.4	47.3	51.9	48.4	41.7	50.6	53.5	58.6	59.8	63.7
	Total airport	**312.6**	**253.3**	**288.1**	**301.1**	**317.3**	**330.9**	**343.2**	**362.6**	**380.1**	**394.0**
EBITA profit % of revenue	Car parking	73.1	76.0	76.8	71.5	62.1	65.4	64.3	67.2	66.1	68.2
	Total airport	**64.8**	**55.8**	**58.5**	**58.5**	**59.3**	**58.3**	**58.0**	**57.6**	**58.1**	**58.0**
Revenue per space ($)		5221	6271	7032	6933	5221	5538	5960	6373	5718	5596
Expenses per space ($)		1402	1503	1630	1977	1977	1916	2129	2091	1938	1779
EBITA profit per space ($)		3818	4768	5401	4956	3244	3622	3831	4282	3780	3817
Revenue per vehicle ($)		27.02	30.66	32.24	33.28	34.37	27.80	29.71	34.12	36.10	38.33
Expenses per vehicle ($)		7.26	7.35	7.48	9.49	13.01	9.62	10.61	11.19	12.24	12.19
EBITA profit per vehicle ($)		19.76	23.31	24.77	23.79	21.35	18.18	19.10	22.92	23.86	26.14

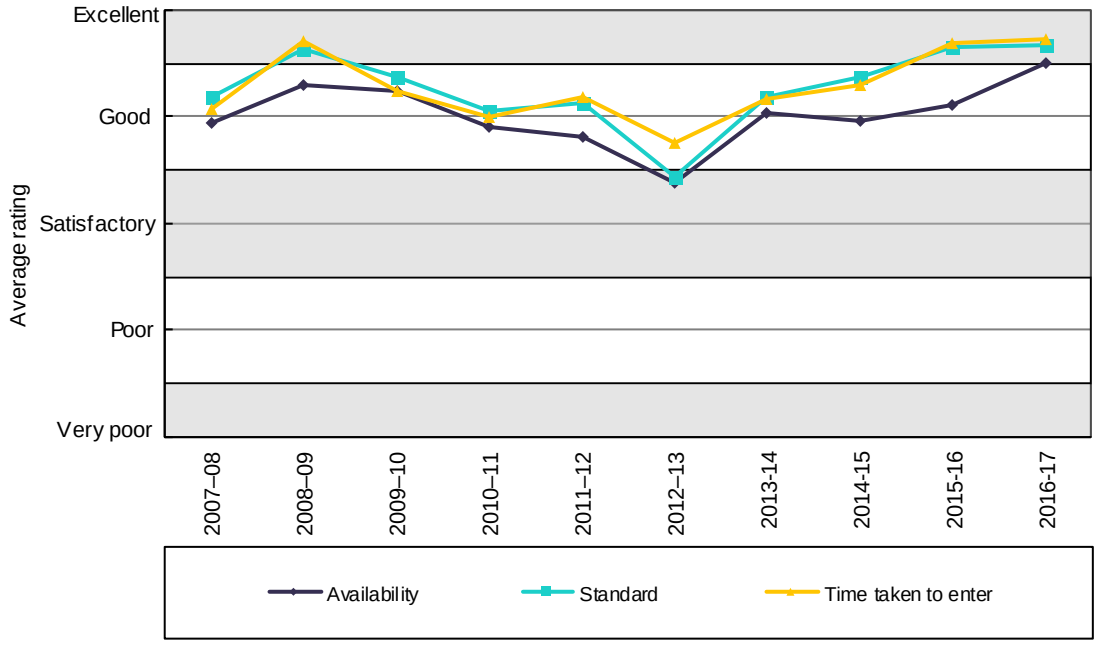
Note: Real values in 2016–17 dollars.

3.4.4. Quality of car parking facilities

Passengers continued to rate car parking facilities at Brisbane Airport very favourably.

Figure 3.4.6 shows passengers' ratings of the availability and standard of, as well as the time taking to enter, Brisbane Airport's car parking facilities at the international terminal. The airport was considered 'excellent' across all three categories in 2016–17, with the rating for car parking availability moving up from the 'good' category.

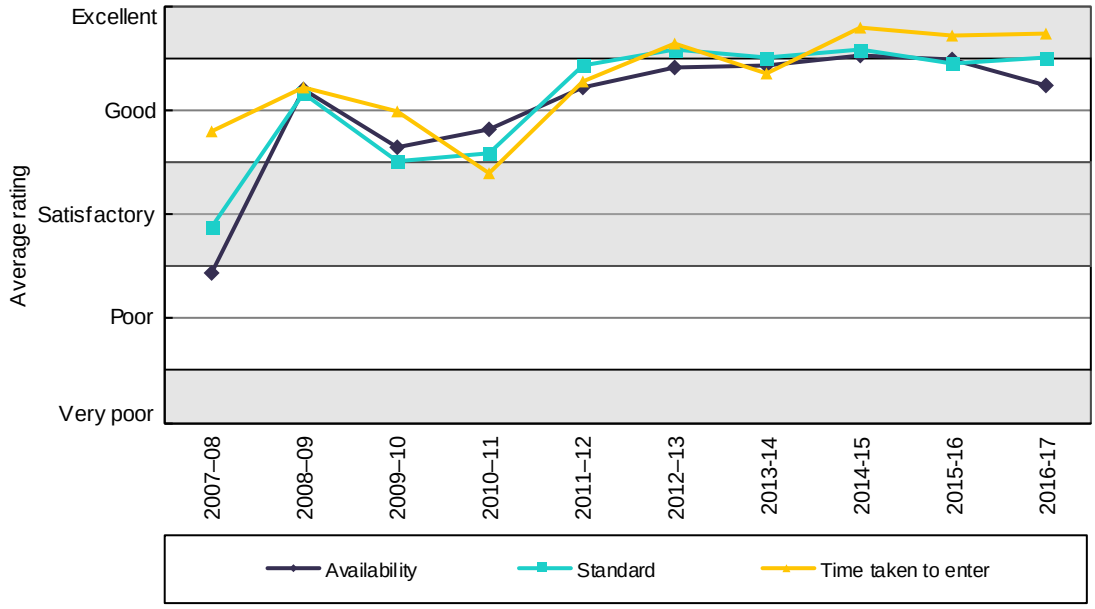
Figure 3.4.6: Brisbane Airport—international passenger survey ratings of the quality of car parking facilities: 2007–08 to 2016–17



Source: Passenger surveys obtained from Brisbane Airport.

As shown in figure 3.4.7, passengers continued to rate the time taken to enter Brisbane Airport's domestic car park as 'excellent'. Ratings for car parking standard moved back into the 'excellent' category during 2016–17 after moving down to 'good' in 2015–16. Car parking availability maintained a 'good' rating in 2016–17. The chart shows that satisfaction with the domestic car park has improved significantly from a decade ago.

Figure 3.4.7: Brisbane Airport—domestic passenger survey ratings of the quality of car parking facilities: 2007–08 to 2016–17



Source: Passenger surveys obtained from Brisbane Airport.

3.4.5. Other transport options

Apart from using on-site car parking facilities, passengers are able to access Brisbane Airport using trains, taxis, off airport car parking operators, ride sharing services and private cars. These alternative transport options require access to the airport's landside facilities for the pick-up and drop-off of passengers. Brisbane Airport imposes a landside access charge on some of these alternative transport options.

Brisbane Airport provides a 200 metre free passenger drop-off zone and four designated pick-up bays at the international terminal. At the domestic terminal, there is a 230 metre zone for pick-up and drop-off with four disabled bays. Brisbane Airport also provides 225 parking spaces that are free for the first 30 minutes. The airport also operates a free inter terminal bus service between the domestic and international terminal.

Table 3.4.5 outlines the landside access charges for 2016–17, as well as the indexed average list prices between 2012–13 and 2016–17.

Table 3.4.5: Brisbane Airport—landside access charges and indexed average access charges: 2012–13 to 2016–17

Transport option	Average list prices ($) 2016–17	Indexed average list prices (2016–17 base year = 100)				
		2012–13	2013–14	2014–15	2015–16	2016–17
Public bus	Monthly fee	NA	NA	NA	NA	NA
Off-airport car parking	4.48	NA	NA	NA	NA	NA
Taxis (per pick-up)	3.60	98.7	96.1	97.4	98.9	100.0
Train (corridor lease)	$165 000	81.6	97.9	101.2	99.9	100.0
Ride share	$3.00	NA	NA	NA	NA	100.0
Private bus and private car operators	Various	NA	NA	NA	NA	NA

Note: Real prices in 2016–17 dollars.

Private and public buses

There are no public bus services to the passenger terminals at Brisbane Airport.

One commercial bus operator 'Con-x-ion' services Brisbane Airport's international and domestic terminals. Con-x-ion offers door-to-door transfers to or from the Brisbane CBD, Gold Coast or Sunshine Coast areas. Brisbane Airport operates a free shuttle bus to and from the Skygate shopping precinct and between the terminals.

Off-airport car parking operators

Eight off-airport car parking operators serviced Brisbane Airport in 2016–17. Brisbane Airport has a number of charges for off-airport car parking operators, based on bus size and length of landside stay. The $4.48 charge applies to buses parked for less than 15 minutes.

Some of the online prices sampled by the ACCC for daily standard off-airport car parking were equivalent to or lower than that offered by the airport. Further discounts are generally offered by off-airport car parking operators for longer term parking. See section 1.5 for more information on prices for off-airport car parking services.

Taxis

Brisbane Airport charged a $3.60 airport access fee for each taxi pick-up, and does not charge for drop-offs. Brisbane Airport received a total of $3.93 million in revenue from taxi access fees in 2016–17, representing a decrease of 2.4 per cent for the year.

Ride sharing

Ride sharing was Brisbane Airport provides pick-up zones for ride-sharing passengers at its international and domestic terminals. The airport charged an airport access fee of $3 for passenger pick-ups, and did not charge for drop-offs.

Train

Brisbane Airport is serviced by a privately owned and operated train service that is integrated into the suburban train network (operated by Translink). An adult train fare is $18 one way between the airport and Brisbane CBD or $34 return, with a 10 per cent discount offered for online bookings.

Quality of landside access services and facilities provided by Brisbane Airport

As shown in table 3.4.6, passengers provided very favourable ratings for the quality of landside access and facilities at Brisbane Airport in 2016–17.

Table 3.4.6: Brisbane Airport—passenger ratings of quality of landside access services and facilities: 2016–17, 1–year change and change since 2007–08

Terminal	Indicator	Rating category 2016–17	1-year change	Change since 2007–08
International	Kerbside pick-up and drop-off facilities	Good	▼	▲
	Taxi facilities waiting time	Excellent	▼	▲*
	Kerbside space congestion	Good	▼	▲
Domestic	Kerbside pick-up and drop-off facilities	Good	▲	▲*
	Taxi facilities waiting time	Excellent	▼	▲*
	Kerbside space congestion	Excellent	▲	▲**

Note: The rating categories are: very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change,
*Rating changed by a category over the period. ** Rating changed by two categories over the period.

Although the ratings of international terminal landside services and facilities all declined in 2016–17, the changes were marginal and remained at ‘good’ (for kerbside facilities and congestion) and ‘excellent’ (for taxi facilities waiting time).

Domestic terminal landside access services and facilities improved for two of the three indicators in 2016–17. Although there was a small decline in the rating for ‘taxi facilities waiting time’, Brisbane Airport is still considered ‘excellent’ by passengers with respect to this indicator.

4. Melbourne Airport

Key Points — 2016–17

- Total passenger numbers at Melbourne Airport increased by 3.7 per cent to 35.2 million in 2016–17, the second highest total after Sydney Airport. The primary driver of this rise was an 8.0 per cent increase in international passengers. The number of domestic passengers increased moderately at a rate of 2.1 per cent during 2016–17.
- Total aeronautical revenue increased by 9.5 per cent in real terms to $438.2 million during 2016–17. This equated to $12.44 per passenger (up 5.7 per cent). Despite higher expenses, the aggregate aeronautical profit increased by 19 per cent to $182 million. Melbourne Airport made an operating profit (EBITA) of 41.5 cents for each dollar of aeronautical revenue earned during 2016–17, up from 38.2 cents the previous year.
- Total aeronautical capital expenditure rose by 11.3 per cent in real terms to $144.5 million during 2016–17. The rate of return on tangible aeronautical non-current assets increased by 1.5 percentage points to 9.7 per cent.
- Melbourne Airport's overall quality of service rating remained relatively unchanged within the 'satisfactory' range during 2016–17. For the fifth straight year, the overall rating was within the 'satisfactory' category, just short of the threshold for 'good'.[50] While domestic terminals maintained a 'good' rating, both international terminal and aircraft-related services and facilities were rated 'satisfactory' during 2016–17.
- Car parking revenue increased by 5.4 per cent in real terms to $145.1 million during 2016–17. Car parking operating profit grew by 6.7 per cent to $86.7 million despite higher expenses. Operating profit margin increased slightly to 59.7 per cent.

4.1. Airport overview and major investments

This section provides a brief outline of Melbourne Airport's aeronautical activities (section 4.1.1), terminal configurations and car parking facilities (section 4.1.2) and major investments (section 4.1.3).

4.1.1. Aeronautical activity levels

Figure 4.1.1 displays the number of passengers, tonnes landed and aircraft movements at Melbourne Airport. All three increased in 2016–17 compared to 2015–16. Total passenger numbers rose by 3.7 per cent to 35.2 million during 2016–17. Melbourne Airport was marginally behind Sydney Airport (3.8 per cent) regarding passenger growth.

Passenger growth was largely driven by an 8.0 per cent increase in international passengers (including transit). The significant growth was due to new airlines adding routes and more services provided by existing airlines. China continued to be the biggest growth market for Melbourne Airport with the entry of three new Chinese airlines. New capacity was launched across a wide range of markets from Europe, North America and Asia.[51] This trend is expected to continue with the introduction of larger and more fuel-efficient aircraft.

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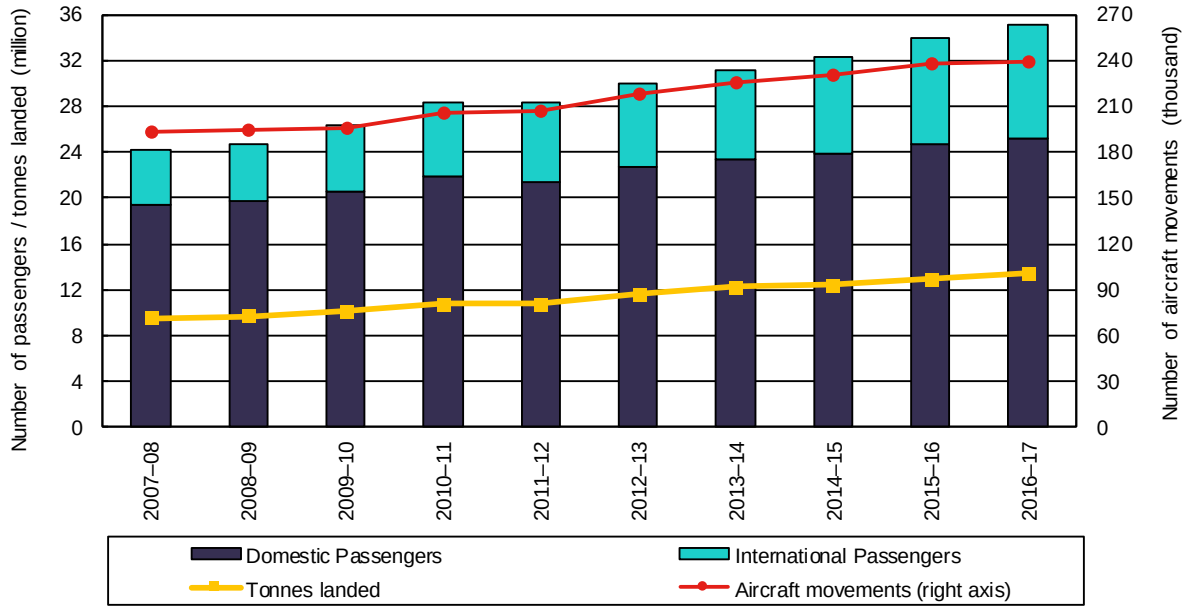
[50] The 2015–16 airport monitoring report stated that Melbourne Airport recorded a 'good' overall quality of service rating in 2015–16. A minor correction to the calculation of this score by the ACCC has seen it fall slightly. This minor fall moved the rating into the 'satisfactory' category.

[51] Melbourne Airport (2017), *APAC Annual Report 2016/17*, viewed 12 November 2017, https://www.melbourneairport.com.au/getattachment/Corporate/About-us/Corporate-Information/Annual-reports/2017-Annual-report.pdf.aspx?lang=en-AU&ext=.pdf.

Figure 4.1.1: Melbourne Airport—volume of passengers, tonnes landed and aircraft movements: 2007–08 to 2016–17



Domestic passenger volumes (including on carriage) increased moderately by 2.1 per cent in 2016–17. Domestic passenger growth was in line with long-term trends, and the Melbourne-Sydney route remained in the top five busiest air routes in the world.[52]

Total aircraft movements grew by 0.7 per cent to 239 298 during 2016–17. Domestic aircraft movements fell by 0.2 per cent to 185 758, while international aircraft movements rose by 3.3 per cent to 44 584. General aviation aircraft movements increased by 7.9 per cent to 8956.

4.1.2. Terminal configurations and car parking facilities

Terminal configurations

Melbourne Airport has one international terminal and three domestic terminals:

- Terminal 1 (T1) is occupied and operated by Qantas under a domestic terminal lease. As a result, T1 is not subject to monitoring and is excluded from the ACCC's monitoring results.
- The international terminal (T2) is a common user terminal used by all international airlines flying to and from Melbourne Airport.
- Terminal 3 (T3) is a common user domestic terminal that is currently used by Virgin Australia Group.
- Terminal 4 (T4) is a common user domestic terminal that was opened in August 2015 and is currently used by Jetstar, Tigerair, Regional Express, and Airnorth.[53]

[52] Ibid.
[53] The original Terminal 4 had previously only been used by Tigerair since November 2007.

Car parking facilities

Melbourne Airport provides multiple car parking facilities for both domestic and international passengers. There is undercover parking opposite the terminals ('At Terminal') as well as a Long Term Car Park is connected to shuttle bus services. An additional overflow car park operates at peak times (Value Long Stay car park). There are close to 24 000 public car parking spaces are currently available at the airport for airline passengers including premium and valet parking.

4.1.3. Airport investments

Table 4.1.1 provides the timeline of selected aeronautical investments that were completed, commenced or planned during 2016–17. To provide additional capacity to meet the projected future increase in annual passenger numbers and associated aircraft movements, Melbourne Airport has proposed a new third runway with an east-west orientation and the extension of its existing east-west runway. Throughout 2016–17 Melbourne Airport worked on the concept design and conducted a series of complex technical studies on the runway proposal. Melbourne Airport is seeking approval from the Australian Government to commence construction of the new runway, to be operational by 2022.[54] Other major planned investments during 2016–17 included T2 Terminal's security expansion and the integration of services at T3 and T4.

Table 4.1.1: Melbourne Airport—selected investments in aeronautical services and facilities

Description of investment	Value ($m) [(a)]	Started	Completed
Taxiway Victor South Project	N/A	FY15	FY17
Tri-Generation Plant	N/A	FY13	FY17
Airfield High Intensity Approach Lighting Replacement	N/A	FY17	FY17
Runway Development Plan	N/A	FY14	*FY22*
T2 Arrivals Bussing Facility & Swing Gate	N/A	FY17	*FY20*
T2 Security Expansion	N/A	FY17	*FY19*
T3-T4 Integration	N/A	*FY18*	*FY22*
Pier Alpha Apron	N/A	*FY22*	*FY26*
T2 Pier D Expansion	N/A	*FY23*	*FY25*

Notes: (a) The dollar amount of each project has not been disclosed by Melbourne Airport. N/A = Not applicable.

Table 4.1.2 lists selected car parking and landside-related investments. Over the past financial year, Melbourne Airport completed the installation of the Premium car parking zones in the At Terminal T1 T2 T3 and At Terminal T4 car parks. During December 2016, Melbourne Airport completed the installation of a new bay-finding technology in the At Terminal T4 car park. Planned investment projects include dynamic lane allocation to manage traffic demand in the peak periods, and the development of the detailed design of Terminal 4 express elevated road link.

[54] Ibid.

Table 4.1.2: Melbourne Airport—selected investments in car parking and landside services and facilities

Description of investment	Value ($m) [a]	Started	Completed
Skidata Version Upgrades	N/A	Q2 2016	Q4 2016
Premium Parking and Nesting	N/A	Q2 2016	Q4 2016
Parking and Forecourt Optimisation Project	N/A	Q1 2017	*Q4 2017*
Taxi Management System	N/A	Q1 2017	*Q3 2017*
Dynamic Lane Allocation	N/A	*Q3 2017*	*Q2 2018*
Terminal 4 Express Elevated Link (Designing and Planning)	N/A	*Q3 2017*	*Q3 2018*

Notes: (a) The dollar amount of each project has not been disclosed by Melbourne Airport. N/A = Not applicable.

4.2. Aeronautical price monitoring and financial performance results

This section covers the aeronautical price monitoring and financial reporting results for Melbourne Airport. The results are categorised into prices (section 4.2.1), revenues, costs and profits per passenger (section 4.2.2), total revenues, costs and profits (section 4.2.3), assets (section 4.2.4), changes in the asset base (section 4.2.5) and rate of return on tangible non-current assets (section 4.2.6). Note that all pricing and financial data are presented in real terms with values in 2016–17 dollars.

4.2.1. Prices

Melbourne Airport has an offer in place to airlines for the next Airline Services Agreement period to 30 June 2022, after the expiry of the 2012 agreement on 30 June 2017. Prices are determined using a cost-based building block methodology and were primarily adjusted by fixed annual increases with some charges adjusted by CPI during the term of the agreement. Table 4.2.1 presents Melbourne Airport's average aeronautical charges during 2016–17, as well as the indexed average list prices in real terms between 2012–13 and 2016–17.

Per-passenger landing charges at the international terminal (Terminal 2) increased by 5.9 per cent in 2016–17, while the charge for the multi-user terminal (Terminal 3 and 4) increased by 2.6 per cent. Revenue from these two charges made the most significant contribution to Melbourne Airport's total aeronautical revenue. Most of the landing fees and minimum charges have remained virtually constant over the last five years.

Table 4.2.1 Melbourne Airport—schedule of average aeronautical charges in 2016–17 and indexed average list prices: 2012–13 to 2016–17

	Average charge per unit ($)	Indexed average list prices (2016–17 base year = 100)				
		2012–13	2013–14	2014–15	2015–16	2016–17
Landing fees						
International terminal (per passenger)	23.10	80.8	83.9	88.2	94.4	100.0
Other (for aircraft not utilising international terminal) (per passenger)	4.84	93.0	94.3	95.4	97.5	100.0
Common-user domestic terminals (per passenger)[55]	5.59	96.7	96.6	97.9	100.1	100.0
International freight (per MTOW)(a)	10.83	99.8	99.6	100.6	100.0	100.0
Domestic freight (per MTOW)(a)	10.83	99.8	99.6	100.6	100.0	100.0
General aviation (per MTOW)(a)	20.33	99.7	99.5	100.6	100.0	100.0
Aircraft parking (per 15 minutes)	46.12	100.5	100.3	101.4	100.8	100.0
Check-in desks (per hour)(b)	35.75	99.4	99.2	100.3	100.0	100.0
Minimum charges						
International and domestic freight (per landing)	302.36	N/A	N/A	N/A	N/A	N/A
General aviation (per landing)	302.36	99.8	97.1	97.9	100.0	100.0
Government-mandated security charges						
International terminal passenger screening (includes check baggage screening) (per passenger)	4.35	102.8	106.3	101.0	98.2	100.0
Common-user domestic terminals passenger screening (includes check baggage screening) (per passenger)(c)	3.74	81.0	73.8	79.5	101.2	100.0
Airport security charge – passengers (per passenger)	0.21	118.0	114.9	103.1	96.9	100.0
Airport security charge – freighters and general aviation (per MTOW)	0.21	118.0	114.9	103.1	96.9	100.0

Notes: Real indexed prices are in 2016–17 dollars. N/A = Not applicable
(a) Minimum charge applies.
(b) Melbourne Airport also offers a 'premium rate' for check in desks of $53.62 per hour.
(c) This refers to T3 and T4 weighted average charge.

4.2.2. Revenues, costs and operating profits per passenger for aeronautical services

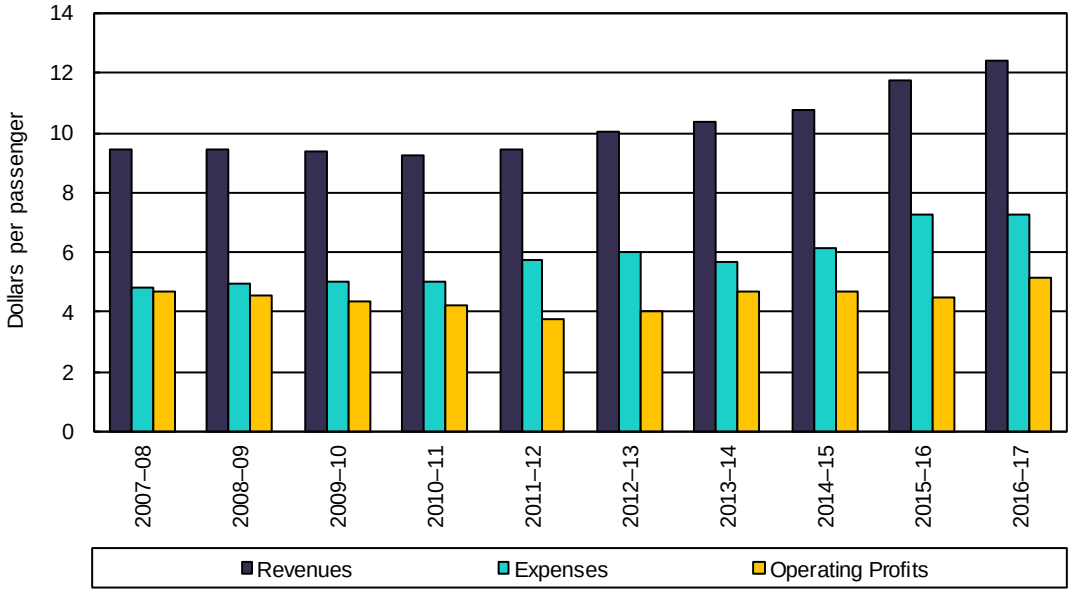
Figure 4.2.1 shows Melbourne Airport's per-passenger revenues, expenses and operating profits for aeronautical services in real terms since 2007–08.[56] Aeronautical revenue per passenger continued its upward trend by growing 5.7 per cent in 2016–17 to $12.44. This growth would have been driven by a combination of higher passenger charges and the increasing share of international passengers (who incur higher charges than domestic

[55] This is the 'walk-up rate' per passenger charge for terminal access, not the average rate.

[56] See Box 2.3.1 in Chapter 2 for an explanation as to why the reported per-passenger figures may be somewhat understating the true values for airports that have terminals directly operated by an airline under lease (such as T1 in Melbourne Airport).

passengers). Melbourne Airport's revenue per passenger has grown every year since 2010–11. It is now 31.4 per cent higher than it was a decade ago.

Figure 4.2.1: Melbourne Airport—Aeronautical revenues, expenses, and operating profits per passenger: 2007–08 to 2016–17



Note: Real values in 2016–17 dollars.

Figure 4.2.1 shows that the growing revenue per passenger over the decade has only had limited impact on operating profit (EBITA) per passenger (up 10.6 per cent to $5.17). This is because expenses per passenger have grown 51.6 per cent during the period to $7.28.

4.2.3. Revenues, costs and profits for aeronautical and total airport services

Table 4.2.2 presents the revenues, expenses and profits for aeronautical services and the total airport in real terms over the last decade. During 2016–17, Melbourne Airport's aeronautical revenue increased by 9.5 per cent to $438.2 million, driven by a combined effect of increased aeronautical charges and higher passenger numbers. Over the past decade, aeronautical revenue has increased by 90.7 per cent.

During 2016–17, the total aeronautical expenses grew moderately by 3.7 per cent to $256.2 million. This is substantially less than the 25.2 per cent increase reported for 2015–16 which had been driven by increased costs associated with the opening of the new T4 terminal. Over the past decade, aeronautical expenses have increased by 120.1 per cent.

Despite a modest increase in aeronautical expenses, Melbourne Airport's aeronautical operating profit (EBITA) increased significantly by 19 per cent to $182.0 million during 2016–17. Aeronautical operating profit is 60.5 per cent higher than it was a decade ago. During 2016–17, the airport generated a profit of 41.5 cents for each dollar of aeronautical revenue, compared to 38.2 cents in the previous year. This is much lower than the 49.3 cents reported in 2007–08.

Table 4.2.2: Melbourne Airport—revenues, expenses and profits for aeronautical and total airport services: 2007–08 to 2016–17

		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Revenue ($million)	Total aeronautical	229.8	234.4	246.4	261.4	268.4	301.6	323.9	348.7	400.1	438.2
	Total airport	**536.5**	**550.1**	**584.6**	**614.8**	**631.6**	**673.8**	**728.2**	**776.5**	**853.8**	**929.3**
	Aeronautical % of total airport	42.8	42.6	42.1	42.5	42.5	44.8	44.5	44.9	46.9	47.2
Expenses ($million)	Total aeronautical	116.4	122.2	131.6	141.6	162.6	180.6	177.4	197.3	247.1	256.2
	Total airport	**183.0**	**191.1**	**204.0**	**219.2**	**241.6**	**266.1**	**273.1**	**307.3**	**382.4**	**395.2**
EBITA profit ($million)	Total aeronautical	113.4	112.2	114.7	119.9	105.8	121.0	146.5	151.4	153.0	182.0
	Total airport	**353.5**	**359.1**	**380.6**	**395.6**	**390.0**	**407.7**	**455.1**	**469.2**	**471.4**	**534.1**
EBITA profit % of total revenue	Aeronautical	49.3	47.9	46.6	45.8	39.4	40.1	45.2	43.4	38.2	41.5
	Total airport	**65.9**	**65.3**	**65.1**	**64.3**	**61.7**	**60.5**	**62.5**	**60.4**	**55.2**	**57.5**
Revenue per passenger ($)	Total aeronautical	9.47	9.46	9.37	9.23	9.46	10.06	10.39	10.79	11.78	12.44
Expenses per passenger ($)	Total aeronautical	4.80	4.93	5.01	5.00	5.73	6.02	5.69	6.11	7.27	7.28
EBITA profit per passenger ($)	Total aeronautical	4.68	4.53	4.37	4.23	3.73	4.04	4.70	4.69	4.50	5.17

Note: Real values in 2016–17 dollars.

Table 4.2.3: Melbourne Airport—non-current assets for aeronautical services and total airport services: 2007–08 to 2016–17

		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Investment property ($million)	Aeronautical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total airport	**1 078.8**	**1 020.4**	**1 012.4**	**1 064.4**	**1 094.5**	**1 152.0**	**1 111.7**	**1 244.2**	**1 374.9**	**1 418.5**
Land ($million)	Aeronautical	56.7	54.4	54.7	52.4	50.6	49.3	47.4	46.0	57.6	59.5
	Total airport	**71.6**	**68.6**	**68.5**	**65.7**	**63.3**	**79.5**	**76.5**	**111.7**	**111.6**	**119.4**
Property, plant and equipment ($million)	Aeronautical	670.4	813.0	913.4	960.3	1 059.0	1 144.0	1 393.4	1799.8	1796.8	1 821.0
	Total airport	**1 016.7**	**1 177.7**	**1 273.9**	**1 334.1**	**1 420.0**	**1 542.2**	**1 878.5**	**2 462.6**	**2 466.0**	**2 468.5**
Intangibles ($million)	Aeronautical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total airport	**818.8**	**794.0**	**776.0**	**752.6**	**735.7**	**719.3**	**702.2**	**689.9**	**680.0**	**670.4**
Other tangible non-current assets ($million)	Aeronautical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total airport	**17.6**	**0.0**	**0.0**	**0.0**	**8.1**	**48.7**	**111.4**	**267.8**	**407.4**	**337.7**
Total tangible non-current assets ($million)	Aeronautical	727.1	867.3	968.1	1 012.7	1 109.6	1 193.3	1 440.8	1 845.8	1 854.4	1 880.5
	Total airport	**2 184.7**	**2 266.7**	**2 354.8**	**2 464.1**	**2 585.9**	**2 822.4**	**3 178.1**	**4 086.2**	**4 359.8**	**4 344.1**
Total non-current assets ($million)	Aeronautical	727.1	867.3	968.1	1 012.7	1 109.6	1 193.3	1 440.8	1 845.8	1 854.4	1 880.5
	Total airport	**3 003.5**	**3 060.7**	**3 130.9**	**3 216.7**	**3 321.5**	**3 541.7**	**3 880.3**	**4 776.1**	**5 039.9**	**5 014.5**

Note: Real values in 2016–17 dollars.

4.2.4. Assets for aeronautical and total airport services

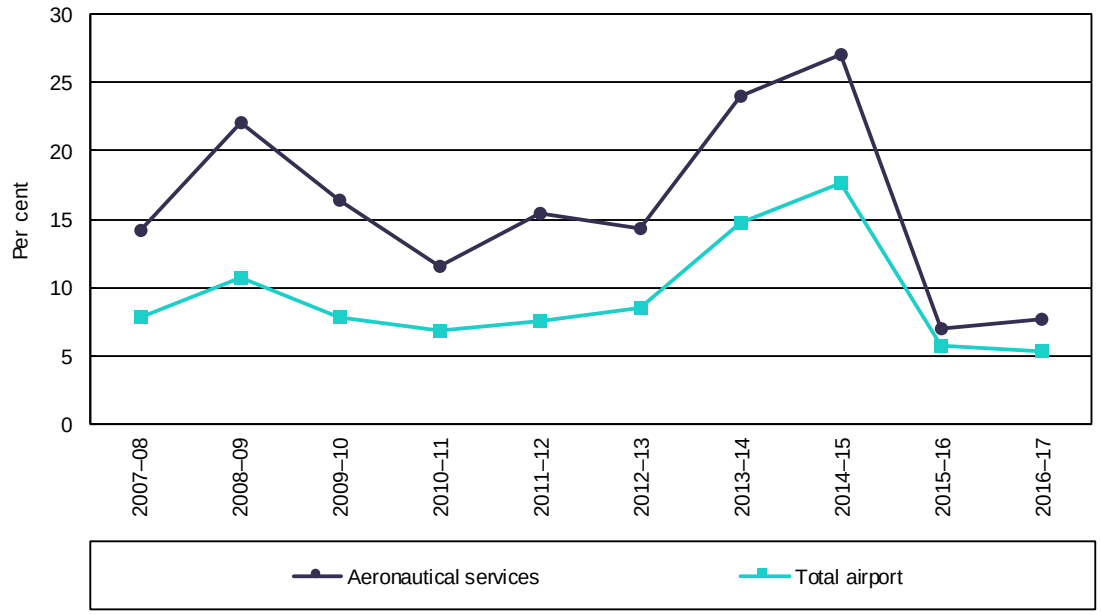
Table 4.2.3 presents Melbourne Airport's tangible non-current assets for aeronautical and total airport services in real terms from 2007–08 to 2016–17.

The value of aeronautical tangible non-current assets at Melbourne Airport increased by 1.4 per cent in 2016–17 to $1.9 billion. In contrast, the value of total airport tangible non-current assets dropped by 0.4 per cent to $4.3 billion in 2016–17. Melbourne Airport's non-current asset base has increased from $3 billion to $5 billion over the past decade.

4.2.5. Additions as a percentage of tangible non-current assets

Figure 4.2.2 presents Melbourne Airport's additions as a percentage of tangible non-current assets for both aeronautical and total airport services.

Figure 4.2.2: Melbourne Airport—additions as a percentage of tangible non-current assets for aeronautical and total airport services: 2007–08 to 2016–17

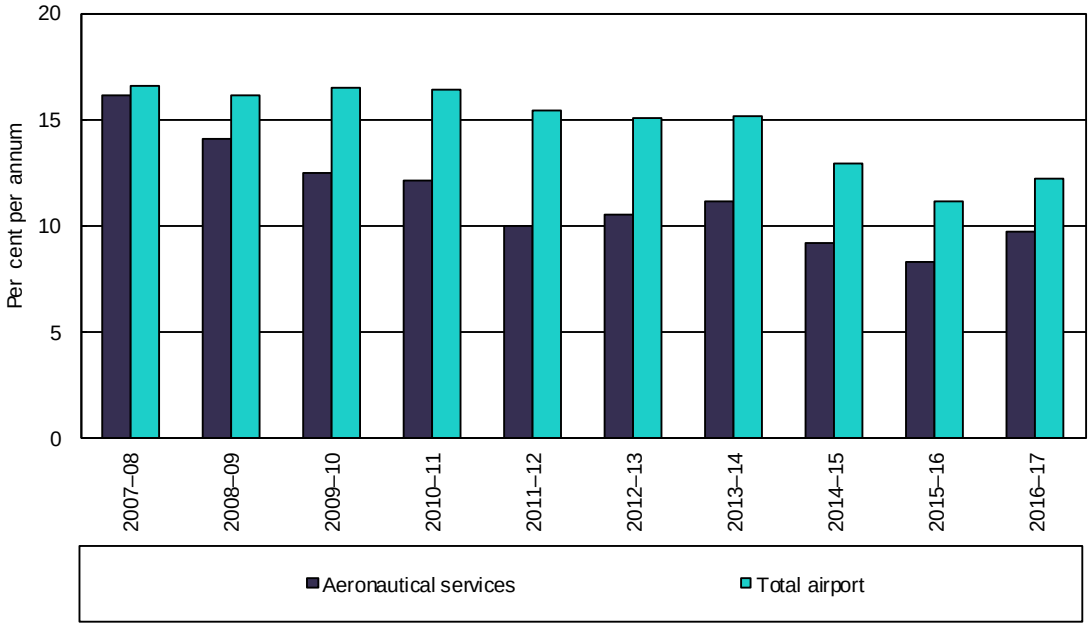


During 2016–17, Melbourne Airport's $144.5 million additions to aeronautical assets represented 7.7 per cent of the total aeronautical tangible non-current assets. These additions were mostly comprised of 'work-in-progress' and showed a small increase of 0.7 percentage points from 2015–16. Aeronautical investment has fallen off significantly in the last two years after the peak of 27.0 per cent in 2014–15 associated with major projects such as the new T4 transport hub and terminal.

4.2.6. Rates of return on tangible non-current assets

Figure 4.2.3 shows the rate of return on tangible non-current assets for aeronautical services and total airport operations in real terms at Melbourne Airport since 2007–08. This rate of return is defined as earnings before interest, tax and amortisation (EBITA) on average tangible non-current assets.

Figure 4.2.3: Melbourne Airport—rate of return (EBITA) on tangible non-current assets for aeronautical and total airport services in: 2007–08 to 2016–17



During 2016–17, Melbourne Airport's return on tangible non-current aeronautical assets increased by 1.5 percentage points to 9.7 per cent. The rate of return on total airport tangible non-current assets rose by 1.1 percentage points to 12.3 per cent. However, both indicators had been falling consistently over the past decade.

4.3. Quality of aeronautical and total airport services

Both passengers and airlines are surveyed to measure the quality of service offered at each airport. Quality of service ratings are derived from these survey results and also from various objective indicators collected from the monitored airports. This section presents Melbourne Airport's ratings for quality of total airport services (section 4.3.1), terminal and aircraft-related services and facilities (section 4.3.2), and passenger-related services and facilities for international and domestic terminals (section 4.3.3).

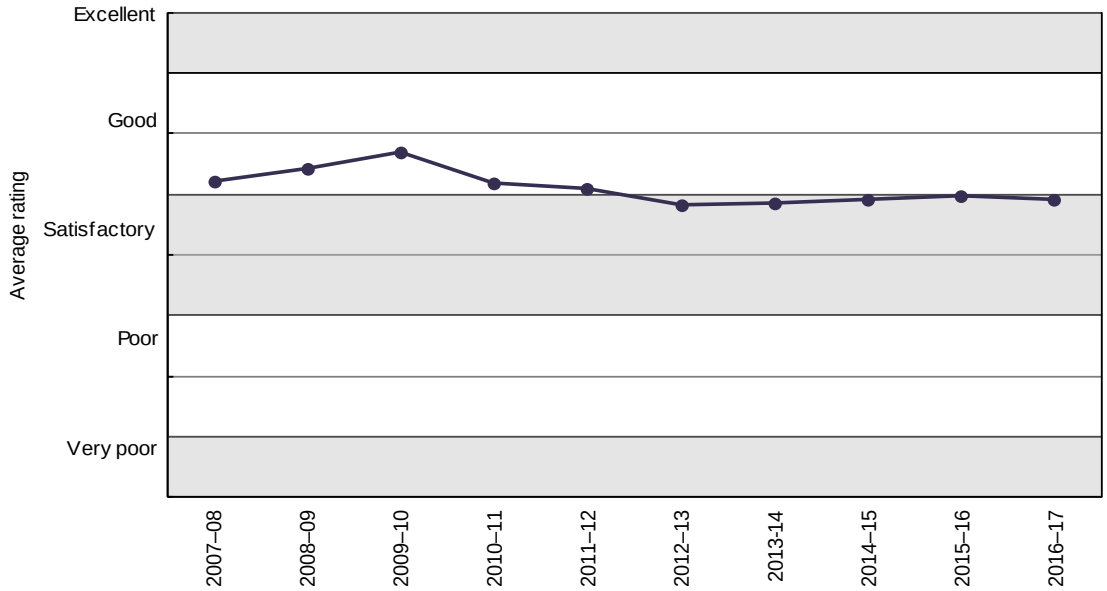
4.3.1. Total airport services

The ACCC calculates a single overall quality of service rating for each monitored airport. This overall rating covers aeronautical, car parking and, to a lesser extent, landside operations. The overall rating represents the average score that the airport achieved across selected measures based on airline surveys, passenger surveys and objective indicators. The methodology for calculating this rating is explained in section A4.2.3 in appendix 4.

Figure 4.3.1 presents Melbourne Airport's overall quality of service rating since 2007–08. The airport's overall rating remained relatively unchanged within the 'satisfactory' range during 2016–17.[57] The rating has remained just short of the 'good' category threshold for five consecutive years.

[57] The 2015–16 airport monitoring report stated that Melbourne Airport recorded a 'good' overall quality of service rating in 2015–16. A minor correction to the calculation of this score by the ACCC has seen it fall slightly. This minor fall moved the rating into the 'satisfactory' category.

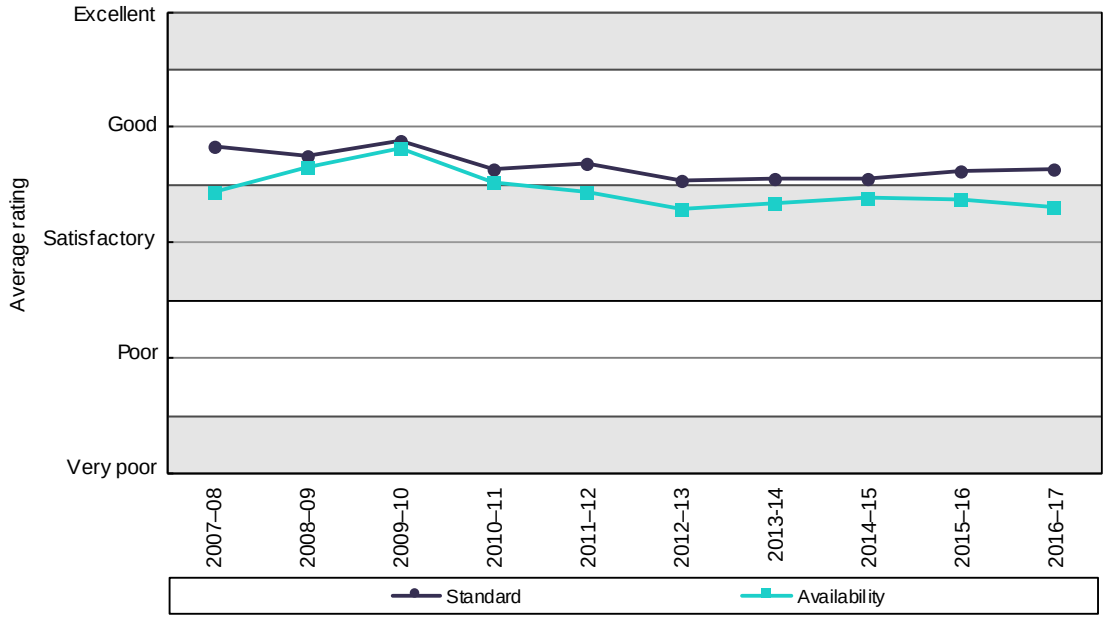
Figure 4.3.1: Melbourne Airport—overall quality of service rating: 2007–08 to 2016–17



Source: Airline surveys, passenger surveys and objective indicators obtained from Melbourne Airport.

Figure 4.3.2 presents Melbourne Airport's average ratings in measures that relate specifically to either the availability or standard of services and facilities since 2007–08. The ratings for the availability and standard of total airport services and facilities remained relatively unchanged within the 'satisfactory' and 'good' ranges respectively.

Figure 4.3.2: Melbourne Airport—average ratings for standard and availability of total airport services and facilities: 2007–08 to 2016–17

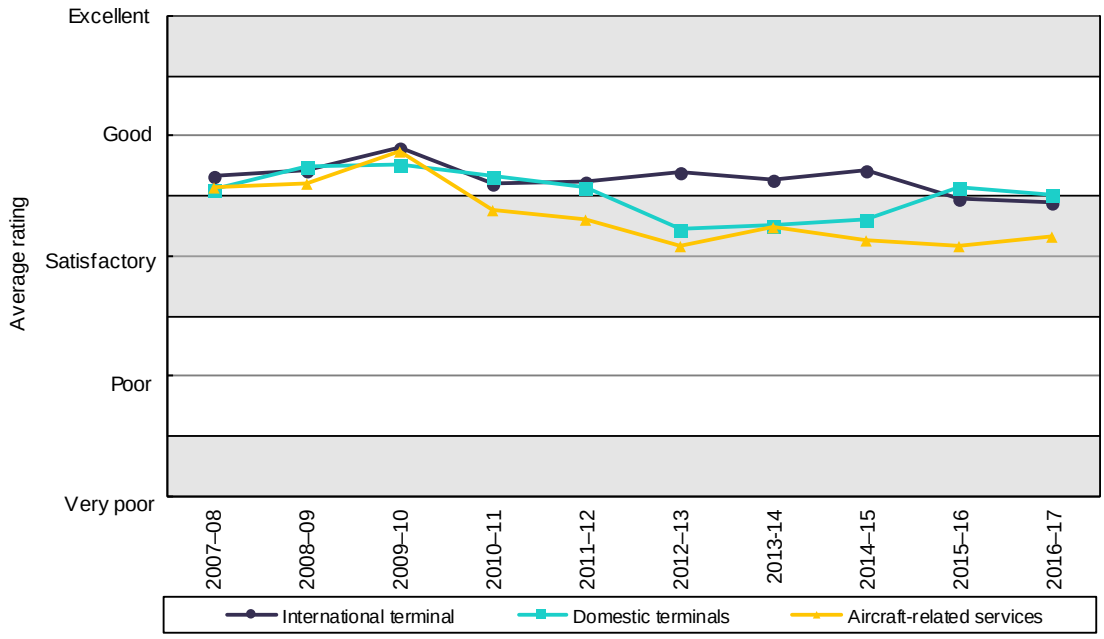


Source: Airline surveys, passenger surveys and objective indicators obtained from Melbourne Airport.

4.3.2. Terminals and aircraft-related services and facilities

Figure 4.3.3 presents the average quality of service ratings for international and domestic terminals, and aircraft-related services and facilities at Melbourne Airport. While the domestic terminals average rating was just sufficient to be considered 'good' in 2016–17, the average rating for the international terminal was at the top of the 'satisfactory' category. Both were relatively unchanged during 2016–17.

Figure 4.3.3: Melbourne Airport—average ratings for international and domestic terminal facilities, and aircraft-related services and facilities: 2007–08 to 2016–17



Source: Airline surveys, passenger surveys, and objective indicators obtained from Melbourne Airport.

The average rating for aircraft-related services is entirely determined by the airline surveys. Figure 4.3.3 shows that the aircraft-related services at Melbourne Airport have been rated as 'satisfactory' by airlines since 2010–11.

Table 4.3.1 provides a more detailed breakdown of the airlines' ratings on different elements of aircraft-related services and facilities. Most of the ratings increased in 2016–17, although generally not to the level achieved a decade ago.

Table 4.3.1: Melbourne Airport—airline ratings of quality of individual aircraft-related services and facilities: 2016–17, 1-year change, and change since 2007–08

	Indicator	Rating category 2016–17	1-year change	Change since 2007–08
Runway	Availability	Satisfactory	▼	▼*
	Standard	Good	▼	▼
Taxiways	Availability	Satisfactory	▼	▼
	Standard	Good	▼	▼
Aprons	Availability	Satisfactory	▲	▼
	Standard	Satisfactory	▲	▲
Aircraft parking	Availability of facilities and bays	Satisfactory	▲	▼*
	Standard of facilities and bays	Satisfactory	▲	▼*
Ground handling	Availability of services and facilities	Satisfactory	▲	▲
	Standard of services and facilities	Satisfactory	▲	▼
Management responsiveness	Availability	Satisfactory	▲	▼*
	Standard	Satisfactory	▲	▼*

Note: The rating categories are: very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change. *Rating changed by a category over the period.

Airlines' ratings on the availability and standard of runways both dropped in 2016–17 but remained rated 'satisfactory' and 'good' respectively. The ongoing runway works and repairs occasionally had an adverse impact on runway availability. Some airlines said that the peak periods were significantly impacted by international demand and a lack of a slot management system, so flight delays were experienced at Melbourne airport on a daily basis due to extensive runway congestion.

Airlines' ratings on the availability and standard of taxiways both declined within the 'satisfactory' and 'good' ranges respectively during 2016–17. While there had been regular closures and works on many of the taxiways throughout the year, a number of airlines acknowledged that because of the huge amount of works, the standard of the taxiways might have reduced in the short term, but the ongoing work would improve performance in the long run.

Airlines' ratings on the availability and standard of aprons improved within the 'satisfactory' range during 2016–17. The availability and standard ratings of aircraft parking facilities and bays also improved within the 'satisfactory' range during 2016–17. Despite this improvement, several airlines raised concerns about the shortage of parking bays during peak periods. Airlines mentioned that the capacity did not match demand resulting in gate holds, remote parking, bussing delays and a negative impact on the passenger experience.

Airlines' ratings on the availability and standard of ground handling improved within the 'satisfactory' range during 2016–17. However, some airlines had concerns on congestion around aircraft operating bays and inadequate storage for ground servicing equipment.

Airlines' ratings on the availability and standard of overall management responsiveness improved within the 'satisfactory' range during 2016–17. A majority of the airlines mentioned that Melbourne Airport's management was generally open and transparent and provided a collaborative approach to providing solutions to issues raised. However, a few airlines had concerns on the lack of coordination and commercial tensions.

4.3.3. Passenger-related services and facilities

International terminal

Table 4.3.2 presents the quality of passenger-related services and facilities for Melbourne Airport's T2 international terminal. Similar to 2015–16, passengers continued to rate all subjective indicators as 'good' during 2016–17. Airlines' rating of each subjective indicator remained within the 'satisfactory' category. The ratings of more than half of the objective indicators declined in 2016–17 compared to 2015–16. Melbourne Airport advised that the objective indicators' ratings might have been impacted by works being undertaken in Terminal 2 throughout the year.

Airlines' rating on the availability of check-in dropped within the 'satisfactory' range during 2016–17, however, the standard of check-in remained unchanged at 'satisfactory' range. Some airlines said that the check-in area space had reached capacity in the peak times and resulted in congestion and poor customer experience. Airlines also commented that due to moving to kiosk and auto bag drops for passengers, the check-in area became congested when airlines had multiple flights opened at a time. One airline commented that the majority of check-in facility infrastructure was ageing and suffering from wear and tear.

Airlines' ratings on the availability and standard of baggage processing facilities fell but remained within the 'satisfactory' range during 2016–17. Some airlines mentioned that baggage room congestion was prominent in peak periods. One airline raised issues on the baggage sortation system, predominantly transfer baggage between international to international, and domestic to international flights.

Airlines' rating on the availability and standard of aerobridges improved within the 'satisfactory' range during 2016–17. A number of airlines had concerns about the cleanliness of aerobridges and insufficient gates during the peak periods.

Table 4.3.2: Melbourne Airport—indicators of quality of passenger related services and facilities—international terminal: 2016–17, 1-year change and change since 2007–08

Category	Indicator	Data source	Indicator result 2016–17	1-year change	Change since 2007–08
Check-in	Check-in availability	Airline survey	Satisfactory	▼	▼
	Check-in standard	Airline survey	Satisfactory	—	▼*
	Check-in waiting time	Passenger survey	Good	▼	▲
	Number of departing passengers per check-in desk, kiosk and bag drop facility (peak hour)	Objective indicator	8.1 passengers	▼	▲
Immigration	Waiting time in outbound Immigration area	Passenger survey	Good	▲	▼*
	Number of departing passengers per outbound Immigration desk (peak hour)	Objective indicator	47.5 passengers	▼	▲
	Waiting time in inbound Immigration area	Passenger survey	Good	▲	▼
	Number of arriving passengers per inbound Immigration desk (peak hour)	Objective indicator	31.8 passengers	▼	▲
	Waiting time in inbound baggage inspection area	Passenger survey	Good	▼	▼
	Number of arriving passengers per baggage inspection desk (peak hour)	Objective indicator	40.4 passengers	▼	▲
Information	Flight information display screens	Passenger survey	Good	—	▼
	Number of passengers per flight information display screen (peak hour)	Objective indicator	22.2 passengers	▼	▲
	Number of passengers per information point (peak hour)	Objective indicator	2644.0 passengers	▼	▲
	Signage and wayfinding	Passenger survey	Good	▼	▼

Notes: The rating categories are; very poor, poor, satisfactory, good and excellent. ▲ indicates an improvement; ▼ indicates a decline; — indicates no change.
* Rating changed by a category over the period.

Table 4.3.2: Melbourne Airport—indicators of quality of passenger related services and facilities—international terminal: 2016–17, 1-year change and change since 2007–08 (cont.)

Category	Indicator	Data source	Indicator result 2016–17	1-year change	Change since 2007–08
Baggage	Baggage processing facilities availability	Airline survey	Satisfactory	▼	▼
	Baggage processing facilities standard	Airline survey	Satisfactory	▼	▼
	Average throughput of outbound baggage system (per hour)	Objective indicator	596.7 items	▲	▲
	Circulation space for inbound baggage reclaim	Passenger survey	Good	▼	▲
	Information display for inbound baggage reclaim	Passenger survey	Good	▼	▲
	Number of arriving passengers per m^2 of inbound baggage reclaim area (peak hour)	Objective indicator	2.1 passengers	▼	N/A
	Findability of baggage trolleys	Passenger survey	Good	▼	▼*
	Number of passengers per baggage trolley (peak hour)	Objective indicator	1.2 passengers	▼	▼
Gate lounges	Seating in lounge area (quality and availability)	Passenger survey	Good	▼	▼
	Number of departing passengers per seat in gate lounges (peak hour)	Objective indicator	0.3 passengers	—	▲
	Crowding in lounge area	Passenger survey	Good	▼	▼
	Number of departing passengers per m^2 of lounge area (peak hour)	Objective indicator	0.2 passengers	—	▲
Amenities	Standard of washrooms	Passenger survey	Good	▲	▲
	Number of departing passengers per washroom (peak hour)	Objective indicator	89.1 passengers	▼	N/A
Aerobridges	Aerobridges availability	Airline survey	Satisfactory	▲	▼
	Aerobridges standard	Airline survey	Satisfactory	▲	▼*
	Percentage of international passengers arriving using an aerobridge	Objective indicator	98.5%	▲	▼
	Percentage of international passengers departing using an aerobridge	Objective indicator	99.4%	▲	▲
Security	Quality of security search process	Passenger survey	Good	▲	▲
	Number of departing passengers per security clearance system (peak hour)	Objective indicator	129.5 passengers	▼	▲

Notes: The rating categories are; very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change. N/A = Not applicable
* Rating changed by a category over the period.

Domestic Terminal (T3)

Table 4.3.3 presents the quality of passenger-related services and facilities for Melbourne Airport's T3 domestic terminal. Passengers rated all subjective indicators as 'good' in 2016–17. Except for circulation space and information display for inbound baggage reclaim facilities, all passenger ratings at Melbourne Airport improved in the 'good' range during 2016–17. The ratings of more than half of the objective indicators improved in 2016–17 compared to 2015–16.

Domestic Terminal (T4)

Table 4.3.4 presents the quality of passenger-related services and facilities for Melbourne Airport's T4 domestic terminal. Airlines rated Melbourne Airport as 'satisfactory' against all of their subjective indicators in 2016–17. All of the indicators rated by passengers' perceptions received the 'good' rating. The ratings of almost all of the objective indicators deteriorated in 2016–17 compared to 2015–16.

Airline rating of the availability of check-in increased within the 'satisfactory' range, however, the standard of check-in service improved from 'poor' to 'satisfactory' during 2016–17. One airline said that the airport's system could not segregate each airline's baggage feeder systems, therefore when the system was stopped by one carrier the adjacent carriers system also stopped and customer service deteriorated.

Airline ratings of the availability and standard of the baggage processing facilities significantly deteriorated from 'good in 2015–16 to 'satisfactory' in 2016–17. One airline raised occupational health and safety concerns regarding the single induction belt allocated to each check-in desk. The belts supplied were quite old and the main belt was consistently stopping for blockages on self-check-in kiosks for several T4 airlines.

While the majority of passenger ratings deteriorated during 2016–17, ratings for check-in waiting time, flight information display screen and signage and wayfinding improved within the 'good' category.

Table 4.3.3: Melbourne Airport—indicators of quality of passenger related services and facilities—domestic terminal (T3): 2016–17, 1-year change and change since 2007–08

Category	Indicator	Data source	Indicator result 2016–17	1-year change	Change since 2007–08
Check-in	Check-in waiting time	Passenger survey	Good	▲	▼
	Number of departing passengers per check-in desk, kiosk and bag drop facility (peak hour)	Objective indicator	21.8 passengers	▲	▲
Baggage	Circulation space for inbound baggage reclaim	Passenger survey	Good	▼	▲
	Information display for inbound baggage reclaim	Passenger survey	Good	▼	N/A
	Number of arriving passengers per m^2 of inbound baggage reclaim area (peak hour)	Objective indicator	7.4 passengers	▲	N/A
	Findability of baggage trolleys	Passenger survey	Good	▲	▲
	Number of passengers per baggage trolley (peak hour)	Objective indicator	4.0 passengers	▲	▲
Information[(a)]	Flight information display screens	Passenger survey	Good	▲	▼
	Signage and wayfinding	Passenger survey	Good	▲	▲
	Number of passengers per flight information display screen (peak hour)	Objective indicator	39.3 passengers	▲	▲
Gate lounges	Seating in lounge area (quality and availability)	Passenger survey	Good	▲	▲
	Number of departing passengers per seat in gate lounges (peak hour)	Objective indicator	0.8 passengers	—	▲
	Crowding in lounge area	Passenger survey	Good	▲	▲
	Number of departing passengers per m^2 of lounge area (peak hour)	Objective indicator	0.3 passengers	—	▲
Amenities	Standard of washrooms	Passenger survey	Good	▲	▲
	Number of departing passengers per washroom (peak hour)	Objective indicator	174.6 passengers	▲	N/A
Aerobridges	Number of arriving domestic passengers per aerobridge (peak hour)	Objective indicator	72.6 passengers	▼	▼
	Number of departing domestic passengers per aerobridge (peak hour)	Objective indicator	72.8 passengers	▼	▼
Security	Quality of security search process	Passenger survey	Good	▲	▲
	Number of departing passengers per security clearance system (peak hour)	Objective indicator	124.7 passengers	▲	▲

Notes: The rating categories are; very poor, poor, satisfactory, good and excellent. N/A = Not applicable
▲ indicates an improvement; ▼ indicates a decline; — indicates no change. * Rating changed by a category over the period.
[(a)] Melbourne Airport does not have any information points in Terminal 3, as a result no indicator is included for this measure.
Airlines' ratings have not been included for confidentiality reasons, although these ratings have been included in average airline survey ratings elsewhere in this chapter.

Table 4.3.4: Melbourne Airport—indicators of quality of passenger related services and facilities—domestic terminal (T4): 2016–17, 1-year change and change since 2007–08

Category	Indicator	Data source	Indicator result 2016–17	1-year change	Change since 2007–08
Check-in	Check-in availability	Airline survey	Satisfactory	▲	N/A
	Check-in standard	Airline survey	Satisfactory	▲*	N/A
	Check-in waiting time	Passenger survey	Good	▲	▲
	Number of departing passengers per check-in desk, kiosk and bag drop facility (peak hour)	Objective indicator	12.2 passengers	▼	▲
Baggage	Baggage processing facilities availability	Airline survey	Satisfactory	▼*	N/A
	Baggage processing facilities standard	Airline survey	Satisfactory	▼*	N/A
	Circulation space for inbound baggage reclaim	Passenger survey	Good	▼	▲
	Information display for inbound baggage reclaim	Passenger survey	Good	▼	N/A
	Number of arriving passengers per m^2 of inbound baggage reclaim area (peak hour)	Objective indicator	0.4 passengers	▼	N/A
	Findability of baggage trolleys	Passenger survey	Good	▼	▲
	Number of passengers per baggage trolley (peak hour)	Objective indicator	8.1 passengers	▼	▲
Information	Flight information display screens	Passenger survey	Good	▲	▲
	Signage and wayfinding	Passenger survey	Good	▲	▲
	Number of passengers per flight information display screen (peak hour)	Objective indicator	23.8 passengers	▼	▲
Gate lounges	Seating in lounge area (quality and availability)	Passenger survey	Good	▼	▲
	Number of departing passengers per seat in gate lounges (peak hour)	Objective indicator	0.8 passengers	▼	▲
	Crowding in lounge area	Passenger survey	Good	▼	▼
	Number of departing passengers per m^2 of lounge area (peak hour)	Objective indicator	0.2 passengers	▲	▲
Amenities	Standard of washrooms	Passenger survey	Good	▼	▲
	Number of departing passengers per washroom (peak hour)	Objective indicator	153.7 passengers	▼	N/A
Security	Quality of security search process	Passenger survey	Good	▼	▲
	Number of departing passengers per security clearance system (peak hour)	Objective indicator	153.7 passengers	▼	▼

Notes: The rating categories are; very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change. * Rating changed by a category over the period. N/A = Not applicable
Terminal 4 has no aerobridges or information points and as a result, no indicators are included for these measures.

4.4. Car parking and landside services

This section provides an overview of Melbourne Airport's car parking and landside services and facilities. It covers car parking activity (section 4.4.1), car park pricing (section 4.4.2), revenues and profits (section 4.4.3), quality of service outcomes (section 4.4.4), and other transport options (section 4.4.5).

4.4.1. Activity

Table 4.4.1 illustrates the number of car parking spaces available and the throughput of those car parking facilities at Melbourne Airport over the past decade.

The total number of car parking spaces at Melbourne Airport increased by 2.1 per cent to

26 433 spaces during 2016–17. The short-term (At Terminal) car parking spaces grew by 7.4 per cent to 10 201 spaces, while the long-term car parking spaces moderately decreased by 3.1 per cent to 13 402 spaces.

During 2016–17, the throughput for short-term car parks increased by 1.6 per cent to 6951 vehicles per day, and throughput for long-term car parks fell by 4.0 per cent to 1778 vehicles per day. The resulting total throughput was 8729 vehicles per day, 0.4 per cent higher than 2015–16.

Over the past decade, short-term (At Terminal) parking spaces increased by 214.5 per cent, while long-term parking spaces fell by 8.2 per cent. However, the average daily throughput for both short term and long term car parks at Melbourne Airport fell by 3.8 per cent and 7.5 per cent respectively. In sum, car parking spaces at Melbourne Airport have grown over the past decade, yet throughput is down despite rising airline passengers. As noted in section 4.4.5, these decreases in throughput at Melbourne Airport may be related to increased numbers of airport visitors using Skybus and off-airport car park operators, or taking advantage of free drop-off and pick-up zones.

Table 4.4.1: Melbourne Airport—number of car park spaces and average daily throughput: 2007–08 to 2016–17

		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Number of car park spaces	Short term	3 244	7 698	7 529	7 529	7 441	7 441	7 279	6 824	9 501	10 201
	Long term	14 592	12 500	12 500	12 500	12 100	12 250	14 500	13 830	13 830	13 402
	Staff	2 059	2 059	2 383	2 383	2 383	2 627	2 627	2 569	2 569	2 840
	Total airport	**19 895**	**22 257**	**22 412**	**22 412**	**21 924**	**22 318**	**24 406**	**23 223**	**25 900**	**26 443**
Annual throughput of car park facilities (thousand)[58]	Short term	2 644	2 664	2 725	2 723	2 804	2 701	2 594	2 543	2 504	2 537
	Long term	703	527	521	540	530	579	586	618	678	649
	Total airport	**3 347**	**3 191**	**3 246**	**3 263**	**3 334**	**3 279**	**3 180**	**3 161**	**3 182**	**3 186**
Average daily throughput of car park facilities	Short term	7 224	7 298	7 466	7 460	7 662	7 400	7 106	6 967	6 841	6 951
	Long term	1 921	1 443	1 427	1 480	1 447	1 585	1 606	1 694	1 852	1 778
	Total airport	**9 144**	**8 742**	**8 893**	**8 940**	**9 110**	**8 985**	**8 711**	**8 661**	**8 693**	**8 729**

[58] Annual throughput data for staff car parking was unavailable.

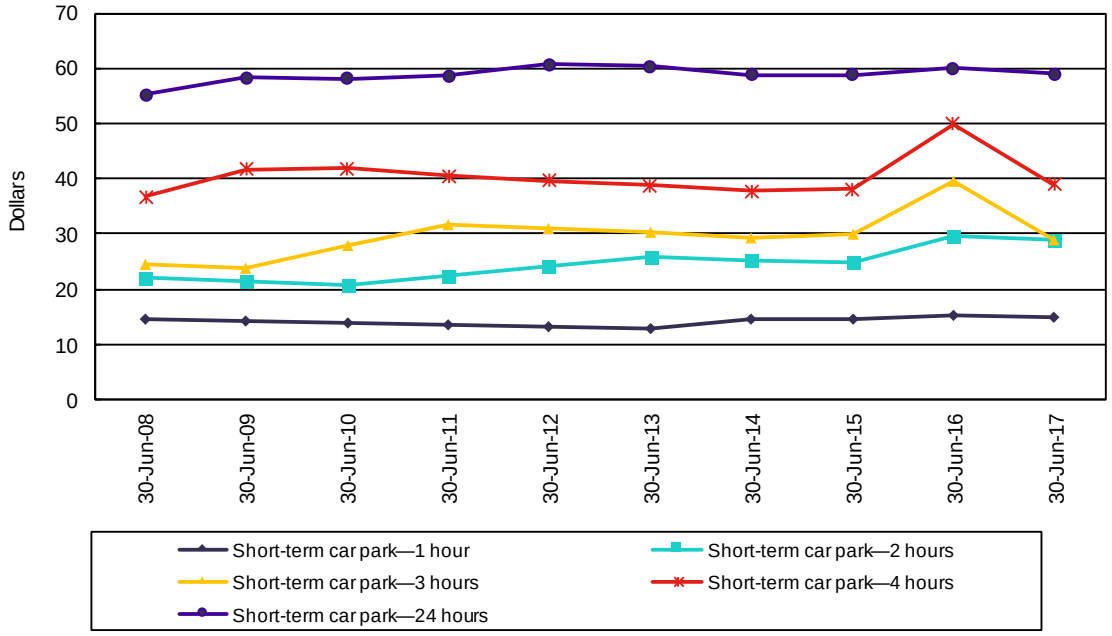
4.4.2. Car parking prices

This section discusses Melbourne Airport's drive-up car parking charges over the last decade. The airport also provides an online booking system for car parking. Online charges are typically discounted in comparison to drive-up prices.

At Terminal short-term car parking

Figure 4.4.1 displays trends in listed prices in real terms for Melbourne Airport's short-term At Terminal T1 T2 T3 car park. At Terminal T4 car park started operation in 2015, hence T4 is excluded from the analysis. All car parking charges for selected short-term categories decreased during 2016–17. Prices for 3-hour and 4-hour car parking fell by 26.9 per cent and 21.7 per cent respectively. However, nominal prices for 1-hour, 2-hour and 24-hour car parking remained constant, thus the real prices decreased marginally by 1.7 per cent in 2016–17.

Figure 4.4.1: Melbourne Airport—selected short-term parking prices (drive-up) at the international terminal car park: 30 June 2008 to 30 June 2017



Note: Real values in 2016–17 dollars.

Over the past decade, car parking charges for selected short term durations have all increased. The largest increase was with the 2-hour duration which rose by 31.4 per cent.

Table 4.4.2 compares average drive-up and average online charges for selected durations at the At Terminal T1 T2 T3 and At Terminal 4 car parks. It also includes a weighted average of drive-up and online car parking charges by duration.

Table 4.4.2: Melbourne Airport—drive-up, online and average parking charges At Terminal car parks: 2016–17

Length of stay	Average Drive-up ($)	Average online ($)	Weighted average of drive-up and online ($)
31–60 minutes	14.05	10.44	13.99
1–2 hours	26.57	16.00	26.34
2–3 hours	28.79	16.48	27.37
3–4 hours	36.25	16.04	28.75
4–24 hours	57.76	47.32	55.47

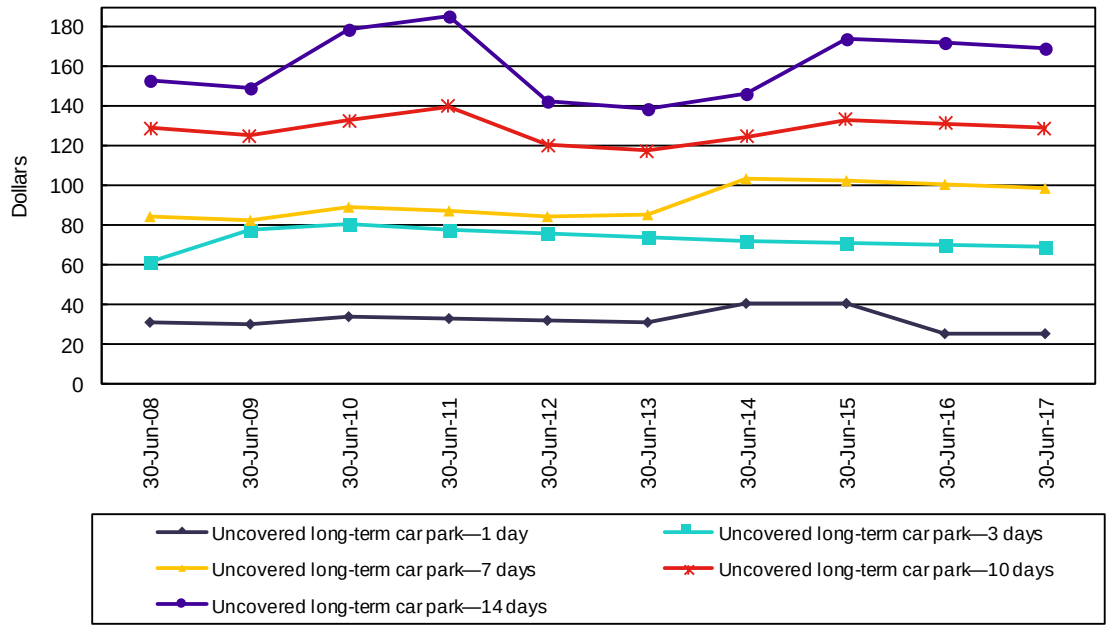
Note: Average car parking charges are calculated as the weighted average of drive-up and online charges.

During 2016–17, all average online charges were less than the equivalent average drive-up charges. Similar to the previous year, the largest difference in car parking charges was for the 3-4 hour duration. The average online charge for this duration was 55.8 per cent cheaper than the equivalent average drive-up price during 2016–17. This gap dropped to 18.1 per cent for the 4–24 hour durations. The weighted average charge for all durations is similar to the equivalent average drive-up charges, implying that most vehicles are paying drive-up prices.

Long-term car parking

Figure 4.4.2 shows listed drive-up prices for the uncovered long-term car park. Nominal prices for all categories of uncovered long-term car parks remained the same during 2016–17, hence those charges decreased by 1.7 per cent in real terms. Over the past decade, the single day price dropped significantly by 18.5 per cent. Prices for other durations displayed mostly increased over the last 10 years, with the largest increase being for the 7-day duration (up 17 per cent).

Figure 4.4.2: Melbourne Airport—selected prices (drive-up) at uncovered long-term car park in real terms: 30 June 2008 to 30 June 2017

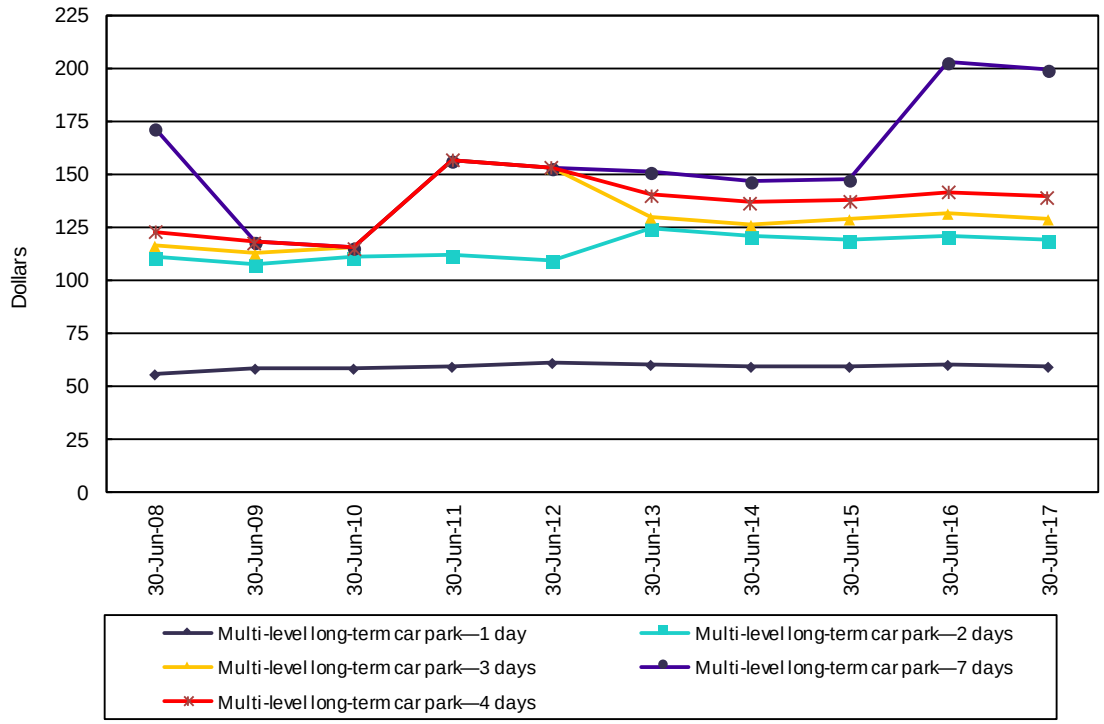


Note: Real values in 2016–17 dollars.

Listed charges for Melbourne Airport's multi-level At Terminal T1 T2 T3 long-term car park are displayed in figure 4.4.3. These prices are higher than those in the uncovered long-term

car park because the multi-level car park is closer to the terminals. During 2016–17, nominal prices for all categories were constant hence the real prices declined by 1.7 per cent. Over the past decade, prices for durations of between 3 and 7 days rose by more than 10 per cent, whereas 1-day and 2-day charges increased by about 7–8 per cent in real terms.

Figure 4.4.3: Melbourne Airport—selected prices (drive-up) At Terminal long-term car park in real terms: 30 June 2008 to 30 June 2017



Note: Real values in 2016–17 dollars.

As discussed above, Melbourne Airport also offers online pre-booking facilities of car parking spaces, which generally provides customers with discounted charges. Online bookings rose by 2.6 per cent during 2016–17 to reach 728 655.

Table 4.4.3 reports the average drive-up and average online car parking charges as well as their weighted averages for 2016–17. Almost all average online charges were less than the equivalent average drive-up changes for selected long-term durations at Melbourne Airport's long-term car parks. The largest differential was for 1–2 days duration at the At Terminal T4 car park with the average online charge 35.1 per cent cheaper than the average drive-up price.

Table 4.4.3: Melbourne Airport—drive-up, online and average parking charges at the long-term car parking facilities: 2016–17

At Terminal long term car park			
Length of stay	**Average drive-up ($)**	**Average online ($)**	**Weighted average of drive-up and online ($)**
1–2 days	116.85	78.82	105.61
2–3 days	125.38	84.55	107.53
3–4 days	132.85	100.99	117.36
4–5 days	150.02	114.78	131.30
5–6 days	164.24	124.20	139.78
6–7 days	175.99	130.30	144.28
7–8 days	184.92	150.93	160.98
Uncovered long term car park			
Length of stay	**Average drive-up ($)**	**Average online ($)**	**Weighted average of drive-up and online ($)**
0–24 hours	26.64	18.61	23.29
1–2 days	48.18	36.10	42.72
2–3 days	67.21	49.00	58.07
3–4 days	72.54	55.46	63.26
4–5 days	75.87	63.20	69.14
5–6 days	84.59	71.29	77.27
6–7 days	93.30	78.30	84.43
7–8 days	101.71	85.24	91.23
Value long term car park			
Length of stay	**Average drive-up ($)**	**Average online ($)**	**Weighted average of drive-up and online ($)**
0–24 hours	38.43	27.48	29.85
1–2 days	56.76	40.54	41.89
2–3 days	70.00	53.59	54.98
3–4 days	70.33	65.17	65.52
4–5 days	76.57	72.41	72.69
5–6 days	77.93	81.27	80.99
6–7 days	88.07	90.24	90.01
7–8 days	102.00	93.81	94.73
At Terminal 4 car park			
Length of stay	**Average drive-up ($)**	**Average online ($)**	**Weighted average of drive-up and online ($)**
1–2 days	103.91	67.43	79.83
2–3 days	107.39	70.49	77.67
3–4 days	107.57	90.60	93.94
4–5 days	123.13	107.17	110.48
5–6 days	134.47	114.08	117.38
6–7 days	141.15	122.04	124.42
7–8 days	144.58	133.55	134.88

Note: Average car parking charges are calculated as the average of drive-up and online charges weighted by throughput.

4.4.3. Car parking revenues, costs and profits

Table 4.4.4 reports Melbourne Airport's revenues, expenses and profits in real terms for car parking and total airport services from 2007–08 to 2016–17. Car parking revenue increased by 5.4 per cent in 2016–17 to $145.1 million. Over the past decade, car parking revenue increased by 29.9 per cent.

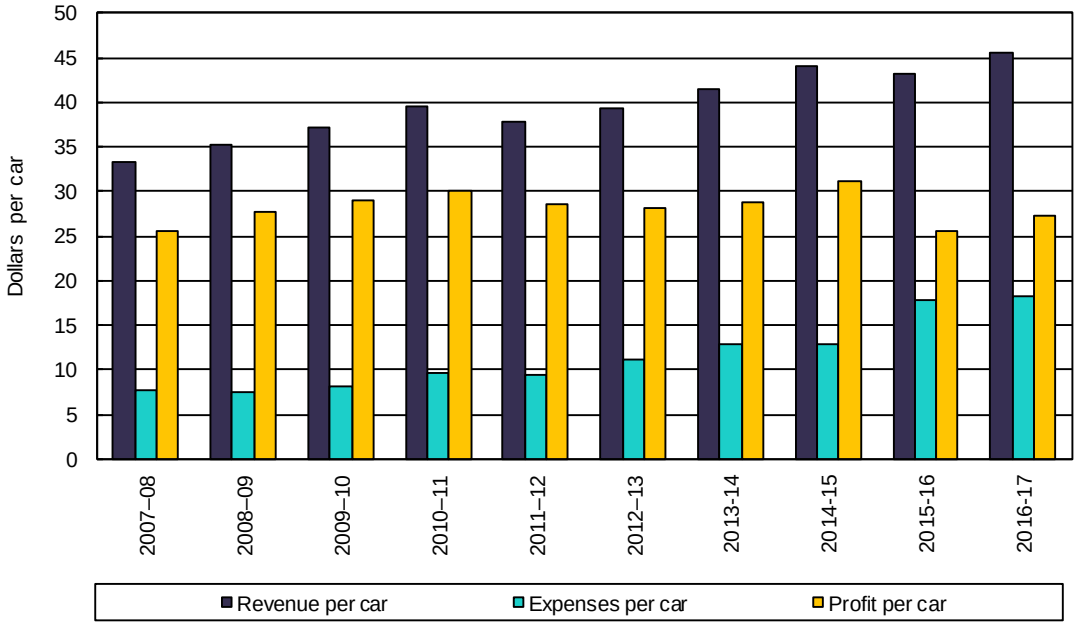
During 2016–17, car parking expenses rose by 3.5 per cent to $58.4 million and with the increase in revenue, car park operating profit (EBITA) increased by 6.7 per cent to $86.7 million. Car parking expenses rose significantly (by about 40 per cent) in the previous year after Melbourne Airport changed its cost allocation methodology in 2015–16. Over the past decade, Melbourne Airport's car parking profit increased by only 1.0 per cent.

During 2016–17, Melbourne Airport made an operating profit of 59.7 cents per dollar of car parking revenue earned, up from 59.0 cents previous year. The average car parking profit was 71.5 cents per dollar of revenue over the last 10 years.

Melbourne Airport's revenue per car park space increased by 3.2 per cent to $5486.8 during 2016–17. While expenses per car park space increased by 1.4 per cent, operating profit per car park space rose by 4.5 per cent to $3277.4.

Figure 4.4.4 presents Melbourne Airport's revenue, expenses and operating profit per car. The average revenue collected from each car that visited a car parking at Melbourne Airport during 2016–17 increased by 5.3 per cent to $45.5. The growth in revenue per car could reflect higher prices, cars being parked for longer periods of time, or motorists choosing higher value parking products. The average operating profit earned from each car during 2016–17 was $27.2.

Figure 4.4.4: Melbourne Airport—car park revenue, expenses and profit per car – 2007–08 to 2016–17



Note: Real values in 2016-17 dollars.

Table 4.4.4: Melbourne Airport—revenues, expenses and profits for car parking and total airport services in real terms: 2007–08 to 2016–17

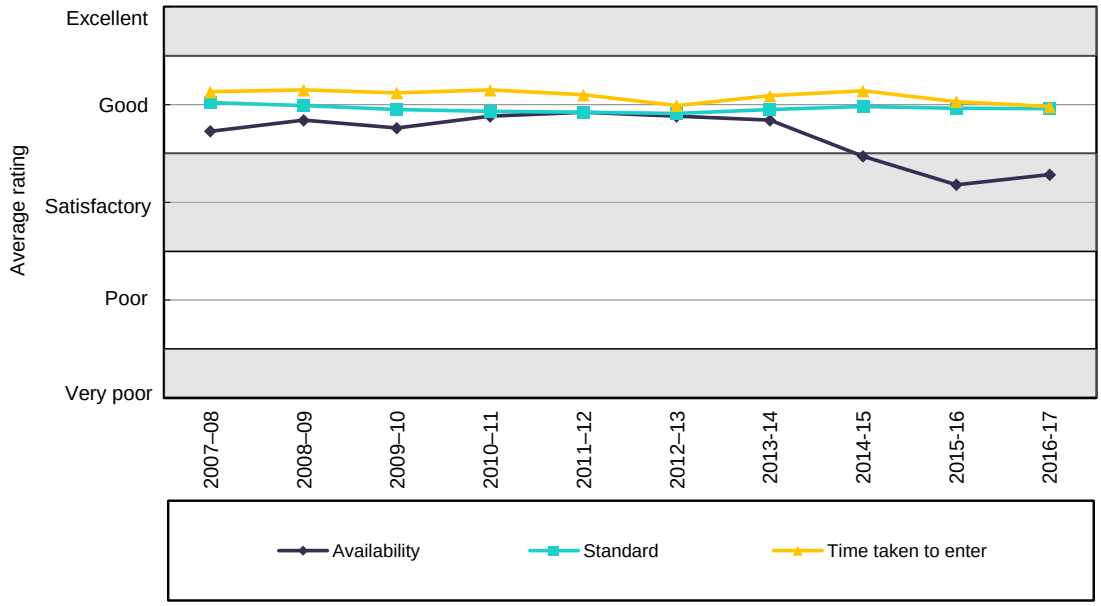
		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Revenue ($million)	Car parking	111.7	112.7	120.7	129.2	126.4	129.3	132.0	139.4	137.7	145.1
	Total airport	**536.5**	**550.1**	**584.6**	**614.8**	**631.6**	**673.8**	**728.2**	**776.5**	**853.8**	**929.3**
	Car parking % of total	20.8	20.5	20.6	21.0	20.0	19.2	18.1	17.9	16.1	15.6
Expenses ($million)	Car parking	25.9	24.1	26.8	31.3	31.2	36.7	40.8	40.6	56.4	58.4
	Total airport	**183.0**	**191.1**	**204.0**	**219.2**	**241.6**	**266.1**	**273.1**	**307.3**	**382.4**	**395.2**
EBITA profit ($million)	Car parking	85.8	88.6	94.0	98.0	95.2	92.6	91.3	98.7	81.2	86.7
	Total airport	**353.5**	**359.1**	**380.6**	**395.6**	**390.0**	**407.7**	**455.1**	**469.2**	**471.4**	**534.6**
EBITA profit % of revenue	Car parking	76.8	78.6	77.8	75.8	75.3	71.6	69.1	70.8	59.0	59.7
	Total airport	**65.9**	**65.3**	**65.1**	**64.3**	**61.7**	**60.5**	**62.5**	**60.4**	**55.2**	**57.5**
Revenue per space ($)		5 614	5 064	5 386	5 765	5 764	5 792	5 410	6 001	5 315	5 487
Expenses per space ($)		1 301	1 083	1 194	1 394	1 421	1 644	1 671	1 750	2 179	2 209
EBITA profit per space ($)		4 313	3 981	4 192	4 371	4 343	4 148	3 739	4 251	3 136	3 277
Revenue per vehicle ($)		33.4	35.3	37.2	39.6	37.9	39.4	41.5	44.1	43.3	45.5
Expenses per vehicle ($)		7.7	7.6	8.2	9.6	9.3	11.2	12.8	12.9	17.7	18.3
EBITA profit per vehicle ($)		25.6	27.8	28.9	30.0	28.6	28.2	28.7	31.2	25.5	27.2

Note: Real values in 2016–17 dollars.

4.4.4. Quality of car parking facilities

Figure 4.4.5 shows passenger survey ratings for the quality of Melbourne Airport's car parking facilities. During 2016–17, passengers' rating of the standard of car parking facilities was unchanged, while the time taken to enter the car parking facilities slightly dropped but both remained rated as 'good'.

Figure 4.4.5: Melbourne Airport—passenger survey ratings of the quality of car parking facilities: 2007–08 to 2016–17



Source: Passenger surveys.

However, the passenger rating on the availability of car parking has shown a notable decline since 2013–14. This is an interesting result given that the throughput of car park facilities has been decreasing and the number of car park spaces has been increasing. This may indicate that the cars are parking for longer, or that the free spaces are not available in the car parks most desired by motorists. Melbourne Airport has noted that the decrease in passenger rating appears to coincide with the introduction of 'bay-finding' technology. It suggested that the fall in satisfaction may be explained by customers becoming reliant on the technology and also having higher expectations as a result.

4.4.5. Other transport options

On top of on-site car parking options, several alternative transport options are available to and from Melbourne Airport, including public and private buses, taxis, rideshare services such as Uber, off-airport car parking, and private cars. Melbourne Airport levies a landside access fee on businesses operating those alternative transport options. Table 4.4.5 provides the landside access charges at Melbourne Airport for 2016–17 and the indexed average list prices in real terms since 2012–13.

Table 4.4.5: Melbourne Airport—landside access charges and indexed average access charges in real terms: 2012–13 to 2016–17

Transport option	Average list prices ($) 2016–17	Indexed average list prices (2016–17 base year = 100)				
		2012–13	2013–14	2014–15	2015–16	2016–17
Public bus	No charge	N/A	N/A	N/A	N/A	N/A
Private bus	Various	N/A	N/A	N/A	N/A	N/A
Off-airport car parking	Various	N/A	N/A	N/A	N/A	N/A
Taxis (per pick-up)	3.58	39.72	79.10	77.77	76.71	100.00
Rideshare	4.40	N/A	N/A	N/A	N/A	100.00
Private car (per entry)	4.00	107.73	104.88	103.11	101.71	100.00

Note: Real prices in 2016–17 dollars
N/A = Not applicable

Melbourne Airport provides passenger drop-off and pick-up areas at all terminals at no cost. There are 157 designated public spaces at the main terminal forecourt area (which services Terminals 1–3) and 84 spaces at Terminal 4.

Compared to 2015–16, Melbourne Airport's total landside access revenue increased significantly by 13.4 per cent in real terms to $19.5 million during 2016–17.

Private buses and off-airport car parking operators

Melbourne Airport levies a range of charges to private buses and off airport car parking operators, which are applied on the basis of different combinations of trip type, passenger numbers and for staff.

There are many private buses that operate to and from Melbourne Airport to areas throughout metropolitan Melbourne and across Victoria. The SkyBus service also regularly operates between the CBD and Melbourne Airport for $18 per one way trip for adults.

Melbourne Airport is serviced by a number of off-airport car park operators which provide alternative car parking services to the Melbourne Airport's own car parks. Prices sampled by the ACCC ranged from $15 to $25 for one day parking and $30 to $46 for three days parking. These prices are generally at a discount to Melbourne Airport's at distance long-term car park.

The revenue collected by Melbourne Airport from off-airport car parking operators decreased by 3.7 per cent in 2016–17 to $2.4 million, whereas revenue from private buses increased significantly, up around 15.5 per cent to $7.8 million.

Taxis

Melbourne Airport provides a range of services and facilities to taxis. These include taxi holding areas, a café, prayer rooms, restrooms and car washing facilities.

Melbourne Airport charges $3.58 fee on each taxi picking up passengers from the airport. This represents an increase of 30.4 per cent (in real terms) over the $2.70 per pick-up taxi fee charged during 2015–16. The higher access fee led to revenue from taxies increasing significantly by 24.1 per cent in real terms to $6.9 million during 2016–17. The airport's revenue from taxis has more than tripled in the last five years. This increase in revenue may be due to growth in taxi transactions and the phased implementation of the landside access fee model.

Ridesharing services

Ridesharing services such as Uber have been operating formally at Melbourne Airport since August 2017. The airport has ride-sharing wait zones at both domestic and international terminal precincts for passengers travelling to and from Melbourne Airport. The airport charges a fee of $4.40 per trip for the first 15 minutes to access the public pick up lanes.

Private cars

Melbourne Airport charges a $4 fee on private car operators for each entry to the airport. This fee remained the same since 2012–13. The revenue from private car operators increased by 0.8 per cent during 2016–17 to $2.4 million.

Quality of landside access services and facilities provided by Melbourne Airport

Table 4.4.6 shows that the passengers rated Melbourne Airport's landside services and facilities 'good' during 2016–17. The rating for kerbside pick-up and drop-off facilities slightly improved in 2016-17, but taxi waiting time and kerbside space congestion marginally declined. Passenger ratings for all these indicators declined since 2012–13.

Table 4.4.6: Melbourne Airport—passenger ratings of quality of landside access services and facilities: 2016–17, 1-year change and change since 2012–13

Terminal	Indicator	Rating category 2016–17	1-year change	Change since 2012–13
International and Domestic	Kerbside pick-up and drop-off facilities	Good	▲	▼
	Taxi facilities waiting time	Good	▼	▼
	Kerbside space congestion	Good	▼	▼

Note: The rating categories are: very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change. *Rating changed by a category over the period.

5. Perth Airport

Key Points – 2016–17

- Overall passenger numbers at Perth Airport fell by 1.4 per cent to 14.3 million. This drop was driven by a 3.5 per cent decrease in domestic passengers. International passenger numbers grew by 3.4 per cent.
- Total aeronautical revenue grew by 5.7 per cent in real terms to $225.7 million, despite a drop in aircraft movements and passengers. Revenue per passenger rose by 7.2 per cent in real terms to $15.79, reflecting the first full year of operation of the new T1 domestic terminal. This figure has grown 61.8 per cent in just five years. Aeronautical operating profit (EBITA) was up 10.3 per cent to reach $78.8 million, following a decline last year. Perth Airport made an operating profit of 34.9 cents for each dollar of aeronautical revenue, slightly up from 33.5 cents last year.
- Perth Airport invested $60.7 million in aeronautical assets in 2016–17, reflecting completed works related to T1 terminal as well as ongoing projects such as the new parallel runway. However, the level of investment this year was significantly lower than the previous four years, with 2016–17 marking the completion of the airport's $1 billion redevelopment.
- Perth Airport's investment program has produced notable improvements in its quality of performance measures over the last three years. The airport's overall quality of service rating continued to grow within the 'good' category and is the highest of the monitored airports. The airport was rated as 'good' for both its international and domestic terminals, while aircraft-related services were rated as 'good' for the first time in the last decade.
- Car parking revenue fell 2.5 per cent to $63.0 million in 2016–17 and has now declined for three years in a row. Expenses continued to rise however, up by 4.6 per cent in 2016–17. As a result, car parking operating profit (EBITA) declined by 8.1 per cent to $33.0 million, which is the lowest level since 2009–10. The airport made a profit of 52.4 cents per dollar of car parking revenue, the lowest recorded in the past decade.

5.1. Airport overview and major investments

This section provides an overview of Perth Airport and its activity and investment during 2016–17. It covers the volume of passengers, tonnes landed and aircraft movements (section 5.1.1), terminal configurations and car parking facilities (section 5.1.2) and major investments (section 5.1.3).

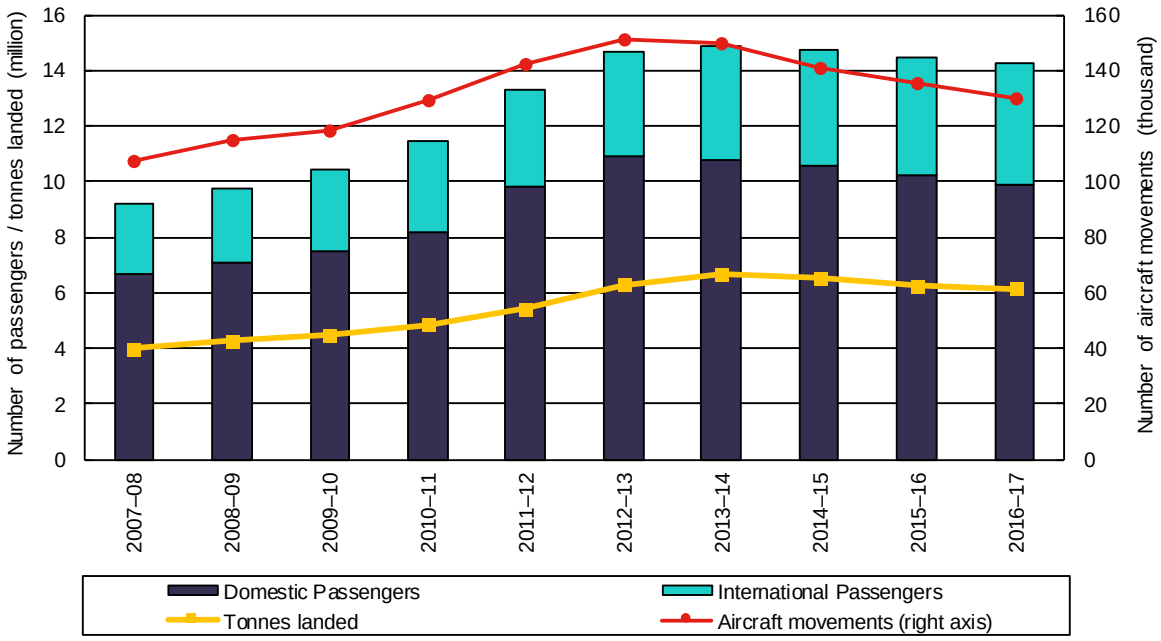
5.1.1. Aeronautical activity levels

Figure 5.1.1 shows the number of passengers, aircraft movements and tonnes landed at Perth Airport since 2007–08. Each of these activity indicators except international passenger numbers fell in 2016–17.

Total passengers fell by 1.4 per cent to 14.3 million, echoing a similar decrease seen in the previous two years. This drop was driven by a 3.5 per cent decrease in domestic passengers to 9.9 million (including transits), reflecting a downturn in intrastate travel as well as the slowdown in the resources sector. This is the fourth consecutive year that domestic passenger numbers have decreased at Perth Airport.

In contrast, the number of international passengers (including transits) rose by 3.4 per cent to 4.4 million. This growth was noticeably greater than the 1.4 per cent seen last year.

Figure 5.1.1: Perth Airport—volume of passengers, tonnes landed and aircraft movements: 2007–08 to 2016–17



In 2016–17, total tonnes landed decreased by 1.6 per cent to 6.2 million tonnes, while aircraft movements fell 3.8 per cent to 130,115.

5.1.2. Terminal configurations and car parking facilities

Terminal Configurations

Perth Airport has one international terminal and four domestic terminals located in two separate precincts:

- Terminal 1 International (T1 International) is a common-user terminal used by all international airlines. It is located in the Airport Central Precinct. Terminal 1 Domestic (T1 Domestic), also in the Airport Central Precinct, opened in November 2015. It is used exclusively by Virgin Australia for all its interstate and some regional services.
- Terminal 2 (T2) is a common-user domestic terminal located in the Airport Central Precinct. Airlines flying from T2 include Alliance Airlines, Tigerair (interstate), Virgin Australia (regional) and Regional Express. T2 opened in 2013 primarily to meet the travel demands of the resource sector and intrastate passengers.
- Terminal 3 (T3) is in the Airport West Precinct and is a common-user terminal used by Jetstar (domestic services) and Qantas.
- Terminal 4 (T4) is next to T3 in the Airport West Precinct. It is occupied and operated by Qantas under lease (until 30 December 2018) and therefore not included in the ACCC's monitoring results.

Car parking facilities

T1 and T2 terminals are serviced by individual short-term car parks but share the same long-term car park. Similarly T3 and T4 in the Airport West Precinct are serviced by common short- and long-term car parks.

In the T1/T2 precinct there is a large short-term car park in front of T1, and T2 has a smaller short-term parking area nearby. A further car park is located adjacent to the general aviation area.

A single short-term parking area serves both T3 and T4. There is also a premium, undercover 'Fast track' short-term car park in front of these terminals aimed at business travellers.

Both precincts have long-term parking areas serviced by shuttle buses. Each long-term park offer one hour free parking as a replacement for the Park and Wait product, which was discounted in 2016. Perth Airport also introduced 'remote holding areas' at its domestic and international terminals for use by ridesharing drivers.

5.1.3. Airport investments

Table 5.1.1 summarises the largest aeronautical investments that were completed, ongoing or planned during 2016–17. Perth Airport's Master Plan, which outlines future airport requirements and development objectives, is due to be updated in 2019.

Table 5.1.1: Perth Airport—selected investments in aeronautical services and facilities

Description of investment	Value ($m)	Started	Completed
T1 Forecourt and Roads	30.0	Feb 2011	Nov 2016
T1 Check in Expansion and New Retail Precinct	12.0	Jan 2015	Sep 2016
T1 Western End Development	6.4	Feb 2017	June 2017
New Runway	497.9	Aug 2015	*June 2027*
Low Visibility Infrastructure Upgrade	36.0	Oct 2015	*Nov 2017*
Western Hub T3 Development	11.5	July 2017	*March 2018*
Significant Terminal expansion project (including Airfield Expansion)	745.6	*July 2017*	*June 2024*
T1 International Arrivals Expansion (stage 1)	12.7	*July 2017*	*June 2022*
Airside Security Enhancement	20.7	*Oct 2017*	*June 2019*

2016–17 marked the completion of Perth Airport's $1 billion redevelopment which has delivered the new Virgin domestic terminal (T1), an upgrade of the T1 international terminal and a dedicated terminal for regional flights (T2).

In 2016–17 Perth Airport completed a number of T1 related projects. In particular, a new terminal forecourt and entry roads have been provided along with expansion of international check-in areas. The work was aimed to enhance the level of services and provide additional landside retail offerings. The airport also completed development of the western end of T1 which delivered an upgrade of passenger circulation area, departure lounge seating and retail space.

Work on a second runway parallel to the existing runway began in August 2015 with the design and approval phrase of the project expected to be completed with two years. It will then proceed to the construction phrase subject to overall demand and commercial agreements with airlines. Construction work related to the new Qantas Perth-to-London direct flight service is also under way in T3 with a focus on providing space for food and general retail outlets.

Perth Airport also anticipates a further large expansion to the T1 international terminal in the next decade. This $745.6 million project consists of a new terminal connected to the existing T1 terminal and delivery of associated airfield infrastructure.

Table 5.1.2 lists the largest investments relating to car parking or landside access. Perth Airport completed an upgrade of the Airport West access road in November 2016 to facilitate the development of Forrestfield-Airport Link train station. Jointly funded by the Australian and Western Australian Governments, the Forrestfield-Airport Link is an underground rail tunnel which will link the existing Midland Line near Bayswater Station to the eastern suburbs of Perth with three new stations at Belmont, Airport Central and Forrestfield. In addition, the airport is undertaking further works related to Forrestfield-Airport Link, including a pedestrian link bridge in Airport Central Precinct.

Table 5.1.2: Perth Airport—selected investments in car parking and landside access services

Description of investment	Value ($m)	Started	Completed
Airport West Access Road Upgrade	10.6	Oct 2015	Nov 2016
T3/T4 Road Network/Footpath Upgrade	5.7	Sep 2015	June 2017
Perth Airport Works for the Forrestfield Airport Link	31.7[59]	July 2016	*Feb 2020*
FY18–FY29 Road Network Renewal Program	3.1	*July 2017*	*June 2027*

A $12 million program of road renewal commenced in July 2017, which aims to reduce the risk of road failures and unplanned road closures on the airport estate. Perth Airport is also developing plans to support the consolidation of operations from Airport West Precinct to Airport Central Precinct. This includes investments in a new domestic consolidated terminal, consolidation of ground transport and supporting infrastructure upgrades such as a multistorey carpark.

5.2. Aeronautical price monitoring and financial performance results

This section presents Perth Airport's aeronautical price monitoring and financial reporting results. These results are separated into prices (section 5.2.1), revenues, costs and profits per passenger (section 5.2.2), total revenues, costs and profits (section 5.2.3) assets (section 5.2.4), additions as a percentage of assets (section 5.2.5) and the rate of return on tangible non-current assets (section 5.2.6). Unless otherwise noted, all pricing and financial data are presented in real terms with values in 2016–17 dollars.

5.2.1. Prices

Table 5.2.1 shows indicative aeronautical charges for customers with contracts at Perth Airport during 2016–17. It also shows how these charges have changed between 2012–13 and 2016–17. Commercial agreements mean that airlines may pay less than these indicative prices.

[59] The planned value is made up of contributions from Perth Airport and Public Transport Authority of Western Australia.

Table 5.2.1: Perth Airport—indicative aeronautical charges and index of charges: 2012–13 to 2016–17

	Indicative charge per unit ($)	Indicative charge index (2016–17 base year = 100)				
		2012–13	**2013–14**	2014–15	**2015–16**	**2016–17**
Aircraft-related services and facilities						
Basic landing charge						
International RPT (per passenger)	4.45	90.9	93.6	94.4	99.3	100.0
Domestic and regional RPT (per passenger)	4.45	90.9	93.6	94.4	99.3	100.0
Fixed wing (GA, freight and other) (per tonne MTOW)	8.66	99.0	98.4	99.6	100.2	100.0
Rotary wing (per tonne MTOW)	4.33	99.0	98.4	99.6	100.2	100.0
Minimum landing charge						
Fixed wing	40.31	99.0	98.4	99.6	100.2	100.0
Rotary wing	20.15	99.0	98.4	99.6	100.2	100.0
Basic aircraft parking charge (GA) (per aircraft per day)	36.04	99.0	98.4	99.6	100.2	100.0
Aircraft storage charge	9.79	99.0	98.4	99.6	100.2	100.0
Peak period minimum movement charge[(a)]	246.35	90.0	89.5	90.5	91.1	100.0
Passenger-related services and facilities						
International terminal charge (per passenger)	12.61	94.4	97.9	89.1	89.9	100.0
Common user terminal equipment (CUTE) usage charge (per departing international passenger)	0.45	146.0	142.2	139.8	101.7	100.0
Domestic terminal charge (per passenger)	17.21	91.8	94.0	92.7	99.2	100.0
Government mandated security costs						
Counter terrorism first response						
RPT services (per passenger)	1.11	106.7	86.0	91.2	101.8	100.0
Freight and other (aircraft > 20 tonne) (per tonne MTOW)	1.04	106.7	86.0	91.2	101.8	100.0
International passenger and checked bag screening (per departing passenger)	6.00	95.6	91.9	98.1	68.8	100.0
Domestic passenger and checked bag screening (per departing passenger)	5.17	58.7	55.4	107.7	72.0	100.0

Note: From 2012–13, the domestic terminal charge has also incorporated a domestic aerobridge charge (which was previously charged separately).
Peak period minimum charges apply to both arrival and departure movements.

A number of charges increased during 2016–17. The international terminal charge climbed 11.3 per cent to $12.61 per passenger, while the domestic terminal charge increased to $17.21 per passenger (up 0.8 per cent). Landing charges for regular passenger transport were $4.45 per passenger for both international and domestic passengers. They were both up by 0.7 per cent from last year.

Since 2012–13, basic landing charges for international and domestic passenger have both increased by 10.1 per cent, while terminal charges for international and domestic passengers have risen by 5.9 and 9.0 per cent respectively.

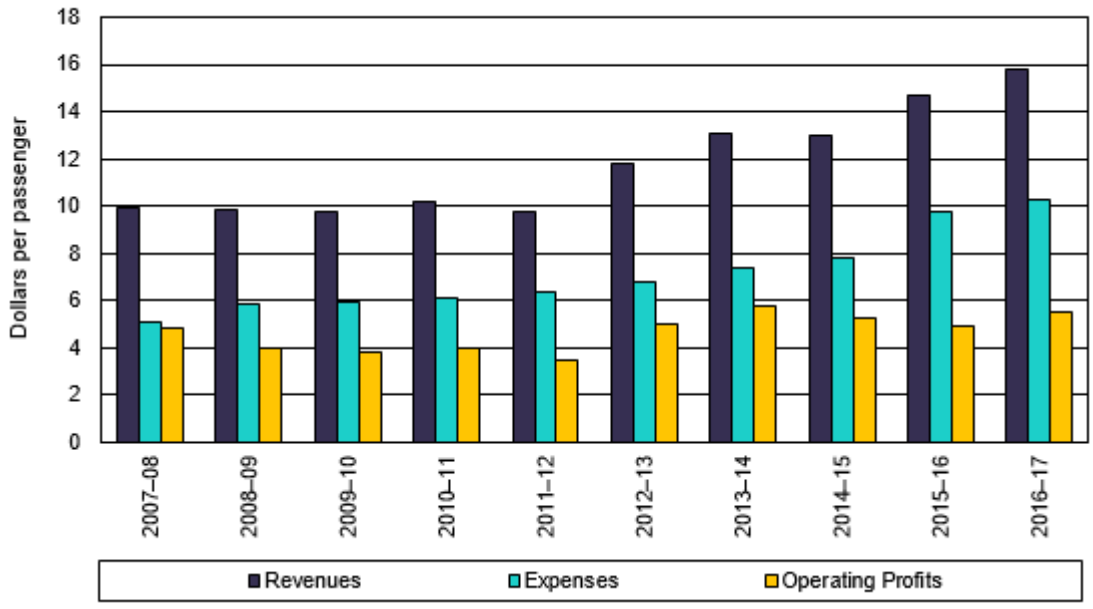
Screening charges for passengers and checked bag, a part of government mandated security charges, increased significantly for both international passenger (up 45.3 per cent to $6.00) and domestic passengers (up 39.0 per cent to $5.17).

Among the charges that have decreased, the common user terminal equipment (CUTE) usage charge for international passenger has declined 1.7 per cent in 2016–17 and 31.5 per cent since 2012–13. Charges related to counter terrorism first response activities fell by 1.8 per cent from last year for both RPT and freight services.

5.2.2. Revenues, costs and profits per passenger

Figure 5.2.1 shows the aeronautical revenue, costs and operating profit (EBITA) per passenger. This year the revenue per passenger rose by 7.2 per cent to $15.79 while operating expenses per passenger climbed 4.9 per cent to $10.28 in 2016–17. This increase in expenses was partly a result of reduced passenger numbers and increased depreciation expenses due to the recent $1 billion of investment. Operating profit rose 11.9 per cent to $5.52 per passenger in 2016–17.

Figure 5.2.1: Perth Airport—Aeronautical revenue, expenses, and operating profit per passenger: 2007–08 to 2016–17



Note: Real values in 2016–17 dollars.

Figure 5.2.1 shows a clear upward trend in revenue per passenger since 2011–12, with this figure increasing 61.8 per cent over this time. While this growth in revenue per passenger has translated into higher operating profits per passenger, expenses per passenger have also increased significantly (62.4 per cent) over the five years. This reflects the impact of

Perth Airports' investment program, which appears to have transformed the airport into a higher quality yet higher cost airport compared to the past.

5.2.3. Revenues, costs and profits for aeronautical and total airport services

Table 5.2.2 presents revenues, expenses and operating profits (EBITA) from 2007–08 to 2016–17. Total aeronautical revenue grew by 5.7 per cent in real terms to $225.7 million, despite a further drop in aircraft movements and total passenger numbers this year.

Aeronautical expenses rose by 3.4 per cent to $146.9 million following a large increase (23.4 per cent) last year. These increases primarily reflect increased depreciation associated with the $1 billion investment. As a result, aeronautical operating profit increased by 10.3 per cent in 2016–17 to $78.8 million, in contrast to a 7.5 per cent drop the previous year.

Perth Airport earned an aeronautical operating profit of 34.9 cents for each dollar of aeronautical revenue in 2016–17, up from 33.5 cents in the previous year.

Table 5.2.2: Perth Airport—revenues, expenses and operating profit for aeronautical and total airport services: 2007–08 to 2016–17

		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Revenue ($million)	Total aeronautical	91.3	95.6	102.2	116.2	130.0	172.9	195.1	192.5	213.6	225.7
	Total airport	**252.6**	**202.1**	**287.8**	**333.8**	**795.3**	**709.2**	**400.4**	**442.7**	**464.3**	**541.5**
	Aeronautical % of total airport	36.2	47.3	35.5	34.8	16.4	24.4	48.7	43.5	46.0	41.7
Expenses ($million)	Total aeronautical	46.7	56.8	62.1	70.2	84.3	99.7	109.6	115.2	142.1	146.9
	Total airport	**83.5**	**111.1**	**122.3**	**139.1**	**160.6**	**187.6**	**200.2**	**209.9**	**241.9**	**251.3**
EBITA profit ($million)	Total aeronautical	44.7	38.8	40.1	46.0	45.8	73.2	85.5	77.3	71.5	78.8
	Total airport	**169.2**	**91.0**	**165.5**	**194.7**	**634.8**	**521.6**	**200.2**	**232.8**	**222.4**	**290.2**
EBITA profit % of total revenue	Aeronautical	48.9	40.6	39.2	39.6	35.2	42.3	43.8	40.2	33.5	34.9
	Total airport	**67.0**	**45.0**	**57.5**	**58.3**	**79.8**	**73.5**	**50.0**	**52.6**	**47.9**	**53.6**
Revenue per passenger ($)	Total aeronautical	9.95	9.81	9.76	10.15	9.76	11.77	13.08	13.03	14.73	15.79
Expenses per passenger ($)	Total aeronautical	5.08	5.83	5.93	6.13	6.33	6.78	7.35	7.80	9.80	10.28
EBITA profit per passenger ($)	Total aeronautical	4.86	3.98	3.83	4.02	3.44	4.98	5.73	5.23	4.93	5.52

Note: Real values in 2016-17 dollars.

Table 5.2.3: Perth Airport—non-current assets for aeronautical and total airport services: 2007–08 to 2016–17

		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Investment property ($million)	Aeronautical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total airport	**355.7**	**374.8**	**443.8**	**422.7**	**832.2**	**404.9**	**403.3**	**452.2**	**690.0**	**666.4**
Land ($million)	Aeronautical	21.3	20.5	19.8	18.9	18.3	17.7	17.0	0.0	0.0	0.0
	Total airport	**38.4**	**36.8**	**35.6**	**37.8**	**36.6**	**711.1**	**633.3**	**733.3**	**507.9**	**558.8**
Property, plant and equipment ($million)	Aeronautical	230.5	270.1	305.3	361.9	420.0	584.3	735.8	885.3	986.4	1 006.0
	Total airport	**391.8**	**477.2**	**485.9**	**538.7**	**670.7**	**865.7**	**1 074.3**	**1 275.6**	**1 428.3**	**1 402.6**
Intangibles ($million)	Aeronautical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total airport	**556.5**	**541.2**	**527.8**	**511.1**	**497.4**	**484.7**	**471.4**	**463.9**	**592.4**	**454.1**
Other tangible non-current assets ($million)	Aeronautical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.5	16.1	15.6
	Total airport	**30.0**	**9.5**	**13.3**	**11.0**	**22.7**	**6.3**	**0.0**	**189.5**[(a)]	**125.9**	**196.3**
Total tangible non-current assets ($million)	Aeronautical	251.9	290.5	325.1	380.9	438.3	602.0	752.8	901.8	1 002.5	1 021.7
	Total airport	**815.9**	**898.3**	**978.5**	**1 010.1**	**1 562.1**	**1 988.0**	**2 110.9**	**2 650.6**	**2 752.1**	**2 824.0**
Total non-current assets ($million)	Aeronautical	251.9	290.5	325.1	380.9	438.3	602.0	752.8	901.8	1 002.5	1 021.7
	Total airport	**1 372.4**	**1 439.5**	**1 506.2**	**1 521.3**	**2 059.5**	**2 472.7**	**2 582.3**	**3 114.5**	**3 344.5**	**3 278.1**

Note: Real values in 2016–17 dollars. (a) The jump in total airport other tangible non-current assets in 2014–15 is due to a new accounting methodology, which changes how prepayments of the 99 year lease with the Commonwealth are classified.

5.2.4. Assets for aeronautical and total airport services

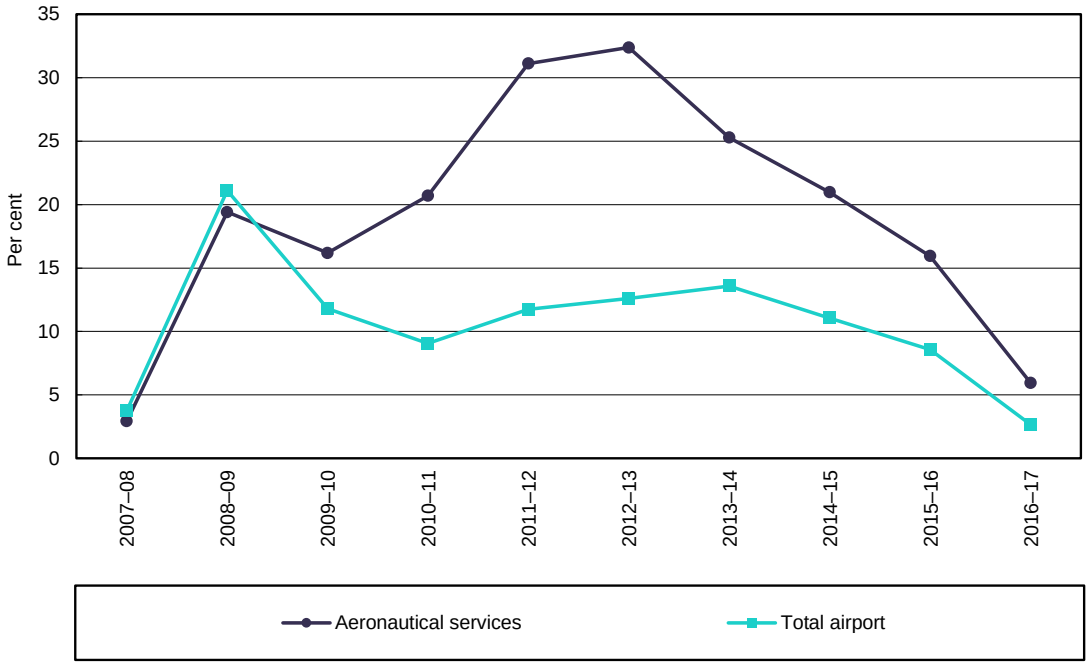
Table 5.2.3 lists Perth Airport's tangible non-current assets for aeronautical services and the total airport from 2007–08 to 2016–17. Total aeronautical non-current assets remain largely unchanged at around $1 billion.

5.2.5. Additions as a percentage of tangible non-current assets

In 2016–17, Perth Airport's investment in aeronautical assets dropped to $60.7 million from $159.9 million (in real terms) last year. This is the lowest level of investment since 2010–11. The slowdown in investment coincides with the completion of the airport's $1 billion investment program (see section 5.1.3). Despite the slowdown in investment this year, the airport's aeronautical asset base quadrupled over the decade to reach over $1.0 billion in 2016–17.

Figure 5.2.2 shows additions as a percentage of tangible non-current assets.[60] Perth Airport's additions to tangible non-current aeronautical assets (in percentage terms) peaked in 2012–13 (32.4 per cent) and have been on the decline since then. In 2016–17, the percentage measure dropped 10.0 percentage points from the 2015–16 level to 5.9 per cent. The drop in level of investment coincides with the decline in passenger numbers over the past few years.

Figure 5.2.2: Perth Airport—additions as a percentage of tangible non-current assets for aeronautical and total airport services: 2007–08 to 2016–17



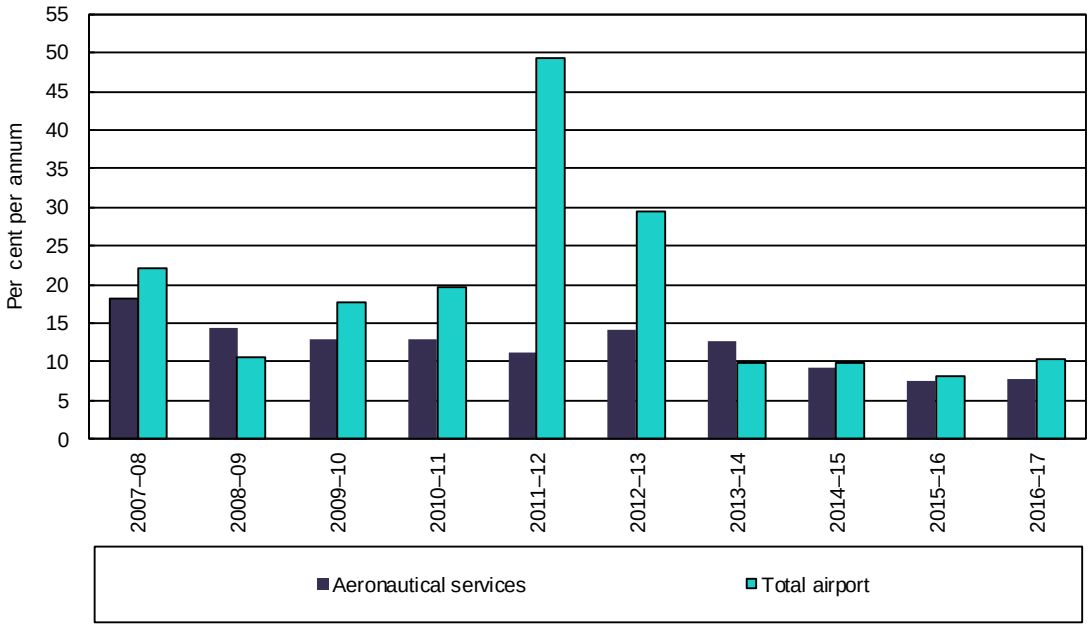
On a total airport basis, additions to non-current aeronautical assets have also been declining since the peak reached in 2013–14 (13.6 per cent). They dropped 5.9 percentage points to 2.7 per cent in 2016–17.

[60] ACCC has revised some data points in this chart based on clarification from Perth Airport.

5.2.6. Rates of return on tangible non-current assets

Figure 5.2.3 shows the rate of return on tangible non-current assets based on earnings before interest, tax and amortisation (EBITA) on average assets. The return on aeronautical assets bounced back slightly in real terms by 0.3 percentage points to 7.8 per cent, following the lowest level since 2011–12 recorded last year. The return on assets over the past three years is markedly lower than the average in the past decade. This period of low returns coincide with various capital works undertaken by the airport and a drop in overall demand.

Figure 5.2.3: Perth Airport—rate of return (EBITA) on tangible non-current assets for aeronautical and total airport services: 2007–08 to 2016–17



The rate of return on total airport tangible non-current assets rose by 2.2 percentage points to 10.4 per cent. The increases in the value of total airport rate of return during 2011–12 and 2012–13 were largely driven by upward revaluations in non-aeronautical assets. These revaluations were due to a change in the methodology for deriving the fair value of investment property and ground leases.

5.3. Quality of aeronautical and total airport services

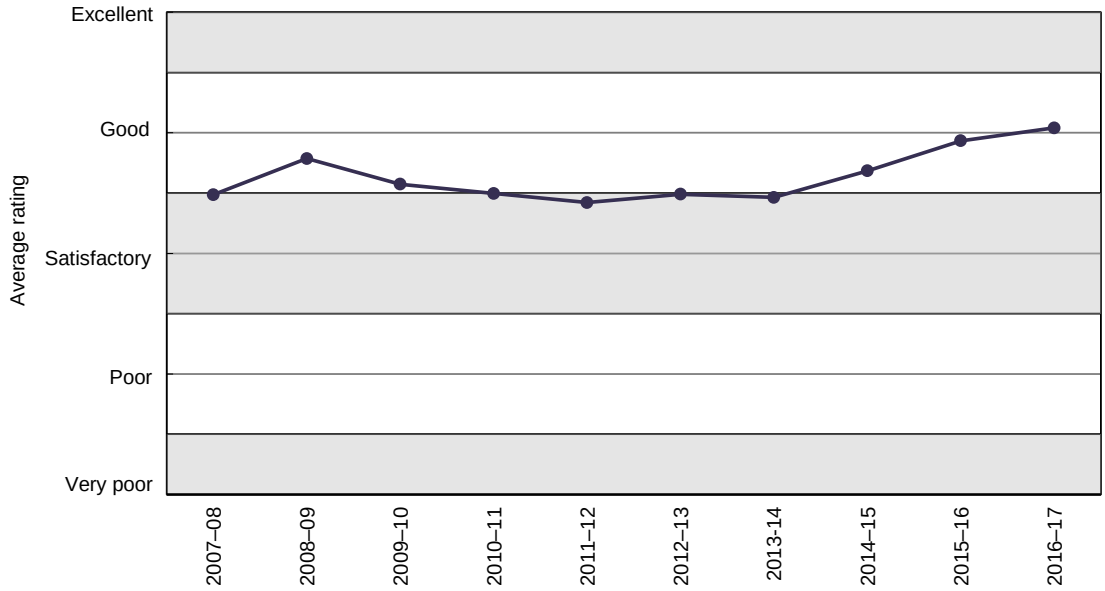
Both passengers and airlines are surveyed to gauge the quality of aeronautical and total airport service provided by each airport. This section discusses ratings derived from these surveys for Perth Airport, together with other objective indicators of service quality. It presents overall average ratings for total airport services (section 5.3.1), followed by ratings for terminals and aircraft related services and facilities (section 5.3.2), and passenger related services and facilities for each terminal (section 5.3.3).

5.3.1. Total airport services

For each airport, the ACCC calculates a single overall quality of service rating. This overall rating covers aeronautical, car parking and, to a lesser degree, landside operations. The overall rating represents the average score that the airport achieved across the many measures based on airline surveys, passenger surveys and objective indicators. The methodology for calculating this rating is explained in section A4.2.3 in appendix 4.

Figure 5.3.1 shows that Perth Airport's overall quality of service rating moved up slightly within the 'good' range in 2016–17. There has been a clear improvement over the last three years as a result of the investment program. It is now the highest rated of the four monitored airports.

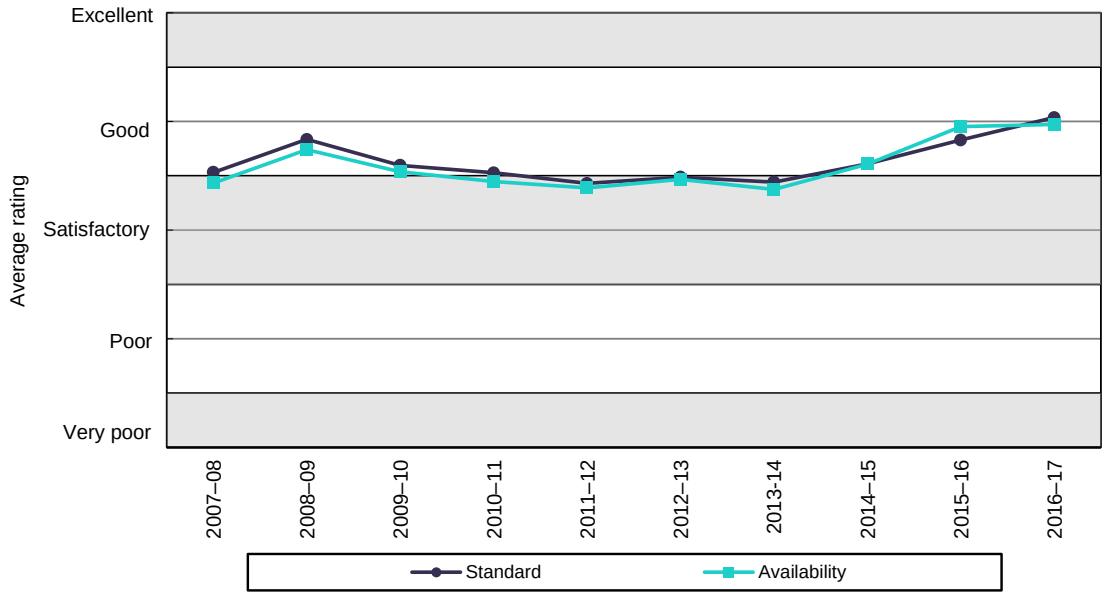
Figure 5.3.1: Perth Airport—overall quality of service rating: 2007–08 to 2016–17



Source: Airline surveys, passenger surveys and objective indicators obtained from Perth Airport.

Figure 5.3.2 shows a similar increase in ratings over the last three years for both the standard and availability of total airport services. Both measures increased within the 'good' category in 2016–17, although the rating for availability was relatively unchanged.

Figure 5.3.2: Perth Airport—average ratings for standard and availability of total airport services and facilities: 2007–08 to 2016–17

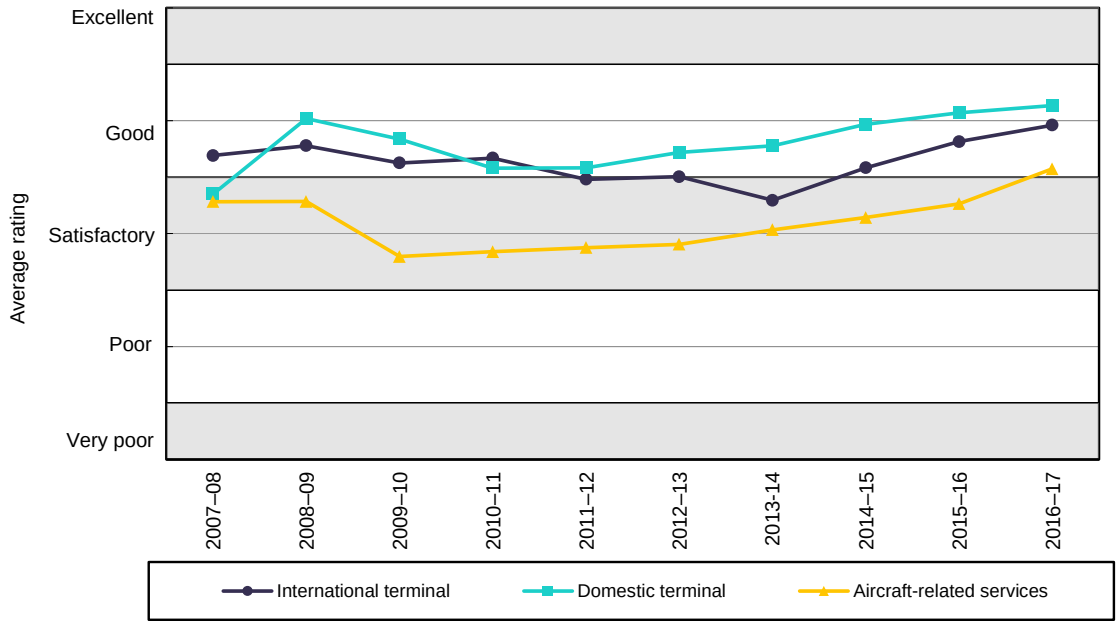


Source: Airline surveys, passenger surveys and objective indicators obtained from Perth Airport.

5.3.2. Terminals and aircraft-related services and facilities

Figure 5.3.3 shows that in 2016–17 Perth Airport's average quality of service ratings for the T1 international terminal and domestic terminals both increased within the 'good' category. In particular, the average rating for the domestic terminals has improved in each of the last five years, while the international terminal rating has improved markedly since 2013–14.

Figure 5.3.3: Perth Airport—average ratings for international and domestic terminal services, and aircraft related services and facilities: 2007–08 to 2016–17



Source: Airline surveys, passenger surveys and objective indicators obtained from Perth Airport.

The consistent improvement in service quality coincides with Perth Airport winning the 'passenger experience award' of the inaugural International Airport Review Awards in November 2017.[61] The achievement underscores the positive impact on customer experience made by the significant investment undertaken by the airport in recent years.

Figure 5.3.3 also shows that the rating for aircraft related activities moved up to 'good' for the first time in the past decade. It has now improved for seven years in a row.

Table 5.3.1 shows how airlines rated specific aspects of aircraft-related services and facilities. More than half of the indicators were rated 'good' in 2016–17 and the rest were rated 'satisfactory'. All but one indicator had improved rating from last year and seven indicators' rating moved up by one category. Aircraft parking availability's rating dropped from 'good' to 'satisfactory'.

[61] Perth Airport 2017, Media Release – Perth Airport Award First Prize in International Airport Review Awards, November 2017.

Table 5.3.1: Perth Airport—airline ratings of quality of individual aircraft-related services and facilities: 2016–17, 1-year change, and change since 2007-08

	Indicator	Rating category 2016–17	1-year change	Change since 2007–08
Runway	Availability	Satisfactory	▲	▼*
	Standard	Good	▲*	▲
Taxiways	Availability	Good	▲*	▲
	Standard	Good	▲	▲
Aprons	Availability	Good	▲*	▲
	Standard	Good	▲*	▲*
Aircraft parking	Availability of facilities and bays	Satisfactory	▼*	▲
	Standard of facilities and bays	Satisfactory	▲	▲
Ground handling	Availability of services and facilities	Good	▲*	▲*
	Standard of services and facilities	Good	▲*	▲*
Management responsiveness	Availability	Good	▲*	—
	Standard	Satisfactory	▲	▲

Notes: The rating categories are: very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change. *Rating changed by a category over the period.

Airline ratings for runway standard and availability both increased during 2016–17, with rating of runway standard increased to ‘good’ while the runway availability remained ‘satisfactory’. While airlines’ operations have been affected by a range of operational reasons including runway lighting upgrades, a number of airlines acknowledged that communication from Perth Airport has been good and the airport has been quick to minimise interruptions.

All aprons and ground handling related indicators improved from ‘satisfactory’ to ‘good’ in 2016–17. The availability of aircraft parking facilities declined from ‘good’ to ‘satisfactory’. Airlines commented that there has been a shortage of bays to meet their schedule and fleet requirement, particularly during peak time. One also said that availability is also impacted by scheduled upgrade works. The standard of aircraft parking facilities improved within the ‘satisfactory’ category.

Ratings for the availability of management responsiveness for aircraft related issues improved from ‘satisfactory’ to ‘good’. The standard of management responsiveness improved within the ‘satisfactory’ range. Some airlines commented that the level of responsiveness from airport management can vary across different management areas following the recent internal structural change at the airport.

Compared to a decade ago, the majority of the indicators of aircraft related services improved and a number of them moved up a category. Runway availability is the only indictor that has declined in the past decade, likely a result of growth in demand. As noted previously, works on a new runway are currently underway.

5.3.3. Passenger-related services and facilities

International terminal

Ratings for the quality of passenger-related services and facilities for the T1 international terminal are shown in table 5.3.2. All of the quality indicators from passenger surveys improved in 2016–17. Passenger ratings of waiting time in outbound immigration area improved from ‘good’ to ‘excellent’, while the other indicators remained at ‘good’.

Ratings of quality from airline surveys were generally ‘satisfactory’ or ‘good’. Half of the airline ratings improved in 2016–17.

Airline ratings of check-in facilities standard and baggage processing facility availability both improved enough to move from ‘satisfactory’ to ‘good’. The rating for aerobridge standard improved from ‘poor’ to ‘satisfactory’. A number of airlines said that the new gates 50 and 51 were at an excellent standard. Airlines said however that some aerobridges are dated, dirty, old and inefficient for the transfer of passengers.

The check-in facilities availability and the aerobridge availability dropped within ‘good’ and ‘satisfactory’ categories respectively. The rating for baggage processing facility standard remained unchanged at ‘good’.

Compared to 10 years ago, airline ratings related to check-in facilities and baggage processing facilities have either improved within the same category or by one category. Airlines ratings for aerobridge availability and standard have both dropped within the ‘satisfactory’ range.

Table 5.3.2: Perth Airport—indicators of quality of passenger-related services and facilities—international terminal: 2016–17, 1-year change and change since 2007–08

Category	Indicator	Data source	Indicator result 2016–17	1-year change	Change since 2007–08
Check-in	Check-in availability	Airline survey	Good	▼	▲*
	Check-in standard	Airline survey	Good	▲*	▲
	Check-in waiting time	Passenger survey	Good	▲	▲
	Number of departing passengers per check-in desk, kiosk and bag drop facility (peak hour)	Objective indicator	10.7 passengers	▼	▲
Immigration	Waiting time in outbound Immigration area	Passenger survey	Excellent	▲*	▲*
	Number of departing passengers per outbound Immigration desk (peak hour)	Objective indicator	40.8 passengers	▼	▲
	Waiting time in inbound Immigration area	Passenger survey	Good	▲	▲
	Number of arriving passengers per inbound Immigration desk (peak hour)	Objective indicator	23.0 passengers	▲	▲
	Waiting time in inbound baggage inspection area	Passenger survey	Good	▲	▼
	Number of arriving passengers per baggage inspection desk (peak hour)	Objective indicator	35.1 passengers	▲	▼
Information	Flight information display screens	Passenger survey	Good	▲	▲
	Number of passengers per flight information display screen (peak hour)	Objective indicator	9.9 passengers	▼	▲
	Number of passengers per information point (peak hour)	Objective indicator	1167 passengers	▼	▲
	Signage and wayfinding	Passenger survey	Good	▲	▲

Notes: The rating categories are; very poor, poor, satisfactory, good, and excellent.
For each indicator for the period specified: ▲ indicates an improvement; ▼ indicates a decline; ▬ indicates no change.
* Rating changed by a category over the period.

Table 5.3.2: Perth Airport—indicators of quality of passenger-related services and facilities—international terminal: 2016–17, 1-year change and change since 2007–08 (continued)

Category	Indicator	Data source	Indicator result 2016–17	1-year change	Change since 2007–08
Baggage	Baggage processing facilities availability	Airline survey	Good	▲*	▲*
	Baggage processing facilities standard	Airline survey	Good	—	▲
	Average throughput of outbound baggage system (per hour)	Objective indicator	297.2 items	▲	▲
	Circulation space for inbound baggage reclaim	Passenger survey	Good	▲	▲
	Information display for inbound baggage reclaim	Passenger survey	Good	▲	▼
	Number of arriving passengers per m^2 of inbound baggage reclaim area (peak hour)	Objective indicator	0.1 passenger[(a)]	▲	N/A
	Findability of baggage trolleys	Passenger survey	Good	▲	▼
	Number of passengers per baggage trolley (peak hour)	Objective indicator	1.4 passengers	▼	▲
Gate lounges	Seating in lounge area (quality and availability)	Passenger survey	Good	▲	▼
	Number of departing passengers per seat in gate lounges (peak hour)	Objective indicator	0.4 passengers	—	▲
	Crowding in lounge area	Passenger survey	Good	▲	▲
	Number of departing passengers per m^2 of lounge area (peak hour)	Objective indicator	0.1 passengers	—	▲
Amenities	Standard of washrooms	Passenger survey	Good	▲	▲
	Number of departing passengers per washroom (peak hour)	Objective indicator	51.0 passengers	▼	N/A
Aerobridges	Aerobridges availability	Airline survey	Satisfactory	▼	▼
	Aerobridges standard	Airline survey	Satisfactory	▲*	▼
	Percentage of arriving international passengers using an aerobridge	Objective indicator	97.6 per cent	▼	▼
	Percentage of departing international passengers using an aerobridge	Objective indicator	96.7 per cent	▼	▼
Security	Quality of security search process	Passenger survey	Good	▲	▲
	Number of departing passengers per security clearance system (peak hour)	Objective indicator	122.4 passengers	▼	▲

Notes: The rating categories are: very poor, poor, satisfactory, good and excellent. [(a)] The method used to measure baggage reclaim area changed in 2015–16.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change.
* Rating changed by a category over the period.

Domestic terminal (T1)

Table 5.3.3 shows quality of service measures for the T1 domestic terminal, which was completed in 2015 and is used exclusively by Virgin Australia. All of the passenger survey indicators except check-in waiting time were rated ‘good’ in 2016–17. Rating for check-in waiting time improved from ‘good’ to excellent. In contrast, rating for crowding in the lounge area dropped from ‘excellent’ to ‘good’.

Since Virgin Australia is currently the only airline to use the terminal, table 5.3.3 does not show airline survey results.

Domestic terminal (T2)

Quality of service measures for passenger-related services and facilities for the T2 domestic terminal are shown in table 5.3.4. Perth Airport’s T2 has been operating since March 2013 and 2013–14 was the first full year of data collected for this terminal.

During 2016–17, passenger ratings for every T2 indicator improved within the ‘good’ category.

The airline ratings for check-in availability and standard both improved from ‘good’ to ‘excellent’ in 2016–17. The baggage processing facility availability and standard ratings both dropped from ‘excellent’ to ‘good’.

Table 5.3.3: Perth Airport—indicators of passenger service and facility quality—domestic terminal (T1): 2016–17, 1-year change

Category	Indicator	Data source	Indicator result 2016–17	1-year change
Check-in	Check-in waiting time	Passenger survey	Excellent	▲*
	Number of departing passengers per check-in desk, kiosk and bag drop facility (peak hour)	Objective indicator	9.1 passengers	▲
Baggage	Circulation space for inbound baggage reclaim	Passenger survey	Good	▼
	Information display for inbound baggage reclaim	Passenger survey	Good	▲
	Number of arriving passengers per m^2 of inbound baggage reclaim area (peak hour)	Objective indicator	0.2 passenger	—
	Findability of baggage trolleys	Passenger survey	Good	▲
	Number of passengers per baggage trolley (peak hour)	Objective indicator	2.2 passengers	N/A
Information	Flight information display screens	Passenger survey	Good	▲
	Number of passengers per flight information display screen (peak hour)	Objective indicator	6.3 passengers	▼
	Number of passengers per information point (peak hour) [(a)]	Objective indicator	N/A	N/A
	Signage and wayfinding	Passenger survey	Good	▲
Gate lounges	Seating in lounge area (quality and availability)	Passenger survey	Good	▲
	Number of departing passengers per seat in gate lounges (peak hour)	Objective indicator	0.3 passenger	—
	Crowding in lounge area	Passenger survey	Good	▼*
	Number of departing passengers per m^2 of lounge area (peak hour)	Objective indicator	0.1 passengers	—
Amenities	Standard of washrooms	Passenger survey	Good	▲
	Number of departing passengers per washroom (peak hour)	Objective indicator	95.5 passengers	▼
Aerobridges	Number of arriving domestic passengers per aerobridge (peak hour)	Objective indicator	37.7 passengers	▲
	Number of departing domestic passengers per aerobridge (peak hour)	Objective indicator	38.2 passengers	▲
Security	Quality of security search process	Passenger survey	Good	▲
	Number of departing passengers per security clearance system (peak hour)	Objective indicator	95.5 passengers	▼

Notes: The rating categories are: very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change.
* Rating changed by a category over the period. [(a)] Perth Airport does not have any information point in T1 domestic Terminal.
Airlines' ratings have not been included for confidentiality reasons, although these ratings have been included in average airline survey ratings elsewhere in this chapter.

Table 5.3.4: Perth Airport—indicators of passenger service and facility quality—domestic terminal (T2): 2016–17, 1-year change

Category	Indicator	Data source	Indicator result 2016–17	1-year change
Check-in	Check-in availability	Airline survey	Excellent	▲*
	Check-in standard	Airline survey	Excellent	▲*
	Check-in waiting time	Passenger survey	Good	▲
	Number of departing passengers per check-in desk, kiosk and bag drop facility (peak hour)	Objective indicator	23.8 passengers	▲
Baggage	Baggage processing facilities availability	Airline survey	Good	▼*
	Baggage processing facilities standard	Airline survey	Good	▼*
	Circulation space for inbound baggage reclaim	Passenger survey	Good	▲
	Information display for inbound baggage reclaim	Passenger survey	Good	▲
	Number of arriving passengers per m^2 of inbound baggage reclaim area (peak hour)	Objective indicator	0.2 passenger	—
	Findability of baggage trolleys	Passenger survey	Good	▲
	Number of passengers per baggage trolley (peak hour)	Objective indicator	6.9 passengers	▲
Information	Flight information display screens	Passenger survey	Good	▲
	Number of passengers per flight information display screen (peak hour)	Objective indicator	9.7 passengers	▲
	Number of passengers per information point (peak hour)	Objective indicator	428.0 passengers	▲
	Signage and wayfinding	Passenger survey	Good	▲
Gate lounges	Seating in lounge area (quality and availability)	Passenger survey	Good	▲
	Number of departing passengers per seat in gate lounges (peak hour)	Objective indicator	0.7 passengers	▲
	Crowding in lounge area	Passenger survey	Good	—
	Number of departing passengers per m^2 of lounge area (peak hour)	Objective indicator	0.1 passengers	—
Amenities	Standard of washrooms	Passenger survey	Good	▲
	Number of departing passengers per washroom (peak hour)	Objective indicator	107.0 passengers	▲
Security	Quality of security search process	Passenger survey	Good	▲
	Number of departing passengers per security clearance system (peak hour)	Objective indicator	142.7 passengers	▲

Notes: The rating categories are: very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change. * Rating changed by a category over the period.

Table 5.3.5: Perth Airport—indicators of passenger service and facility quality—domestic terminal (T3): 2016–17, 1-year change and change since 2007–08

Category	Indicator	Data source	Indicator result 2016–17	1-year change	Change since 2007–08
Check-in	Check-in waiting time	Passenger survey	Good	▲	▼
	Number of departing passengers per check-in desk, kiosk and bag drop facility (peak hour)	Objective indicator	12.3 passengers	▲	▲
Baggage	Circulation space for inbound baggage reclaim	Passenger survey	Good	▲	▲
	Information display for inbound baggage reclaim	Passenger survey	Good	▲	▲
	Number of arriving passengers per m^2 of inbound baggage reclaim area (peak hour)	Objective indicator	0.2 passengers[(a)]	—	N/A
	Findability of baggage trolleys	Passenger survey	Good	▲	▼
	Number of passengers per baggage trolley (peak hour)	Objective indicator	4.4 passengers	▲	▲
Information	Flight information display screens	Passenger survey	Good	▲	▼
	Number of passengers per flight information display screen (peak hour)	Objective indicator	8.4 passengers	—	▲
	Number of passengers per information point (peak hour)	Objective indicator	430.0 passengers	▲	▲
	Signage and wayfinding	Passenger survey	Good	▼	▼
Gate lounges	Seating in lounge area (quality and availability)	Passenger survey	Good	▼	▼
	Number of departing passengers per seat in gate lounges (peak hour)	Objective indicator	0.4 passengers	▲	▲
	Crowding in lounge area	Passenger survey	Good	—	▼
	Number of departing passengers per m^2 of lounge area (peak hour)	Objective indicator	0.1 passengers	—	▲
Amenities	Standard of washrooms	Passenger survey	Good	▲	▲
	Number of departing passengers per washroom (peak hour)	Objective indicator	215.0 passengers	▼	N/A
Aerobridges	Number of arriving domestic passengers per aerobridge (peak hour)	Objective indicator	49.0 passengers	▼	▼
	Number of departing domestic passengers per aerobridge (peak hour)	Objective indicator	86.0 passengers	▲	▼
Security	Quality of security search process	Passenger survey	Good	▲	▲
	Number of departing passengers per security clearance system (peak hour)	Objective indicator	215.0 passengers	▼	▲

Notes: The rating categories are: very poor, poor, satisfactory, good and excellent. [(a)] The method used to measure baggage reclaim area changed in 2015–16.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change. */**: Rating changed by one (*) or two (**) categories over the period.
Airlines' ratings have not been included for confidentiality reasons, although these ratings have been included in average airline survey ratings elsewhere in this chapter.

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Domestic terminal (T3)

Table 5.3.5 shows quality of service measures for terminal T3. Every quality of service indicator in the passenger survey received a ‘good’ rating with the majority of them moving up within that category compared to the previous year. Passenger ratings for seating in lounge areas and signage and wayfinding were the only indicators to decrease within their ‘good’ ratings.

As Jetstar and Qantas are the only airlines to use the terminal, airline survey results are not shown.

5.4. Car parking and landside services

This section presents an overview of Perth Airport’s car parking and landside services and facilities. It describes the car parking facilities activity (section 5.4.1), car park pricing (section 5.4.2), car park revenues and profits (section 5.4.3), car park quality of service outcomes (section 5.4.4), and other transport options (section 5.4.5).

5.4.1. Car parking activity

Table 5.4.1 shows the number of car parking spaces available and the throughput of car parking facilities at Perth Airport over the last 10 years.

Total number of car park spaces was 22 645 in 2016–17, 118 spaces lower than last year. Perth Airport has however converted 118 ‘Park and Wait’ bays to ride sharing holding bays.

Total annual throughput declined slightly to 2.0 million in 2016–17, or 5573 cars per day. This is the lowest throughput since 2009–10. The decline in domestic passenger numbers which was detailed in section 5.1.1 and decline in the resource sector may be reasons for the declines in car park throughput.

In the past decade, the total number of car park spaces has expanded significantly while the total annual throughput has only had modest increase. Perth Airport’s throughput has generally tracked the trend in passenger numbers, particularly for domestic passengers. The average throughput has been declining for three years in a row, primarily due to declines in throughput of short- and long-term parking facilities for T3 and T4.

Table 5.4.1: Perth Airport—number of car park spaces and average daily throughput: 2007–08 to 2016–17

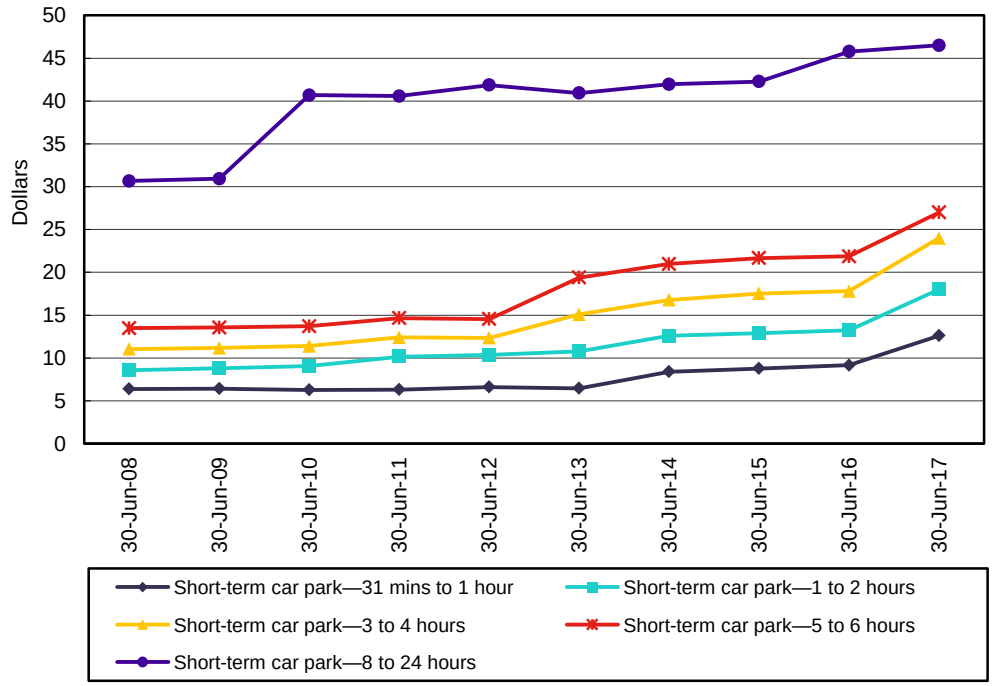
		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Number of car park spaces	T3/T4 short-term	1 377	1 377	1 719	1 719	1 769	1 714	1 714	1 714	1 714	1 666
	T3/T4 long-term	3 997	5 670	6 055	7 082	8 485	8 796	8 796	8 796	8 796	8 796
	T1/T2 short-term	663	663	663	663	663	961	1 145	1 357	1 914	1 844
	T1/T2 long-term	1 778	1 778	1 778	3 792	3 792	4 600	6 374	9 367	9 367	9 367
	Staff	991	1 311	1 311	1 295	917	972	972	972	972	972
	Total airport	**8 806**	**10 799**	**11 526**	**14 551**	**15 626**	**17 043**	**19 001**	**22 206**	**22 763**	**22 645**
Annual throughput of car park facilities (thousand)[(a)]	T3/T4 short-term	961	1 019	990	1 054	1 054	1 030	902	857	701	537
	T3/T4 long-term	84	121	173	230	343	387	363	345	237	183
	T1/T2 short-term	647	685	715	733	720	747	847	874	1 132	1 172
	T1/T2 long-term	29	32	48	66	67	93	138	137	144	142
	Total airport	**1 721**	**1 858**	**1 926**	**2 083**	**2 185**	**2 257**	**2 249**	**2 212**	**2 214**	**2 034**
Average daily throughput of car park facilities	T3/T4 short-term	2 626	2 792	2 712	2 888	2 879	2 822	2 472	2 347	1 914	1 471
	T3/T4 long-term	230	333	475	630	938	1 060	994	945	648	501
	T1/T2 short-term	1 766	1 876	1 959	2 007	1 968	2 047	2 320	2 394	3 094	3 211
	T1/T2 long-term	80	89	130	181	184	254	377	375	393	389
	Total airport	**4 702**	**5 089**	**5 276**	**5 706**	**5 970**	**6 182**	**6 162**	**6 061**	**6 049**	**5 573**

Note: (a) Annual throughput data for staff car parking was unavailable.

5.4.2. Car parking prices

Perth Airport's drive-up car parking charges continued to grow in real terms during 2016–17. Figure 5.4.1 shows that all short-term car parking charges at the T1/T2 and T3/T4 precincts increased this year. The largest increase was for the 31 minutes to 1 hour duration, which increased by 37.6 per cent in real terms to $12.6. The price for 8 to 24 hour stays went up 1.6 per cent to $46.5.

Figure 5.4.1: Perth Airport—selected short-term parking prices (drive-up): 30 June 2008 to 30 June 2017

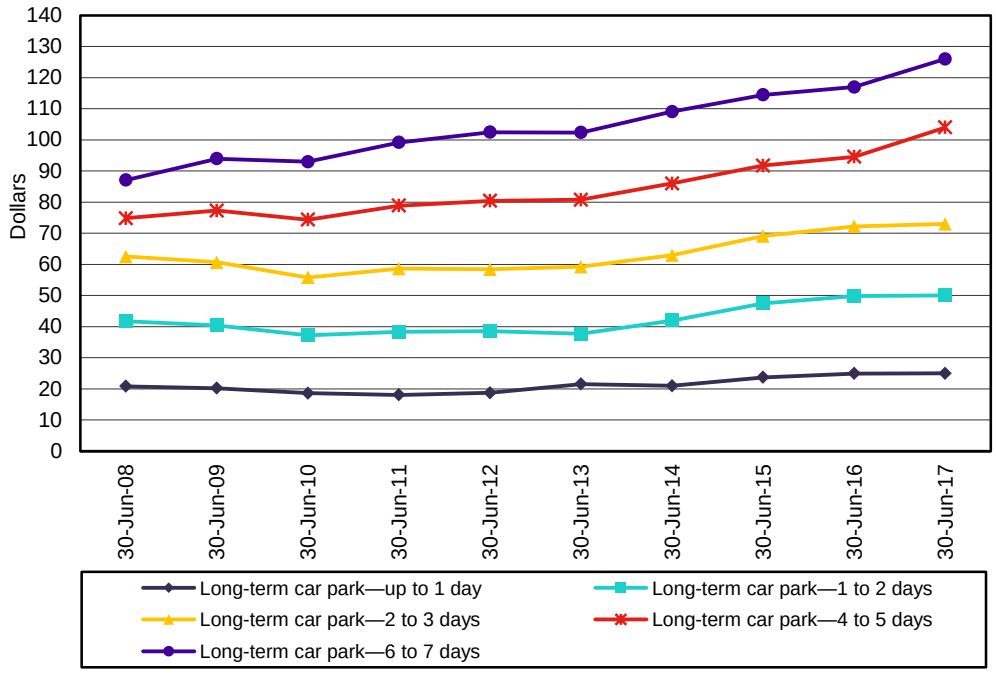


Note: Real values in 2016–17 dollars.

Long-term car parking prices were higher in 2016–17 than the previous year (see figure 5.4.2), rising in real terms by between 0.3 and 9.9 per cent in 2016–17. Perth Airport advised that all of its long-term car parks offered 1 hour free parking for customers.

While both short-term and long-term parking prices have gone up in real terms since 2007–08, it is the short-term parking prices that have had the largest increase in that period. Short-term prices have increased by 51.7 to 117.5 per cent. Long-term parking prices have gone up by 16.7 to 44.7 per cent during that period.

Figure 5.4.2: Perth Airport—selected long-term parking prices (drive-up): 30 June 2008 to 30 June 2017



Note: Real values in 2016–17 dollars.

Table 5.4.2 shows the drive-up charges, online charges, and the weighted average of drive-up and online charges for 2016–17. Perth Airport offers online booking for all durations beyond one full day. Hourly parking is not available to be booked via the online system. Perth Airport has advised that not all online bookings are offered a discount over the drive-up rate and the prices offered varies by car park, lead time and day of the week and season. Perth Airport also advised that the usage of online booking increased throughout 2016–17.

Table 5.4.2: Perth Airport—drive-up, online and average parking charges: 2016–17

T1/T2 short-term car park			
Length of stay	**Average drive-up ($)**	**Average online ($)**	**Weighted average of drive-up and online ($)**
0–1 day	46.50	46.50	46.50
1–2 days	93.00	93.00	93.00
2–3 days	136.50	104.36	130.15
3+ days	308.71	136.95	158.46
T1/T2 long-term car park			
Length of stay	**Average drive-up ($)**	**Average online ($)**	**Weighted average of drive-up and online ($)**
0–1 day	25.00	25.00	25.00
1–2 days	50.00	50.00	50.00
2–3 days	73.00	73.00	73.00
3+ days	134.47	120.56	129.81
T3/T4 short term car park			
Length of stay	**Average drive-up ($)**	**Average online ($)**	**Weighted average of drive-up and online ($)**
0–1 day	46.50	46.50	46.50
1–2 days	93.00	93.00	93.00
2–3 days	136.50	118.29	134.50
3+ days	258.94	119.53	161.37
T3/T4 long-term car park			
Length of stay	**Average drive-up ($)**	**Average online ($)**	**Weighted average of drive-up and online ($)**
0–1 day	25.00	25.00	25.00
1–2 days	50.00	50.00	50.00
2–3 days	73.00	73.00	73.00
3+ days	123.30	111.90	121.04
T3/T4 fast track car park			
Length of stay	**Average drive-up ($)**	**Average online ($)**	**Weighted average of drive-up and online ($)**
0–1 day	59.50	59.50	59.50
1–2 days	119.00	119.00	119.00
2–3 days	155.00	130.47	147.35
3+ days	242.53	143.33	159.27

Note: Average car parking charges are calculated as the average of drive-up and online charges weighted by throughput.

5.4.3. Car parking revenues, costs and profits

Table 5.4.3 lists Perth Airport's revenues, expenses and operating profit (EBITA) for car parking and total airport services from 2007–08 to 2016–17.

Revenue from car parking fell by 2.5 per cent to $63.0 million in 2016–17 and has been declining for three years in a row. Revenue from short-term parking at T1/T2 increased by $4.6 million (or 36.1 per cent) in 2016–17, while revenue of domestic long-term parking near T3/T4 decreased by $4.7 million (or 26.7 per cent).

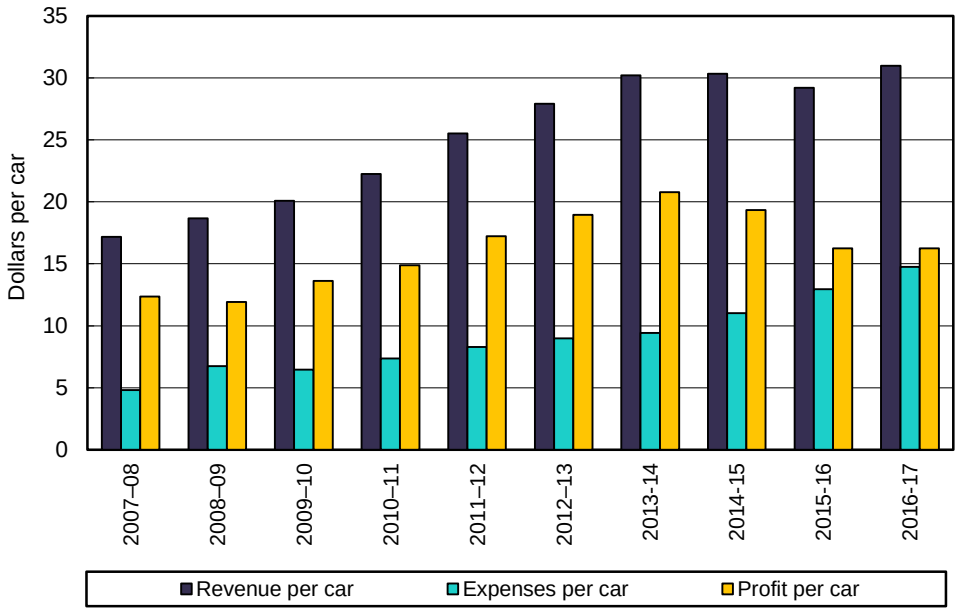
Car parking expenses continue to rise and were up 4.6 per cent to $30.0 million. The increase in expenses and fall in revenue drove the car parking operating profit 8.1 per cent lower to $33.0 million. This is the lowest profit since 2010–11.

Perth Airport made a profit of 52.4 cents for each dollar in car parking revenue in 2016–17, down from 55.6 cents last year. This is the lowest profit margin over the past decade and 19.6 cents below its peak reached in 2007–08 (72.0 cents).

Car parking revenue per parking space fell by 2.0 per cent in real terms to $2 784 during 2016–17, and expenses per space rose by 5.1 per cent to $1 324. The car parking operating profit per space dropped by 7.6 per cent to $1459 in 2016–17, which is the lowest in the past decade.

Figure 5.4.3 shows Perth Airport's revenues, expenses and operating profits per car. Car parking revenue per vehicle increased by 6.1 per cent in 2016–17 to $31.0, while operating expenses per vehicle rose 13.8 per cent to $14.7. Car parking operating margin per vehicle remained unchanged at $16.3.

Figure 5.4.3: Perth Airport—car park revenue, expenses and operating profit per car – 2007–08 to 2016–17



Note: Real values in 2016-17 dollars.

Table 5.4.3: Perth Airport—revenues, expenses and profit for car parking and total airport services: 2007–08 to 2016–17

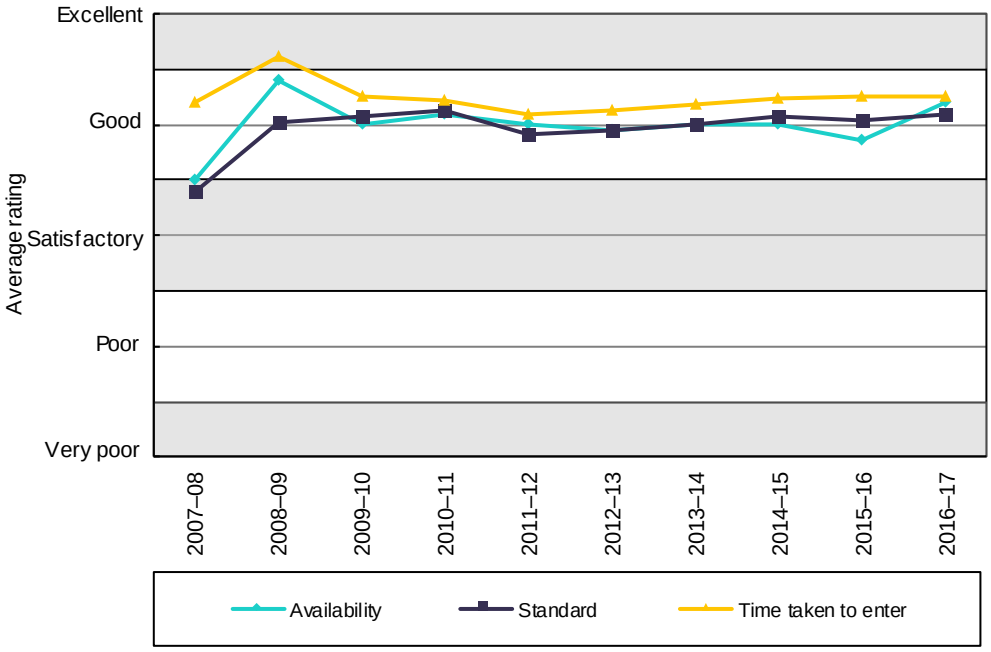
		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Revenue ($million)	Car parking	29.5	34.7	38.7	46.3	55.8	63.0	67.9	67.1	64.6	63.0
	Total airport	**252.6**	**202.1**	**287.8**	**333.8**	**795.3**	**709.2**	**400.4**	**442.7**	**464.3**	**541.5**
	Car parking % of total	11.7	17.2	13.4	13.9	7.0	8.9	17.0	15.2	13.9	11.6
Expenses ($million)	Car parking	8.3	12.5	12.5	15.3	18.1	20.3	21.2	24.4	28.7	30.0
	Total airport	**83.5**	**111.1**	**122.3**	**139.1**	**160.6**	**187.6**	**200.2**	**209.9**	**241.9**	**251.3**
EBITA profit ($million)	Car parking	21.3	22.1	26.2	31.0	37.6	42.8	46.7	42.8	36.0	33.0
	Total airport	**169.2**	**91.0**	**165.5**	**194.7**	**634.8**	**521.6**	**200.2**	**232.8**	**222.4**	**290.2**
EBITA profit % of revenue	Car parking	72.0	63.9	67.8	66.9	67.5	67.9	68.8	63.7	55.6	52.4
	Total airport	**67.0**	**45.0**	**57.5**	**58.3**	**79.8**	**73.5**	**50.0**	**52.6**	**47.9**	**53.6**
Revenue per space ($)		3354	3211	3355	3183	3568	3697	3575	3023	2840	2784
Expenses per space ($)		938	1160	1081	1053	1 59	1189	1116	1097	1260	1324
EBITA profit per space ($)		2416	2051	2274	2129	2409	2509	2459	1925	1580	1459
Revenue per vehicle ($)		17.16	18.67	20.08	22.24	25.52	27.92	30.20	30.34	29.19	30.99
Expenses per vehicle ($)		4.80	6.74	6.47	7.36	8.29	8.98	9.43	11.02	12.95	14.74
EBITA profit per vehicle ($)		12.36	11.92	13.61	14.88	17.23	18.95	20.78	19.33	16.24	16.25

Note: Real values in 2016–17 dollars.

5.4.4. Quality of car parking facilities

Figure 5.4.4 shows that T1/T2 passenger ratings of parking availability, standard and time taken to enter remained at 'good' during 2016–17. The rating of car parking availability has increased noticeably within the 'good' range. The rating of airport parking time taken to enter remained unchanged inside the 'good' range.

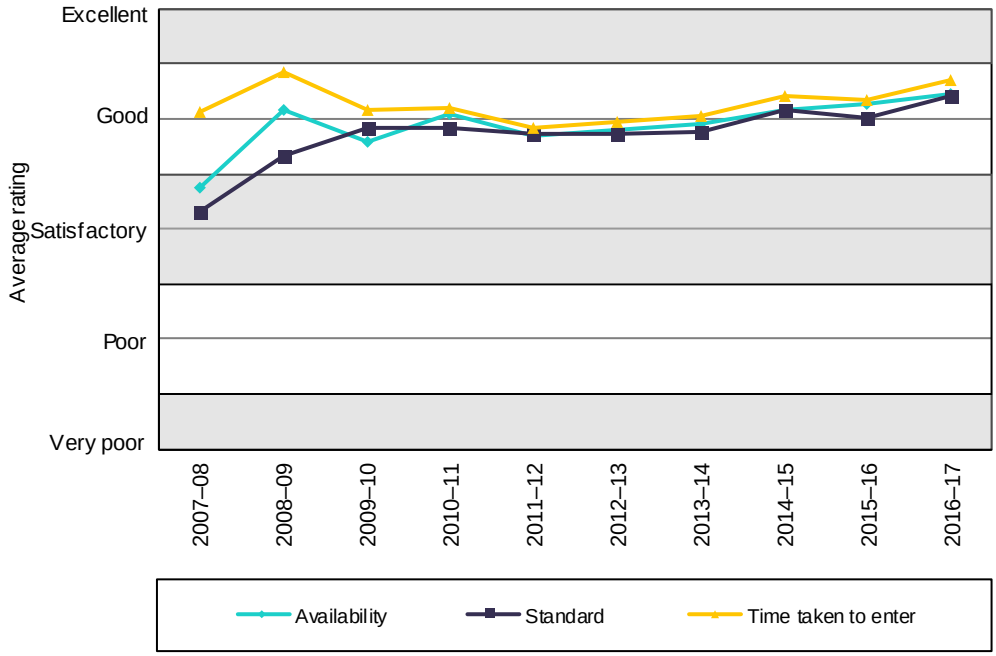
Figure 5.4.4: Perth Airport—T1/T2 precinct passenger survey ratings of car parking facility quality: 2007–08 to 2016–17



Source: Passenger surveys.

Figure 5.4.5 shows the T3/T4 passenger ratings of car park availability, standard, and time taken to enter car parks. All three indicators improved within the 'good' category in 2016–17.

Figure 5.4.5: Perth Airport—T3/T4 precinct passenger survey ratings of the quality of car parking facilities: 2007–08 to 2016–17



Source: Passenger surveys.

5.4.5. Other transport options

Airport passengers have a number of alternatives to airport car parking. Other transport option for accessing the airport include off-airport car parking, public and private buses, taxis and private hire cars as well as ride sharing services such as Uber. Perth Airport imposes a landside access charge on some of these alternatives.

The following sections examine the charges Perth Airport applies to landside access, and where relevant, compares these to the prices of alternative access options. They also present quality of service ratings for landside access.

Table 5.4.4 shows the 2016–17 landside access charges and indexed average list prices for the last five years. Access charges for taxis and private car both dropped slightly in real terms as Perth Airport maintained its nominal charges in 2016–17.

Table 5.4.4: Perth Airport—landside access charges and indexed average access charges in real terms: 2012–13 to 2016–17

Transport option	Average list prices ($) 2016–17	Indexed average list prices (2016–17 base year = 100)				
		2012–13	2013–14	2014–15	2015–16	2016–17
Public bus	No charge	NA	NA	NA	NA	NA
Private bus	No charge	NA	NA	NA	NA	NA
Off-airport car parking	No charge	NA	NA	NA	NA	NA
Ridesharing/Uber	3,00[62]	NA	NA	NA	NA	NA
Taxis (per pick-up)	3.00	71.8	69.9	68.7	101.7	100.0
Private car (per entry)	4.50[63]	71.8	69.9	68.7	101.7	100.0

Terminal drop-off and pick-up

Perth Airport provides public drop off and pick up areas at all terminals, with 63 designated spaces in the T1/T2 precinct and 50 designated spaces in the T3/T4 precinct. Perth Airport advised that access facilities for both the T1/T2 and T3/T4 precincts remained unchanged in 2016–17 except for the introduction of an operating agreement with Uber.

Buses

Transperth operates regular bus services between Perth Airport, Perth City and other local centres. Bus Route 380, a limited stops service with connections to other services, runs daily between the Elizabeth Quay Bus Station in the Perth city centre and T1/T2 precinct. Bus Route 40 operates daily services between Elizabeth Quay Bus Station and T3/T4 precinct. Route 935 also services the T3/4 precinct. From 1 July 2017, single trip tickets cost $4.70 corresponding to a two zone trip on the Transperth bus network.

Perth Airport is serviced by several private bus operators connecting the airport to other suburbs such as the CBD. Prices range from $25.00 for a one way trip from the airport to the CBD and $38.00 from the airport to Fremantle.

Off-airport car parking operators

There are a number of off-airport car parking operators that provide alternatives to the airport's car parks. Unlike other monitored airports, Perth Airport does not charge these operators a fee for accessing the airport. Parking prices (charged by off-airport car parking operated) sampled by the ACCC ranged from around $24 to $30 for one day parking and $45 to $58 for three day parking.

Taxis

Perth Airport maintained its charge of $3.00 on taxis departing the airport. No charge applies for dropping off passengers.

Ridesharing services

Following the legalisation of ridesharing services in WA, Perth Airport now provides dedicated pick up areas for ridesharing services such as Uber at all terminals as well as holding areas at both precinct. Each vehicle is charged $3.00 per pick-up.

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[62] This charge came into effect on December 2016.

[63] This is for duration of 15 minutes to 3 hours. Perth Airport charged a minimum charge of $3.00 for duration up to 10 minutes.

Private cars

Perth Airport's charge for private car operators (such as limousines) remained unchanged in nominal terms at $4.50 per entry.

Quality of landside access services and facilities provided by Perth Airport

This section outlines the passenger quality of service ratings for landside services and facilities. The ACCC has also collected landside operators' quality of service ratings in the past, but has decided to cease collection from this year.

Table 5.4.5 shows that ratings for all landside access for services and facilities remained 'good' in 2016–17. All indicators except one increased in 2016–17 within the 'good' category. Kerbside pick-up and drop-off facilities at T3/T4 was rated slightly lower but remained at 'good'. Compared to 2013–14, all indicators improved within the 'good' category.

Table 5.4.5: Perth Airport—passenger ratings of quality of landside access services and facilities: 2016–17, 1-year change and change since 2013-14

Terminal	Indicator	Rating category 2016–17	1-year change	Change since 2013–14
International, Domestic & General Aviation (T1/T2)	Kerbside pick-up and drop-off facilities	Good	▲	▲
	Waiting time for taxis	Good	▲	▲
	Kerbside space congestion	Good	▲	▲
Domestic (T3/T4)	Kerbside pick-up and drop-off facilities	Good	▼	▲
	Taxi facilities waiting time	Good	▲	▲
	Kerbside space congestion	Good	▲	▲

Note: The rating categories are: very poor, poor, satisfactory, good, and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change.

6. Sydney Airport

Key Points – 2016–17

- Sydney Airport continues to be the largest Australian airport with total passenger numbers increasing by 3.8 per cent to 42.7 million in 2016–17. For the second consecutive year, international passenger growth exceeded 6 per cent (7.3), which drove total passenger increases. Domestic passengers grew 1.9 per cent during 2016–17.
- Total aeronautical revenue grew by over 8 per cent in real terms for the second consecutive year to $782.3 million, while aeronautical expenses grew by 9.5 per cent during 2016–17. Aeronautical profit increased by 7.1 per cent to $360.8 million. Sydney Airport earned an operating profit of 46.1 cents per dollar of aeronautical income collected during 2016–17.
- A fall in car park throughput resulted in car parking revenue decreasing by 0.9 per cent in real terms to $134.8 million. The average revenue collected from each car increased by 7.8 per cent to $31.15. Operating profit from the car park fell 2.5 per cent in 2016–17 to $97.0 million. The airport made an operating profit of 71.9 cents for each dollar of car parking revenue.
- Sydney Airport's overall quality of service rating remained relatively unchanged in 2016–17. For the past decade, the overall rating was within the 'satisfactory' category, just short of the threshold for 'good'.[64] The average rating for aircraft-related services remained at 'satisfactory', but has shown improvement in each of the last two years. The standard of management responsiveness improved to 'good' in 2016–17. The rating for international terminals also increased to 'good', while domestic terminals' rating remained at 'satisfactory'.
- Sydney Airport's return on tangible non-current aeronautical assets decreased slightly by 0.2 percentage points to 11.0 per cent during 2016–17. This is the third consecutive year that the return on non-current aeronautical assets has decreased.

6.1. Airport overview and major investments

This section covers Sydney Airport's aeronautical activities relating to volume of passengers, tonnes landed and aircraft movements (section 6.1.1). Terminal and car park configurations are in section 6.1.2 and major investments are in section 6.1.3.

6.1.1. Aeronautical activity levels

Figure 6.1.1 presents total passenger volumes, tonnes landed and total aircraft movements.

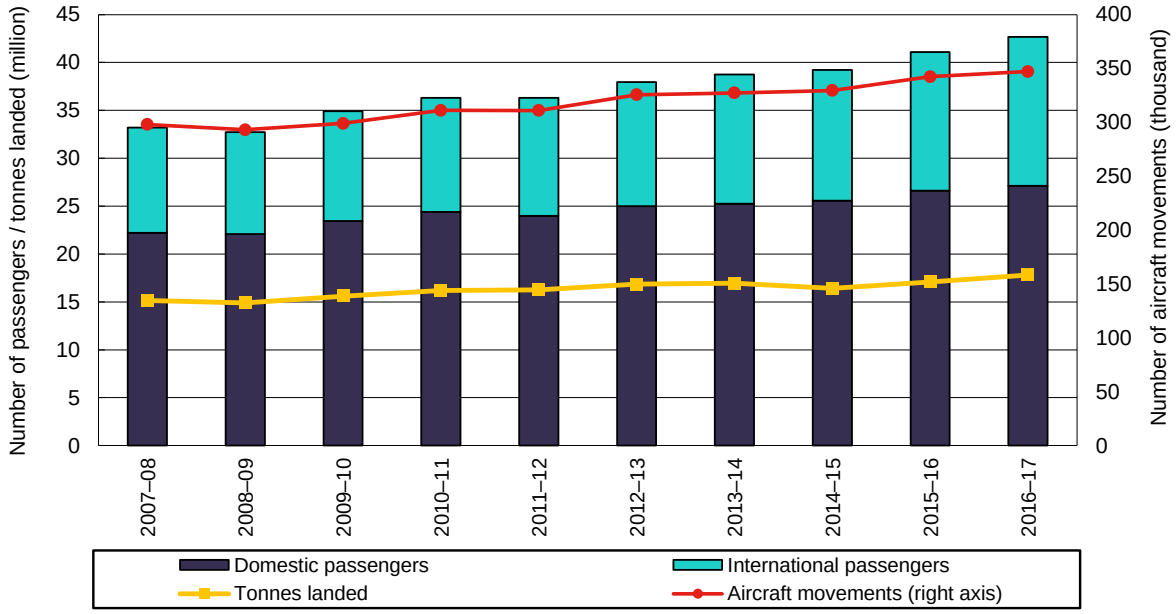
Total passenger volumes across the three terminals increased by 3.8 per cent to 42.7 million during 2016–17. International passengers (including transit) drove the overall passenger increase with growth of 7.3 per cent compared to domestic passenger growth of 1.9 per cent (including on carriage). This is the largest growth in international passengers since 2009–10. In aggregate, international passengers grew by 1.1 million while domestic passenger growth was 0.5 million. Passengers from China and North Asia grew by 20 per cent while growth from the Europe and the Middle East was up 15 per cent.[65] Sydney Airport said that it

[64] The 2015–16 airport monitoring report stated that Sydney Airport recorded a 'good' overall quality of service rating in 2015–16. A minor correction to the calculation of this score by the ACCC has seen it fall slightly. This minor fall moved the rating into the 'satisfactory' category.

[65] Sydney Airport, (2017), Half year results presentation, August, http://www.asx.com.au/asxpdf/20170822/pdf/43llgydfp239y8.pdf.

expected international passenger growth to continue to outpace domestic passenger growth.[66]

Figure 6.1.1: Sydney Airport—volume of passengers, tonnes landed and aircraft movements: 2007–08 to 2016–17



Total aircraft movements grew by 1.4 per cent to 347 100, while total tonnes landed increased by 4.4 per cent to 17.8 million.

6.1.2. Terminal configurations and car parking facilities

Terminal configurations

Sydney Airport operates with one international terminal and two domestic terminals that are located within two separate precincts:

- The international terminal (T1) is a common user terminal that is used by all airlines flying internationally to and from Sydney Airport. It is located within the international precinct.
- Terminal 2 (T2) and Terminal 3 (T3) are both domestic terminals located in the domestic precinct. T2 is a common user terminal currently used by a number of domestic and regional airlines, including Virgin Australia, Jetstar, Regional Express and Tigerair.
- The domestic terminal (T3) was previously owned and operated under a domestic terminal lease by Qantas. The terminal was purchased by Sydney Airport in August 2015 and is now subject to the ACCC's monitoring and the results included in this airport monitoring report.

Car parking facilities

Sydney Airport has three major car parking areas:

- The international precinct has one public multi-level car park facility that is known as P7. Within that structure, there is a new dedicated 'Guaranteed Space' area that provides more convenient parking at a premium, but must be pre-booked online.

[66] Ibid.

There is also a separate 'at grade' car park area known as P9. This car park has a dedicated 'express pickup' area. All international car parks provide for both short-term and longer-term parking.

- The domestic precinct has two multi-level car parks that provide for both short-term and longer-term car parking. The P1/P2 car park is located adjacent to the domestic terminals, while the P3 car park is located eight minutes from the domestic terminals and offers discounted day rates. The P1 car park also contains a dedicated area for 'Guaranteed Space' customers.
- Sydney Airport has a separate car park (Blu Emu) located a short bus ride from the domestic terminals (off Ross Smith Avenue on the eastern side of the airport). The airport provides a complimentary shuttle bus service for customers to travel between the car park and the domestic terminal precinct.

6.1.3. Airport investments

Table 6.1.1 provides a summary of the largest aeronautical investments that have been completed, commenced or planned during 2016–17. The current master plan for Sydney Airport was approved on 17 February 2014.

Table 6.1.1: Sydney Airport—selected investments in aeronautical services and facilities

Description of investment	Value ($m)	Started	Completed
T1 Departures dwell area	20–50m	Q4 2014	Q4 2016
T1 Bussing – new arrivals gates and buses	25–30m	Q4 2015	Q4 2016
Airfield asphalt re-sheeting	10–20m	Q4 2015	Q2 2017
T1 Check-in hall automation	20–50m	Q1 2017	*Q1 2018*
T1 Gate lounge redevelopment	20–50m	Q1 2016	*Q2 2018*
T1 Baggage reclaim upgrades	20–50m	Q3 2016	*Q3 2018*
T1 gate capacity expansion in Pier A	>200m	*Q4 2018*	*Q4 2020*
Airfield bay upgrades	50–100m	*Q3 2017*	*Q2 2020*
T1 baggage system enhancements	50–100m	*Q1 2018*	*Q3 2020*

Aeronautical investments completed during 2016–17 included the T1 expansion of the dwell and gate lounge areas and the construction of facilities for bussed flight arrivals in both Piers B and C. Projects commenced during 2016–17 include the T1 automation of check-in and bag drops and the T1 works around expanding the area for gate lounges. The largest planned investment is the expansion of T1 to accommodate three new A380 contact gates.

Table 6.1.2 provides a summary of the largest car parking and landside investments that have been completed, commenced or planned during 2016–17.

Table 6.1.2: Sydney Airport—selected investments in car parking and landside services and facilities

Description of investment	Value ($m)	Started	Completed
T2/T3 ground access improvements	10–20m	Q1 2016	Q4 2016
T1 ground access improvements	10–20m	Q4 2015	Q1 2017
T2/T3 parking improvements	10–20m	Q3 2015	Q1 2017
T1 ground access improvements	50–100m	Q4 2015	*Q1 2018*
T1 parking improvements	20–50m	Q3 2015	*Q3 2017*
T2/T3 ground transport interchange	>100m	*Q3 2017*	*Q4 2020*
Ground access management	10–20m	*Q3 2017*	*Q4 2019*

Investments completed during 2016–17 include the T2/T3 ground access improvements which included the Sir Reginald Ansett Drive upgrade and bus lanes on Ross Smith Avenue. Other investments included the completion of the P3 car park expansion and vehicle bridge between the P3 and P2 car parks. Major projects planned include the T2/T3 multi-level ground transport interchange.

6.2. Aeronautical price monitoring and financial performance results

This section covers the aeronautical price monitoring and financial reporting results for Sydney Airport. The results are categorised into prices (section 6.2.1), revenues, costs and profits per passenger (section 6.2.2), total revenues, costs and profits (section 6.2.3), assets (section 6.2.4), changes in the asset base (Section 6.2.5) and rate of return on tangible non-current assets (section 6.2.6). All pricing and financial data is presented in real terms with values in 2016–17 dollars.

6.2.1. Prices

Table 6.2.1 presents the average aeronautical charges at Sydney Airport during 2016–17 and provides an indexed average list price for each charge between 2012–13 and 2016–17. Sydney Airport implemented a new five year agreement with international airlines during 2015–16.[67]

International and domestic passenger services charges increased by 2.9 and 2.8 per cent, while the runway charge for non-passenger movements increased by 2.6 per cent.

[67] The new aeronautical services agreement contains a service level agreement with a set of key performance indicators covering the areas of baggage, passenger facilitation and satisfaction, peak planning/resource allocation and bussing. Other components include a rebate mechanism and common service standards for cleaning, maintenance and terminal presentation.

Table 6.2.1 Sydney Airport—schedule of average aeronautical charges in 2016–17 and indexed average list prices from 2012–13 to 2016–17

	Average charge per unit $	Indexed average list prices (2016–17 base year = 100)				
		2012–13	2013–14	2014–15	2015–16	2016–17
Aeronautical services - aircraft movement facilities and activities						
International passenger service charge (per passenger)[(a)]*	30.04	86.4	86.7	89.9	97.2	100.0
Domestic passenger service charge (per passenger)[(b)]*	4.83	90.0	90.5	93.7	97.3	100.0
Runway charge—non-passenger movements and GA (per MTOW)*	6.00	90.3	90.9	94.1	97.5	100.0
Runway charge—regional services (per MTOW)**	3.78	107.8	105.0	103.2	101.7	100.0
Landing charge—rotary-wing (per movement)	33.00	107.7	104.9	103.1	101.7	100.0
Apron charge—major aprons (per 15 minutes)	38.50	107.7	104.9	103.1	101.7	100.0
Apron charge—GA aprons—regional services (per day)	66.00	107.7	104.9	103.1	101.7	100.0
Apron charge—GA aprons—0 to 20 tonnes (per day)	154.00	84.6	89.9	95.7	101.7	100.0
Apron charge—GA aprons—20 to 40 tonnes (per day)	209.00	90.7	93.8	97.7	101.7	100.0
Apron charge—GA aprons—greater than 40 tonnes (per day)	308.00	96.2	97.4	99.4	101.7	100.0
Domestic terminal infrastructure charge	Commercial agreement	NA	NA	NA	NA	NA
Aircraft refuelling services	Commercial agreement	NA	NA	NA	NA	NA
T3 domestic terminal infrastructure	Commercial agreement	NA	NA	NA	NA	NA
Light and emergency aircraft maintenance	Commercial agreement	NA	NA	NA	NA	NA
Aeronautical services – passenger processing facilities and activities						
International security charges—including passenger screening, checked bag screening and additional security measures (per passenger)[(c)]	4.70	107.5	106.6	101.5	101.1	100.0
T2 domestic passenger facilitation charge (per passenger)[(d)]	9.44	100.4	104.9	103.1	101.7	100.0
T2 regional passenger facilitation charge (per passenger)[(d)]	4.95	107.7	104.9	103.1	101.7	100.0
T2 domestic security charges—including passenger screening, checked bag screening and additional security measures (per passenger)[(e)]	1.63	118.9	125.6	124.2	110.2	100.0
T2 regional security charges—including passenger screening and	0.96	107.4	104.6	102.8	101.7	100.0

	Average charge per unit $	Indexed average list prices (2016–17 base year = 100)				
		2012–13	2013–14	2014–15	2015–16	2016–17
checked bag screening (per passenger)[(f)]						
T2 new investment charge (per passenger)[(g)]	0.44	107.7	104.9	103.1	101.7	100.0
International check-in counters (per hour)	25.73	99.0	99.1	101.0	100.4	100.0
Terminal access roads (per vehicle)[(h)]	4.00	101.0	98.4	103.2	104.3	100.0
Minimum charges						
Minimum charge for runway use (per movement)	66.00	107.7	104.9	103.1	101.7	100.0
Minimum charge for regional services (0–5 tonnes)	22.00	107.7	104.9	103.1	101.7	100.0
Minimum charge for regional services (5–10 tonnes)	45.38	107.7	104.9	103.1	101.7	100.0
Minimum charge for regional services (over 10 tonnes)	55.00	107.7	104.9	103.1	101.7	100.0

Notes:
Real indexed prices in 2016–17 dollars
NA Not applicable.
* Minimum charge for runway use is applicable.
** Minimum charge for regional air services is applicable.
(a) Charged per arriving and departing international passenger, excluding transfer and transit passengers, and infants and positioning crew. Applies to runway use and terminal facilities.
(b) Charged per arriving and departing domestic passenger, excluding infants and positioning crew. Applies to runway use, however, commercially agreed charges also applied.
(c) Charged as a component of the international PSC, and recovers the cost of passenger screening, checked bag screening and additional security measures. This charge includes an element that relates to security charges.
(d) Levied per arriving and departing passenger, excluding infants and positioning crew. This is a scheduled charge—specific arrangements apply under commercial agreements with major users.
(e) Applies to domestic users of T2 to recover the cost of passenger, checked bag screening and additional security measures. This charge includes an element that relates to security charges—note comments in (d) above.
(f) Applies to regional users of T2 to partly recover the cost of passenger and checked bag screening.
(g) Levied per arriving and departing domestic passenger in T2.
(h) Levied on vehicle pick-ups to recover costs associated with the provision of ground access facilities.
All aeronautical charges apart from international and domestic passenger service charge and the non-passenger runway charge decreased during 2016–17. Of the twenty-one charges that decreased during 2016–17, 19 of these were due to nominal prices remaining unchanged.

Aeronautical services to regional air services

The provision of aeronautical services by Sydney Airport for regional air services is declared for the purpose of the price notification regime under Part VIIA of the *Competition and Consumer Act 2010*. Sydney Airport must notify the ACCC if it intends to increase the price of such services. The ACCC must then decide whether to object to the proposal.

In assessing notifications from Sydney Airport for an increase in charges, the ACCC must give special consideration to the Australian Government's policy for price increases. This policy includes that the total revenue weighted percentage increase in prices over the three years from 1 July 2013 should not exceed the total percentage increase in the Consumer Price Index over that same period.

The Minister for Infrastructure and Transport, the Hon. Darren Chester MP announced the continuation of the regional air services declaration at Sydney Airport until 30 June 2019.

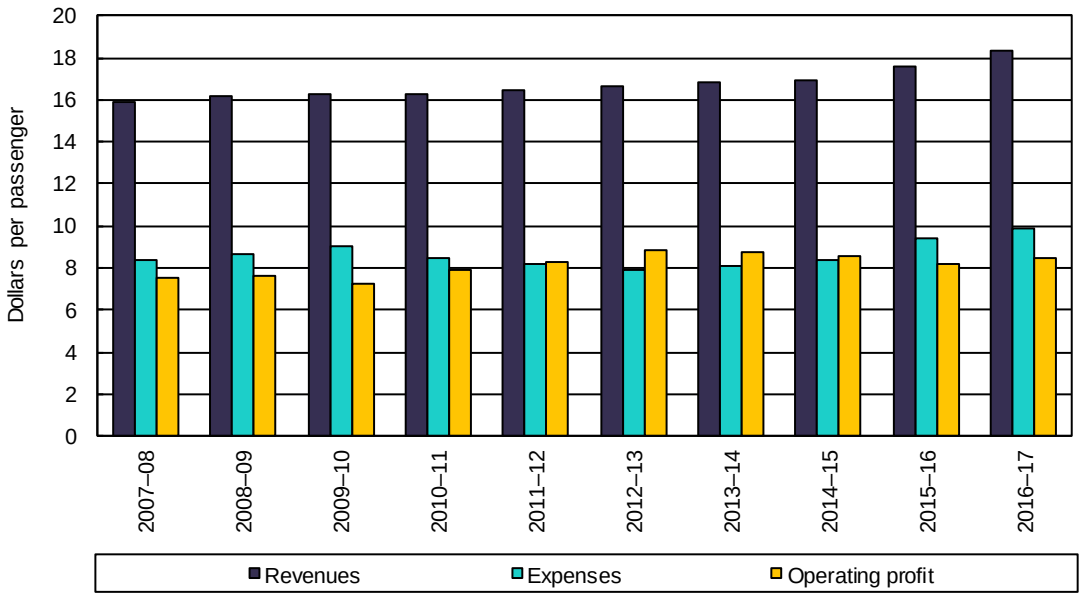
The ACCC did not receive any price increase proposals for regional services at Sydney Airport during 2016–17.

6.2.2. Revenue, costs and profit per passenger for aeronautical services

Financial data presented in this report is based on the line-in-the-sand approach to asset values (see box 2.3.2). This allows for a more consistent approach across all monitored airports with regard to revaluations of assets after 2005.

Figure 6.2.1 displays the aeronautical revenues, costs and profits per passenger at Sydney Airport over the past decade. Aeronautical revenue per passenger increased by 4.4 per cent to $18.34 during 2016–17, the largest annual increase over the past decade. Aeronautical expenses per passenger increased by 5.4 per cent to $9.88 and the profit per passenger increase was 3.2 per cent to $8.46.

Figure 6.2.1: Sydney Airport—Aeronautical revenues, expenses, and profits per passenger: 2007–08 to 2016–17



Note: Real values in 2016–17 dollars.

Aeronautical revenue per passenger continued to increase for Sydney Airport during 2016–17. This partly reflects the higher percentage of international passengers using Sydney Airport and the higher aeronautical charges that international passengers accrue to airports. As noted in table 6.2.1, the per-passenger charge for international passengers was $30.04, substantially above the equivalent domestic per passenger charge of $4.83. Sydney Airport has said that international passengers drive 70 per cent of aeronautical revenues.[68]

6.2.3. Revenues, costs and profits for aeronautical and total airport services

Table 6.2.2 presents the revenues, expenses and profits for aeronautical services and the total airport over the last decade.

Sydney Airport's total aeronautical revenue increased by 8.4 per cent to $782.3 million since 2015–16. This follows a similar increase from the previous year where the revenue growth was 8.9 per cent. Over the past decade, Sydney Airport has reported the lowest increase in aeronautical revenue of the monitored airports with an increase of 48.2 per cent.

Total aeronautical expenses grew by 9.5 per cent to $421.5 million. This is substantially less than the increase reported for 2015–16 which was 17.0 per cent.[69] A number of expense items contributed to the increase with the largest rise occurring with services and utilities which grew by 20 per cent. Other drivers of the increase in total expenses included depreciation which increased by 11.4 per cent and wages and salaries growing by 10 per cent. These increases in expenses were partially related to the new international airline agreement which included commitments to deliver improved standards throughout the airport.

Aeronautical profit increased by 7.1 per cent to $360.8 million during 2016–17. This is the largest increase in aeronautical profit since 2012–13. Sydney Airport has reported over the past decade the lowest increase of aeronautical profit (44.1 per cent) and also the lowest annual average increase (4.1 per cent) of the monitored airports.

Sydney Airport's operating profit margin (or the profit made for each dollar in aeronautical revenue earned) dropped by 0.5 percentage points to 46.1 per cent during 2016–17. This is the fourth consecutive year that Sydney Airport's operating profit margin has decreased.

[68] Sydney Airport, (2017), Half year presentation to investors, 22 August http://www.asx.com.au/asxpdf/20170822/pdf/43llgydfp239y8.pdf.

[69] The large increase in expenses during 2015–16 was partly related to the inclusion of expenses associated with the Qantas domestic terminal which was purchased by Sydney Airport in August 2015.

Table 6.2.2: Sydney Airport— revenues, expenses and profits for aeronautical and total airport services – Line-in-the-sand approach excluding landfill: 2007–08 to 2016–17

		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Revenue ($million)	Total aeronautical	528.0	530.8	569.3	591.5	598.8	633.2	651.3	663.1	721.9	782.3
	Total airport	**1262.2**	**1340.9**	**1047.7**	**1085.3**	**1106.2**	**1157.0**	**1201.4**	**1227.0**	**1318.2**	**1417.1**
	Aeronautical % of total airport	41.8	39.6	54.3	54.5	54.1	54.7	54.2	54.0	54.8	55.2
Expenses ($million)	Total aeronautical	277.7	282.2	314.8	305.7	296.9	298.4	312.9	329.1	385.0	421.5
	Total airport	**388.1**	**406.5**	**442.9**	**432.5**	**420.4**	**415.0**	**423.2**	**450.4**	**687.0**	**558.7**
EBITA profit ($million)	Total aeronautical	250.3	248.7	254.5	285.8	301.9	334.8	338.4	334.0	336.9	360.8
	Total airport	**874.1**	**934.4**	**604.8**	**652.8**	**685.8**	**742.0**	**778.2**	**776.6**	**631.2**	**858.4**
EBITA profit % of total revenue	Aeronautical	47.4	46.8	44.7	48.3	50.4	52.9	52.0	50.4	46.7	46.1
	Total airport	**69.3**	**69.7**	**57.7**	**60.2**	**62.0**	**64.1**	**64.8**	**63.3**	**47.9**	**60.6**
Revenue per passenger ($)	Total aeronautical	15.90	16.21	16.31	16.30	16.49	16.69	16.82	16.91	17.57	18.34
Expenses per passenger ($)	Total aeronautical	8.36	8.62	9.02	8.42	8.17	7.87	8.08	8.39	9.37	9.88
EBITA profit per passenger ($)	Total aeronautical	7.54	7.59	7.29	7.87	8.31	8.82	8.74	8.52	8.20	8.46

Note: Real values in 2016–17 dollars.

Line-in-the-sand – including landfill

As noted in previous monitoring reports, the value of landfill assets was not included in the asset base provided by Sydney Airport as at 1 July 2005. The ACCC therefore presents two versions of Sydney Airport's line-in-the-sand financial accounts. Section 6.2.2 presented line-in-the-sand accounts without the value of landfill assets, while this section presents those accounts including landfill. The value for this landfill as at 30 June 2017 was $151.1 million.

Table 6.2.3 shows that while there is no difference between revenue reported for the line-in-the-sand accounts that exclude landfill and those that include it, total expenses were 0.4 per cent greater for the accounts including landfill.

Table 6.2.3: Sydney Airport—revenues, expenses and operating profits for aeronautical services including landfill in real terms: 2009–10 to 2016–17

	09–10	10–11	11–12	12–13	13–14	14–15	15–16	16–17
Revenue $m	569.3	591.5	598.8	633.2	651.3	663.1	721.9	782.3
Expenses $m	317.2	307.2	299.0	300.5	314.9	331.0	386.9	423.4
EBITA $m	252.2	284.3	299.8	332.8	336.4	332.1	335.0	358.9
EBITA as a % of revenue	44.3	48.1	50.1	52.6	51.7	50.1	46.4	45.9

Note: Real values in 2016–17 dollars.

6.2.4. Assets for aeronautical and total airport services

Table 6.2.4 presents Sydney Airport's tangible non-current assets for aeronautical services under the line-in-the-sand approach (excluding landfill) and also for total airport services over the period from 2007–08 to 2016–17.

Total aeronautical tangible non-current assets at Sydney Airport increased by 0.6 per cent to $3.3 billion in 2016–17. This slight increase was partly due to rises in property, plant and equipment assets which increased by 2.7 per cent. Total tangible non-current assets have increased by 15.1 per cent over the past decade.

Table 6.2.4: Sydney Airport—non-current assets for aeronautical services and total airport services in real terms – Line-in-the-sand excluding landfill: 2007–08 to 2016–17

		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Investment property ($million)	Aeronautical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total airport	**5062.2**	**5604.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Land ($million)	Aeronautical	1352.9	1290.8	1445.6	1202.4	1162.3	1123.8	1241.2	1205.8	1175.1	1141.4
	Total airport	**1764.8**	**1934.2**	**2116.5**	**1842.8**	**1780.3**	**1720.2**	**1654.8**	**1607.3**	**1566.0**	**1520.8**
Property, plant and equipment ($million)	Aeronautical	1456.2	1703.1	1771.7	1646.8	1584.5	1577.0	1558.2	1513.7	2068.6	2123.6
	Total airport	**2228.3**	**2450.7**	**2345.2**	**2223.5**	**2161.0**	**2190.2**	**2164.4**	**2090.2**	**3013.8**	**3069.6**
Intangibles ($million)	Aeronautical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total airport	**1724.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Other tangible non-current assets ($million)	Aeronautical	41.6	42.9	51.1	48.6	41.2	36.9	35.5	29.1	19.4	16.6
	Total airport	**4166.1**	**4502.5**	**4446.4**	**5405.6**	**6249.4**	**6901.6**	**10654.5**	**10997.5**	**10037.6**	**10288.6**
Total tangible non-current assets ($million)	Aeronautical	2850.8	3036.8	3268.4	2897.8	2788.0	2737.7	2834.8	2748.6	3263.1	3281.6
	Total airport	**13221.3**	**14492.0**	**8908.0**	**9471.9**	**10190.7**	**10811.9**	**14473.7**	**14695.0**	**14617.4**	**14879.0**
Total non-current assets ($million)	Aeronautical	2850.8	3036.8	3268.4	2897.8	2788.0	2737.7	2834.8	2748.6	3263.1	3281.6
	Total airport	**14945.8**	**14492.0**	**8908.0**	**9471.9**	**10190.7**	**10811.9**	**14473.7**	**14695.0**	**14617.4**	**14879.0**

Note: Real values in 2016–17 dollars.

Line-in-the-sand assets – including landfill

Table 6.2.5 presents Sydney Airport's non-current assets for aeronautical services under the line-in-the-sand approach and including the value of landfill. The total value of aeronautical tangible non-tangible assets including the value of landfill was $3.4 billion during 2016–17, up 0.4 per cent from 2015–16. This amount is 4.6 per cent higher than the line-in-the-sand asset value that does not include landfill assets.

Table 6.2.5: Sydney Airport—non-current assets for aeronautical services under the line-in-the-sand approach including landfill in leasehold land: 2009–10 to 2016–17

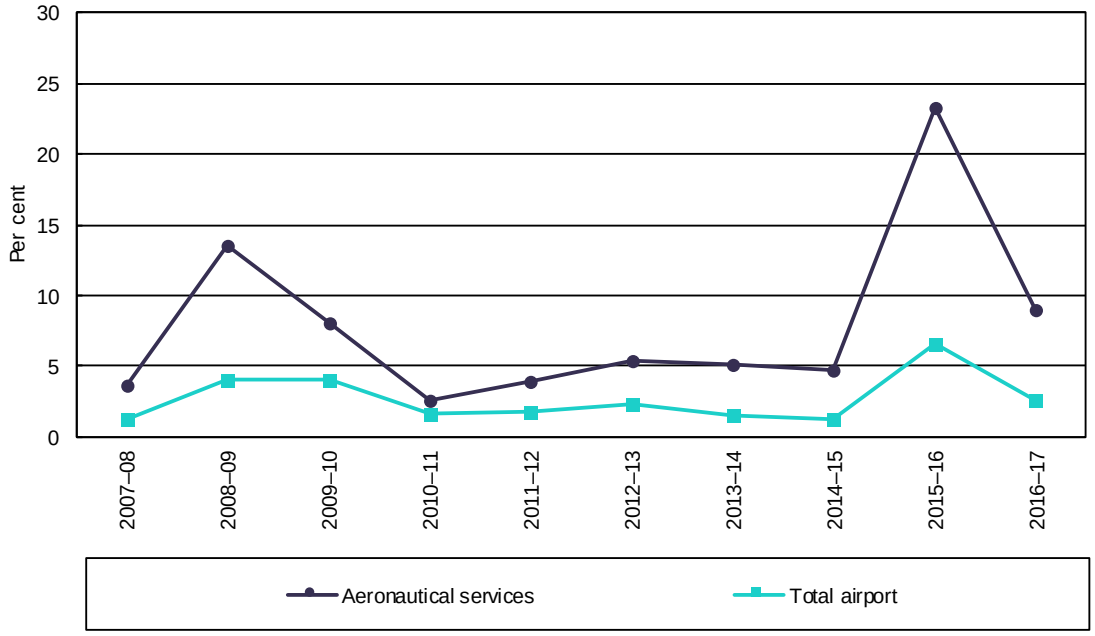
	09–10	10–11	11–12	12–13	13–14	14–15	15–16	16–17
Investment property ($m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Land ($m)	1646.7	1385.5	1339.2	1294.7	1405.7	1365.6	2661.5	2585.0
Property, plant and equipment ($m)	1771.7	1646.8	1584.5	1577.0	1558.2	1513.7	2068.6	2123.6
Intangibles ($m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other tangible non-current assets ($m	51.1	48.6	41.2	36.9	35.5	29.1	19.4	16.6
Total tangible non-current assets ($m)	3469.4	3080.9	2964.9	2908.6	2999.3	2908.3	3418.8	3432.8

Note: Real values in 2016–17 dollars.

6.2.5. Additions as a percentage of tangible non-current assets

Figure 6.2.2 presents Sydney Airport's additions as a percentage of tangible non–current assets for both aeronautical and total airport services. Sydney Airport's additions to total aeronautical assets represented 9.0 per cent of total aeronautical tangible non-current assets. This represents a reduction of 14.3 percentage points from 2015-16 when additions were 23.3 per cent of total aeronautical tangible non-current assets. A large portion of the 2015–16 additions was related to the purchase of the Qantas domestic terminal. The value of additions in 2016–17 of $380 is the third highest spend at Sydney Airport since privatisation. The majority of the increase in additions was related to buildings ($122.3 million) and land improvement ($112.6 million).

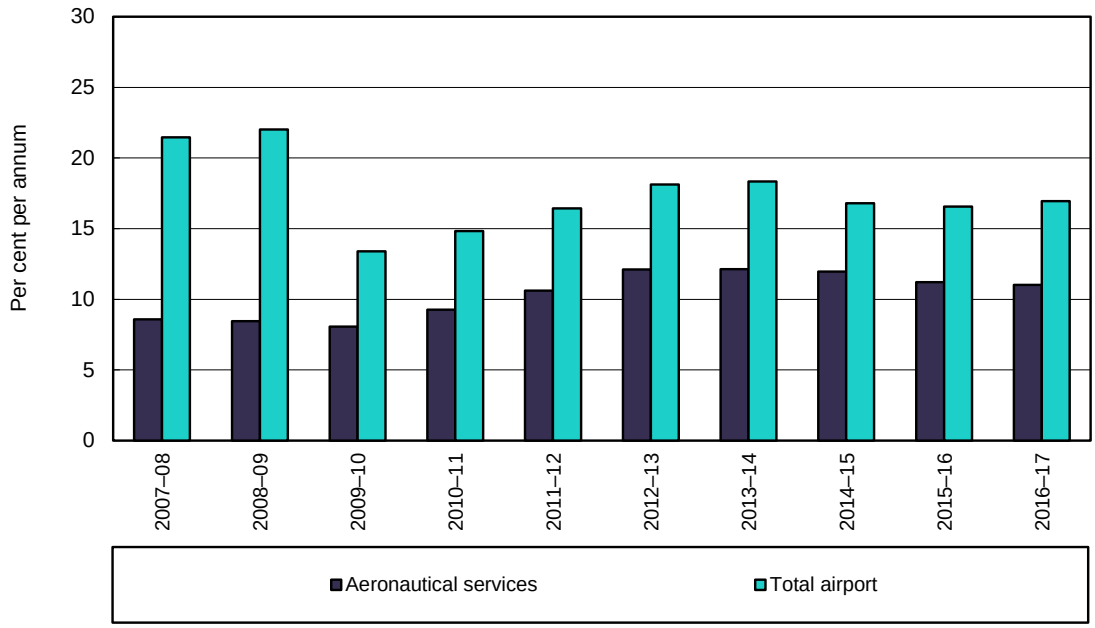
Figure 6.2.2: Sydney Airport—additions as a percentage of tangible non-current assets for aeronautical and total airport services: 2007–08 2016–17



6.2.6. Rates of return on tangible non-current assets

Figure 6.2.3 presents the rate of return on tangible non-current assets for aeronautical services and total airport operations. This measure is defined as earnings before interest, tax and amortisation (EBITA) on average tangible non-current assets.

Figure 6.2.3: Sydney Airport—rate of return (EBITA) on tangible non-current assets for aeronautical and total airport services in real terms: 2007–08 to 2016–17



Sydney Airport's return on tangible non-current aeronautical assets decreased slightly by 0.2 percentage points to 11.0 per cent during 2016–17. This is the third consecutive year that the return on non-current aeronautical assets has decreased.

The total airport rate of return on tangible non-current assets was 16.9 per cent during 2016–17, up 0.4 percentage points from the previous year. However, the current total airport return on assets is substantially lower than 2007–08 and 2008–09 when it was 21.5 and 22.0 per cent respectively.

Line-in-the-sand assets including landfill —Rates of return on tangible non-current assets

The rate or return on average aeronautical tangible non-current assets including landfill assets was 10.5 per cent during 2016–17, 0.5 percentage points below the amount when landfill assets are not included.

The rate of return on average tangible non-current assets for total airport services and including landfill assets was 15.2 per cent during 2016–17. This is 1.7 percentage points below the return for total airport services without landfill assets included.

6.3. Quality of aeronautical and total airport services

Passenger and airline perceptions of airport services are used in this report to gauge the quality of service offered at each airport. Quality of service ratings are derived from these survey results and also from various objective indicators collected from monitored airports. This section presents Sydney Airport's ratings for quality of total airport services (section 6.3.1), terminal and aircraft-related services and facilities (section 6.3.2), and passenger-related services and facilities for international and domestic terminals (section 6.3.3).

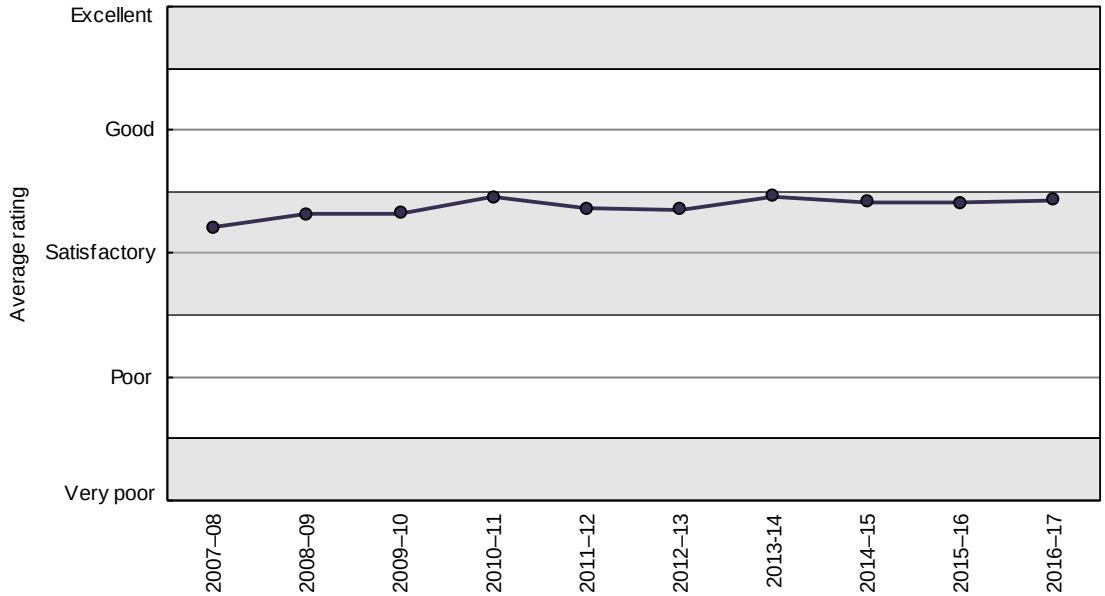
6.3.1. Total airport services

For each airport, the ACCC calculates a single overall quality of service rating. This overall rating covers aeronautical, car parking and, to a lesser degree, landside operations. The overall rating represents the average score that the airport achieved across the many measures based on airline surveys, passenger surveys and objective indicators. The methodology for calculating this rating is explained in section A4.2.3 in appendix 4.

Figure 6.3.1 presents Sydney Airport's overall quality of service rating since 2007–08. The airport's overall rating remained relatively unchanged within the 'satisfactory' category during 2016–17[70]. The rating has remained just short of the 'good' category over the past 10 years.

[70] The 2015–16 airport monitoring report stated that Sydney Airport recorded a 'good' overall quality of service rating in 2015–16. A minor correction to the calculation of this score by the ACCC has seen it fall slightly. This minor fall moved the rating into the 'satisfactory' category.

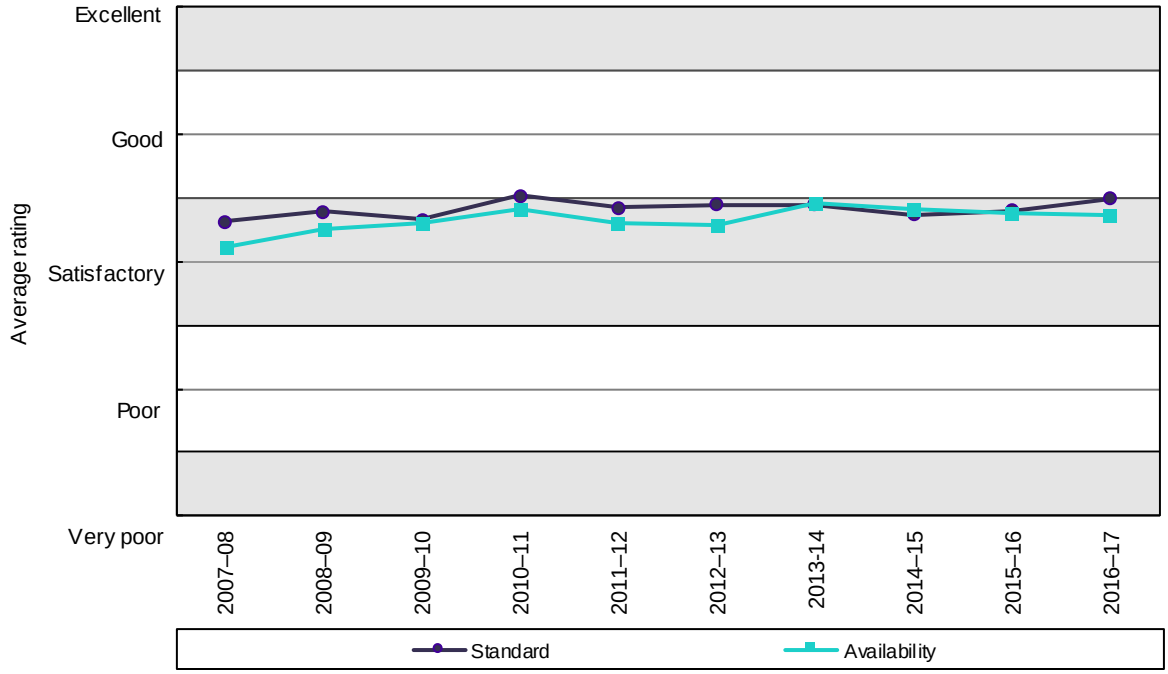
Figure 6.3.1: Sydney Airport—overall quality of service rating: 2007–08 to 2016–17



Source: Airline surveys, passenger surveys and objective indicators obtained from Sydney Airport.

Figure 6.3.2 presents Sydney Airport's average ratings in measures that relate specifically to either the availability or standard of services and facilities over the past decade. As with the overall quality of service rating, these also remained relatively unchanged near the top of the 'satisfactory' category in 2016–17.

Figure 6.3.2: Sydney Airport—average ratings for standard and availability of total airport services and facilities: 2007–08 to 2016–17

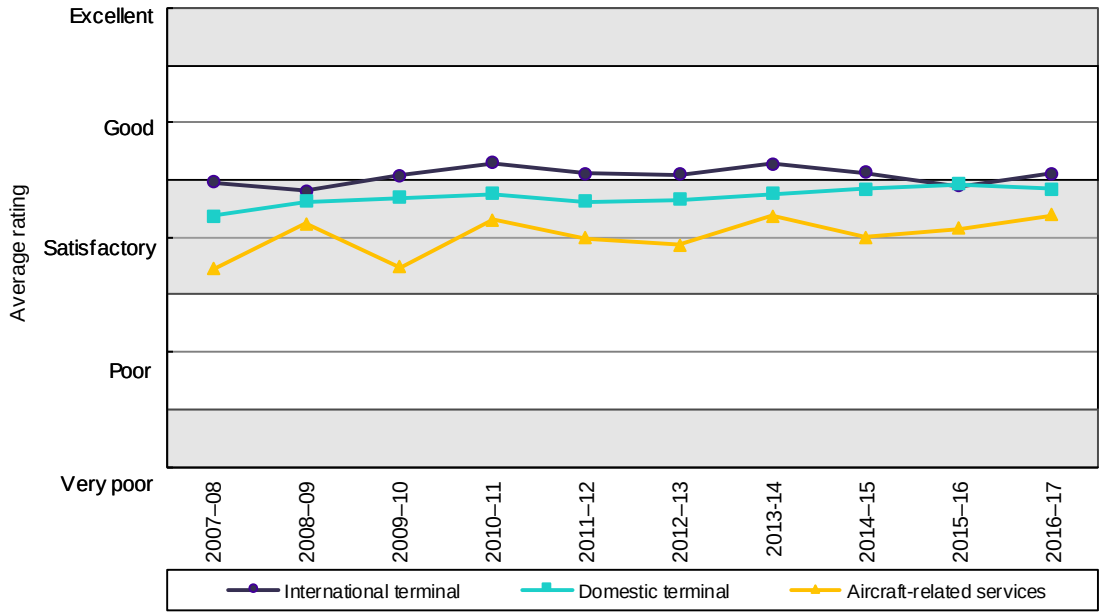


Source: Airline surveys, passenger surveys and objective indicators obtained from Sydney Airport

6.3.2. Terminals and aircraft-related services and facilities

Figure 6.3.3 presents the average ratings for international and domestic terminal facilities, and aircraft related services and facilities at Sydney Airport. Average quality of service ratings for the international terminal increased slightly, and moved from the ‘satisfactory’ to ‘good’ category. The average ratings for the domestic terminals decreased slightly but remained in the ‘satisfactory’ category during 2016–17.

Figure 6.3.3: Sydney Airport—average ratings for international and domestic terminal facilities, and aircraft-related services and facilities: 2007–08 to 2016–17



Source: Airline surveys, passenger surveys and objective indicators obtained from Sydney Airport

The average rating for aircraft-related services is determined solely by airline surveys. The rating remained at 'satisfactory' in 2016–17, but has shown improvement in each of the last two years (figure 6.3.3).

Table 6.3.1 provides more detail on the views of airlines on aircraft-related services and facilities at Sydney Airport. During 2016–17, the majority of the indicators were rated either 'good' or 'satisfactory' with one indicator (aircraft parking availability) receiving a 'poor' rating. More than half of the indicators improved on their ratings from the previous year.

The ratings for two indicators—taxiway standard and management responsiveness standard—moved up into the 'good' rating. In particular, one airline said it felt Sydney Airport's senior management team was supportive of the airline's overall objective and worked collaboratively with the airline staff. Another airline acknowledged positive impact of appointment of duty managers on shift by Sydney Airport.

Ratings for runway availability and standard both decreased but remained at 'satisfactory' and 'good' respectively during 2016–17. A number of airlines commented that runways were congested (particularly at peak periods) and this was causing inbound and outbound delays. Sydney Airport has advised that a new gate allocation system is expected to be in operation by March 2018.

Aircraft parking availability dropped slightly, but enough to move the rating from 'satisfactory' to 'poor'. Some airlines said capacity was an issue particularly during peak periods.

Table 6.3.1: Sydney Airport—airline ratings of quality of individual aircraft related services and facilities: 2016–17, 1-year change, and change since 2007–08

	Indicator	Rating category 2016–17	1-year change	Change since 2007–08
Runway	Availability	Satisfactory	▼	▲
	Standard	Good	▼	▲*
Taxiways	Availability	Satisfactory	▲	▲
	Standard	Good	▲*	▲*
Aprons	Availability	Satisfactory	▼	▲
	Standard	Satisfactory	▼	▲
Aircraft parking	Availability of facilities and bays	Poor	▼*	▲
	Standard of facilities and bays	Satisfactory	▲	▲
Ground handling	Availability of services and facilities	Satisfactory	▲	▲*
	Standard of services and facilities	Satisfactory	▲	▲*
Management responsiveness	Availability	Good	▲	▲*
	Standard	Good	▲*	▲*

Source: Airline surveys
Note: The rating categories are: very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change. */**Rating changed by one/two categories over the period.

6.3.3. Passenger-related services and facilities

International terminal

Table 6.3.2 presents quality of service results for passenger-related services and facilities at the international terminal. During 2016–17, airline ratings of the international terminal were generally positive, with the ratings for five out of six indicators improving. Passenger ratings were also positive, with the ratings for all indicators either improving or remaining unchanged.

Airline ratings for check-in availability increased but remained ‘satisfactory’ during 2016–17. Commentary from the airlines was generally positive regarding check-in availability, noting the self-service transformation that is taking place in the terminal and that the airport was generally efficient in arranging additional check-in counters when needed. Airline ratings for the availability of baggage processing facilities also increased and moved from the ‘poor’ to ‘satisfactory’ category, while the aerobridge standard also improved on its rating to be considered ‘satisfactory’. Some airlines said that the dual aerobridges are very modern, clean and efficient. Other airlines pointed to concerns regarding the lack of frequent cleaning of aerobridges. Sydney Airport said that the practices of some airlines contributed to an increased need for cleaning.

Table 6.3.2: Sydney Airport—indicators of quality of passenger related services and facilities—international terminal: 2016–17, 1-year change and change since 2007–08

Category	Indicator	Data source	Indicator result 2016–17	1-year change	Change since 2007–08
Check-in	Check-in availability	Airline survey	Satisfactory	▲	▲
	Check-in standard	Airline survey	Satisfactory	▲	▲
	Check-in waiting time	Passenger survey	Good	▲	▲
	Number of departing passengers per check-in desk, kiosk and bag drop facility (peak hour)	Objective indicator	9.6 passengers	—	▲
Immigration	Waiting time in outbound Immigration area	Passenger survey	Good	▲	▲
	Number of departing passengers per outbound Immigration desk (peak hour)	Objective indicator	68.0 passengers	▼	▼
	Waiting time in inbound Immigration area	Passenger survey	Good	▲	▲
	Number of arriving passengers per inbound Immigration desk (peak hour)	Objective indicator	48.5 passengers	▲	▲
	Waiting time in inbound baggage inspection area	Passenger survey	Good	▲	n/a
	Number of arriving passengers per baggage inspection desk (peak hour)	Objective indicator	42.1 passengers	▲	▲
Information	Flight information display screens	Passenger survey	Good	▲	▲
	Number of passengers per flight information display screen (peak hour)	Objective indicator	5.2 passengers	▼	▲
	Number of passengers per information point (peak hour)	Objective indicator	304.1 passengers	▲	▲
	Signage and wayfinding	Passenger survey	Good	▲	▲

Notes: The rating categories are; very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change. *Rating changed by a category over the period; **Rating changes by two categories over the period.

Table 6.3.2: Sydney Airport—indicators of quality of passenger related services and facilities—international terminal: 2016–17, 1-year change and change since 2007–08 (cont.)

Category	Indicator	Data source	Indicator result 2016–17	1-year change	Change since 2007–08
Baggage	Baggage processing facilities availability	Airline survey	Satisfactory	▲*	▼
	Baggage processing facilities standard	Airline survey	Poor	▲	▼*
	Average throughput of outbound baggage system (per hour)	*Objective indicator*	*1484.3 items*	▲	▲
	Circulation space for inbound baggage reclaim	Passenger survey	Good	▲	n/a
	Information display for inbound baggage reclaim	Passenger survey	Good	▲	n/a
	Number of arriving passengers per m^2 of inbound baggage reclaim area (peak hour)	*Objective indicator*	*0.2 passengers*	—	n/a
	Findability of baggage trolleys	Passenger survey	Good	▲	▲
	Number of passengers per baggage trolley (peak hour)	*Objective indicator*	*1.2 passengers*	▼	▲
Gate lounges	Seating in lounge area (quality and availability)	Passenger survey	Good	▲	▲
	Number of departing passengers per seat in gate lounges (peak hour)	*Objective indicator*	*0.5 passengers*	—	▲
	Crowding in lounge area	Passenger survey	Good	—	n/a
	Number of departing passengers per m^2 of lounge area (peak hour)	*Objective indicator*	*0.3 passengers*	—	▲
Amenities	Standard of washrooms	Passenger survey	Good	▲	▲
	Number of departing passengers per washroom (peak hour)	*Objective indicator*	*112.5 passengers*	▼	n/a
Aerobridges	Aerobridges availability	Airline survey	Satisfactory	▼	▼
	Aerobridges standard	Airline survey	Satisfactory	▲*	▼
	Percentage of arriving international passengers using an aerobridge	*Objective indicator*	*95.6%*	▼	▼
	Percentage of departing international passengers using an aerobridge	*Objective indicator*	*95.6%*	▼	▼
Security	Quality of security search process	Passenger survey	Good	▲	▲
	Number of departing passengers per security clearance system (peak hour)	*Objective indicator*	*121.9 passengers*	▼	▲

Notes: The rating categories are; very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change. *Rating changed by a category over the period; **Rating changes by two categories over the period.

Domestic precinct

Table 6.3.3 presents the quality of service ratings for passenger-related services and facilities in the domestic precinct (which covers terminals 2 and 3).[71] The results for both terminals have been combined at the request of Sydney Airport.

Airline ratings declined across most indicators during 2016–17, while all of the passenger ratings improved within the 'good' category.

Airline ratings of both the availability and standard of aerobridges declined within the 'satisfactory' category during 2016–17. Some airlines noted the limited availability of aerobridges, particularly during peak periods. Baggage processes and facilities availability and standard also decreased within the 'satisfactory' category.

Despite an increase in airline ratings for the check-in standard from 'satisfactory' to 'good' category during 2016–17, two airlines suggested that the check in area (in relation to domestic terminal 2) needed refurbishment.

[71] Qantas' domestic terminal was purchased by Sydney Airport in August 2015 and was included in the ACCC's 2015–16 monitoring report. As Sydney Airport now operates the terminal, it is included in the monitoring program.

Table 6.3.3: Sydney Airport—indicators of quality of passenger related services and facilities—domestic precinct (terminals T2 & T3): 2016–17, 1-year change

Category	Indicator	Data source	Indicator result 2016–17	1-year change
Check-in	Check-in availability	Airline survey	Good	—
	Check-in standard	Airline survey	Good	▲*
	Check-in waiting time	Passenger survey	Good	▲
	Number of departing passengers per check-in desk, kiosk, and bad drop facility (peak hour)	Objective indicator	16.7 passengers	▼
Baggage	Baggage processing facilities availability	Airline survey	Satisfactory	▼
	Baggage processing facilities standard	Airline survey	Satisfactory	▼
	Number of arriving passengers per m^2 of inbound baggage reclaim area (peak hour)	Objective indicator	0.4 passengers	▲
	Circulation space for inbound baggage reclaim	Passenger survey	Good	▲
	Information display for inbound baggage reclaim	Passenger survey	Good	▲
	Findability of baggage trolleys	Passenger survey	Good	▲
	Number of passengers per baggage trolley (peak hour)	Objective indicator	15.3 passengers	▼
Information	Flight information display screens	Passenger survey	Good	▲
	Signage and wayfinding	Passenger survey	Good	▲
	Number of passengers per flight information display screen (peak hour)	Objective indicator	13.9 passengers	▼
	Number of passengers per information point (peak hour)	Objective indicator	939.9 passengers	▼
Gate lounges	Seating in lounge area (quality and availability)	Passenger survey	Good	▲
	Crowding in lounge area	Passenger survey	Good	▲
	Number of departing passengers per seat in gate lounges (peak hour)	Objective indicator	0.4 passengers	▲
	Number of departing passengers per m^2 of lounge area (peak hour)	Objective indicator	0.3 passengers	—
Amenities	Standard of washrooms	Passenger survey	Good	▲
	Number of departing passengers per washroom (peak hour)	Objective indicator	180.7 passengers	▼
Aerobridges	Aerobridges availability	Airline survey	Satisfactory	▼
	Aerobridges standard	Airline survey	Satisfactory	▼
	Number of arriving domestic passengers per aerobridge (peak hour)	Objective indicator	81.5 passengers	▼
	Number of departing domestic passengers per aerobridge (peak hour)	Objective indicator	85.5 passengers	▼
Security	Quality of security search process	Passenger survey	Good	▲
	Number of departing passengers per security clearance system (peak hour)	Objective indicator	180.7 passengers	▲

Notes: The rating categories are; very poor, poor, satisfactory, good and excellent. Quality of service indicators are the average of T2 and T3 domestic terminals.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change. *Rating changed by a category over the period.

6.4. Car parking and landside services

This section assesses Sydney Airport's car parking and landside services and facilities. Areas covered include car park activity (section 6.4.1), pricing (section 6.4.2), revenues and profits (section 6.4.3), car park and quality of service outcomes (section 6.4.4), and other transport options (section 6.4.5).

6.4.1. Car park activity

Table 6.4.1 outlines the number of car parking spaces available at all car parks and the throughput of those facilities at Sydney Airport over the period from 2007–08 to 2016–17.

The total number of car park spaces at Sydney Airport increased by 7.3 per cent to 17 094 spaces during 2016–17. This change is mostly related to the increase in car park spaces at the domestic precinct which grew by 25.7 per cent to 4888 spaces. This increase is related to the completion of construction of additional levels at the P3 car park in the domestic precinct. The international car park increased the number of spaces by 2.7 per cent to 6267 during 2016–17 while the number of spaces at the at-distance (Blu Emu) car park remained the same.

The average daily throughput of all car park facilities at Sydney Airport decreased by 7.8 per cent to 11 856 vehicles during 2016–17. This is the first decline in daily throughput since 2008–09 and the largest decline in throughput since privatisation. The average daily throughput at the domestic car parks decreased by a significant 29.4 per cent to 3824 vehicles during 2016–17. The at-distance (Blu Emu) car park which is also located on the east side of the airport experienced a decline in daily throughput, dropping by 13.7 per cent to 576 vehicles during 2016–17. Sydney Airport advised that the decline in throughput at these two car parks is related to the road construction work around the east side, as well as Sydney's road network congestion, resulting in a modal shift to trains.[72&73]

In contrast to the other car parks, the average daily throughput for the international terminal increased by 10.0 per cent to 7 455 vehicles during 2016–17 which is the largest increase since 2012–13. This occurred while significant road works including the widening of Marsh Street occurred during the reference period.

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[72] Current road construction on the east side of the airport that may be contributing to the modal shift to rail include the widening of Joyce Drive / General Holmes Drive and the road underpass work that will link General Holmes Drive with Wentworth Avenue.

Roads and Maritime, (2017), *Sydney Airport Precinct*, http://www.rms.nsw.gov.au/documents/projects/sydney-south/sydney-airport/sydney-airport-project-update-2016-12.pdf.

[73] Sydney Airport stated during 2016–17 that access into and out of the airport around peak periods "can be challenging". A key focus for the airport (in conjunction with the NSW and Australian governments) is to reduce travel times by widening roads, smoothing traffic flows and eliminating traffic lights.

Sydney Airport (2017), Chairman and CEO address to security holders, 30 May, http://www.asx.com.au/asxpdf/20170530/pdf/43jlbpzltfkb7q.pdf

Table 6.4.1 Sydney Airport—number of car park spaces and average daily throughput: 2007–08 to 2016–17

		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Number of car park spaces	Domestic terminal	3 662	3 688	3 458	3 244	3 207	3 599	4 446	4 367	3 889	4 888
	International terminal	1 356	2 234	2 170	2 306	1 882	3 257	6 301	6 008	6 105	6 267
	At-distance (Blue Emu)	4 577	4 577	4 194	4 307	5 694	5 817	6 117	6 117	5 939	5 939
	Staff	1 256	1 911	2 326	2 414	2 333	3 149	NA	NA	NA	NA
	Total airport	**10 851**	**12 410**	**12 148**	**12 271**	**13 116**	**15 822**	**16 864**	**16 492**	**15 933**	**17 094**
Annual throughput of car park facilities (thousand)	Domestic terminal	1 203	1 128	1 146	1 561	1 513	1 548	1 926	1 960	1 982	1 396
	International terminal	1 665	1 648	1 761	1 888	1 983	2 179	2 388	2 414	2 482	2 721
	At-distance (Blu Emu)	218	212	229	232	228	246	240	246	245	210
	Total airport	**3 085**	**2 988**	**3 136**	**3 680**	**3 724**	**3 972**	**4 555**	**4 621**	**4 708**	**4 327**
Average daily throughput of car park facilities	Domestic terminal	3 286	3 091	3 139	4 278	4 133	4 240	5 277	5 370	5 415	3 824
	International terminal	4 549	4 515	4 824	5 171	5 418	5 969	6 543	6 615	6 781	7 455
	At-distance (Blu Emu)	594	581	628	634	624	673	659	675	668	576
	Total airport	**8 429**	**8 187**	**8 591**	**10 083**	**10 176**	**10 882**	**12 479**	**1 2660**	**1 2864**	**11 856**

6.4.2. Car park prices

The following section details the trend on Sydney Airport's 'drive-up' car parking charges from 2007–08 to 2016–17. Car parking at all monitored airports can either be paid at the drive-up charge or can be booked online prior to arrival which is typically at a discount to the drive-up charges. Sydney Airport changed the charging structures of the car parks at the both terminals during 2016–17. The multi-level international car park now accommodates both regular 'self-park' and guaranteed space customers. The guaranteed space area is located closer to the terminal and is available at a premium to the self-park area.[74] Customers must also pre-book for parking in the guaranteed space area online. A similar guaranteed space area has been introduced at the domestic precinct.

This analysis compares the drive-up, online charges and the average charges that customers paid at Sydney Airport's car parking facilities for selected parking durations. While online booking of car spaces at all monitored airports is increasing, the majority of users are still paying drive-up rates. During 2016–17, around 59.5 per cent car park revenue from derived from drive-up users. The percentage of cars that paid drive-up rates was just under 90 per cent.

International terminal – short-term[75] parking

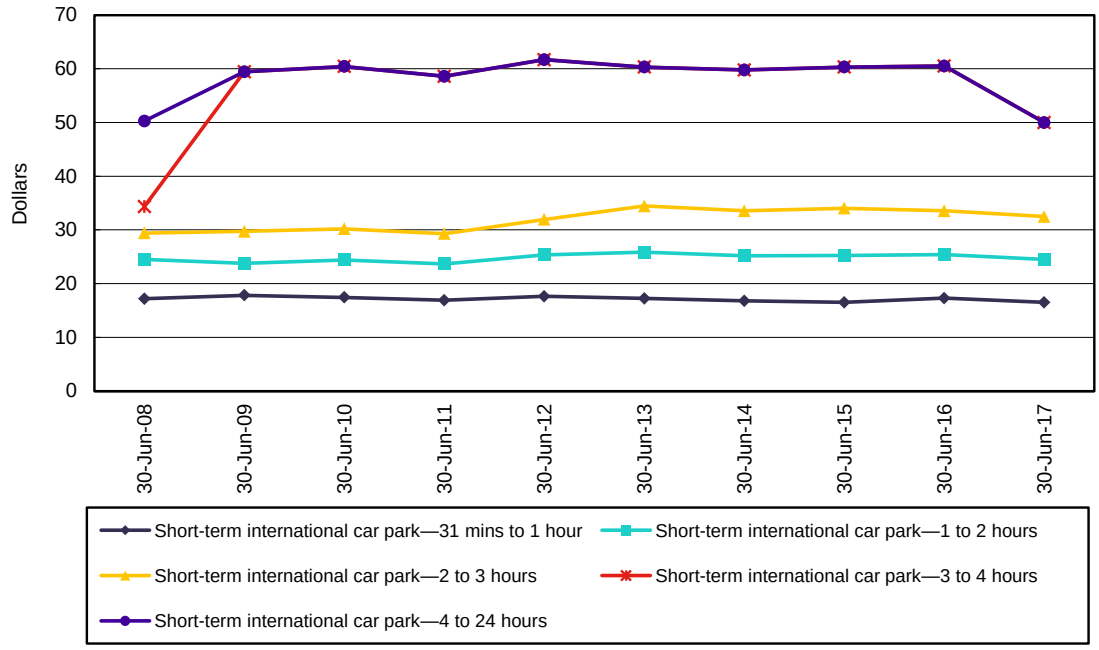
Figure 6.4.1 presents the short-term charges for Sydney Airport's international terminal car park. All charge points for short-term categories displayed decreased during 2016–17. The largest decease in charges was for 3 to 4 hours and 4 to 24 hours of parking which both declined by 17.4 per cent. The smallest decrease was for 2 to 3 hours of parking which decreased by 3.2 per cent.

Over the past decade, charges for up to 1 hour, 1 to 2 hours and 4 to 24 hours have all decreased. The largest drop was with the up to1 hour duration which decreased 3.9 per cent. Other durations displayed increased over the past 10 years, with the largest increase for the 3 to 4 hour duration which rose by 45.6 per cent.

[74] Sydney Airport, (2017), *Where to park,* https://www.sydneyairport.com.au/parking-and-transport/departing/international/parking-options-international.

[75] The ACCC defines short-term parking as parking durations of up to 24 hours.

Figure 6.4.1: Sydney Airport— drive-up prices at international terminal car park in real terms: 30 June 2008 to 30 June 2017



Note: Real values in 2016–17 dollars.

Table 6.4.2 compares drive-up and average on-line charges for selected durations at the international terminal car park. The table also includes a weighted average of drive-up and online charges by duration.

Table 6.4.2 Sydney Airport—drive-up, online and average parking charges at the international terminal car park: 2016–17

Length of stay	Drive-up ($)	Average online ($)	Weighted average of drive-up and online ($)
31 minutes to 1 hour	17.90	10.70	17.54
1 to 2 hours	25.87	15.85	24.99
2 to 3 hours	34.18	20.60	31.27
3 to 24 hours	59.90	51.91	59.34

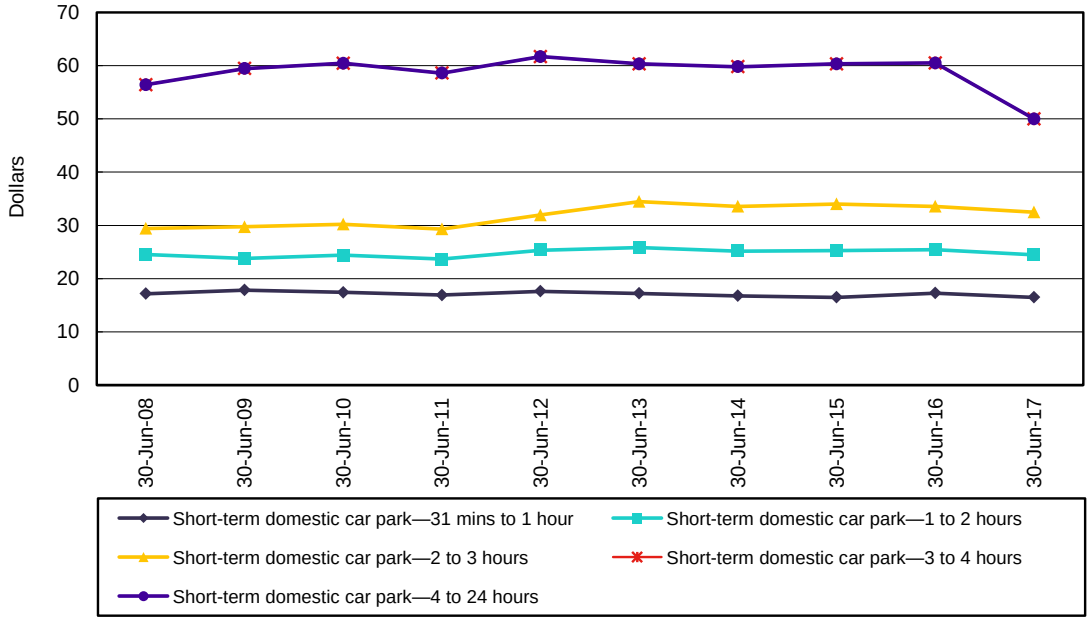
Note: Average car parking charges are calculated as the weighted average of drive-up and online charges.

While all average online charges were less than the equivalent drive-up charge, the largest difference in charges was for 31 minutes to 1 hour of parking. The average online charge for this duration was 40.2 per cent cheaper than equivalent drive-up price. This differential dropped to 13.3 per cent for 3 to 24 hours of parking. The weighted average price for all durations is similar to the drive-up price and is indicative that most vehicles are paying drive-up prices.

Domestic terminal – short-term parking

Figure 6.4.2 presents the prices for Sydney's domestic P1 and P2 car park. Similar to the international car park, charge points for short-term categories displayed all decreased during 2016–17. The largest decrease was for 3 to 4 hour duration which decreased by 17.4 per cent. The '2 to 3 hour' duration had the lowest decrease with a drop of 3.2 per cent.

Figure 6.4.2: Sydney Airport—drive-up prices at domestic terminal car park in real terms: 30 June 2008 to 30 June 2017



Note: Real values in 2016–17 dollars.

Table 6.4.3 compares the drive-up and average online charges for selected short-term durations for the P1 and P2 domestic car parks. A weighted average of both is also included. Similar to the international car park, all average online charges were less than the equivalent drive-up charge. The largest difference in charges was for the '31 minutes to 1 hour' duration, which was 38.9 per cent lower. The smallest difference between average drive-up and online charges was for 3 to 24 hours of parking, with the online price 5.3 per cent lower. The similarity of the drive-up and weighted average of both charges again shows that most vehicles are paying the drive-up price for this duration.

Table 6.4.3 Sydney Airport—drive-up, online and average parking charges at the domestic terminal car park: 2016–17

Length of stay	Drive-up ($)	Average online ($)	Weighted average of drive-up and online ($)
31 minutes to 1 hour	17.56	10.73	17.38
1 to 2 hours	25.53	15.97	25.10
2 to 3 hours	33.84	20.80	32.50
3 to 24 hours	59.89	56.72	59.15

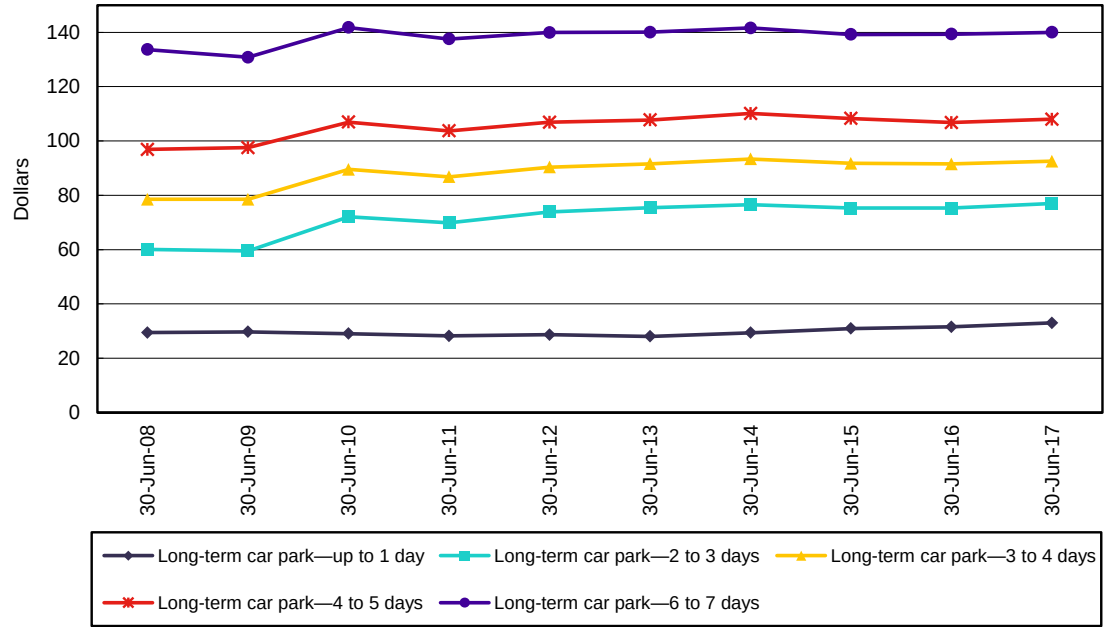
Note: Average car parking charges are calculated as the weighted average of drive-up and online charges.

At-distance parking – Blu Emu car park

Figure 6.4.3 presents the drive-up prices for the at distance car park, Blu Emu. All durations displayed increased charges. The largest increase was for the up to 1 day duration which increased by 4.7 per cent. Increases for the other durations presented ranged from a high of 2.3 per cent for 2 to 3 days and a low of 0.5 per cent for 6 to 7 days.

Over the past decade, all durations displayed have increased their charges. Changes ranged from a high of 28.1 per cent for 2 to 3 days to a low of 4.7 per cent for 6 to 7 days.

Figure 6.4.3: Sydney Airport—drive-up prices for at-distance (Blu Emu) car park in real terms: 30 June 2008 to 30 June 2017



Note: Real values in 2016–17 dollars.

Table 6.4.4 below compares the drive-up and average online charges for selected long-term durations at Blu Emu, Sydney Airport's at-distance car park. The largest differential was for 6 to 7 days with the average online charge 23.5 per cent cheaper than the drive-up price. This differential dropped to 9.6 per cent for 4 to 5 days.

Table 6.4.4 Sydney Airport—drive-up, online and average parking charges for at distance (Blu Emu) car park: 2016–17[76]

Length of stay	Drive-up ($)	Average online ($)	Weighted average of drive-up and online ($)
Up to 1 day	31.33	30.09	30.98
2 to 3 days	75.20	67.59	71.46
3 to 4 days	90.96	81.74	85.79
4 to 5 days	106.09	95.88	100.02
6 to 7 days	137.92	105.45	113.37

Note: Average car parking charges are calculated as the weighted average of drive-up and online charges.

6.4.3. Car park revenues, costs and profits

Table 6.4.5 presents Sydney Airport's revenues, expenses and profits for car parking and total airport services. Car parking revenue decreased by 0.9 per cent to $134.8 million during 2016–17. This is the first decrease in car parking revenue since 2010–11 when it fell by 0.2 per cent.

Car parking expenses increased by 3.4 per cent to $37.8 million. This contributed to a 2.5 per cent fall in car park operating profit dropped to $97.0 million.

[76] These prices refer to unshaded areas within the long-term car park. Shaded area charges are higher than for non-shaded areas.

Table 6.4.5 Sydney Airport— revenues, expenses and profits for car parking and total airport services in real terms: 2007–08 to 2016–17

		2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Revenue ($million)	Car parking	105.9	105.0	110.6	110.4	110.6	120.1	125.9	131.8	136.0	134.8
	Total airport	**1262.2**	**1340.9**	**1047.7**	**1086.4**	**1106.2**	**1157.0**	**1201.4**	**1227.0**	**1318.2**	**1417.1**
	Car parking % of total	8.4	7.8	10.6	10.2	10.0	10.4	10.5	10.7	10.3	9.5
Expenses ($million)	Car parking	30.5	28.4	31.3	32.5	34.2	37.5	33.6	37.4	36.6	37.8
	Total airport	**399.4**	**401.6**	**432.0**	**427.2**	**424.1**	**434.4**	**435.3**	**447.9**	**514.7**	**558.0**
EBITA profit ($million)	Car parking	75.3	76.6	79.3	77.9	76.4	82.6	92.4	94.4	99.5	97.0
	Total airport	**862.8**	**939.3**	**615.7**	**658.0**	**682.1**	**722.6**	**766.1**	**779.1**	**803.5**	**859.1**
EBITA profit % of revenue	Car parking	71.2	72.9	71.7	70.6	69.1	68.8	73.3	71.6	73.1	71.9
	Total airport	**68.4**	**70.0**	**58.8**	**60.6**	**61.7**	**62.5**	**63.8**	**63.5**	**61.0**	**60.6**
Revenue per space ($)		9755	8465	9103	8998	8433	7593	7466	7990	8539	7885
Expenses per space ($)		2814	2292	2576	2650	2605	2372	1990	2266	2295	2213
EBITA profit per space ($)		6942	6172	6527	6348	5828	5220	5476	5724	6243	5673
Revenue per vehicle ($)		34.3	35.2	35.3	30.0	29.7	30.2	27.6	28.5	28.9	31.1
Expenses per vehicle ($)		9.9	9.5	10.0	8.8	9.2	9.4	7.4	8.1	7.8	8.7
EBITA profit per vehicle ($)		24.4	25.6	25.3	21.2	20.5	20.8	20.3	20.4	21.1	22.4

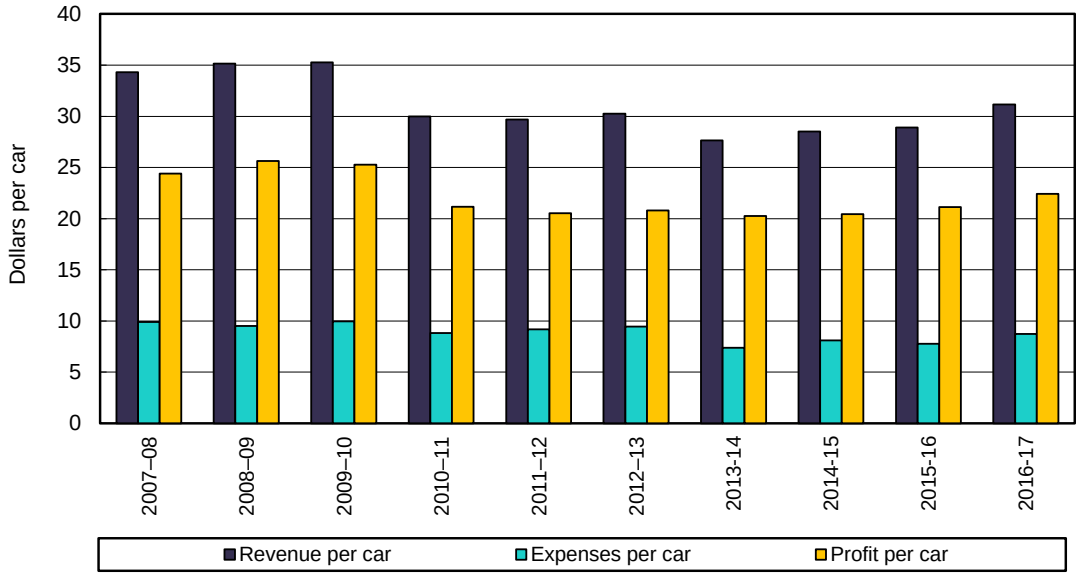
Note: Real values in 2016-17 dollars.

Sydney Airport's car parking profit has increased by 28.7 per cent over the past decade. During 2016–17 Sydney Airport made a profit of 71.9 cents for each dollar of car parking revenue earned. This is 1.2 cents less than what Sydney earned per dollar of car park revenue in 2015–16.

Revenue per car park space decreased by 7.6 per cent to $7 885 during 2016–17 while profit per space decreased by 9.1 per cent to $5 673. As noted in section 6.4.1, the total number of car park spaces at Sydney Airport increased by 7.3 per cent during 2016–17 and this is the major reason for the significant drop in revenue and profit per car park space.

Figure 6.4.4 presents Sydney Airport's revenues, expenses and profits per car or actual throughput.

Figure 6.4.4: Sydney Airport—car park revenue, expenses and profit per car – 2007–08 to 2016–17



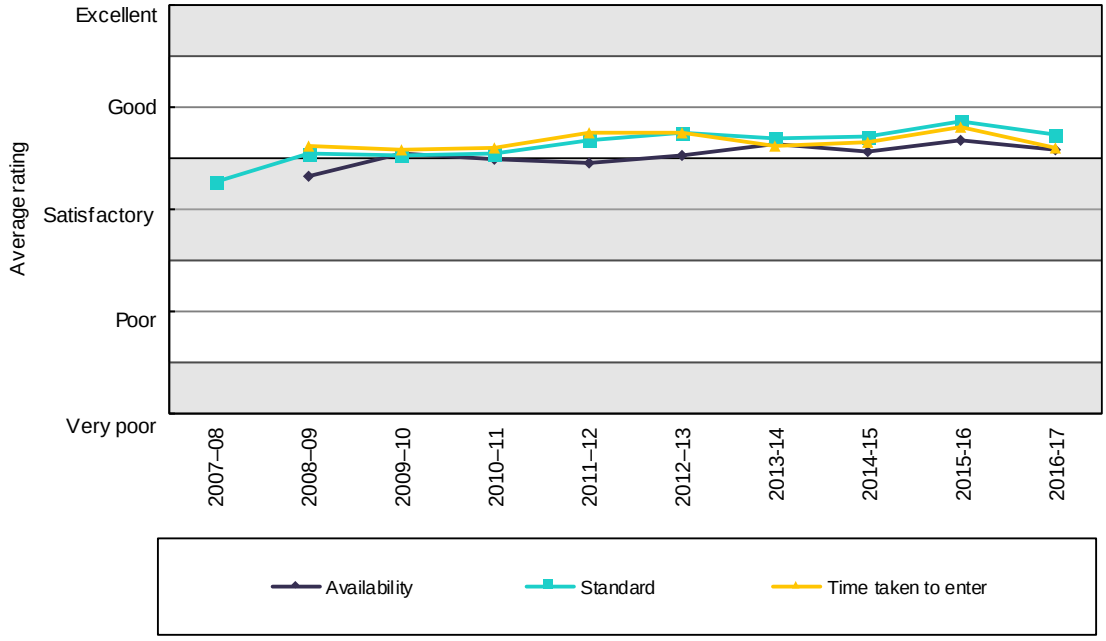
Note: Real values in 2016-17 dollars.

In contrast to declines in revenue and profit per car park space, the average airport revenue collected from each car that visited a Sydney Airport car park during 2016–17 increased by 7.8 per cent to $31.15. The average profit collected from each car during 2016–17 was $22.41, up 6.1 per cent from the previous year.

6.4.4. Quality of car parking facilities

Figure 6.4.4 presents passenger survey ratings for the quality of car parking facilities at the international terminal. All passenger ratings for quality of car parking facilities declined slightly during 2016–17, but remained at 'good'. The largest decline was for time taken to enter car park facilities.

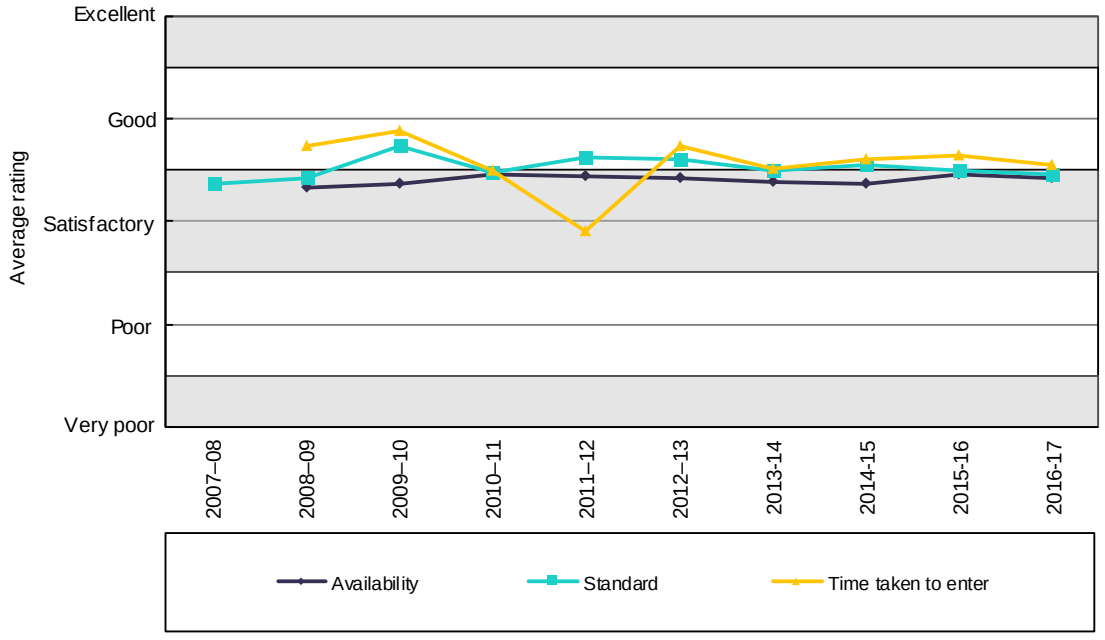
Figure 6.4.4 Sydney Airport—international passenger survey ratings of the quality of car parking facilities: 2007–08 to 2016–17



Source: Passenger surveys.

Figure 6.4.5 presents domestic passengers' ratings of parking availability, standard and time to enter car parks. Passenger ratings for car parking availability decreased slightly during 2016–17, but enough to drop from 'good' to 'satisfactory'. Ratings for car parking standard remained unchanged, and time taken to enter both dropped slightly (but remained at 'good').

Figure 6.4.5 Sydney Airport—domestic passenger survey ratings of the quality of car parking facilities: 2007–08 to 2016–17



Source: Passenger surveys

6.4.5. Other transport options

There are a number of alternative transport options apart from on-site car parking available to those wanting to travel to Sydney Airport. Options include public buses, taxis, rideshare, off-airport car parking, private buses, trains, and private car (such as limousines). All alternative transport options apart from the public bus are charged fees to access landside areas at Sydney Airport. Sydney Airport has estimated that ground transport modal shares are around 27 per cent for buses and limousines, 25 per cent for taxis, 20 per cent for train, 13 per cent for free pick-up, 9 per cent for paid parking and 6 per cent for other.[77]

Table 6.4.6 details the access charges and changes over the past five years.

Table 6.4.6 Sydney Airport—landside access charges in 2016–17 and indexed average access charges in real terms: 2012–13 to 2016–17

Transport option	Average list prices ($) 2016–17	Indexed average list prices (2016–17 base year = 100)				
		2012–13	2013–14	2014–15	2015–16	2016–17
Public bus	No charge	NA	NA	NA	NA	NA
Private bus	15.20[1]	NA	NA	NA	NA	NA
Off-airport car parking	Various	NA	NA	NA	NA	NA
Taxis (per pick-up)	4.25	88.7	92.5	97.1	98.1	100.0
Rideshare	4.00	NA	NA	NA	NA	NA
Limousine (per entry)	5.30[2]	91.5	94.0	97.3	98.8	100.0

1. Sydney Airport has a number of charges for buses that are based on bus size and length of landside stay. The charges presented are for buses with 30 or greater seats that stayed between 0 to 40 minutes
2. Sydney Airport has a number of charges for limousines that are based on length of stay. The charges presented are for stays of 0 to 20 minutes.

Terminal drop-off and pick-up

Sydney Airport provides drop-off areas on the departure levels at both the domestic and international terminals at no charge. There are no kerbside pick-up facilities at either the domestic or international terminals. At the domestic terminal there is a priority pick up zone with rates ranging from $4.00 for 15 minutes to $71.40 for 24 hours. There is also an express pick-up area which is an 8 minute walk from the terminals. Rates for this service range from free for the first 15 minutes to $50.00 for 24 hours.[78] The international terminal has an express pick up zone with the first 15 minutes free and charges applying after this period ranging from $7.50 for 30 minutes to $50.00 for 24 hours. [79]

Private and public buses

For the past several years, there has only been one public bus service to Sydney Airport. This service runs between Bondi Junction with stops at both the International and T3 domestic terminals (route 400).

There are a number of private bus operators also providing alternatives for visitors travelling to and from the airport. Examples of this transport type include Airbus Airport Shuttle[80] which

[77] Sydney Airport, (2017), *Full year results 2016 presentation*, February, http://www.asx.com.au/asxpdf/20170216/pdf/43g178y8kkjzqy.pdf.

[78] Sydney Airport, (2017), *Dropping off and picking up at T2 and T3 Domestic*, https://www.sydneyairport.com.au/info-sheet/dropping-off-and-picking-up-domestic#airport-pick-up-domestic-express-pick-up.

[79] Sydney Airport, (2017), *Dropping off and picking up at T1 International, https://www.sydneyairport.com.au/info-sheet/dropping-off-and-picking-up-international*.

[80] Airbus Airport Shuttle, (2017), viewed 31 October, https://www.airbussydney.com.au/.

charges $16 per adult from the central business district to the airport. Other bus operators include Conxion ($20) and Redy2Go ($22).[81]

Off-airport car parking

There are a number of off-airport car park operators that compete with the airport on-site car parks. A sample of these operators were assessed and prices for one day ranged from $17.50 to $70 for one day and from $52.50 to $129.20 for three days. Note that some of these services are not comparable due to differences in the quality of services provided including proximity to the airport, outdoor parking versus undercover and levels of security and other services offered. For more information on prices for off-airport car parking services, please refer to section 1.5.

Taxis

Taxis accessing Sydney Airport for passenger pick up are charged $4.25 by the airport, up 1.9 per cent from 2016–17. Airport taxi charges have increased by 21.9 per cent since 2009–10.

Ridesharing services

Ridesharing services such as Uber have been operating formally at Sydney Airport since September 2016 at both terminal precincts. The airport charges rideshare operators $4.00 for the first 15 minutes.

The airport opened a priority pick-up zone in the domestic precinct which is shared with other pre-booked taxis and limousines. A similar zone is in the planning for the international precinct.

Private cars (limousines)

Sydney Airport charges a range of rates for private cars such as limousines depending on the period of stay. For periods of up to 20 minutes, the charge is $5.30, up 1.2 per cent since 2015–16. This fee has increased by 6.9 per cent since 2011–12.

Train

Both terminal precincts at Sydney Airport are serviced by rail. The NSW government operates these rail services using privately owned and operated train stations. A one way trip from the CBD to one of the airport stations cost $18.00. This is comprised of $4.20 rail component and $13.80 component for the Gate Pass which the station owner charges to cover operational activities.[82] Sydney Airport does not receive any revenues from either the rail or Gate Pass components of the ticket cost.

Quality of landside access services and facilities provided by Sydney Airport

Landside areas of airports are in high demand from those users seeking access. The ACCC considers the landside areas of monitored airports as a bottleneck area which is essential in facilitating the supply of services to passengers and companies seeking access. This section presents passenger perceptions of the quality of service for Sydney Airport's landside areas.

Table 6.4.7 presents the passenger ratings for landside quality of services at the international terminal and domestic terminals 2 and 3. All passenger ratings for landside services and facilities at domestic terminals 2 and 3 marginally improved during 2016–17,

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81 Redy2Go, (2017), *Fare quotes*, viewed 31 October, https://www.redy2go.com.au/.

82 Airport Link (2017), viewed 31 October, https://www.airportlink.com.au/company/.

while the ratings for the same indicators remained relatively unchanged for the international terminal.

Table 6.4.7 Sydney Airport—ratings of quality of landside access services and facilities: 2016–17, 1-year change

Terminal	Indicator	Rating category 2016–17	1-year change
International	Kerbside pick-up and drop-off facilities	Good	—
	Taxi facilities waiting time	Good	▲
	Kerbside space congestion	Satisfactory	▼
Domestic terminal (T2)	Kerbside pick-up and drop-off facilities	Good	▲
	Taxi facilities waiting time	Good	▲
	Kerbside space congestion	Satisfactory	▲
Domestic terminal (T3)	Kerbside pick-up and drop-off facilities	Good	▲
	Taxi facilities waiting time	Good	▲
	Kerbside space congestion	Satisfactory	▲

Note: The rating categories are: very poor, poor, satisfactory, good and excellent.
▲ indicates an improvement; ▼ indicates a decline; — indicates no change. *Rating changed by a category over the period.

A1. History of airport regulation in Australia

A1.1 Privatisation of airports

The Australian Government established the Federal Airports Corporation (FAC) in the 1980s to operate airports on a commercial basis. Initially the FAC was required to notify the relevant Minister prior to setting or varying aeronautical charges. In 1991, the government declared the FAC's aeronautical charges under s. 21 of the *Prices Surveillance Act 1983*. The declaration required the FAC to notify the Prices Surveillance Authority (PSA) prior to raising its aeronautical charges.

In 1995, the government decided to privatise all 22 FAC airports (through leasing arrangements) to improve the efficiency of airport investment and operations, and to facilitate innovative management.[83] The sale was undertaken in two phases, during 1997 and 1998. Phase one included Brisbane, Melbourne and Perth airports, while phase two included Adelaide, Darwin and Canberra airports. Sydney Airport was corporatised in 1998, but not privatised until 2002.

The privatisation of these airports was accompanied by a transitional regulatory framework designed to limit the potential for the airports to exercise their market power. The regulatory regime, which was administered by the ACCC,[84] consisted of:

- a price notification regime that applies to aeronautical services
- a price cap (Consumer Price Index (CPI) minus X) on prices for aeronautical services
- price monitoring of certain aeronautical related services
- cost pass-through provisions for efficient new investment and government mandated security services.

The airports subject to price regulation were also subject to quality of service monitoring to ensure that airport assets were not allowed to run down at the expense of service standards.

The government stated that it would determine the subsequent, ongoing regulatory framework after a detailed review.

A1.2 Productivity Commission inquiries into the price regulation of airport services

Productivity Commission 2002 Inquiry

In December 2000, the government referred the review of the regulatory arrangements for airports to the Productivity Commission (PC). The review was concluded in 2002. The government accepted the PC's recommendation that price notification and price caps under the PSA should be discontinued for the relevant airports, with the exception of regional air services at Sydney Airport.[85] Additionally, the PC recommended that the ACCC should monitor prices at Adelaide, Brisbane, Canberra, Darwin, Melbourne, Perth and Sydney airports for a five-year period, and that a review of price regulation of airport services should be conducted at the end of that period to

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83 Department of the Parliamentary Library Australia, Turbulent Times: Australian Airline Issues 2003, Research *Paper No. 10*, May, 2003, viewed 8 February, 2017, www.aph.gov.au/binaries/library/pubs/rp/2002-03/03rp10.pdf.

84 This was under Part VIIA of the then Trade Practices Act 1974.

ascertain the need for future regulation. The government supported the PC's recommendation that quality of service monitoring be continued at all price monitored airports, with some modifications.

Productivity Commission 2006 Inquiry

In 2006, the PC conducted another review of the price regulation of airport services. In its response to the PC's recommendations, the government announced that the airport price and quality of service monitoring would continue for a further six year period and that, following this period, an independent review of the regulatory regime would be undertaken in 2012. The government supported the PC's recommendation that the monitoring regime apply only to Adelaide, Brisbane, Melbourne, Perth and Sydney airports. Canberra and Darwin airports were excluded because the PC considered these airports to have less market power.

Productivity Commission 2011 inquiry

In December 2010, the government brought forward the PC's next review of the economic regulation of airport services from 2012. The PC's review found that there had been a number of positive outcomes under the existing monitoring regime, including:

- strong investment in new aeronautical assets
- a generally good level of service provision, and
- reasonable aeronautical charges, revenues and profits compared to international benchmarks.

The PC found no evidence of any systemic misuse of market power by the airports, taking into account investment outcomes and international benchmarks. However, the PC considered that Brisbane, Melbourne, Perth and Sydney airports' market power was a concern and recommended the continuation of the existing price and quality of service monitoring arrangements with some amendments to the regime.

The government agreed with the PC's recommendations to continue monitoring, with another review of the economic regulation of airport services scheduled for 2018. The government also asked the ACCC to conduct a review of quality of service monitoring, which was completed in June 2013. The government agreed in principle with the recommendation that the ACCC take steps to make as much of its underlying methodology publicly available as possible and focus on trends over time at a given airport.

On 12 June 2012, the government issued new directions pursuant to s. 95ZF (Part VIIA) of the *Competition and Consumer Act 2010* (CCA). They directed the ACCC to monitor the prices, costs and profits related to the supply of aeronautical services and car parking services at the four specified airports, with Adelaide Airport being removed from the monitoring regime. The government stated that these arrangements would continue until 2020.

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[85] Productivity Commission, *Price regulation of airport services*, report no. 19, Canberra, January, 2002.

A2. Regulatory framework

The ACCC's regulatory role involves monitoring the performance of the airports under directions issued pursuant to the *Competition and Consumer Act 2010* (CCA) as well as the *Airports Act 1996* (Airports Act) and associated regulations.

Regional air services provided by Sydney Airport are also subject to the price notification regime under Division 4 of the CCA.

A2.1 Prices, costs and profits monitoring

A2.1.1 Aeronautical and car parking services monitoring

A direction, which was made pursuant to s. 95ZF of Part VIIA of the CCA and issued on 12 June 2012, requires the ACCC to monitor the prices, costs and profits related to the supply of aeronautical services and facilities by Brisbane, Melbourne, Perth and Sydney airports. This direction took effect on 1 July 2012, replacing Direction 29.

A second direction, which was made pursuant to s. 95ZF of Part VIIA of the CCA and issued on 12 June 2012, requires the ACCC to monitor the prices, costs and profits relating to the supply of car parking services by Brisbane, Melbourne, Perth and Sydney airports. This direction took effect on 1 July 2012, replacing Direction 31 issued on 7 April 2008.

Subsection 95G(7) requires the ACCC to have particular regard to the following matters in performing this monitoring function:

- the need to maintain investment and employment, including the influence of profitability on investment and employment
- the need to discourage a person who is in a position to substantially influence a market for goods or services from taking advantage of that power in setting prices
- the need to discourage cost increases arising from increases in wages and changes in conditions of employment inconsistent with principles established by relevant industrial tribunals.

A2.1.2 Financial accounts

Under Part 7 of the Airports Act and Part 7 of the *Airports Regulations 1997* (Airports Regulations), the ACCC collects and reports airports' annual regulatory accounting statements, including an income statement, balance sheet and statement of cash flows, from the four monitored airports.

In particular, regulation 7.03 of the Airports Regulations, under subsection 141(2) of the Airports Act, stipulates that a specified airport must prepare a financial report which separately shows the financial details in relation to the provision of aeronautical and non-aeronautical services. Under regulation 7.06 of the Airports Regulations, airports must lodge these accounts with the ACCC within 90 days of the end of the relevant accounting period.

The ACCC's price monitoring and financial reporting information requirements for airport operators are outlined in the *ACCC Airport prices monitoring and financial reporting guideline June 2009*.[86]

[86] This is available on the ACCC's website.

A2.2 Quality of service monitoring

Part 8 of the Airports Act provides for the ACCC to monitor the quality of services and facilities at the specified airports. More specifically, Part 8 provides for:

- quality of service aspects to be specified in the Airport Regulations
- the ACCC to monitor and evaluate the quality of the aspects of airport services and facilities against criteria determined by the ACCC
- records to be kept and retained in relation to quality of service matters
- information to be provided to the ACCC by airport operators and other relevant parties, including airlines, relevant to quality of service matters
- the ACCC to publish reports relating to the monitoring or evaluation of the quality of aspects of airport services and facilities.

Regulation 8.01A of the Airports Regulations specifies the particular aspects of passenger-related and aircraft-related services and facilities for which the ACCC should monitor and evaluate quality of service. Schedule 2 of the Airports Regulations splits each required aspect into a variety of measures for which the airports must keep data. Regulation 8.03 of the Airports Regulations requires the specified airports to give the ACCC copies of the quality of service records for a financial year within 90 days after the end of that financial year.

In June 2013, the ACCC completed a review of quality of service monitoring, which was requested by the government following the 2011 PC's inquiry into the economic regulation of airport services. The review recommended a number of amendments to the Airports Regulations. As a result, the Airports Regulations were amended on 1 July 2014 to include some new objective indicators (such as, number of departing passengers per check-in desk, bag drop and check-in kiosk during peak hour) and to remove other ones (such as the percentage of hours when more than 80 per cent of check-in desks are in use).

The ACCC's approach to its quality of service monitoring role is outlined in its *Airport quality of service monitoring guideline June 2014*.[87]

A2.3 Regulation of regional air services at Sydney Airport

Prices charged by Sydney Airport for its aeronautical services and facilities provided to regional air services at Sydney Airport are regulated under the price notification regime in Part VIIA of the CCA. Declaration 94 issued under s. 95X of the CCA requires Sydney Airport to notify the ACCC if it intends to increase the prices for regional air services. Declaration 94 was issued on 5 May 2016 to replace Declaration 93. It commenced on 1 July 2016 and will cease 30 June 2019.

[87] This is available on the ACCC's website.

A3. Services provided by airports

Services and facilities provided by airports are categorised as either aeronautical (section A3.1) or non-aeronautical services (section A3.2).

A3.1 Aeronautical services

The ACCC's direction to monitor the prices, costs and profits related to the supply of aeronautical services and facilities by the monitored airports refers to Part 7 of the Airports Regulations. Part 7 defines aeronautical services as those services and facilities at an airport that are necessary for the operation and maintenance of civil aviation at the airport.

Some of the aircraft-related aeronautical services and facilities provided by airports are:

- runways, taxiways, aprons, airside roads and airside grounds
- airfield and airside lighting
- aircraft parking sites
- ground handling (including equipment storage and refuelling)
- airside freight handling and staging areas essential for aircraft loading and unloading.

The basis of charging for aeronautical services is typically different among airports. In general, airports determine charges based on a variety of factors, such as the number of passengers, maximum take-off weight (MTOW) and time of day. While some airports levy charges for each aeronautical service component, other airports bundle some of those services.

Some of the passenger-related aeronautical services and facilities provided by airports include:

- necessary departure and holding lounges, and related facilities
- aerobridges and buses used in airside areas
- facilities to enable the processing of passengers through customs, immigration and biosecurity (quarantine)
- check-in counters and related facilities (including any associated queuing areas)
- terminal access roads and facilities in landside areas (including lighting and covered walkways)
- baggage, handling and reclaiming facilities.

Charges for access to terminals are generally levied on the basis of the number of passengers per aircraft and type of flight.

A3.2 Non-aeronautical services

Airports also provide a number of non-aeronautical services such as car parking and leasing space for retail outlets, hotels, corporate parks and factory outlets. As discussed in appendix 2, the ACCC monitors the airports' car parking activities in a similar manner to aeronautical services. However, the ACCC's monitoring role does not extend to other non-aeronautical services and facilities.

A4. Methodology

This appendix explains the methodology used by the ACCC in preparing the measures used in this report for monitoring price, costs and profits, financial reporting and quality of service.

Further information can be found in the following publications on the ACCC website:

- *Airport prices monitoring and financial reporting guideline and*
- *Guideline for quality of service monitoring at airports.*

A4.1 Prices, costs and profits

The monitoring results in chapters 2 to 6 of this report relate to the financial performance of the monitored airports including prices, costs and profits. While these results may serve as indirect indicators of economic efficiency, they do not indicate conclusively whether or not the airports are exercising their market power to earn monopoly rents. The limitations of this data are discussed in A4.3.

A4.1.1 Aeronautical and total airport measures

The ACCC uses aeronautical revenue per passenger as an indicator of the airports' average prices, and profits and returns on aeronautical assets as an indicator of the airports' profitability. The ACCC also reports on total airport revenue, costs and profits.

There have been some changes in the scope of aeronautical services in the past. This has resulted in the inclusion of revenue of some services (e.g. aircraft refuelling) in the airports' regulatory accounts, which were previously excluded.[88] This is one of the issues that affect the comparison of data across airports and over time.

Prices

The ACCC uses aeronautical revenue per passenger as a proxy measure of changes in average airport prices. The ACCC has reported on changes in this measure since 2003–04.

Ideally the ACCC would use a direct measure of prices in the form of a price index. However, in most cases it is not possible for the ACCC to compile such an index. For example, the price of using an airport cannot simply be measured by adding up the different charges in place at a given point in time because charges can be levied on different bases—such as on a per passenger basis or by aircraft weight. Also, airports might offer discounts for certain periods or to certain users, or there might be charges in place, which affect some users but not others.

In addition, the price changes for particular airport users may vary depending on the composition of the airport services they utilise and the times at which they use them. For example, the costs of a domestic flight to an airline are likely to be different to those associated with an international one due to differing security and processing requirements. Similarly, changes in price structure imposed by an airport might affect users in different ways (e.g. lowering the costs for one user while raising them for another). The regulatory accounts for individual airports are available on the ACCC's website.[89] The schedules of charges for each airport are included in the individual airport chapters (chapters 3 to 6).

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[88] Brisbane, Perth and Sydney airports treated the revenue they derived from aircraft refuelling as non-aeronautical under Direction 27 (1 July 2002 to 30 June 2007), while subsequent Directions required aircraft refuelling to be included as aeronautical revenue.

[89] For further information, see www.accc.gov.au/regulated-infrastructure/airports-aviation/airports-monitoring

Where possible, the ACCC has reported on the percentage change in list prices for aeronautical services in real terms.

Costs and profits

This ACCC reports a number of profitability measures in this report. The use and interpretation of these measures are discussed below.

Operating profits[90]

In this report, one profitability measure used is earnings before interest, tax and amortisation (EBITA). This measure takes into account depreciation costs. EBITA is reported separately for the total airport and a business component such as aeronautical or car parking operations. The ACCC also report operating profit as a percentage of revenue i.e. operating profit margin.

The ACCC has reported on changes in aeronautical operating expenses per passenger and aeronautical profit per passenger since 2002–03. Aeronautical profit excluding security costs is not discussed in this report because government mandated security revenue is set to recover the costs associated with security services and does not affect the overall profitability of the airports.

EBITA provides a measure of airport operating performance, as distinct from financial performance. It is useful for revealing trends in operating performance over time. However, as a measure of profitability it does not take into account the full capital cost associated with the provision of services. Since it also includes non-cash items such as depreciation, operating margin does not provide a measure of net cash flow from airport operations either.

Rates of return

Rate of return measures can also inform analyses of profitability. The rate of return measure used by the ACCC in this report is return on assets which may be expressed in a number of forms (for example, pre- or post-tax returns; including or excluding interest expenses and/or depreciation and amortisation). The ACCC's approach to calculating rates of return in this report is discussed below.

Return on assets

This report also looks at the rate of return that airports earn from their assets. This measure consists of EBITA on the average value (of opening and closing balances) of tangible non-current assets. The ratio provides a measure of the efficiency with which an entity uses its assets to produce operating profit before interest, tax and amortisation. Given the limitations in using a return on equity measure for the price monitored airports, the ACCC considers that a return on assets measure is a more useful indicator of an airport's rate of return and operating performance.

EBITA on average tangible non-current assets is not affected by management decisions regarding capital structure, which can significantly affect interest expenses and tax payable, and therefore post-tax returns. Financing decisions do not reflect the operating profitability of providing airport services. Therefore, measures of EBITA on average tangible non-current assets allow for a more comparable basis for comparing operating performance across airports.

Non-tangible assets are excluded to limit the extent to which airport owners' expectations of growth in value (as reflected in goodwill or lease premiums) may obscure changes in the

[90] The ACCC has previously used the term 'aggregate margins'.

profitability of providing services. In particular, lease premiums paid could reflect the expectation of future price and profit increases that take advantage of the airports' monopoly power.

While having some advantages, measures of return on assets also have their limitations. For example, they are affected by the airport operator's valuation of its assets. Since the ACCC's monitoring regime commenced, a number of airports have revalued their assets upwards, thereby lowering the measure of return on assets. A line in the sand (LIS) measure was introduced in 2007–08 to reduce the effect of such revaluations (discussed below).

Finally, in preparing this report the ACCC has not assessed the appropriateness of airport asset valuations as it has done in some other industries where prices are regulated. However, this report does provide details of asset values reported by the airports over time.

'Line in the sand' aeronautical asset base

The ACCC has required airport operators to report under the LIS approach since 2007–08.[91] Under this approach, the value of an airport's aeronautical asset base is determined to be the value of tangible non-current assets as at 30 June 2005,[92] adjusted for depreciation, additions (or new investment) and disposals for subsequent reporting periods. This information was required in addition to the airport operators' regulatory accounts based on Australian International Financial Reporting Standards (AIFRS) (which include any revaluations to the assets recorded since 30 June 2005).

The LIS approach removes the effect of revaluations of aeronautical assets by airports for monitoring purposes from 30 June 2005 onwards. For example, an upward revaluation of a tangible non-current aeronautical asset occurring after 30 June 2005 would be recognised in the regulatory accounts prepared under AIFRS but not in the LIS asset base. As a result, to the extent that subsequent revaluations have taken place, the LIS asset base is lower. There is also a flow-on effect of a lower value of depreciation under the LIS approach and, therefore, lower operating expenses.

Previously where applicable, the ACCC has provided details of the LIS values in the price monitoring section of this report and comments in relation to the effect of reporting the data on this basis. So far, only Brisbane Airport and Sydney Airport have revalued their assets since 30 June 2005. In this year's report, the ACCC has stopped reporting non-LIS values and has only used the LIS values in its reporting.

A4.1.2 Airport car parking

The ACCC monitors and reports on airport car parking prices, revenue, costs and profits (in real terms[93]) under a direction issued on 12 June 2012 pursuant to s. 95ZF of Part VIIA of the CCA. The ACCC also reports on changes in the supply of airport car parking, and the quality of airport car parking services.

The ACCC commenced collecting online prices (in addition to drive-up rates) for airport car parking for the 2014–15 report following consultation with the monitored airports. The ACCC has compared drive-up, online and the average of these two charges that customers pay at the monitored airports.

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91 This approach was recommended by the PC in its 2006 inquiry and was supported by the Government. The PC said that some airports revalued assets for a range of non-price reasons and the intention of revaluations is 'to provide a justification for higher charges at some stage in the future'. The PC considered that it was inappropriate to base increases in aeronautical charges on asset revaluations.

92 Airport revaluations that occurred prior to the 30 June 2005 cut-off date remain in the LIS asset base.

93 All price and data outcomes are reported in real terms with 2016-17 as the base year.

While the car parking monitoring results can provide some indications about the performance of the monitored airports, they also have some limitations. One such limitation is that the indicators reported are based on regulatory accounts prepared under standard accounting practices, which do not allow the ACCC to assess the efficient long-run costs of providing the services. Further, it may be difficult to compare airport car parking prices, revenues, costs and profits on a 'like-with-like' basis as the car parking configurations at the airports are different.

Landside access charges and revenues

The ACCC also collects information on landside access charges and revenues although it is not required to do so under a ministerial direction. Access to airport land and in particular, landside areas controlled by airport operators is generally considered a bottleneck in the supply of downstream services taxis, buses and off-airport parking. The suppliers of these services require landside access to drop-off and/or pick-up airport users at the terminals.

As a result, airports may have incentives to obstruct competition from alternative transport modes to on-airport car parking by imposing excessive charges or restrictive terms and conditions for landside access. Such behaviour can shift demand to an airport's own car parking services. Therefore, the ACCC also collects information about airports' charges for operators who provide competing services to on-airport car parking as well as the amount of revenue received from those operators.

A4.2 Quality of service

Quality of service monitoring complements price monitoring because, instead of increasing prices, an airport with market power may decide to cut costs by lowering its service standards.

The ACCC monitors the quality of service at the facilities that are subject to price monitoring, including:

- airside facilities such as runways, taxiways and aprons
- terminal facilities such as international departure lounges and baggage systems
- car parking
- taxi facilities and kerbside pick-up and drop-off points.

However, domestic terminals owned and/or operated by airlines are not within the scope of the quality of service monitoring program.

Further information on the ACCC's approach can be found in the *Guideline for quality of service monitoring at airports* on the ACCC website.

A4.2.1 Issues concerning interpretation of results

A variety of factors outside the immediate control of the airport operator may influence the quality of service results. For example, the staffing and provision of IT equipment for check-in services by airlines and the staffing by the on-airport government border agencies may affect the quality of experience for passengers as they pass through an airport. This in turn may influence those passengers' ratings of the airport. Airservices Australia, airlines and other service providers may also affect quality outcomes such as causing delays in aircraft departure.

In addition, investment in terminal infrastructure is 'lumpy' and there may be a lag between an increase in passenger and flight numbers and an increase in the capacity of airport

infrastructure. Such a lag could highlight capacity constraints reflected in the quality of service indicators and therefore identify areas for increased investment.

To inform its analysis of the monitoring data, the ACCC provides airports with the opportunity to explain where there have been mitigating circumstances influencing the results of monitoring.

A4.2.2 Sources of information

The quality of service analysis in this report draws on information from a number of different sources. These sources include airport operators, surveys of passengers, airlines and landside operators.[94]

Airport operators

Airport operators provide the ACCC with a range of objective data related to the number or size of various facilities and throughput at those facilities. These include the number of passengers at peak hours, the number of aerobridges and the size of gate lounges. The ACCC has converted these numbers and sizes to indicators of quality of service, such as the number of passengers per square metre of lounge area during peak hour.

The derived objective indicators are shown in charts in the body of the report. The data on which these objective indicators are based can be found be found in a spreadsheet on the ACCC's website http://www.accc.gov.au/regulated-infrastructure/airports-aviation/airports-monitoring. Measures relating to the size of facilities are generally presented as at the end of the relevant financial year, whereas measures of throughput—such as numbers of passengers or bags—relate to the whole financial year, unless otherwise specified (such as daily or during peak hour).

Passenger perception surveys

The yearly passenger perception surveys are arranged by each airport and may differ in their coverage and detail. However, these surveys should provide information consistent with that specified in the Airports Regulations and quality of service guidelines. The areas covered include passenger check-in, security clearance, government inspection, gate lounges, washrooms, baggage processing and trolleys, signage and wayfinding, car parking and airport access for arriving and departing passengers.

These surveys ask respondents to rate their level of satisfaction with the airport facilities on a scale from 1 to 5 (table A4.2.1). These are then converted into five ratings ranging from 'very poor' to 'excellent'.

Table A4.2.1: Ratings of satisfaction for airport facilities and services

Scales	1–1.49	1.50–2.49	2.50–3.49	3.50–4.49	4.5–5
Average ratings	Very poor	Poor	Satisfactory	Good	Excellent

The average ratings for each indicator in the passenger perception surveys are shown for each airport. The average ratings for domestic terminals and international terminals are presented over time where possible.

Airline survey

The ACCC conducts an annual survey of airlines about their perception of the quality of facilities they used at the monitored airports. Questions relate to both terminal facilities

[94] Landside operators include taxi and bus industry bodies, as well as off-airport car parking operators.

(aerobridges, check-in and baggage processing) and airside facilities (runways, taxiways, aprons, aircraft gates and ground equipment sites). Airlines are asked to rate two aspects of these facilities:

- availability—that is, the availability of infrastructure and equipment and the occurrence of delays in gaining access to those facilities
- standard—that is, the ability of equipment to perform the function intended, the reliability of the equipment and the probability of it breaking down.

The airlines are also asked to rate the airport operator's responsiveness or approach to addressing problems and concerns with the above facilities. Full details of the questions are contained in a spreadsheet on the ACCC's website http://www.accc.gov.au/regulated-infrastructure/airports-aviation/airports-monitoring.

The scale used for airline ratings is the same as that of the passenger perceptions surveys and shown in table A4.2.1 above. Ratings given by airlines were averaged across airlines to give an average rating for each facility at each airport. The rating given by each airline is given equal weight, regardless of the number of passengers flown or flights. Airlines are also given the opportunity to provide an explanation of their ratings.

Given that airlines may potentially have an incentive to deliberately under-report quality for the airports, the ACCC verifies the airlines' responses when needed. In particular, if an airline gives an airport a rating of below 'satisfactory', the ACCC will seek comments and additional information from the airline, and provide the relevant airport operator with an opportunity to respond to non-confidential commentary by the airlines.

Under the ACCC monitoring regime, airlines are not required to provide survey information for the domestic facilities they operate themselves under domestic terminal leases.

Landside operator survey

The ACCC first commenced surveying a selection of off-airport car parking operators and taxi and bus industry bodies about taxi facilities, terminal kerbside pick-up and drop-off facilities in 2013–14. The results of the survey have been included in the past airport monitoring reports.

However, the ACCC has since decided to discontinue the survey due to the low response rate.

A4.2.3 Calculating overall quality of aeronautical service ratings for each airport

For each airport, the ACCC calculates a single overall quality of service rating in relation to total services at the airport. As for each of the many specific measures of quality of service, the overall rating is a score out of five. A score of between 1 and 1.49 represents 'very poor' performance, while a score between 4.50 and 5 represents 'excellent' performance.

The overall rating is calculated using a combination of the results from airline surveys, passenger surveys, and objective indicators (e.g. the number of departing passengers per check-in desk, kiosk and bag drop facility during peak hour).

The overall rating is the simple average of the scores that the airport achieved against each of the specific quality of service measures from airline surveys, passenger surveys and objective indicators. For example, Sydney Airport scored an average of 3.43 across 102 performance measures in 2016–17. Among those measures, 30 are obtained from airline surveys, 45 are from passenger surveys with the remaining 27 being objective indicators.

While the airports performance against the quality of service measures in the airline surveys and passenger surveys are already rated as scores out of five, ratings of performance against objective indicators need to be calculated.

This process consists of producing a set of benchmarks for each measure based on how the four airports performed against that measure. If an airport's performance against that measure is equal to the average performance across the four airports in that year, it will receive a score of 3 out of five. If an airport performs better than the benchmark average, it will receive score of 4 or 5 depending how close its performance is compared to the benchmark. Similarly if its performance is below the benchmark, it will be rated 1 or 2.

An implication of this methodology is that an airport's rating with respect to objective indicators is relative to that of the other three airports. This means an airport can report the same raw performance figures to the ACCC as the previous year, but find its rating for that measure going up or down. It also means that it is not possible for all airports to be rated highly or rated poorly. This is not the case for an airport's ratings based on airline and passenger surveys, which are independent of ratings given to the other airports.

A4.3 Limitations of monitoring

Monitoring does not directly restrict the airports from increasing prices and/or lowering service quality. Nor does it provide the ACCC with a general power to intervene in the airports' setting of terms and conditions of access to the airports' infrastructure.

In addition, the ACCC's monitoring of airports is limited in scope and does not enable the ACCC to assess in detail whether an airport has exercised market power to earn monopoly profits (discussed further below).

A4.3.1 Monitoring information cannot be used to assess the appropriateness of the level of prices and profits

When assessing the level of prices and profits, it is common regulatory practice to undertake an assessment of the firm's economic returns against their efficient long-run costs for providing services. This may involve a public process to rigorously determine an economic value of the firm's asset base (i.e. the regulatory asset base (RAB)) and the firm's required rate of return on capital (i.e. the weighted average cost of capital (WACC)).

In the case of airports, however, the benchmark for efficient long run costs has not been set. Instead, the airports' asset values under monitoring are based on their accounting values rather than their economic value. Importantly, the accounting value of assets may include revaluations that have been undertaken at the airports' discretion and that can distort assessments of airports' performance. For example, in some years, some airports have revalued their assets upwards, which lowers their return on assets. Consequently, the airports' asset values under monitoring do not provide a reliable indicator of the airports' RAB, which is needed to make a meaningful assessment of whether the airports are earning monopoly rents.

As discussed earlier, the ACCC has adopted the 'line in the sand' approach since 2007–08 to address the issues associated with the airports revaluing their assets. However this approach only removes any asset valuations that have occurred after 30 June 2005.

A4.3.2 Judgement about the airports' performance cannot be made based on trends in the airports' prices, profits and quality of service alone

An airport that is already pricing at or near monopoly levels may only report gradual (rather than sharp) increases in prices and profitability over time. Therefore trends in prices and profitability alone cannot tell us conclusively whether an airport is extracting monopoly

profits. Further, monitoring cannot clearly distinguish between various factors that may contribute to increasing profitability, some of which may raise cause for concern about an airport's performance while others may not. For example, increasing profitability by increasing prices whilst lowering or holding constant quality of services over a sustained period of time may indicate an airport exercising market power, which may be a concern. In contrast, increasing profitability due to increased efficiency in operations or economies of scale may not necessarily raise cause for concerns.

A4.3.3 Monitoring does not provide meaningful comparisons of the prices, profits and quality of service across airports

Because the airports' approaches to valuing their assets may vary, it is difficult to meaningfully compare profitability between the airports based on reported return on assets. There are also some other specific reasons that make comparisons difficult. For example, the ACCC's monitoring role for aeronautical services relates only to those terminals that are owned and operated by the airports. However, some of the airports' domestic terminals are leased and operated by airlines and are not subject to the ACCC's monitoring. Therefore, the revenues, prices, costs, profits and quality of service associated with those terminals are not included in the monitoring results presented in this report. Such terminals include the Qantas domestic terminals at Melbourne and Perth airports, as well as the Qantas and Virgin Australia domestic terminals at Brisbane Airport. In 2015, Sydney Airport purchased the Qantas domestic terminal so it is now including in the monitoring regime.

In the case of airport car parking, the range of services provided by the airports varies significantly with some parking provided in close proximity to the airport terminals for convenience, while some car parking is located at a distance from the terminals. Comparisons of airport car parking prices, revenues, costs and profits are therefore complicated by these various car parking configurations. Importantly, highlighting differences across the airports will only be robust if comparisons are on a 'like-with-like' basis as far as is practicable.

A4.4 Consultation

The ACCC provides the monitored airports with the opportunity to provide comments in their quality of service and price monitoring submissions for the ACCC airport monitoring report. This process allows the airports to provide explanations as to why ratings or objective data have changed in the period. In addition, the monitored airports are given an opportunity to comment on their respective sections of the report to ensure accuracy of the data presented in chapters 2 to 6. Where appropriate, the ACCC has incorporated these comments into the report, particularly where these comments provide a possible explanation for changes in ratings.