



Australian Government
Productivity Commission

Economic Regulation of Airports

Productivity Commission
Draft Report

February 2019

This is a draft report prepared for further public consultation and input. The Commission will finalise its report after these processes have taken place.



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The Productivity Commission

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long term interest of the Australian community.

The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

Further information on the Productivity Commission can be obtained from the Commission's website (www.pc.gov.au).

Opportunity for further comment

The Commission thanks all participants for their contribution to the inquiry and now seeks additional input for its final report. You are invited to examine this draft report and comment on it by written submission to the Productivity Commission, preferably in electronic format, by **Monday, 25 March 2019** and/or by attending a public hearing. Further information on how to provide a submission is included on the inquiry website: www.pc.gov.au/inquiries/current/airports-2019/make-submission.

The final report will be prepared after further submissions have been received and public hearings have been held, and will be submitted to the Australian Government in June 2019.

Public hearing dates and venues

Location	Date	Venue
Canberra	Monday 25 March	Hotel Realm, 18 National Circuit, Barton
Sydney	Tuesday 26 March	The Grace Hotel, 77 York Street, Sydney
Mildura	Wednesday 27 March	Mildura Visitor Information Centre 180 - 190 Deakin Avenue, Mildura
Melbourne	Thursday 28 March	Level 12, 530 Collins Street, Melbourne

Please note, public hearings are subject to interest and may be held in other locations, if required. Participation in public hearings is available via teleconference. Please visit the inquiry website www.pc.gov.au/inquiries/current/airports-2019/public-hearings to register your interest in participating in a public hearing.

Commissioners

For the purposes of this inquiry and draft report, in accordance with section 40 of the *Productivity Commission Act 1998* the powers of the Productivity Commission have been exercised by:

Paul Lindwall	Presiding Commissioner
Kenneth Baxter	Commissioner
Stephen King	Commissioner

Terms of reference

I, Scott Morrison, Treasurer, pursuant to Parts 2 and 3 of the Productivity Commission Act 1998, hereby request that the Productivity Commission undertake an inquiry into the economic regulation of airports.

Background

Airports operated by the Federal Airports Corporation were privatised during the period 1997-2002. Whilst privatisation has resulted in significant airport infrastructure investments at major airports, successive governments have asked the Productivity Commission (PC) to undertake periodic reviews to determine whether the economic regulatory oversight of these airports remain in line with community and industry expectations.

Prior to 1997, airport pricing and conditions were set by the government. For the five years 1997-2002, some of these airports were subject to a price capping regime.

In 2002 a Commission inquiry into the price regulation of airport services found concerns regarding the significant market power held by some major airports did not warrant the strict regulation imposed, and indeed, believed it was negatively affecting productivity and airport investment. The price capping regime was replaced with a price and quality of service monitoring regime in which pricing terms and conditions became subject to commercial negotiations between the airports and the airlines, monitored annually by the Australian Competition and Consumer Commission (ACCC).

The 2006 Commission inquiry into price regulation of airport services examined the price monitoring regime and recommended the arrangements continue for Adelaide, Brisbane, Perth and Sydney airports. In 2008 the monitoring regime was extended to include prices, costs and profits relating to car parking at these five major airports. In 2009, the Government introduced a second tier self-administered price and quality of service monitoring and reporting regime for Canberra, Darwin, Gold Coast and Hobart airports.

The 2011 Commission inquiry examined the effectiveness and efficiency of the economic regulation and quality of service monitoring regime for airports and found that the regulatory oversight had been effective and should be maintained for Brisbane, Melbourne, Perth and Sydney airports, with a further review to be conducted in 2018.

The purpose of this Inquiry is to determine the effectiveness and efficiency of the current arrangements and determine whether they remain appropriate.

Scope of the inquiry

In undertaking the Inquiry, the Commission should report on the appropriate economic regulation of airport services, including the effectiveness of the price and quality of service monitoring, in achieving the following objectives:

- promoting the economically efficient operation of, and timely investment in, airports and related industries;
- minimising unnecessary compliance costs; and
- facilitating commercially negotiated outcomes in airport operations.

In addition, the inquiry should focus on the provision of passenger and freight transport services at, and surrounding, the main passenger airports operating in Australia's major cities. The Commission should examine:

- aeronautical services and facilities provided by airport operators;
- passenger-related aeronautical services and facilities provided by major airline tenants; and
- the provision and quality of land transport facilities providing access to the airports.
- Following on from its 2011 findings, matters the Commission should also consider include:
- the effectiveness of the monitoring regime conducted by the ACCC, including the methodology used and the adequacy of the information collected;
- whether the current regime impacts on the ability of airports to price, operate and invest in airport infrastructure in an efficient and timely manner;
- whether the existing regime is effective in appropriately deterring potential abuses of market power by airport operators; and
- whether existing arrangements for the planning and operation of land transport linkages to the airports are effective.

The Government remains strongly committed to maintaining access for regional communities into Sydney Airport. In order to ensure that the arrangements continue to work in the best interests of regional passengers, the regulatory price cap and price notification regime for regional air services into and out of Sydney Airport (Declaration 94 under section 95X of the *Competition and Consumer Act 2010*) should be reviewed to look at any unintended consequences of the arrangements.

The Commission should also review competition in the market for jet fuel in Australia, including the provision of jet fuel at the major airports.

Process

The Commission is to undertake an appropriate public consultation process including holding hearings, inviting public submissions and releasing a draft report to the public.

The final report should be provided within 12 months of the receipt of these terms of reference.

**The Hon Scott Morrison MP
Treasurer**

[Received 22 June 2018]

Contents

Opportunity for further comment	iii
Terms of reference	iv
Abbreviations	x
Glossary	xiii
Key points	2
Overview	3
Draft recommendations, draft findings and information requests	33
1 Introduction	41
1.1 Airports are operating in a changing environment	41
1.2 The Commission's task	43
1.3 A light-handed approach to regulation	44
1.4 Characteristics of Australia's airports	55
1.5 The Commission's approach	58
2 Analytical framework	61
2.1 Why do governments intervene?	62
2.2 Market power in airport services	67
2.3 A fit-for-purpose regulatory regime	76
3 Airports' market power	81
3.1 Assessing whether an airport has market power	83
3.2 Defining markets for aeronautical services	85
3.3 Constraints on the exercise of market power	100
3.4 Summary of findings	105
4 Negotiating agreements with airports	109
4.1 Assessing commercial negotiations	110
4.2 Characteristics of airport–airline agreements	113

4.3	Good faith conduct in the negotiation process	117
4.4	Negotiation outcomes	125
4.5	Are airports exercising market power through commercial negotiations?	129
5	Performance of Australia's airports	133
5.1	Assessing airport performance	134
5.2	Operational efficiency	140
5.3	Aeronautical revenues and charges	155
5.4	Profits and profitability	162
5.5	Performance of the monitored airports	170
5.6	The profitability of non-monitored airports	175
6	Car parking and landside access	179
6.1	Ground transport options	180
6.2	Car parking	182
6.3	Landside access	195
6.4	Effectiveness of the monitoring regime	203
7	Sydney Airport's regional access regimes	207
7.1	Regional access within Sydney Airport's constraints	210
7.2	Current regional access regimes at Sydney Airport	213
7.3	The effectiveness and efficiency of the regimes	216
7.4	Broader regulatory constraints at Sydney Airport	230
8	Competition in markets for jet fuel	241
8.1	The markets to supply jet fuel	242
8.2	The current regulatory framework	246
8.3	Third party access to infrastructure services	248
8.4	Some markets to supply jet fuel are not competitive	255
8.5	Is there a case for reform?	262
9	The case for reform	271
9.1	Airports' past behaviour	272
9.2	Regulation to meet the needs of the future	276
10	Reform options	293

10.1 Improving the regulatory regime	294
10.2 Intervention in commercial negotiations	309
10.3 Regional airports	317
10.4 Land transport links	324
A Public Consultation	331
References	337

Abbreviations

A4ANZ	Airlines for Australia & New Zealand
AAA	Australian Airports Association
AAIG	Australian Airports Investors Group
ABS	Australian Bureau of Statistics
AC	Average cost
ACA	Airport Coordination Australia
ACCC	Australian Competition and Consumer Commission
ACI	Airport Council International
ACT	Australian Capital Territory
AER	Australian Energy Regulator
APAC	Australian Pacific Airports Corporation
APAM	Australia Pacific Airports (Melbourne)
ASQ	Airport Service Quality (survey program)
ATRS	Air Transport Research Society
BAC	Brisbane Airport Corporation
BARA	Board of Airline Representatives of Australia
BBM	Building block model
BITRE	Bureau of Infrastructure, Transport and Regional Economics
BNE	Brisbane Airport
BTS	Bureau of Transport Statistics (New South Wales)
CACG	Community Aviation Consultation Group
CBD	Central business district
CCA	<i>Competition and Consumer Act 2010 (Cwlth)</i>
CCTV	Closed-circuit television
CPI	Consumer price index
DEA	Data envelopment analysis
DIA	Darwin International Airport

DIRDC	Department of Infrastructure, Regional Development and Cities
DOEE	Department of the Environment and Energy
DTL	Domestic terminal lease
EBIT	Earnings before interest and taxes
EBITA	Earnings before interest, taxes and amortisation
EBITDA	Earnings before interest, taxes, depreciation and amortisation
ERA	Economic Regulation Authority (Western Australia)
ESC	Essential Services Commission (Victoria)
ESCOSA	Essential Services Commission of South Australia
FAC	Federal Airports Corporation
FER	Functional Economic Region
FTL	Fuel throughput levy
GDP	Gross domestic product
GST	Goods and services tax
HBA	Hobart Airport
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IPART	Independent Pricing and Regulatory Tribunal
JUHI	Joint user hydrant installation
JV	Joint venture
KPI	Key performance indicator
LCC	Low cost carrier
MC	Marginal cost
MEL	Melbourne Airport
MR	Marginal revenue
MTOW	Maximum take-off weight
NCC	National Competition Council
NQA	North Queensland Airports
NSW	New South Wales
NT	Northern Territory
NTA	Northern Territory Airports
PC	Productivity Commission

PCF	Planning Coordination Forum
PER	Perth Airport
PPP	Purchasing power parity
PRSS	Permanent regional service series
Q8	Kuwait Petroleum International
QAL	Queensland Airports Limited
QC	Quota count
Qld	Queensland
RAAA	Regional Aviation Association of Australia
RAAF	Royal Australian Air Force
RAB	Regulatory asset base
Rex	Regional Express
ROAA	Return on aeronautical assets
RPT	Regular public transport
SA	South Australia
SLA	Service level agreement
SYD	Sydney Airport
Tas	Tasmania
TFP	Total factor productivity
TRA	Tourism Research Australia
USD	United States Dollar
Vic	Victoria
WA	Western Australia
WACC	Weighted average cost of capital
WSG	Worldwide Slot Guidelines

Glossary

Aeronautical charges	Charges for services defined as aeronautical services under the Airports Regulations 1997 (Cwlth).
Aeronautical Pricing Principles	The set of principles for airports and airport users to establish prices, service delivery and the conduct of commercial negotiations at airports. The Commission has drawn on these principles to assess the reasonableness of current aeronautical charges and the commercial negotiation process between airports and airlines.
Aeronautical revenue	Revenue from operations defined as aeronautical services under the Airports Regulations 1997 (Cwlth).
Aeronautical services	Services provided by infrastructure that facilitates aircraft movements, for example runways, and passenger processing facilities as defined under the Airports Regulations 1997 (Cwlth).
Aeronautical charges	Charges for services defined as aeronautical services under the Airports Regulations 1997 (Cwlth).
Air transport services	Transport services provided by an airline.
Aircraft movement	An aircraft arriving at, or departing from, an airport.
Airport services	All services provided by an airport, including aeronautical services, such as terminal and aircraft services and facilities, and non-aeronautical services, such as car parking and landside access.
Airside	Areas related to the provision of aircraft-related services and facilities and most passenger-related facilities, for example terminals, runways, aprons, aerobridges.
Amortisation	An accounting method for allocating the cost of intangible assets (assets that lack physical substance) as an annual cost over the useful life span of that asset. Actual expenses are incurred at the time the investment is made. Amortisation is not an ongoing cash cost, but the business will incur ongoing finance costs as a result of investment in assets.

At-terminal car park	Car park operated by the airport and located on airport land that is a short walking distance from the terminal.
At-distance car park	Car park operated by the airport and located on airport land that is at a distance from the terminal. Users generally catch a shuttle bus from the car park to the terminal.
Building block model	A model to determine charges by ‘building up’ an airport’s expected costs, such as capital costs, operating costs and tax liabilities. Some infrastructure regulators use a building block model to determine total allowable revenue for regulated firms.
Common-user terminals	Terminals and associated infrastructure managed by the airport operator and available for use by more than one airline.
Depreciation	An accounting method for allocating the cost of tangible assets (physical infrastructure) as an annual cost over the useful life span of that asset. Actual expenses are incurred at the time the investment is made. Depreciation is not an ongoing cash cost, but the business will incur ongoing finance costs as a result of investment in assets.
Domestic terminal lease	An arrangement whereby an airline leases an entire terminal from an airport and provides terminal services, such as check-in and baggage facilities, directly to passengers.
Dual till	An arrangement for setting airport charges where only the costs and revenues of providing aeronautical services are included in the assessment of allowable aeronautical prices.
Economic efficiency	Economic efficiency is the result of an allocation of resources that maximises the collective wellbeing of the community. Achieving economically efficient outcomes requires the satisfaction of three different concepts of efficiency: allocative, productive and dynamic efficiency.
Functional economic region	An approach to defining regions for analysis and decision making. Regions are defined on the basis of interactions between people across neighbouring areas.
General aviation	Aircraft operations that are not regular public transport, such as private charter and aircraft training flights, and Royal Flying Doctor Services.
Landside	Areas related to the provision of ground transport services including kerbside areas for public pick-up and drop-off, pick-up and drop-off areas for landside operators such as taxis and off-airport car park

	operators, facilities for landside operators such as waiting areas, and roads within the airport precinct.
Landside access operator	A company or operator that has an arrangement with the airport operator to access landside areas for the purposes of facilitating ground travel to and from the airport. Taxis, rideshare, private buses, public transport, car share, off-airport car park, chauffeur services, and car rental operators use landside services.
Light-handed regulation	A regulatory regime that involves regular monitoring of activities and a credible threat of further regulatory intervention. In airport services, users such as airlines negotiate directly with airport operators on charges and other terms of access. Governments generally do not intervene in the setting of charges or terms of access, but collect and publish information about airports' financial and operational performance.
Load factor	The number of passengers carried expressed as a percentage of the number of seats available on an aircraft.
Locational rents	Profits in excess of normal returns that arise because users are prepared to pay a premium for space that is limited in preferred locations, such as at-terminal car parking or being picked up by a taxi in close proximity to the airport terminal.
Long-run average cost	The long-run average cost of provision is a conceptual benchmark for assessing whether the pricing of infrastructure services is efficient. Firms operating in competitive markets that are not natural monopolies would price at or close to this benchmark. Long-run average cost is also the minimum that a natural monopoly producer could charge to ensure it remains viable over time.
Maximum take of weight	The maximum certified take of weight of an aircraft fully loaded with passengers, cargo and fuel.
Monitored airports	The four Australian airports (Brisbane, Melbourne, Perth and Sydney) currently subject to ACCC monitoring of prices and quality of service.
Natural monopoly	A provider may be considered a natural monopoly where it can meet existing and foreseeable market demand at a lower average cost than when there is more than one provider in the market.
Non-aeronautical services	Services provided by or at airports that are not aeronautical services under the Airports Regulations 1997 (Cwlth). This includes car

	parks; business parks; shopping centres; and food and retail services within the terminal.
Operating costs	Includes salaries and wages, services and utilities, property maintenance, security, contract services and general administration. Does not include finance costs (costs to debt or equity providers) or tax.
Total costs	Operating costs plus depreciation, amortisation. Does not include finance costs (costs to debt or equity providers) or tax.
Operating profit	Measures of operating profit (or net earnings) are equal to revenue minus costs, where costs can be defined in different ways. This includes EBIT, EBITA and EBITDA. For EBIT, costs are defined as operating costs, depreciation and amortisation. For EBITA, costs are defined as operating costs, and depreciation. For EBITDA, costs only includes operating costs.
Operating profit margins	Operating profit divided by total revenue or passenger numbers.
Opportunity cost	The value of a benefit forgone when choosing one action, for example an investment opportunity, over another.
Passenger movement	A passenger arriving or departing by aircraft.
Permanent regional service series	The slot series through which Sydney Airport's regional ring fence is implemented. These are used by airlines operating flights to or from regional New South Wales.
Price discrimination	A supplier charges a different price to different customers for the same good or service. This practice can be efficient.
Profitability	Profit scaled in some way, such as profit as a percentage of revenue or assets or (for airports) profit per passenger.
Profit	Revenue minus costs. See operating profit for a more precise definition.
Purchasing power parity	An exchange rate conversion that equalises the purchasing power of different currencies by adjusting for the differences in price levels between countries.
Regional ring fence	A feature of the Sydney Airport Slot Management Scheme 2013 that reserves a number of slots at Sydney Airport for airlines operating flights to or from regional New South Wales.

	Implementation of the regional ring fence is through slot series called ‘permanent regional service series’.
Regular public transport	Scheduled aircraft operations provided to the public on a commercial basis.
Return on aeronautical assets	Return on aeronautical assets is a measure of return on capital assets. In the ACCC monitoring report it is defined as operating profit (EBITA) from aeronautical services divided by tangible non-current aeronautical assets.
Scheduled charges	Published charges for aeronautical services, commonly referred to as rack-rates. These charges can differ from charges negotiated in commercial contracts so are a proxy for the actual charge paid by an airline.
Single till	An arrangement for setting airport charges where all airport company revenues and costs are taken into account in setting aeronautical prices. Allowable aeronautical prices are set on a ‘residual basis’, after subtracting from total airport costs the revenue derived from non-aeronautical activities.
Slot	A permission for an aircraft to take off or land at an airport at a specific time on a specific day.
The ‘line in the sand’ for asset values	The ‘line in the sand’ was implemented in the 2007-08 ACCC monitoring report and all subsequent reports. Asset values at 30 June 2005 were taken as given and airports could include new assets on a cost basis as agreed between airports and airport users (less depreciation and disposals).
Weight-based charges	Airport charges for the use of airport services based on the weight of the aircraft (usually maximum take-off weight).
Weighted average cost of capital	The return on capital required to cover a firm's cost of debt and cost of equity.

OVERVIEW

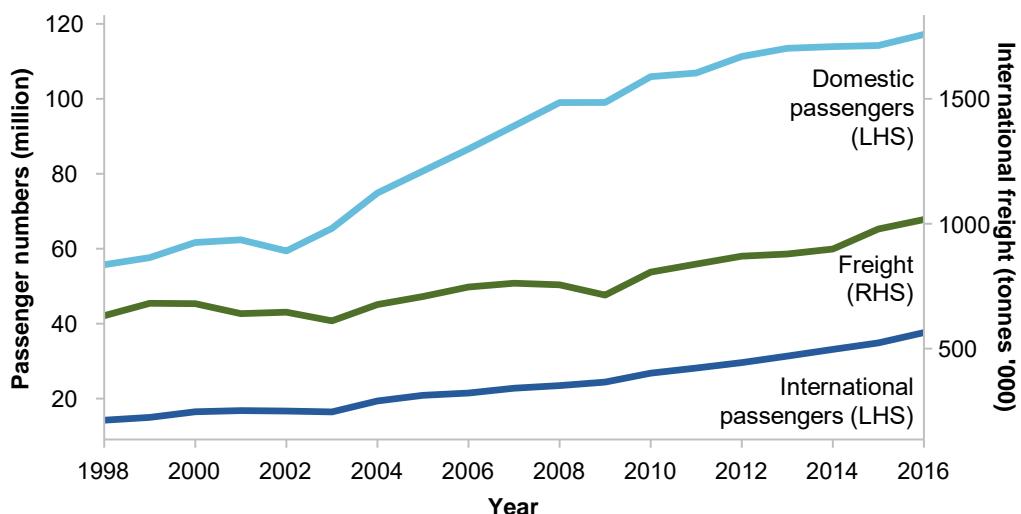
Key points

- Existing airport regulation benefits the community, and remains fit for purpose.
 - The four airports monitored by the Australian Competition and Consumer Commission — Sydney, Melbourne, Brisbane and Perth — have not systematically exercised their market power to the detriment of the community.
 - Each has generated returns sufficient to promote investment while not earning excessive profits.
 - Most indicators of the monitored airports' operational and financial performance are within reasonable bounds, although some could present cause for concern if considered in isolation.
- There is no reason for airport operators to become complacent — further scrutiny of some aspects of airports' performance is warranted, and tailored reforms are needed to address specific areas of concern.
- Sydney, Melbourne, Brisbane and Perth airports have market power in services provided to airlines. Charges to airlines for international services at Sydney and Brisbane airports, in particular, are high compared to overseas airports.
 - Sydney, Melbourne, Brisbane and Perth airports should be required to separately report revenues and costs of providing domestic and international services to airlines.
 - Separate reporting is needed to determine whether charges are the result of an airport exercising its market power, or the higher costs of providing international services.
- Airports could exercise their market power in landside access services, such as for those used by taxis and shuttle buses, to encourage people to use airport-owned car parks, but there is insufficient data to determine whether this is the case.
 - The collection of detailed data on access charges, terms of access, costs and revenues for landside services would enable an assessment of exercise of market power in landside access.
- On balance, commercial negotiations between airports and airlines give little cause for concern. However, some agreements contain clauses that constrain an airline's access to regulatory remedies for the exercise of market power and clauses that restrict an airport's ability to offer incentives to airlines other than the signatory airline.
 - These clauses are anticompetitive and should be removed from all agreements.
- Many consumers resent the cost of car parking at the monitored airports. Car parking charges are not due to airports exercising their market power — the price of parking at-terminal can largely be explained by the value passengers place on convenience, the limited amount of land close to the terminal, and the need to manage congestion.
- Sydney Airport's regional access arrangements facilitate access for airlines flying to regional destinations, but the regime should be changed to allow airlines to use non-regional aircraft movement slots for regional or non-regional flights.
- Sydney Airport's cap on aircraft movements restricts the effect of aircraft noise on local residents, although this reduces the airport's efficiency. The Commission is seeking further evidence on options that could meet current noise objectives at lower cost.
- *Prima facie*, the characteristics of markets to supply jet fuel have enabled incumbent fuel suppliers to restrict competition, which has led to a small number of fuel suppliers at some airports. This has likely led to higher prices to access infrastructure services and higher fuel prices.
- Government funding for infrastructure investments at regional airports should be subject to rigorous published assessment. There is also considerable scope to improve the financial management of airport assets at some regional airports.

Overview

Australia is heavily reliant on air transport — it has the highest number of domestic airline seats per capita in the world. Air transport services connect people, provide regional communities with access to essential services, such as healthcare and emergency relief, and contribute to economic growth through business and leisure travel, and trade. The number of passengers travelling through Australian airports has doubled over the past 20 years, to about 160 million in 2017, and the volume of international air freight has increased by about 80 per cent (figure 1). Australia's airports are critical infrastructure and their performance depends on, among other things, high-quality management and a regulatory regime that promotes efficient operations and timely investment, and facilitates commercial negotiation between airport operators and users of airport services.

Figure 1 **Passenger and international freight movements^a**



^a International freight includes dedicated freight aircraft and freight carried in the body of passenger aircraft.

Increasing demand for domestic air transport services has been driven by population and income growth, and facilitated by the expansion of low-cost carriers (LCCs). Growth in international air transport has outpaced growth in domestic air transport every year since 2009 and Tourism Research Australia has forecast that international visitor numbers will nearly double between 2017 and 2027. About three quarters of international visitors come to Australia for leisure (holidays and to visit friends and relatives).

Increasing passenger demand for air transport has led to increasing demand by airlines for airport services. Airports have invested in new services and facilities to manage congestion and improve the passenger experience. Airport investments are complex and involve significant risks, as do those undertaken by airlines. Changes in the mix and volume of passengers can affect the level and type of investments required. For example, airports that are serving an increasing proportion of international passengers must provide terminal space for security, biosecurity and border processing services. Some airports have built dedicated terminals to meet the needs of LCCs.

Similarly, changes in aircraft technology alter airports' infrastructure requirements. Airports upgraded to wider taxiways, more apron and gate space and two-level aerobridges to accommodate the introduction of the Airbus A380 in the mid-2000s. Ten years on, these aircraft are falling out of favour with many airlines because they are less fuel efficient than smaller, long-range twin-engine wide-bodied aircraft like the Airbus A350 and Boeing 787. Airlines are now running smaller aircraft more frequently, and expect airports to provide services and infrastructure that can support an efficient turnaround on the ground.

What has the Commission been asked to do?

The purpose of this inquiry is to determine the effectiveness of the economic regulation of services provided by airports to airlines, passengers, and people and businesses that access the terminal precinct. The Australian Government has asked the Commission to assess the current regime for airport regulation against the following objectives:

- promoting economically efficient operation of, and investment in, airports and related industries
- minimising compliance costs
- facilitating commercially negotiated outcomes between airport operators and users.

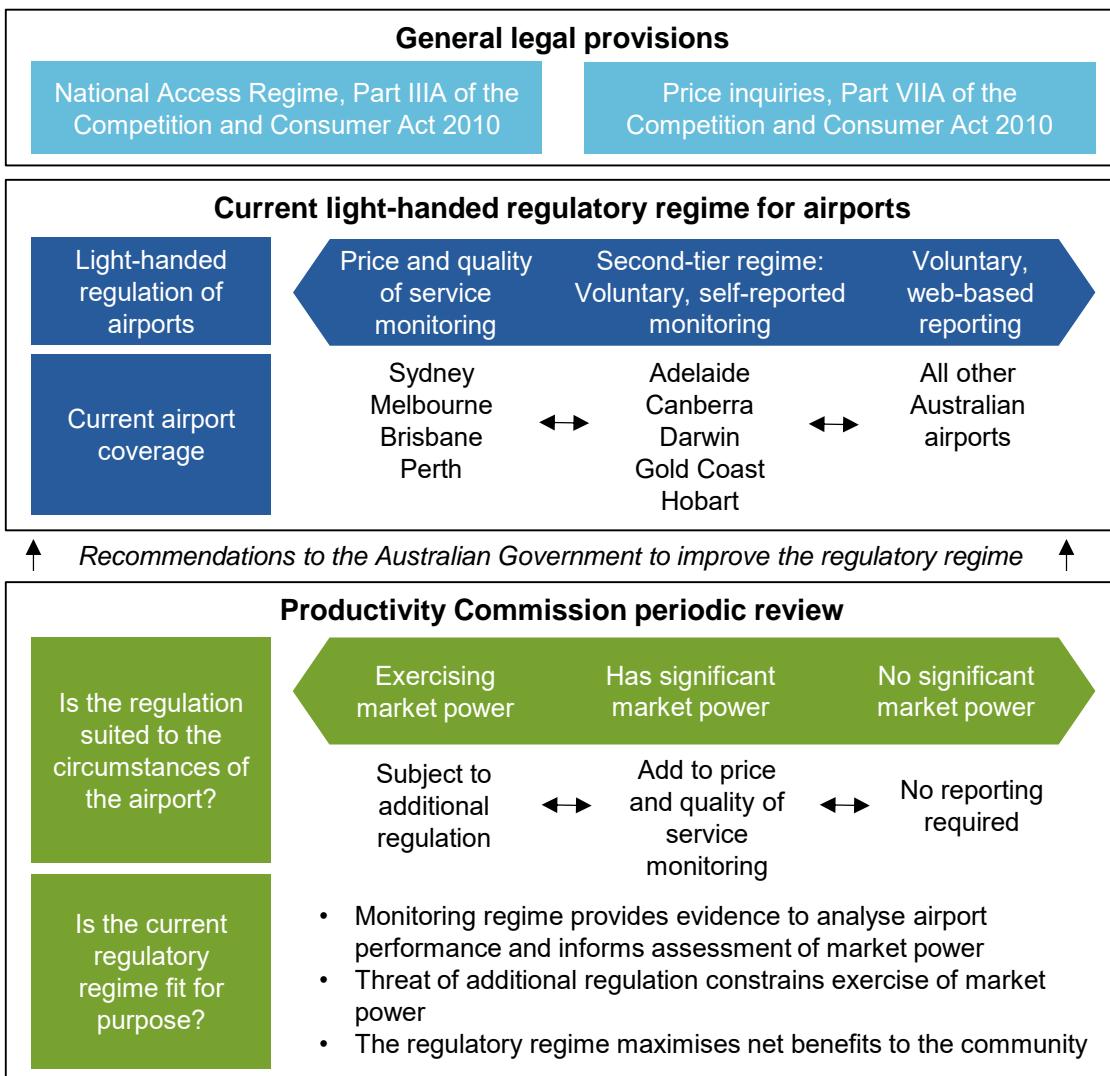
The Australian Government has also asked the Commission to examine access arrangements for regional communities into Sydney Airport and competition in markets to supply jet fuel.

A light-handed approach to regulation

Many airports in Australia face limited competition, potentially giving them market power. The rationale for the economic regulation of airports is that the operator of an airport with market power could *exercise* that power by setting excessively high charges for airport services, operating the airport inefficiently or making inefficient investment decisions. These behaviours could lead to poorer outcomes for airport users and the community more broadly.

Economic regulation of airports includes the general provisions of competition and consumer law, and airport-specific light-handed regulations that were introduced following privatisation of airports in the late 1990s (figure 2).

Figure 2 The light-handed regulatory regime



Under the light-handed regime airport users, such as airlines, negotiate directly with airport operators on charges and other terms of access to a range of infrastructure services — the government does not intervene in the setting of charges or other terms of access (with the exception of regional services at Sydney Airport, discussed below). Instead, the government mandates the collection and publication of information about airports' financial and operational performance. Light-handed regulation is intended to achieve outcomes that would be consistent with those found in markets with effective competition, but will only do so if there is:

- transparency as to how an airport operator is performing over time *and*
- a credible threat of further regulatory intervention if an airport operator is found to be exercising its market power to the detriment of the community.

Assessing airport performance

The Australian Competition and Consumer Commission (ACCC) administers a price and quality of service monitoring regime (the monitoring regime). The operators of Sydney, Melbourne, Brisbane and Perth airports are required to provide the ACCC with information annually on their prices, costs and profits for aeronautical services and car parking. The ACCC also monitors the quality of service of some aeronautical services, such as terminal and aircraft services and facilities, and non-aeronautical services, such as car parking and landside access. At its own discretion, the ACCC collects financial information relating to landside access, including revenue and access charges for selected landside services, such as taxis, hire cars and buses. Airports comply with the ACCC's request voluntarily. The ACCC compiles these data into a monitoring report each year and outlines general trends and developments across the industry.

The Productivity Commission has conducted inquiries into the performance of the light-handed regulatory regime for Australia's airports approximately every five years since 2002. Essentially the Commission's role is to conduct a health check of the regime to determine whether it remains fit for purpose. The Commission can recommend (among other things) adding airports to the monitoring regime or removing them; tightening or relaxing regulatory requirements for monitored airports; and consequences for any airport found to have systematically exercised its market power to the detriment of the community. The Commission has recommended changes to the regulatory regime in each of the three previous inquiries and governments, for the most part, have implemented these recommendations.

The second-tier regime — voluntary monitoring

In addition to the ACCC's monitoring of the four major airports, a second tier of airports — Adelaide, Canberra, Darwin, Gold Coast and Hobart — are subject to a self-administered monitoring regime. These airports voluntarily publish information on their aeronautical charges, car parking, service quality and complaint handling procedures. Cairns Airport, which is operated under a 99 year lease from the Queensland Government, is not regulated under the *Airports Act 1996* (Cwlth), but it has been encouraged by the Australian Government to publish the same information as the second-tier airports, and it does so with the exception of service quality outcomes. The second-tier monitoring regime was established through a policy statement rather than legislation or regulation, there are no guidelines for the level of detail to be provided by airports, and there are no repercussions for airports that do not participate.

A credible threat of consequences

The Productivity Commission (and others) can use the annual monitoring reports to make judgments about whether an airport is operating efficiently, including in its pricing and investment decisions. Airports found to have systematically exercised their market power to

the detriment of the community face potentially serious consequences, including an increase in the burden of regulation. The Commission would not hesitate to recommend regulatory changes, including price regulation, for any airport that was found to have systematically exercised its market power. The ongoing potential for such consequences acts as a deterrent against the exercise of market power.

Airports that exercise their market power face consequences through other avenues as well. The National Access Regime under Part IIIA of the *Competition and Consumer Act 2010* (Cwlth) (CCA) provides for regulatory ‘declaration’ of access to infrastructure services which can lead to ACCC arbitration over terms of access. The ACCC also has general powers under the CCA that guard against anticompetitive behaviour.

Airlines have called for change

Participants in this inquiry have intensely debated the effectiveness of the current regulatory regime. Airports have broadly supported the existing regime. Some airport users, however, argue that airports are not sufficiently constrained from exercising their market power and, consequently, airports are earning excessively high profits and rates of return, and making inefficient investments.

Despite these disagreements, it is notable that participants in the inquiry have not called for a return to price caps — both airports and airlines have stated that they prefer commercial negotiation to determine price and other terms of access to infrastructure services. Airport users and the ACCC have suggested regulation to ‘level the playing field’ in their negotiations with airports. Participants have called for airports to be obliged to provide more information on their investment plans and how they determine their charges. Some have suggested that airlines should have automatic access to arbitration if they cannot reach agreement with airports.

The Commission’s approach

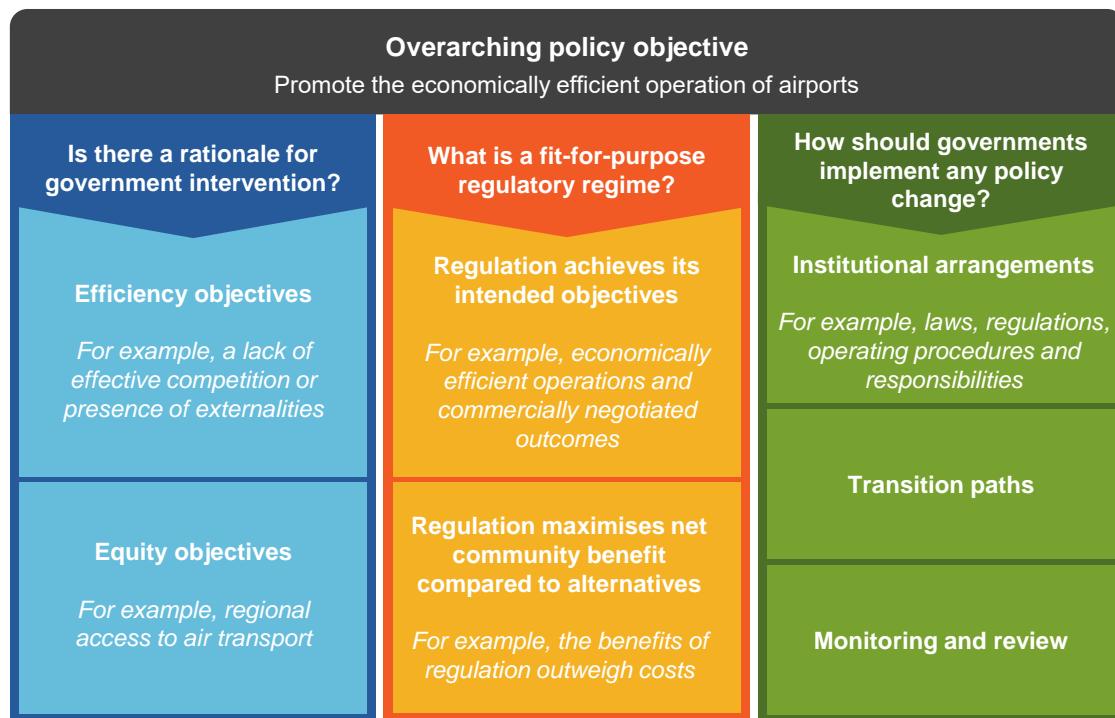
The Commission has developed a framework to analyse the evidence in a consistent way (figure 3). A guiding principle for the analysis is that the Commission takes into account the effects of existing regulations and reform options on the community as a whole.

Broadly speaking, the presence of market power is sufficient for an airport to be subject to the monitoring regime and, as discussed below, the four monitored airports should continue to be monitored. Governments should only make changes to the type of regulation under which the four monitored airports operate *if* those airports are systematically exercising their market power to the detriment of the community, *and* changes to the regime would likely lead to net benefits to the community. The mere fact that an airport *has* market power is, of itself, insufficient to justify a change to the regulatory regime.

There is no single indicator or benchmark that can demonstrate that an airport has market power and should be added to the monitoring regime, or that an airport in the monitoring regime is exercising its market power to the detriment of the community. Airports' exercise of market power could be manifested in a variety of ways, and should be assessed over a period of several years to account for the long-lasting nature of airport assets and the short-term volatility in measured indicators. Rigid benchmarks could be exploited by airports operating up to or gaming those constraints. To account for this, the Commission has examined a range of indicators and assessed airports' performance over time, and relative to comparable airports in Australia and overseas.

Ultimately, the Commission's determination of whether an airport has systematically exercised its market power is based on analysis using the evidence that is available to it. This report provides an opportunity for the Commission to test that analysis and its draft conclusions and recommendations with participants. Interested parties are invited to provide feedback through submissions, which are due by **25 March 2019**. The Commission will continue to accept genuinely commercially sensitive material on a confidential basis but asks that, where possible, submissions are provided in a form that can be published. Participants are also invited to appear at public hearings in late March 2019. The Commission will conduct further wide-ranging consultations.

Figure 3 **Assessing the economic regulation of airports**

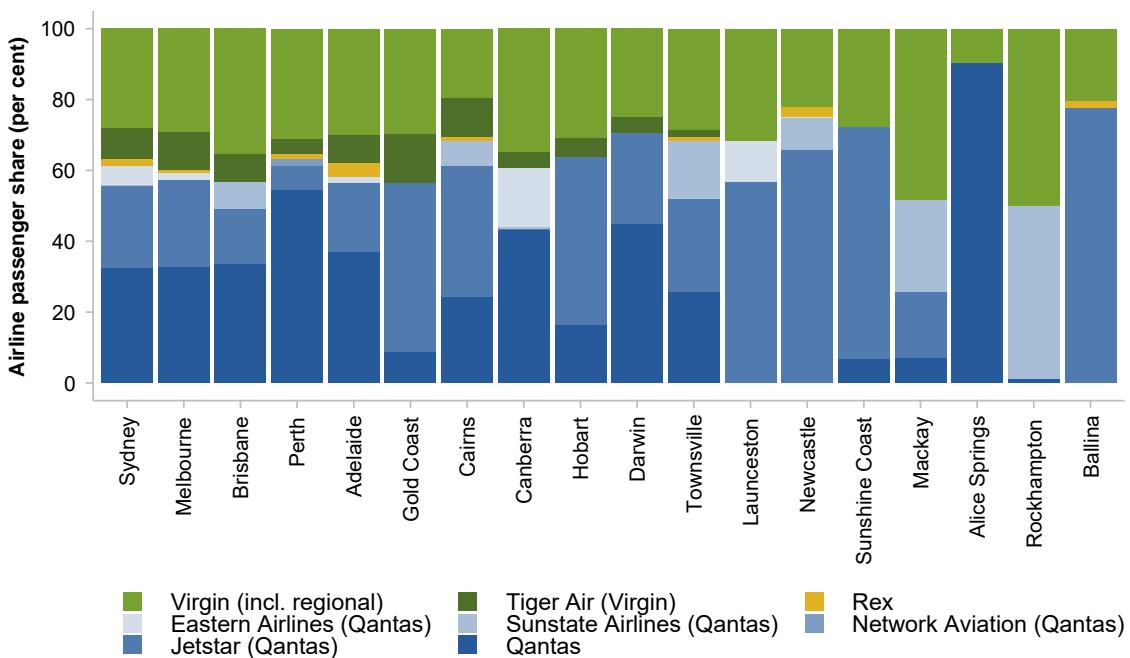


The monitored airports have market power in aeronautical services

Whether an airport has market power in aeronautical services depends on the structure of the market in which it operates. This includes barriers to entry and exit, whether there is a nearby airport and the costs of an airline switching to it, passengers' purpose of travel and the availability of a different mode of travel.

Even if an airport has market power, its ability to exercise that power may be limited. Airlines can, and do, exert countervailing power on airport operators when they control a significant proportion of the market. The market for domestic air transport services in Australia is highly concentrated. Together Qantas Group, Virgin Australia Group and Regional Express (Rex) account for over 95 per cent of all domestic regular public transport flights. Qantas Group, in particular, is a dominant player in the domestic market accounting for about 60 per cent of all passenger movements in Australia and the majority of passenger movements at Australia's largest airports (figure 4).

Figure 4 Domestic air transport services are concentrated^a



^a Airports serving more than 500 000 passengers annually.

An airline can threaten to withdraw some or all of its services at a particular airport if it is not satisfied with access conditions. An airline's threat to reduce services is less credible at a congested airport, such as Sydney Airport, given its competitors could readily meet any gap in demand for services. In practice, complete withdrawal of services is only likely to occur at regional airports, where a single airline is the airport's main, or only, customer.

Rex withdrew services on the Mildura to Sydney route in response to what it described as ‘exorbitant’ aeronautical charges and has redeployed resources to Griffith Airport as part of a five-year partnership agreement with Griffith City Council.

Sydney, Melbourne, Brisbane and Perth airports exhibit characteristics of market power in the domestic market that create a *prima facie* case for regulatory intervention, even when airlines’ countervailing power is considered.

- Sydney Airport has strong market power in the provision of domestic aeronautical services. It:
 - is a geographic monopoly (at least until Western Sydney Airport commences operation after 2026)
 - is the gateway to Sydney, which is a significant business hub and highly differentiated product in domestic (and international) tourism markets and passengers are less likely to substitute to another destination
 - has few modal substitutes, with the exception of the Sydney-Canberra route, which accounts for less than two per cent of total domestic passenger movements at Sydney Airport.
- Melbourne Airport has strong market power in the provision of domestic aeronautical services. Like Sydney, as a business and tourism hub, passengers are less likely to substitute to another destination. There are no strong modal substitutes for the majority of its passengers and it faces little competitive constraint from Avalon Airport, even in the market to serve LCCs.
- Brisbane Airport has a high level of market power in the provision of domestic aeronautical services. Brisbane faces competition for some domestic services — the Gold Coast and Sunshine Coast airports could theoretically service up to 90 per cent of its passenger movements. In reality, these two airports are imperfect substitutes for Brisbane Airport as flight times and schedules, facilities and travel time to Brisbane vary significantly.
- Perth Airport also has a high level of market power in the provision of domestic aeronautical services. It is a geographic monopoly with few modal substitutes — 94 per cent of interstate overnight domestic visitors to Western Australia use air transport. However, it is less of a business and tourism hub compared to the other monitored airports (and following the end of the mining investment boom).

Sydney, Melbourne, Brisbane and Perth airports also have market power in international aeronautical services at a level that creates a *prima facie* case for regulatory intervention. They are — to varying extents — gateways to cultural, business and tourism hubs and, for many passengers, are not readily substitutable for other locations. Further, the market for international flights is highly competitive, reducing the potential for airlines to exert countervailing power.

The airports that participate in the second-tier voluntary monitoring regime — Adelaide, Cairns, Canberra, Darwin, Gold Coast and Hobart — do not have a level of market power that warrants regulatory intervention, although this could change over time. Of these airports, Canberra is closer to the threshold for concern.

- Canberra Airport has a high proportion of non-leisure passengers, which tend to be relatively insensitive to price changes. However, there is good availability of road transport alternatives for the Canberra–Sydney route, a route that accounts for one third of passenger movements at Canberra Airport.
- Adelaide Airport serves a relatively higher proportion of leisure passengers than the monitored airports. Leisure passengers are more responsive than non-leisure travellers to increases in charges (which reduces the airport's market power).
- Gold Coast, Cairns, Hobart and Darwin airports do not have a level of market power that warrants regulation at this time — these airports are not gateways to major business hubs and they serve a relatively higher proportion of leisure passengers than the monitored airports.

As none of these airports currently have a level of market power that is of concern, the second-tier monitoring regime serves no policy purpose — it should be discontinued. The information published is not necessary to make an assessment of whether an airport has market power or whether it should be added to the monitoring regime. There is sufficient public information available for the Commission to make these assessments. It has also become clear in consultations that government agencies, industry bodies and other stakeholders have little use for this information.

Many regional airports do not have market power

Many regional airports do not have sufficient demand to cover the costs of running the airport, which means the efficient charge for aeronautical services is *more* than passengers are prepared to pay. Regional airports that face these circumstances do not (and cannot) possess market power. Countervailing power from airlines generally constitutes an additional constraint — of the 103 airports for which the Commission has data, 51 are serviced by a single airline. Inquiry participants have raised concerns about investment decisions and asset management practices at some regional airports (discussed below).

Negotiating commercial agreements with airports

Airports and airlines typically engage in commercial negotiations to secure airfield and terminal agreements on price, types of services provided, service quality and future capital investments. They may also negotiate agreements for specific services, such as aircraft hangars. Typically these agreements outline service charges, including price paths for future access, charges to recover costs of passenger security screening, and discounts on scheduled aeronautical charges if, for example, agreed passenger numbers are reached. Negotiated

agreements also typically include agreed service outcomes defined in a service level agreement, future consultation requirements and dispute resolution processes. Recently negotiated agreements include improved performance indicators for, among other things, on-time performance, queue time or baggage handling, and financial consequences where those outcomes are not met.

Agreements are tailored to the requirements of an airline, sometimes with bespoke arrangements within the same corporate group, which airport operators noted adds to the complexity of each negotiation. There is no doubt that negotiating agreements for airport services is challenging — it is time consuming, resource intensive and costly, and the argy bargy between airports and airlines sometimes plays out in the media. While threats and colourful language are commonplace between some parties, ultimately the negotiating parties have commercial and operational incentives to reach an agreement, especially given the need for new investments to meet demand growth and passengers' expectations of service quality.

An infrastructure operator who is exercising its market power during negotiations could, for example:

- deny access to the service (or threaten to)
- refuse to provide sufficient and timely information to negotiating parties to assess the service offer
- make take-it-or-leave-it offers on charges and other terms of access that are accepted by negotiating parties, given an inability to negotiate any alternative
- set charges above the efficient long-run average cost of provision — the minimum an airport operator can charge to ensure it remains viable over time (and a benchmark for economic efficiency).

On balance, the Commission is satisfied that airports have not systematically exercised their market power in commercial negotiations with airlines to the detriment of the community. There are a number of reasons for this.

First, airports have strong incentives to reach agreements with airlines. Agreements underpin cash flow and other measures of financial performance that support investor certainty. Further, government lease conditions under which airports operate do not permit them to deny airlines access to airport services. Even without an agreement in place, airlines are able to access airport services and can refuse to pay charges at the level determined by the airport. The Commission heard, for example, that Qantas Group does not pay charges it does not agree to. Perth Airport commenced legal action in the Supreme Court of Western Australia in December 2018 to recover charges for aeronautical services from Qantas Group. Other airlines have also previously refused to pay charges at the level determined by airports. This practice means it may be airlines, rather than airports, that have an incentive to hold out on reaching agreement.

Second, negotiating agreements is information intensive and some airports have taken steps to improve the flow of timely and relevant information to airlines. Examples include a publicly accessible website hosted by Perth Airport that has information on its indicative 10 year capital expenditure plan, 10 year forecasts for passenger numbers and operational costs, and proposed pricing models, among other things. Melbourne Airport has a Quarterly Consultation Forum to review service quality issues and share data on on-time performance with its airline customers that have reached an agreement.

Third, the Commission had insufficient evidence to conclude that airport operators make take-it-or-leave-it offers to airlines *and* that airlines are compelled to accept them. In practice, airlines have more mobile capital than airports and, as discussed above, are able to reduce or withdraw services at some airports. Further, Qantas Group, Rex and Virgin Australia Group each have countervailing power at some airports, in some circumstances. Where this is the case, airports have limited ability to exercise their market power using take-it-or-leave-it offers.

Fourth, the operational and financial performance of the four monitored airports does not indicate they are systematically exercising their market power by setting aeronautical charges above efficient levels (discussed below).

This does not mean that an airport with market power would not exercise that power in the future if there were changes in the structure of the market in which it operates. The annual monitoring regime, periodic reviews by the Productivity Commission and a credible threat of consequences are essential to encourage airports to engage in genuine commercial negotiations with airlines and other airport users in the future.

Anticompetitive clauses should be removed from all agreements

Some agreements contain anticompetitive clauses that:

- establish financial disincentives or loss of contractual rights if an airline is involved in a declaration application under the National Access Regime — these clauses could reduce the effectiveness of the regulatory regime by reducing the threat of declaration
- restrict an airport operator's ability to offer lower charges or other incentives to airlines other than the signatory airline — these 'no less favourable' clauses seek to limit competition in both domestic and international markets, and protect the incumbency of an airline that has negotiated these favourable terms.

There may be other anticompetitive clauses in aeronautical agreements, and in agreements to provide non-aeronautical services, to which the Commission is not privy. The Commission is seeking further evidence from participants about anticompetitive clauses in commercial agreements between airports, airlines, landside operators or other airport users.

Anticompetitive clauses should be removed from all agreements. The Australian Government should amend the *Aeronautical Pricing Principles* (which are used by airports

and airlines as guidelines during the negotiation process) to specify that agreements should not include such clauses. To ensure that these terms do not appear in future agreements, the Australian Government should stipulate in the terms of reference for any future Productivity Commission inquiry that airports should, on request, make their agreements with airport users available to the Productivity Commission on a commercial-in-confidence basis.

Negotiations between airports and landside operators warrant further scrutiny

There is no substitute for the land that airport operators control for people and businesses needing to access airport terminals. Airport operators have an incentive to exercise their market power in landside access by setting charges above the efficient level and restricting access. The more restrictive the terms of access for landside services, the less competition the airport faces in on-airport car parking, particularly from off-airport car parks (car parking is discussed below).

Airport operators have the potential — and some incentive — to exercise their market power in landside access and face fewer constraints on their behaviour than they do for other services. Landside operators do not have the same degree of countervailing power as airlines, and appear more likely to be at the risk of receiving and accepting take-it-or-leave-it contracts. About 50 per cent of rental car operators' revenue comes from customer demand at airports in many cities and the business model for off-airport car park operators relies on timely access to the airport terminal on reasonable terms — there are no substitutes.

Inquiry participants raised concerns about airports' behaviour in providing landside access services, including inadequate consultation and engagement with landside operators, and the transparency and sharing of methods used to set charges and allocate costs for common-use landside areas, such as access roads. The Australian Finance Industry Association, which represents rental car operators, stated in its submission:

They are not commercial negotiations at all. We have no leverage as the airport knows we need to be there and so there is no meaningful negotiation. There have been occasions where we have tried to negotiate on issues which we think create an unfair outcome for consumers and have literally been told that if we are still on the airport the next day that we are deemed to have accepted the concession agreement as presented.

The Commission's assessment of whether the airports have exercised market power in landside services has been constrained by a lack of evidence on the process of negotiation between airport operators and users of landside services, as well as cost and revenue data. The Commission is seeking further information from participants on the negotiation and consultation process between airports and landside access operators, and on charging and investment decisions, to inform its final report.

The Commission does not have detailed, time series information about charges and other terms of access to landside services. Nor does it have information that would enable it to

assess whether access charges are consistent with the efficient costs of providing landside services (taking into account locational rents and the opportunity cost of airport land).

Changes should be made to the monitoring regime to include costs (including capital costs) and revenues associated with providing each of the landside access services, and access charges for all services. These data would inform future assessments of airport market power and improving the transparency of airport operators' performance would help act as a brake on the potential exercise of market power in this area.

Airports' operational and financial performance

As well as examining the conduct of airports during negotiations, the Commission has assessed indicators of the four monitored airports' operational and financial performance across three broad areas where performance could be affected by the exercise of market power:

- operational efficiency — whether an airport provides services at relatively low cost and uses its inputs efficiently, with a level of service quality that meets users' reasonable expectations
- aeronautical revenues and charges — whether the prices of aeronautical services (as measured by revenues and charges) reflect efficient costs
- profitability — whether an airports' returns are reflective of the cost of capital, accounting for the long-term nature of airport investments and operational constraints.

The Commission has not sought to set benchmarks for individual indicators. Each airport has different circumstances so it is not practical (or sensible) to define a benchmark for each indicator that would signal an exercise of market power at each airport. Instead of comparing indicators with benchmarks, the Commission has assessed indicators of airport performance over time, and relative to comparable airports in Australia and overseas to determine whether they could be consistent with the exercise of market power. It has then assessed whether the overall performance of each airport could be consistent with the systematic exercise of market power.

Sydney Airport

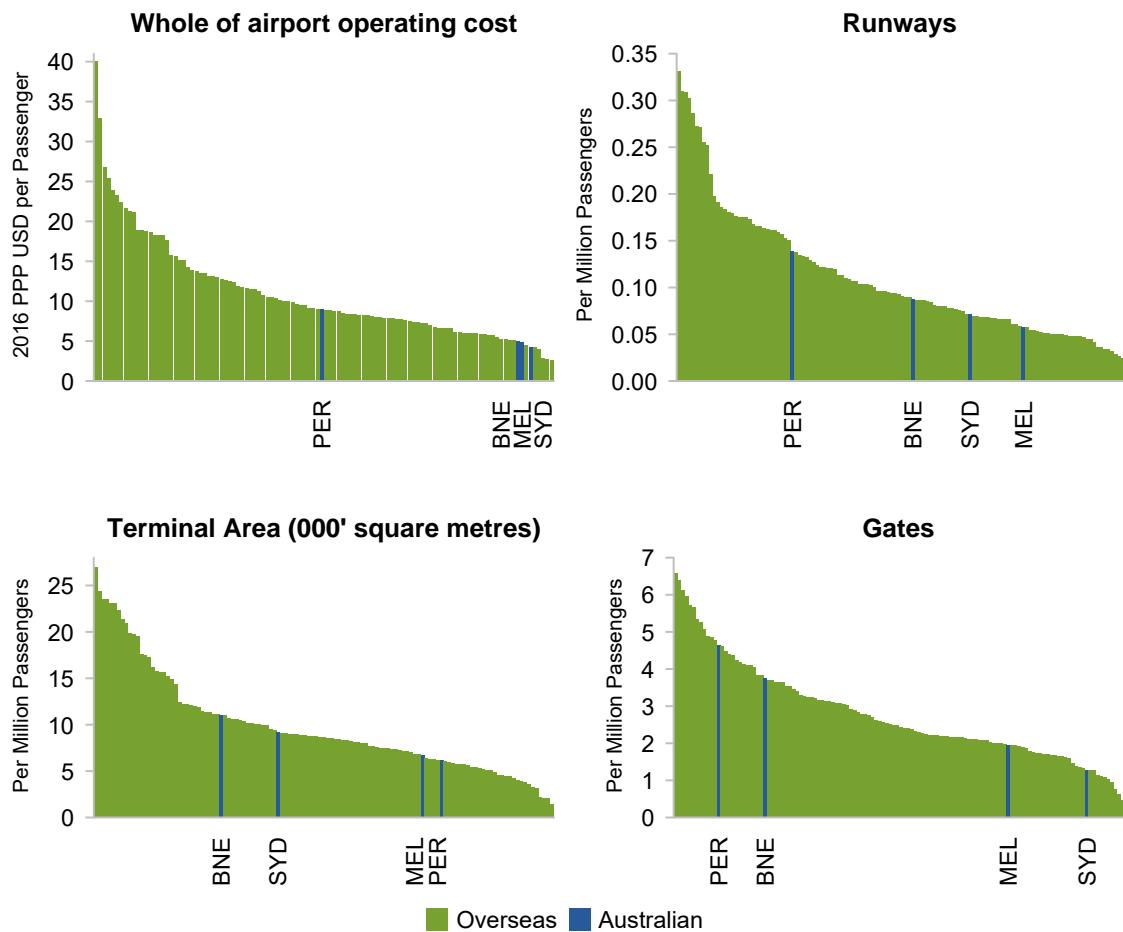
Sydney Airport faces physical and regulatory constraints — it has limited space to expand and its operations are constrained by caps on aircraft movements and a curfew. These constraints and strong passenger growth have led to some congestion at peak times, but Sydney Airport continues to operate efficiently. Its aeronautical operating costs per passenger are the lowest of the monitored airports, and it has very low whole of airport operating costs when compared to most overseas airports. Similarly, it processes a large number of passengers for the number of gates and runways it uses (figure 5). Sydney

Airport's operating efficiency could be further increased with changes to regulatory constraints on aircraft movements (discussed below).

Aeronautical charges for domestic services at Sydney Airport are higher than those for Melbourne and Brisbane airports, but are not particularly high by international standards and have been relatively stable in recent years. Charges for international services have grown more rapidly and are high when compared with overseas airports (figure 6).

Sydney Airport is a profitable business. In 2016-17 it earned the highest return on aeronautical assets (ROAA) of all the monitored airports (11 per cent), a figure that could present cause for concern when considered in isolation (figure 7).

Figure 5 Australian and overseas airports — operating costs and input utilisation, 2016

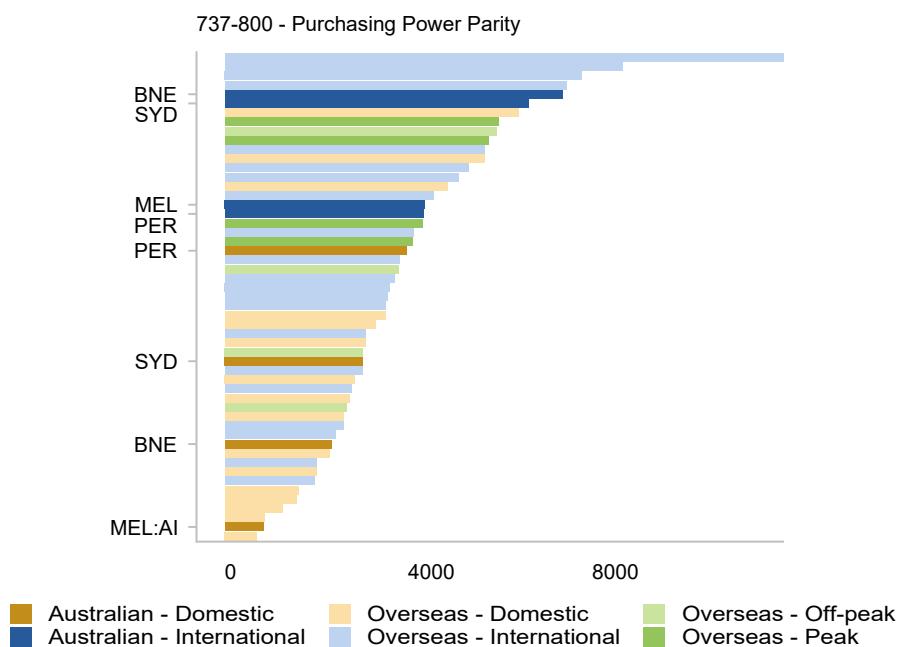


Deeper analysis reduces the concern that Sydney Airport's profits might reflect the systematic exercise of market power. First, the long-lasting nature of airport assets and the inherent lumpiness of their investment schedules means that returns in a single year have

little value as evidence. Sydney Airport's ROAA averaged about 10 per cent per year over the 10 year period to 2016-17 — still an attractive return, but less than Melbourne and Perth airports, which averaged about 11 and 12 per cent per year, respectively. Second, at least part of the reason for Sydney Airport's high returns is that it has had fewer opportunities to invest than the other monitored airports due to land constraints. Passenger demand has grown more rapidly than the asset base, which has led to increasing returns on the existing assets.

Sydney Airport's ROAA would be expected to continue to increase if current regulatory constraints remain in place and demand for Sydney Airport's aeronautical services continues to grow. With scarce capacity, the airport may have an incentive to efficiently ration services by increasing prices. This would not be caused by an exercise of market power by the airport (or airlines), but by 'scarcity rents' that are created by regulations, to the detriment of passengers.

Figure 6 Australian and overseas aeronautical charges
Airport turnaround costs in USD (current published schedules)^a



^a Schedules published as at October 2018. Charges were last updated at most airports between 1 January and 1 July 2018. The domestic charge at Melbourne Airport (MEL: AI) is for airfield and infrastructure services only (it excludes terminal services). From 1 July 2015 Melbourne Airport stopped publishing an all-inclusive domestic charge — refer to section 5.3 for further details.

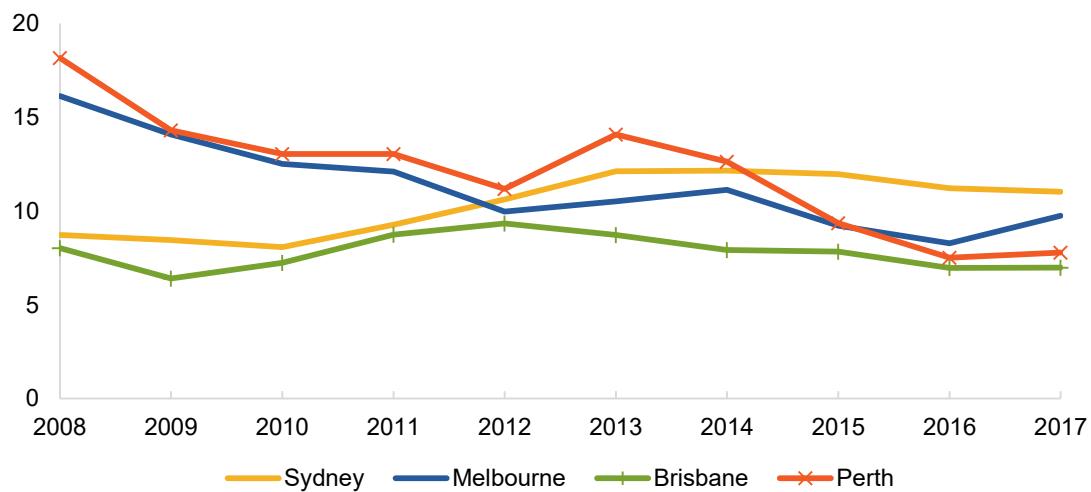
Sydney Airport clearly belongs in the monitoring regime — it has market power and its returns on assets and aeronautical charges for international services present some cause for concern that it could exercise that power. Taken as a whole though, the indicators of Sydney Airport's performance do not suggest that it has systematically exercised its market power in aeronautical services.

Melbourne Airport

International passenger numbers at Melbourne Airport more than doubled over the past decade, which meant they went from comprising less than 20 per cent of all passengers in 2007-08 to almost 30 per cent in 2016-17. Meeting this growth has required continued investment, including new and upgraded terminal infrastructure. Melbourne Airport has high input utilisation and low costs (figure 5) and, on balance, it also has good service quality when compared to overseas airports. Substantial investment at Melbourne Airport came with a decline in profitability — the Airport's ROAA decreased from about 16 per cent in 2007-08 to less than 10 per cent for the past three financial years (figure 7).

Melbourne Airport's trend in profitability and high level of operational efficiency do not suggest it is exercising its market power. Although international charges have increased somewhat faster than domestic charges, they are in line with overseas airports and so are also unlikely to reflect the systematic exercise of market power.

Figure 7 Return on aeronautical assets
Per cent per year from 2007-08 to 2016-17^a



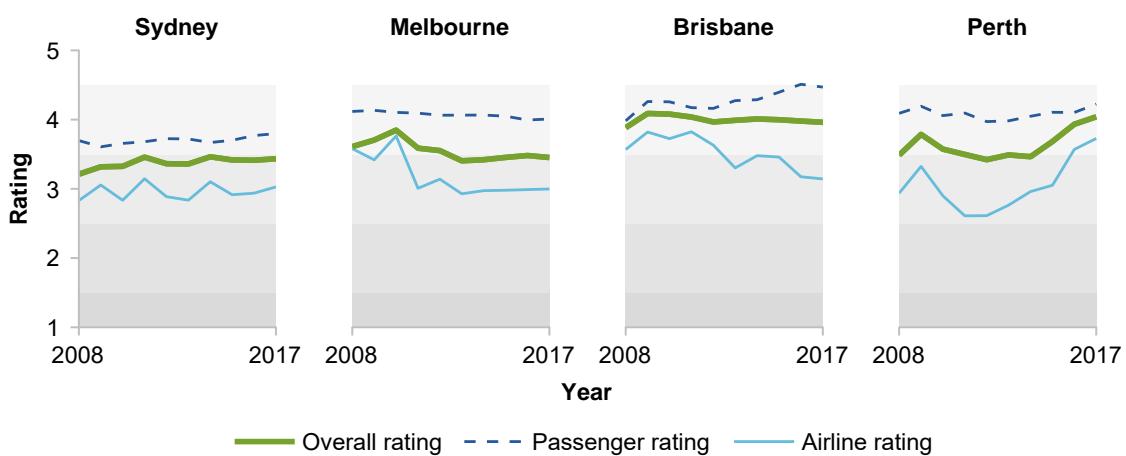
^a Financial years ending 30 June. Returns are calculated using 'line in the sand' asset values from the ACCC monitoring report.

Brisbane Airport

Brisbane Airport had the highest scheduled international charges of the monitored airports, and these charges are also high when compared to its overseas peers (figure 6). It has recently expanded its international terminal building and associated apron and aircraft parking facilities. The high charges at Brisbane Airport could reflect the costs of these investments, but they could also be consistent with the airport exercising its market power.

While Brisbane Airport's international charges are relatively high, it performed better on other indicators. Its total costs per passenger increased significantly from 2007-08 to 2016-17, but were low compared to other monitored airports. Brisbane Airport's overall service quality rating was the highest of the monitored airports in nine of the past 10 years according to ACCC monitoring (figure 8).

**Figure 8 Average quality of service ratings from ACCC monitoring
2007-08 to 2016-17**



Finally, high international charges have not translated into excessive airport profitability, with Brisbane Airport's ROAA seldom exceeding 8 per cent in the past decade (figure 7). Overall, Brisbane Airport's moderate level of profitability and reasonable operational performance suggest that it is not exercising its market power. However, like Sydney, its high international aeronautical charges are a potential concern.

Perth Airport

Perth Airport opened a dedicated regional terminal in 2013 and a new domestic pier in 2015, but there was an unexpected fall in passenger numbers with the end of the mining investment boom. This partly explains why it had the highest operating costs per passenger and the most underutilised resources of the monitored airports (figure 5), despite previous criticism of the airport for having insufficient capacity during the mining investment boom. The investments were considered to be beneficial by both Perth Airport and airlines using these terminals at the time and resulted in the greatest improvement in service quality of the monitored airports since 2011-12 (figure 8). These investments were accompanied by a more than 100 per cent increase in domestic scheduled charges from 2011-12 to 2016-17. Perth Airport has stated that the large increase in domestic charges from 2012 was implemented to fund the construction of the two new terminals, and that domestic charges will be reduced by 39 per cent in real terms in the 2019 financial year.

Movements in Perth Airport's ROAA appear to be heavily influenced by its investment decisions. Since 2007-08, ROAA at Perth Airport has averaged about 12 per cent, which is the highest of the monitored airports. This was driven by higher returns earlier in the period when it had a relatively small asset base and increasing passenger numbers. Its asset base quadrupled in real terms from 2007-08 to 2016-17, with significant terminal expansions. This investment, combined with lower passenger numbers in recent years, led to a substantial fall in ROAA over the period. ROAA was about 18 per cent in 2007-08, and fell sharply to about 13 per cent by 2009-10. It rose again in 2012-13 but fell again in 2014-15 and has been less than 8 per cent in the past two financial years.

Overall, Perth Airport's performance can be partly explained by increased passenger demand during the mining investment boom and substantial investment, followed by a decline in passenger numbers after the mining investment boom. The investments undertaken by the airport seem to have been considered necessary, given that airlines were supportive of them at the time and, to the extent that they were completed at a reasonable cost, then these findings do not suggest that Perth Airport has exercised its market power.

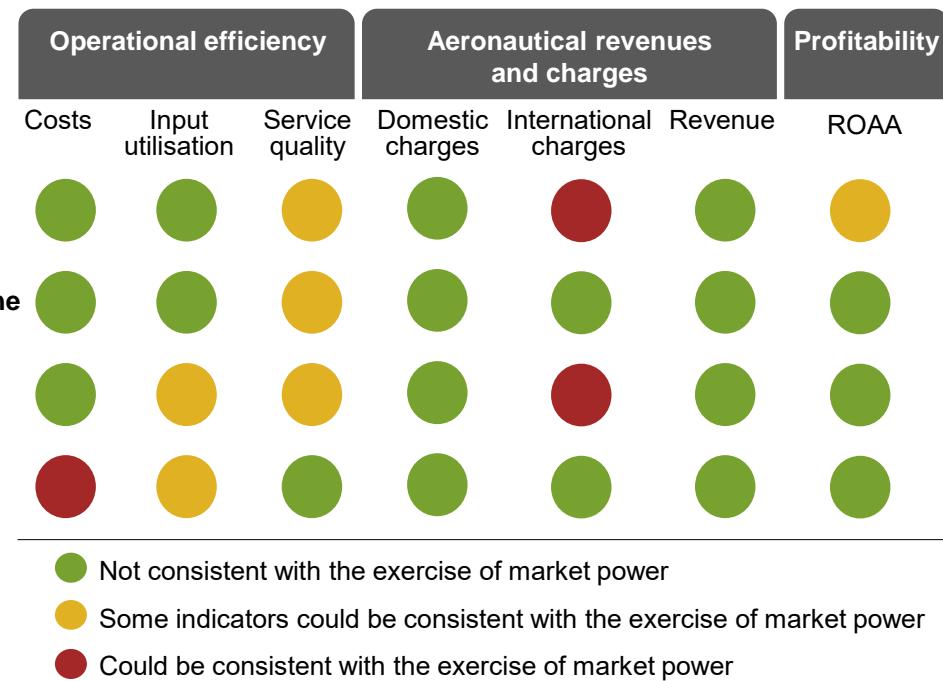
No systematic problem but airport performance requires more scrutiny

Some indicators of financial performance at particular airports could be consistent with the exercise of market power when taken in isolation. The high international charges at Sydney and Brisbane airports, Sydney Airport's profitability, and the high operating costs at Perth Airport show that there is reason to be vigilant (figure 9).

When taken as a whole, the evidence does not suggest that airports have systematically exercised their market power to the detriment of the community. There is no justification for significant change to the current form of regulation of aeronautical services at these airports. There is, however, a need to increase the transparency of airport performance through changes to the monitoring regime.

The Commission would need information on the costs and revenues associated with international aeronautical services to determine whether relatively high international aeronautical charges at Sydney and Brisbane airports are a result of an exercise of market power. This evidence base does not exist because airport operators are not currently required to provide this information to the ACCC. The Commission is recommending improvements to the monitoring regime so the magnitude of international aeronautical costs and revenues can be evaluated in the future.

Figure 9 Summary of airport performance



Prices at airport car parks are not the result of market power

Many consumers resent the price of parking at a major airport because a few hours in a short-term car park close to the terminal building can cost more than an airline ticket.

Airports own and operate car parks on airport land, including at-terminal and at-distance (requiring users to catch a shuttle bus to the terminal). Airport operators have market power in at-terminal car parking — they are the sole provider and there are no substitutes for people who want the convenience of parking within a short walk to the terminal. Airport operators are likely to face greater competitive constraints in the market for at-distance car parking, provided the operators of independent car parks have access to airport terminals for their shuttle buses.

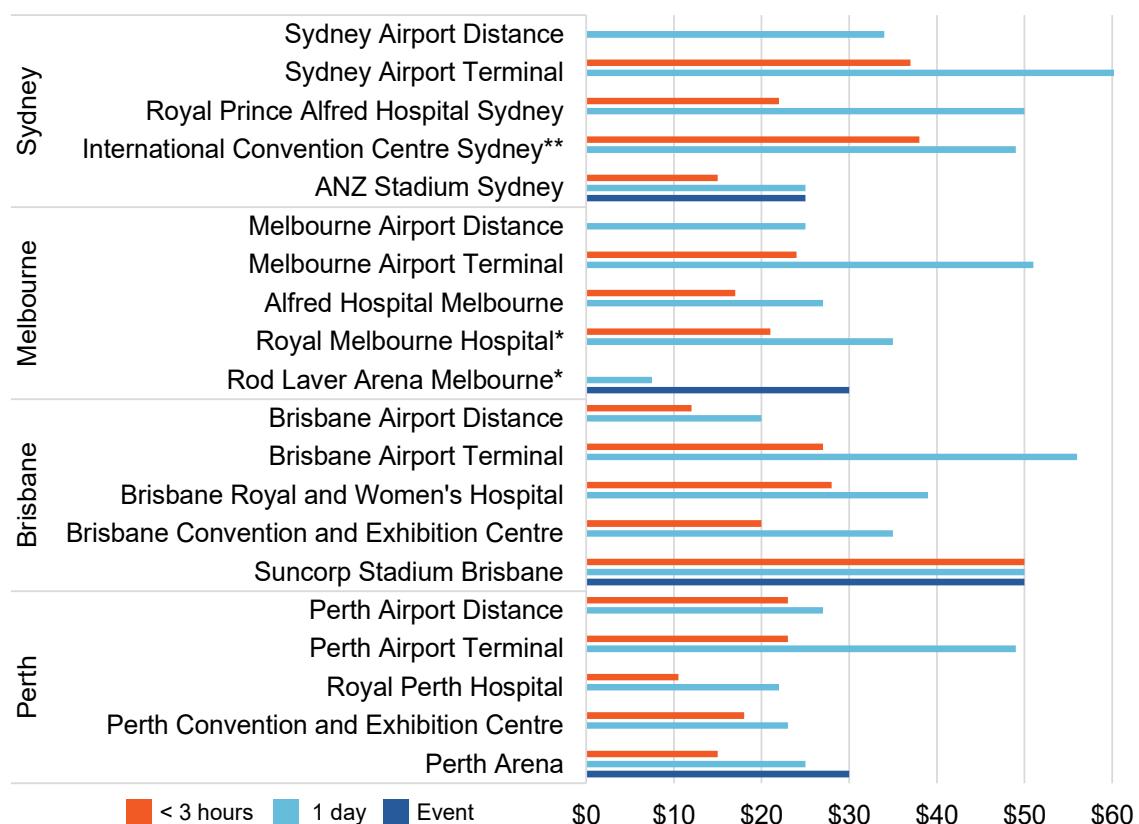
There is little evidence that the monitored airports are exercising their market power in car parking. The price of parking at-terminal can largely be explained by:

- the high opportunity cost of land close to the terminal — forecourt land is scarce and could be used for other purposes, such as car rental facilities, retail outlets or hotel accommodation
- location — people value the convenience of parking close to the terminal buildings. The premium that users are prepared to pay for limited space close to terminals creates

locational rents. This is also true of other locations where proximity is highly valued but space is limited, such as hospitals, and entertainment and sporting venues, which have broadly comparable prices, particularly for short-term use (figure 10)

- airport operators use pricing to manage demand and reduce congestion in highly sought after car parking facilities. This is especially the case for at-terminal car parks that are limited in number due to space constraints
- car park amenities — at-terminal car parks are generally multi-storey facilities providing covered parking and services such as CCTV security, all of which are more costly to build and operate than open-air car parks.

Figure 10 Car park prices at monitored airports, selected hospitals, and entertainment and sporting venues^{a,b}



a State-government annual congestion levies apply to car parks in some metro areas of Sydney and Melbourne. ** Congestion levy of \$2400 per car park space. * Congestion levy of \$1400 per car park space.

b Car park prices at some event venues are dynamic.

There are many ways for people to access the airport precinct, such as taxi, Uber, off-airport car parks and public transport and, while they are not perfectly substitutable for those wishing to park at the terminal, they do constrain the ability of airport operators to increase prices significantly. Likewise, the increase in the use of technology, such as web-based apps

to compare car parking prices, provides consumers with more information about their options and the means to decide in advance rather than be hit with a nasty surprise.

As is the case in other areas where airports have market power, there is an ongoing need to scrutinise the performance of airports' car parking operations. Changes should be made to the monitoring regime to improve data to allow greater scrutiny of airports' car parking operations, including separately reporting the costs, revenues and utilisation rates for at-terminal and at-distance car parking.

Reforming the regulatory regime

The monitored airports have market power in domestic and international aeronautical services at a level that create a *prima facie* case for regulatory intervention. Other capital city airports and airports in regional centres have less (or no) market power and should not be subject to increased monitoring at this stage.

The light-handed approach to regulation has performed well — Sydney, Melbourne, Brisbane and Perth airports have not systematically exercised their market power to the detriment of the community. Each has generated returns sufficient to promote investment while not earning excessive profits, although some indicators of performance could be cause for concern when taken in isolation or over a short time frame. Wholesale changes to the regulatory regime are not justified, but this is no reason for airport operators to become complacent.

The pillars of the economic regulation of airports should remain in place, including the annual monitoring administered by the ACCC and periodic reviews by the Productivity Commission — both are critical to the regulatory regime to maintain a credible threat to airports of increased regulation. The combination of the monitoring report and Commission reviews allows a regular assessment of the performance of airports, whether an airport should be added to the list of monitored airports (or removed from it), and whether a monitored airport should be subject to more onerous regulation.

More detailed reporting on airports' financial performance

The monitoring regime could be made more useful to the Commission for its inquiries into airports (and to others), and for airport users in their commercial negotiations, if it included more detailed information on airports' operations and financial performance. The annual monitoring reports should be expanded to include separate reporting of costs and revenues in relation to:

- aeronautical services for domestic flights and for international flights
- the provision and use of at-terminal and at-distance car parking
- the provision and use of landside access services (see below).

Cost information should be provided separately for service-specific costs and common costs. Service-specific costs could include operational costs, such as the costs of providing an aerobridge to a domestic or international flight. They could also include capital costs, such as terminal costs where there are separate terminals for international and domestic services. Common costs apply to common-use infrastructure, including runways and other airside infrastructure, as well as some landside infrastructure. To augment this information the airports should disclose any methods they use to allocate common costs between domestic and international services, and should report allocated costs for aeronautical, car parking and landside access services.

Separate reporting of service-specific and common costs would enable costs and revenues to be attributed to either domestic or international services. This information would assist in more detailed assessments of whether airports are exercising their market power in either of these services.

Improving quality of service monitoring

The monitored airports performed well relative to overseas airports on passenger service quality measures but airline service quality measures present a less favourable picture. Methodological issues and biases limit the robustness of quality of service ratings under the monitoring regime. Quality of service monitoring should be updated to emphasise indicators that reflect outcomes that are valued by airport users (airlines and passengers), drawing on the indicators that airports and airlines use in service level agreements.

More information on landside access

Airport operators at the four monitored airports have the ability and incentive to exercise their market power in landside access and face fewer constraints on their behaviour than they do for other services. Improvements to the monitoring regime are needed in order to determine if airport operators are exercising their market power in landside services. This is important not only for the effect it has on landside services, but also because an operator could use unreasonable conditions of access to boost demand for its on-airport car parks.

The benefits of updating the monitoring regime outweigh the costs

Collecting additional data will increase compliance costs for the monitored airports and administration costs for the ACCC. The Commission considers that these costs will be modest and proportionate to the benefits of enhancing the monitoring regime to increase the oversight of airports' operations and financial performance. Much of the additional data required from airports should be readily accessible from airports' financial reporting systems and there would likely be a relatively small impost on the ACCC. The alternative — new regulatory frameworks, such as a negotiate-arbitrate framework discussed below — would have costs and risks that are higher than the Commission's draft recommendations.

A negotiate-arbitrate framework would have few benefits and many risks

Airlines and the ACCC suggested replacing the existing regime with a much more interventionist approach — making airport services subject to a negotiate-arbitrate framework. Airports and airlines would engage in commercial negotiations on the terms of access to airport infrastructure. If either party considers that the negotiations are not going to lead to a satisfactory commercial outcome, it could request that an arbitrator be appointed to resolve the dispute. This type of regulation currently applies to some east coast gas pipeline services. Compulsory arbitration can also apply to services that are declared under the National Access Regime, but the ACCC and airline proposals would effectively skip the declaration stage (and the case-by-case analysis that it involves).

Airports are complex operations that make long-lasting investments in costly, and often common-use, infrastructure. Airport operators manage the requirements and preferences of many airlines (47 at Sydney Airport) and recover the costs of investments from those airlines over decades. Each agreement for airfield and terminal services is a package of conditions that is intertwined with the conditions of agreements with other airport users.

The arbitration process would be time-consuming and financially costly, and would change the incentives for parties to reach outcomes through commercial negotiation. Airlines that disagree with investment proposals (including proposals that might threaten their incumbency) would have incentives to use the arbitration process to hold up investments that could increase airport capacity and competition between airlines. An arbitrated outcome for one airport user might reduce the efficiency of airport operations for other airport users and the community as a whole.

The proponents have also failed to demonstrate why a negotiate-arbitrate framework specific to airports is needed when the National Access Regime enables airport users to seek declaration of airport services and subsequently to seek access to arbitration by the ACCC if negotiations fail.

There is no doubt that some commercial negotiations between airports and airlines have been challenging but, on balance, the process and the outcomes reached give little cause for concern. A negotiate-arbitrate framework would have substantial perverse effects that would harm the efficiency of the sector and negatively affect passengers. The benefits would need to be very large for the costs and risks of such a framework to be tolerable. They are not.

Regional access arrangements at Sydney Airport

Airline access to Sydney Airport is more difficult than to other Australian airports because of its regulatory constraints, including restrictions on the number of aircraft movements. Sydney Airport is also a significant domestic and international air transport hub and high demand for the airport's infrastructure shows up in congestion, especially during the morning and evening peak hours.

The regional ring fence, price cap and price notification regimes

The Australian Government has put in place unique arrangements — a regional ring fence, price cap and price notification regime — at Sydney Airport, to facilitate access for airlines servicing destinations in regional New South Wales. The ring fence reserves a number of aircraft movement slots at Sydney Airport for airlines operating flights to or from regional New South Wales. Under the price cap and notification regime, Sydney Airport must notify the ACCC before it can change its prices for aeronautical services and facilities provided to airlines operating flights servicing NSW regions. The ACCC can object to a price increase proposed in a price notification if it considers the increase would exceed the CPI-linked price cap, or if the increase is not required to recover the costs for the provision of aeronautical services to airlines operating regional flights. Regional aeronautical charges are about half of the scheduled domestic aeronautical charges. These arrangements help to facilitate access for airlines operating regional flights into Sydney Airport but they can be improved.

The ring fence supports access to Sydney Airport for airlines operating regional flights, particularly in peak periods, as evidenced by the close to full allocation of slots, including regional slots, in peak periods. However, the cap on regional slots in peak periods and the fact that non-regional slots in peak periods cannot be used for regional flights prevents airlines from testing and growing regional routes.

Changes to the regime to allow airlines to use non-regional slots for regional air transport would enable them to more easily trial regional flights in peak periods (when spare regional slots are scarce), more flexibly respond to changes in market demand on different routes, and more efficiently use their aircraft. Non-regional slots that are used for regional air transport should not become permanent regional ring fenced slots as this would reduce the flexibility of these slots.

Further, airlines that use non-regional slots for regional air transport should pay domestic aeronautical charges or negotiate charges with Sydney Airport, rather than pay the price-capped regional aeronautical charges. This would prevent the price cap regime, and any associated costs, from expanding due to a change in the use of slots.

The price cap and notification regime applies to terminal and airfield charges as well as prices for other aeronautical services and facilities, such as hangars, for airlines operating NSW regional flights. The price cap is only one factor in airlines' decisions to service a route. Airlines base their decisions on many other factors, such as passenger demand, charges at destination airports, fuel and other operating costs and slot capacity constraints. The benefits of the price cap appear to be limited to marginally profitable routes and the costs are uncertain. Given the potential benefits at the margin, the price cap should be retained in its current form at this time.

Although inquiry participants did not identify major issues with the price cap, Sydney Airport stated that the public nature of price notifications can discourage commercially negotiated outcomes because airlines may not wish for sensitive information to be known by their competitors. Sydney Airport suggested that outcomes reached through negotiations

with airlines should not be subject to price notifications. Rex supported this proposal, as long as the safety net for regional airlines that do not have commercial agreements continues to be preserved. The price notification regime at Sydney Airport should be updated to apply only to prices for regional aeronautical services that are not covered in commercial agreements between Sydney Airport and airlines operating NSW regional air transport services.

The opening of Western Sydney Airport in 2026 could provide greater opportunities for regional air transport directly through flights to regional areas and indirectly where it leads to more capacity at Sydney Airport. The next Commission inquiry into airport regulation should consider the continued need for regional access arrangements at Sydney Airport in light of the development of Western Sydney Airport and any other future considerations. This analysis would be supported by the Commission's proposal to expand the monitoring regime to include data for Sydney Airport on costs and revenues in relation to the provision of aeronautical services for air transport to regional New South Wales. This would allow the costs of the regional access arrangements to be more easily assessed and then evaluated against their potential benefits.

Broader regulatory constraints at Sydney Airport

Regulatory constraints at Sydney Airport, including the movement cap, curfew and the slot management scheme, restrict the effect of aircraft noise on local residents, but come at the expense of broader airport efficiency. The capacity of Sydney Airport is capped at 80 movements per 15-minute rolling hour (in non-curfew periods) but it rarely reaches this cap. Airservices Australia, which manages air traffic at Sydney Airport, aims to process 78 movements per rolling hour in practice, which ensures that it does not exceed the movement cap after allowing for potential counting errors or aircraft speed differences. The average number of movements rarely exceeds 70 per hour, even in peak periods (figure 11).

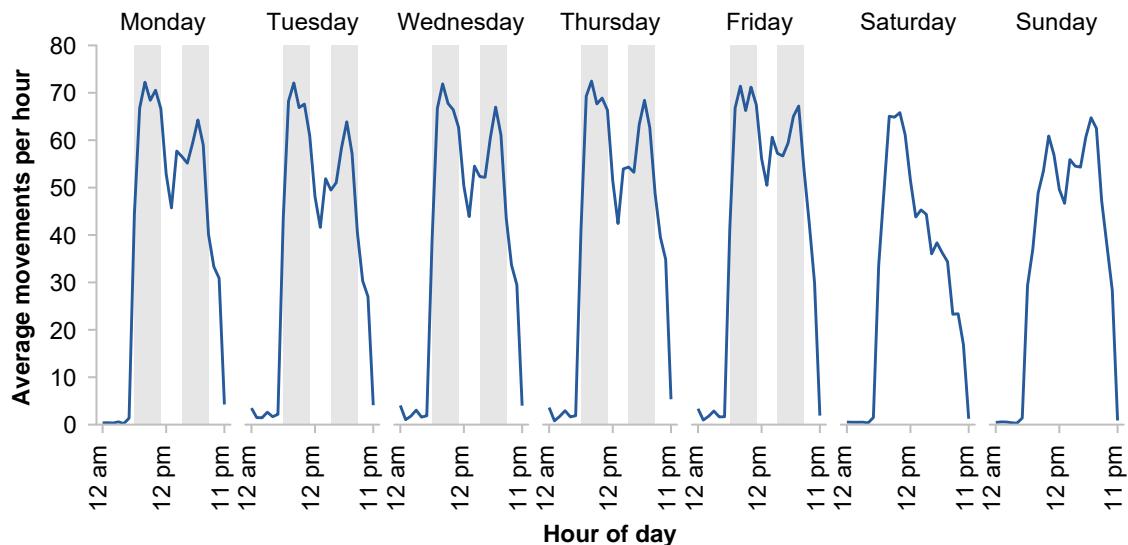
Sydney Airport's movement cap and airport curfew can exacerbate delays when there are unexpected incidents, such as weather events. Delays that lead to congestion, particularly during peak periods, can force some aircraft to wait on the ground or in the air until the next 15-minute rolling hour before they are allowed to take off or land in order to avoid breaching the movement cap. Aircraft movements can be prohibited entirely when delays stretch toward the curfew period. Delays interfere with passengers' schedules, create costs for airlines and have flow-on effects for Australia's aviation network more broadly due to the high number of aircraft that pass through Sydney Airport.

The movement cap and curfew sometimes result in more noise and emissions, in spite of their noise reduction objective. Inquiry participants, including Sydney Airport and the Tourism and Transport Forum, said that aircraft that arrive earlier than scheduled (due to catching a tailwind, for example) may be forced to wait in the air rather than land to avoid breaching the movement cap or curfew, creating additional noise, excess environmental

emissions and unnecessary fuel burn. Further, the legislation permits the use of one type of jet aircraft for freight operations during the curfew, but not newer quieter aircraft.

Figure 11 Average hourly movements at Sydney Airport by day of the week^{a,b}

October 2017 to September 2018



a Shading indicates legislated peak periods (6 am to 11 am, and 3 pm to 8 pm, on weekdays). **b** Underlying data include all movements at Sydney Airport, including those that are exempt from the movement cap.

The objective of managing the effect of aircraft noise on local residents should be balanced with reforms that benefit the community at large, including through improvements to the efficiency of Sydney Airport. Changes that increase the flexibility of the movement cap and that target noise outcomes more directly would most likely improve the operational efficiency of Sydney Airport as well as airlines. This could be done in a way that meets current noise objectives, but that reduces unintended consequences from the existing arrangements. Options include removing the cap on actual movements but retaining a cap on scheduled movements or adopting noise-based criteria for determining which aircraft are permitted to operate during the curfew, rather than the current prescribed list of aircraft types. The Commission is seeking further evidence from participants on these options with a view to making a recommendation in its final report.

The legislated slot management scheme at Sydney Airport, which allocates aircraft movement slots to airlines, can limit competition. Historical precedence provisions in the scheme mean that airlines are automatically entitled to their slots from a previous season, provided they meet certain criteria. These provisions can provide certainty to existing airlines and their customers, but also prevent new entrants from gaining access to the airport and could be exploited by incumbent airlines. Historical precedence provisions that prevent an increase in competition can have negative effects on broader operational efficiency at

Sydney Airport and airfares, to the detriment of passengers in the long run. The Australian Government should commission a public review of Sydney Airport's slot management scheme to consider possible reforms to the current arrangements in order to improve competition.

The Commission supports the plans for Western Sydney Airport to operate without a curfew. Further, government planning and development activities should promote the efficient operation of the airport and ensure that the surrounding land is not developed in a way that ultimately creates pressure to reduce the airport's 24-hour operations.

Competition in markets to supply jet fuel

The cost of jet fuel accounts for the largest single source of airline operating costs, at about 20 per cent in 2017-18. In the same year, the demand for jet fuel in Australia was 9000 mega litres, which cost the airlines between \$7–9 billion. This means a one cent per litre decrease in the jet fuel price could result in a \$90 million reduction in operating costs for airlines uplifting their fuel in Australia.

Infrastructure for the supply of jet fuel

Markets to supply jet fuel comprise a complex chain of infrastructure services to transport jet fuel from its origin as refined crude oil in international or domestic refineries to the wingtip at Australian airports. The supply chain includes import terminals, off-airport storage tanks, pipelines or trucks, on-airport storage and hydrants and into-plane providers.

The jet fuel supply chain is dominated by four large vertically integrated suppliers — BP, Caltex, Mobil and Viva — that are involved in each part of the supply chain, often in a joint venture arrangement between two or more of these suppliers. Vertical integration and horizontal coordination generate benefits to fuel suppliers by capturing economies of scale or scope, or by lowering coordination costs, where related services, such as the piping, storage and distribution of fuel, would otherwise be provided separately.

These arrangements can result in more efficient provision of infrastructure services, but they could also enable incumbent fuel suppliers to use their dominance to restrict competition in markets to supply jet fuel.

- Fuel suppliers seeking to access the market face high barriers to entry. A fuel supplier entering the market would require access to multiple infrastructure services, yet few infrastructure owners offer open access to third parties. For example, only one pipeline — the Caltex pipeline to Sydney Airport — allows access to third parties, but access to the supply chain can be constrained or denied at several other points. The Commission has heard that a number of new entrants would like to enter markets to supply jet fuel but have so far been unable to.

-
- It appears that the market power of the incumbent fuel suppliers is leading to opaque terms for access to the Joint User Hydrant Installation (JUHI) infrastructure, likely deterring potential entrants. In addition, the incumbent firms may be using the decision-making process for granting access to hinder the ability of new entrants to enter a market at all, or to delay access opportunities for competitors.
 - Most of the fuel supplied to the monitored airports is transported from import terminals to the airports through pipelines owned by existing suppliers. New suppliers could truck fuel to the airport, but in the long term there are congestion and environmental externalities as well as cost disadvantages to using trucks. This means that trucking is unlikely to be a viable substitute to the long-term provision of jet fuel by pipeline to the monitored airports.

There is scope to improve competition and coordination

The Commission has received insufficient publishable information to present a full analysis of competition in markets to supply jet fuel. The Commission's conclusions have relied on analysis of the characteristics of those markets, along with information provided in submissions and public hearings.

The supply of jet fuel at some Australian airports is characterised by conflicts of interest associated with fuel companies owning the JUHI infrastructure and a lack of open access to necessary infrastructure services. There is limited transparency on the terms of third party access to infrastructure services, which makes it difficult for potential competitor fuel suppliers to decide whether to enter a market or to assess whether these terms are reasonable. *Prima facie*, this has enabled incumbent fuel suppliers to restrict competition, which has led to a small number of fuel suppliers at some airports. This has likely led to higher prices to access infrastructure services and higher fuel prices.

The Commission has identified two options that could, depending on further evidence from participants, improve the conditions for competition in markets to supply jet fuel. The Commission could recommend:

- the designated Minister apply to the National Competition Council asking it to recommend that a service, such as those provided by the JUHI, a pipeline or the whole supply chain, at the capital city airports, be declared under the National Access Regime
- an industry-specific access regime for infrastructure services that are necessary for the provision of jet fuel.

However, there may not be a need for a government response at some airports — the Commission notes that some airport operators have already acted to improve competition at the JUHI by introducing open access regimes.

In the case of Western Sydney Airport, the Australian Government should recommend to the Western Sydney Airport Corporation Board that the JUHI operates on an open access basis and that this is a condition of any future privatisation.

There is also scope to improve the planning and coordination of jet fuel infrastructure. The jet fuel supply chain is critical for commercial aviation operations and requires sufficient capacity to minimise fuel disruptions. This is aided by ensuring industry participants have incentives to invest in capacity and good coordination between fuel companies, airports, airlines and Australian, State and Territory Governments. A jet fuel supply coordination forum should be established at each of the monitored airports as part of the master planning process, to enable better coordination and information sharing between these parties. The forum could discuss, among other things: capacity constraints and any potential pressure points; linkages between different parts of the infrastructure supply chain; demand forecasts and actions to ensure security of supply; and future infrastructure requirements and investment planning.

Regional airports

Airports in regional areas provide important services to communities. Regional airports have a variety of ownership and management structures but local government councils own and operate the vast majority. Participants raised concerns about infrastructure decisions, aeronautical charges and asset management practices at some regional airports.

Participants argued that infrastructure upgrades at some regional airports are driven by politics and regional development objectives. These objectives include, for example, facilitating international tourism by upgrading runway and terminal capacity to cater for larger aircraft than any airline is proposing to fly at that destination. Participants noted that Australian, State and Territory Governments support many infrastructure improvements at regional airports and that the assessment criteria used to assess projects can lack rigour and lead to unwarranted infrastructure investments. The Commission shares these concerns — unnecessary or unjustified infrastructure upgrades could lead to the perverse outcome of a loss of air services to communities if they result in increased aeronautical charges that airlines (and by extension, passengers) are not willing to pay.

Airlines also argued that regional airport operators do not adequately consult airport users when undertaking infrastructure investments that lead to increased aeronautical charges. Consultation with airport users is likely to assist airport operators to identify necessary investments in regional airports and help to avoid unnecessary or unjustified expenditure.

Australian, State and Territory Government funding of airport infrastructure should be transparent and subject to an independent public assessment of the project, including an assessment of airport users' willingness to pay for the infrastructure.

Airlines and associated representative bodies questioned the financial asset management practices of some council-operated airports. Concerns raised included lack of in-house knowledge and experience in managing airport infrastructure, arbitrary revaluations of airport assets that result in increases in aeronautical charges, and the treatment of government-funded assets in financial reporting. Previous Commission work, including the *Transitioning Regional Economies* study, also found that the capacity and capability of local councils vary significantly. Consistent with that study, government funding of new airport infrastructure and improvements to existing airport infrastructure should occur at a regional level, rather than at a local-council level, to reflect that local areas are linked by the interactions between people across neighbouring areas (functional economic regions).

More could be done to assist some local councils in the financial management of airport assets. The WA Department of Transport is developing a Strategic Airport Asset and Financial Management Framework (Framework) for regional airports. The aim of the Framework is to provide a standardised template for asset management at council-operated regional airports including the determination of charges required to maintain and replace assets. The Commission considers that the Framework would help build capability of local councils in managing airport infrastructure and address issues raised by participants.

The Australian Government should review the efficacy of the Framework in 2022, in consultation with State, Territory and Local Governments. Pending the findings of that review, the Framework should be adapted and rolled out by governments in other jurisdictions with the objective of providing a template for sound asset management practices and greater transparency when determining airport charges at regional airports.

Draft recommendations, draft findings and information requests

Commercial negotiation

INFORMATION REQUEST 4.1

The Commission is seeking additional information or examples of take-it-or-leave-it offers by airport operators, including:

- scope and circumstances of the negotiation*
 - overview of the negotiation process and actions of each party*
 - negotiation outcomes, including acceptance of such offers by airport users*
 - the extent to which such conduct during the negotiation process may reflect an exercise of market power.*
-

INFORMATION REQUEST 4.2

The Commission is seeking additional information on the ways in which airports and airport users share risks through negotiated agreements including:

- mechanisms to share investment risks, such as offers or use of take-or-pay contracts, where users are required to guarantee a level of future service use*
 - current or proposed contract terms that do not reflect a reasonable sharing of risk, and the rationale for their use*
 - instances where airport users have pre-financed capital projects and why this did or did not represent a reasonable sharing of risk*
 - the extent to which any risk transfer reflects an exercise of market power, and why.*
-

Airports with market power

DRAFT FINDING 5.1

The four monitored airports — Sydney, Melbourne, Brisbane and Perth — have market power in aeronautical services, but they have not systematically exercised their market power to the detriment of the community. There is no justification for significant change to the current form of regulation of aeronautical services at these airports.

Landside access

INFORMATION REQUEST 6.1

The Commission is seeking evidence on:

- *how airport operators consult and engage with landside operators when setting access charges and undertaking investment in landside infrastructure*
- *how consultation between airports and landside operators could be improved*
- *mechanisms available to landside operators to raise issues with airport operators that relate to landside access and how issues are resolved*
- *the pricing frameworks airport operators employ to determine the access price of specific- and common-use landside infrastructure and whether these frameworks, and the associated methodology, are included in negotiations with airport users*
- *airport operators making take-it-or-leave-it offers when negotiating charges and other terms of access with landside operators*
- *negotiation outcomes, including acceptance of take-it-or-leave-it offers by landside operators.*

Access arrangements at Sydney Airport

DRAFT RECOMMENDATION 7.1 REGIONAL ACCESS TO AND FROM SYDNEY AIRPORT

The Australian Government should amend the Sydney Airport Slot Management Scheme 2013 (Cwlth) to allow slots that are not part of a permanent regional service series (PRSS) to be used for either regional or non-regional flights. These slots should not become PRSS slots when used for regional flights.

Future Declarations relating to the regional price cap and notification regime should only apply to regional flights operated through PRSS slots, after the current Declaration no. 94 ceases on 30 June 2019.

DRAFT RECOMMENDATION 7.2 COMMERCIAL NEGOTIATIONS FOR NSW REGIONAL SERVICES

The Australian Government should ensure that future Declarations relating to the regional price cap and notification regime at Sydney Airport only apply to aeronautical services that are not covered in commercial agreements between Sydney Airport and airlines operating NSW regional air transport services, after the current Declaration no. 94 ceases on 30 June 2019. Future Declarations should also specify that prices in commercial agreements cannot be used to assess whether Sydney Airport has breached section 95Z of the *Competition and Consumer Act 2010* (Cwlth).

INFORMATION REQUEST 7.1

The Commission invites comments on the potential costs and benefits of reforms to Sydney Airport's regulatory constraints on aircraft movements that can also meet current noise objectives.

Options that could improve the efficiency of the movement cap without leading to a net increase in noise include:

- spreading the measurement of the movement cap over a longer time period than the current measure of 80 movements per 15-minute rolling hour*
- removing the cap on actual movements but retaining a cap on scheduled movements.*

Options that could improve the targeting of noise outcomes include:

- replacing regulatory constraints on aircraft movements with noise caps based on the amount of noise made by each aircraft*
- adopting noise-based criteria for determining which aircraft are permitted to operate during the curfew, rather than the current prescribed list of aircraft types.*

DRAFT RECOMMENDATION 7.3 REVIEWING SYDNEY AIRPORT'S SLOT MANAGEMENT SCHEME

The Australian Government should commission a public review of the Sydney Airport Slot Management Scheme 2013 (Cwlth) following the outcomes of the International Air Transport Association's review into the Worldwide Slot Guidelines, expected to be completed in 2019.

The review of the Scheme should assess how effectively it contributes to the efficient use of scarce airport infrastructure while taking into account regional access and noise management objectives. It should consider reform options in relation to:

- whether slot allocation arrangements generate the greatest benefits to the community or if alternatives that are not based on historical precedence would improve competition*
- slot performance monitoring to ensure that slots are being used in accordance with the intent of the Scheme*
- the costs and benefits of continued alignment with the latest Worldwide Slot Guidelines, including the effects on competition between airlines.*

Competition in markets for jet fuel

DRAFT FINDING 8.1

The supply of jet fuel at some Australian airports is characterised by conflicts of interest associated with fuel companies owning the Joint User Hydrant Installation infrastructure, and a lack of open access arrangements to infrastructure services needed to supply jet fuel.

There is limited transparency on the terms of third party access to infrastructure services, which makes it difficult for potential competitor fuel suppliers to decide whether to enter a market or to assess whether these terms are reasonable.

Prima facie, this has enabled incumbent fuel suppliers to restrict competition in markets to supply jet fuel, leading to some airports having a small number of fuel suppliers, and has likely led to higher prices to access infrastructure services and higher fuel prices.

INFORMATION REQUEST 8.1

The Commission is seeking information from participants on markets to supply jet fuel at the capital city airports.

Fuel infrastructure owners:

- *fuel companies' return on assets for the terminals, pipelines, Joint User Hydrant Installation (JUHI) infrastructure and into-plane services*
- *terms of third party access, including price, to infrastructure services for the provision of jet fuel*
- *the number of applications for access to JUHI infrastructure that have been successful and unsuccessful over the past 10 years*
- *details of the JUHI access application process, including the information required from access seekers, time taken for a decision on access to be made and reasons as to why access seekers were unsuccessful*
- *the assessment process for granting access to JUHI infrastructure at individual airports.*

Potential entrants:

- *the reasons why third parties have not sought access to infrastructure services through the National Access Regime (Part IIIA of the Competition and Consumer Act 2010 (Cwlth))*
- *the extent to which the terms and process for granting third party access to infrastructure services reflect an exercise of market power by fuel infrastructure owners, and why.*

(continued next page)

INFORMATION REQUEST 8.1 (continued)

Airport operators:

- *justification of the structure and size of the fuel throughput levies charged by airports to the jet fuel suppliers*
- *future plans to change lease arrangements for JUHI infrastructure to improve competition, including moving to open access.*

Airlines (both domestic and international):

- *prices paid per litre of fuel at each capital city airport*
- *the number of fuel suppliers tendering for contracts, and the number of successful tenderers, at each capital city airport*
- *the estimated additional costs (including, for example, the price differential) faced by airlines due to a lack of competition in the jet fuel supply chain*
- *the extent to which airlines substitute the location where they uplift fuel to take advantage of better prices.*

This information should be provided to the Productivity Commission in a form that can be published and scrutinised by others.

DRAFT RECOMMENDATION 8.1 OPEN ACCESS JUHI AT WESTERN SYDNEY AIRPORT

Through the Shareholder Ministers of the Western Sydney Airport Corporation (the Minister for Finance and the Minister for Urban Infrastructure), the Australian Government should recommend to the Western Sydney Airport Corporation Board that the Joint User Hydrant Installation infrastructure operate on an open access basis and that this should be a condition of any future privatisation.

DRAFT RECOMMENDATION 8.2 INTRODUCING A JET FUEL SUPPLY COORDINATION FORUM

The Minister for Infrastructure should recommend a jet fuel supply coordination forum be incorporated into the master planning process at each monitored airport. The forum should be tasked with discussing, among other things:

- capacity constraints and any potential pressure points
- linkages between infrastructure
- demand forecasts and security of supply
- future infrastructure requirements and investment planning.

Reform directions

INFORMATION REQUEST 10.1

The Commission invites evidence about anticompetitive clauses in commercial agreements between airports, airlines, landside operators and other airport users.

DRAFT RECOMMENDATION 10.1 PREVENTING ANTICOMPETITIVE CONTRACT PROVISIONS

The Australian Government should amend the *Aeronautical Pricing Principles* to specify that any agreement between an airport and an airport user must not contain anticompetitive clauses. This includes clauses that would constrain that user's access to regulatory remedies for the exercise of market power or that directly or indirectly reference the terms being offered to users' competitive rivals.

DRAFT RECOMMENDATION 10.2 FUTURE PRODUCTIVITY COMMISSION REVIEWS

The Australian Government should request the Productivity Commission to inquire into the regulation of airports in 2024, to determine the effectiveness of the regulatory regime in achieving the following objectives:

- promoting the economically efficient operation of, and timely investment in, airports and related industries
- minimising unnecessary compliance costs
- facilitating commercially negotiated outcomes in airport operations.

In requesting the inquiry, the Australian Government should also ask the Commission to consider whether:

- any airports should be added to, or removed from, the list of monitored airports
- there is a continued need for arrangements to help facilitate access for airlines that provide flights to regional New South Wales.

The Australian Government should stipulate in the terms of reference for that inquiry that, on request, the monitored airports should make their agreements with airport users available to the Productivity Commission on a commercial-in-confidence basis.

DRAFT RECOMMENDATION 10.3 DISCONTINUE SECOND-TIER AIRPORT MONITORING

The Australian Government should issue a statement that the voluntary self-reporting system for second-tier airports is discontinued.

DRAFT RECOMMENDATION 10.4 MORE DETAILED INFORMATION ON AIRPORT PERFORMANCE

The Australian Government should amend part 7 of the Airports Regulations 1997 such that, in addition to current requirements, monitored airports are required to provide to the Australian Competition and Consumer Commission (ACCC), for each financial year, statements that:

- show the number of passengers that depart from and arrive at each terminal
- separately show the costs and revenues in relation to the provision and use of aeronautical services for domestic flights and for international flights
- for Sydney Airport, also show the costs and revenues in relation to the provision and use of aeronautical services for flights to regional New South Wales
- separately show the number of users, costs and revenues in relation to the provision and use of at-terminal and at-distance car parking and the utilisation rates for each type of parking
- separately show the number of vehicles that use landside access services, charges and other terms of access for each landside service, and the operating costs and revenues in relation to the provision and use of the various landside access services, such as services for shuttle buses, taxis and hire cars
- report all costs on the basis that they are specific to a service or common across more than one service (stating the relevant services). In addition, airports should report costs on an allocated basis and should clearly set out the methodologies used for allocating the costs to international and domestic aeronautical services; at-terminal and at-distance parking; and landside access services.

The ACCC should continue to publish annual monitoring reports. It should audit and publish a database of the information the airports provide. The ACCC should publish the methodologies the monitored airports use to allocate costs across different services.

DRAFT RECOMMENDATION 10.5 IMPROVING QUALITY OF SERVICE MONITORING

The Australian Competition and Consumer Commission (ACCC) should, within 12 months, provide advice to the Australian Government on an updated set of quality of service indicators, in consultation with airports, airlines and other airport users.

Once the ACCC has developed its recommended list the Australian Government should amend schedule 2 of the Airports Regulations 1997 to codify the updated list of indicators.

DRAFT RECOMMENDATION 10.6 FUNDING FOR REGIONAL AIRPORT INFRASTRUCTURE

The Australian, State and Territory Governments should ensure that:

- an independent analysis of proposed government funding of regional airport infrastructure is completed, and made available for public comment, before funding is committed. The analysis should:
 - assess the economic and financial viability of proposed infrastructure investment
 - assess whether the project is consistent with the long-term strategy of the region and the airport's master plan
 - quantify the economic benefits delivered and the recipients of those benefits
 - assess users' (airlines and communities) willingness to pay for the infrastructure
- government-funded investments in airport infrastructure are undertaken using the relevant functional economic region as the basis for decisions, not individual local councils
- any project funded by government is monitored, and an independent evaluation is conducted and published that assesses whether the project outcomes have been achieved.

The Australian, State and Territory Governments should publish the justification for funding an infrastructure project that was not supported by independent analysis.

DRAFT RECOMMENDATION 10.7 ASSET MANAGEMENT AT REGIONAL AIRPORTS

The Australian Government should review the efficacy of the Western Australian Strategic Airport Asset and Financial Management Framework in 2022, in consultation with State, Territory and Local Governments. Pending the findings of that review, the Framework should be adapted and rolled out by governments in other jurisdictions with the objective of providing a template for sound asset management practices and greater transparency when determining airport charges at regional airports.

1 Introduction

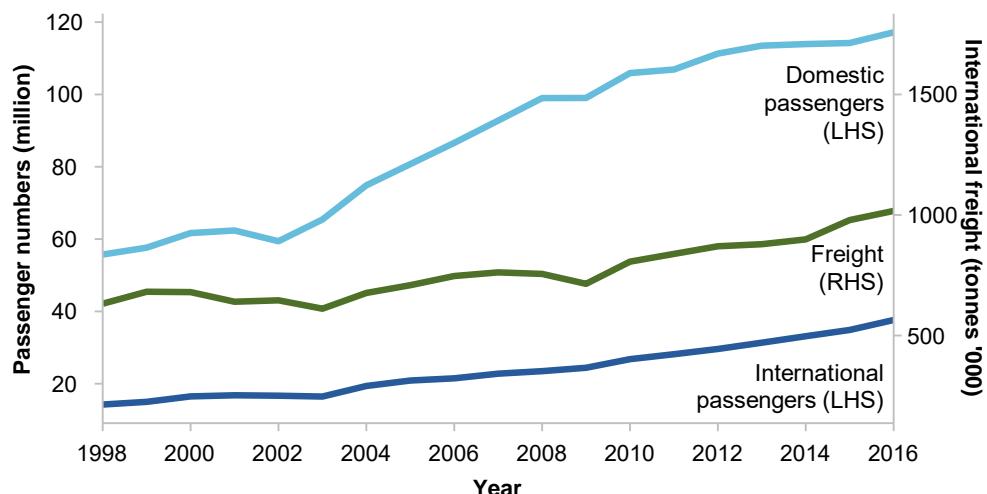
1.1 Airports are operating in a changing environment

Australian communities rely heavily on air transport services

Australia is highly reliant on air transport. Air transport services facilitate business activities, generate employment and cater for leisure travel and tourism. They also serve important social purposes, enabling people to stay in touch with friends and family, enhance their leisure time and provide regional communities with access to essential services, such as healthcare and emergency relief.

The number of passengers travelling through airports in Australia has doubled over the past 20 years to about 160 million in 2017, and the volume of international air freight has increased by about 80 per cent (figure 1.1). Australia's national accounts report that air transport contributed \$9.4 billion to GDP in 2017-18, or roughly 0.5 per cent of Australia's total GDP. This contribution has grown over time, more than doubling over the past two decades (figure 1.2).

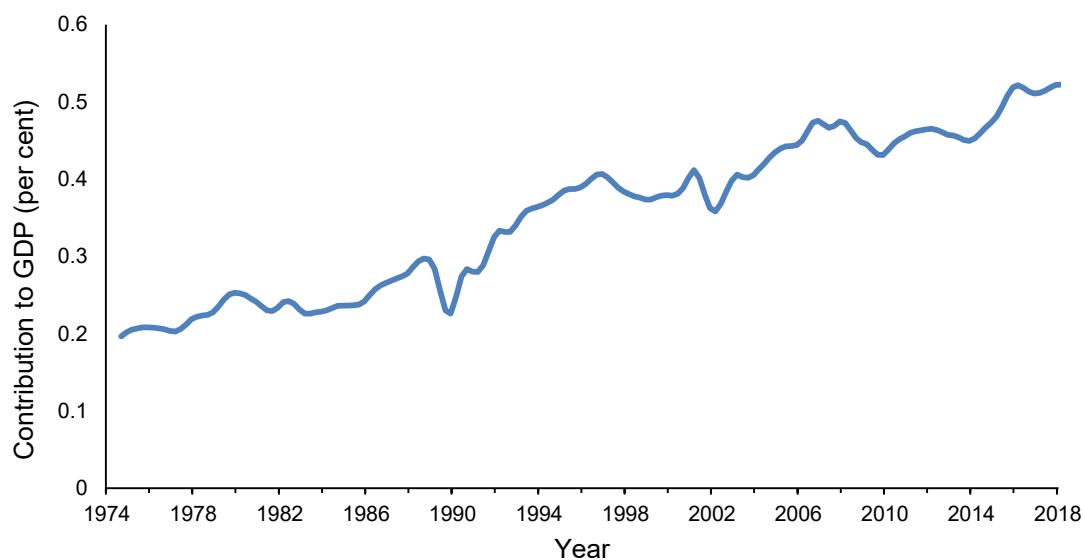
Figure 1.1 Passenger and international freight movements^a



^a International freight includes dedicated freight aircraft and freight carried in the body of passenger aircraft.
Source: BITRE (2018b).

Australia's domestic air transport market is the seventh largest in the world (measured by one-way seats), but it has the highest number of domestic seats per capita, reflecting the country's high standard of living and its unique geography (AAA, sub. 50, attachment 2). Two of the world's ten busiest domestic regular public transport (RPT) routes are located in Australia. (BITRE (unpublished); OAG 2018a; Rex, sub. 63, p. 4).

Figure 1.2 The air transport industry's growing contribution to GDP^a



^a The ABS output indicator for air and space transport is only inclusive of data for air transport.

Source: Productivity Commission estimates based on ABS (*Australian National Accounts: National Income, Expenditure and Product*, Sep 2018, Cat. no. 5206.0).

Airports must adapt to changing passenger and airline needs

Airports have developed significantly since Australia's oldest commercial airport — at Mascot in Sydney — was declared an airport in 1920. Increasing passenger demand for air transport has led to increasing demand by airlines for airport services. Airports have invested in new services and facilities to manage congestion and improve the passenger experience. Airport investments are complex and involve significant risks, as do those undertaken by airlines. Changes in the mix and volume of passengers, technological advancements in aircraft and operational equipment, and trends in tourism, such as the rise of low-cost carriers (LCCs), can all affect the level and type of investments required.

The majority of air transport passengers in Australia travel domestically, but growth in international air transport has outpaced growth in domestic air transport every year since 2009, and Tourism Research Australia has forecast that international visitor numbers will nearly double between 2017 and 2027 (TRA 2018a). International leisure passengers in

particular (passengers travelling on holidays or to visit friends and relatives), are growing in both number and as a proportion of total passengers. The increase in international passenger numbers means that airports must provide additional terminal space for security, biosecurity and border processing services. About three quarters of international visitors come to Australia for leisure, with this forecast to grow to more than 80 per cent by 2027. Some regional airports are investigating options for introducing or increasing international services, such as Newcastle and Hobart airports, to cater to this demand (TRA 2018a).

There have been considerable developments in aircraft technology since Harry Houdini's first controlled, powered flight at Diggers Rest in 1910. As airlines have adopted new technologies, airports have been required to alter their services and facilities. These investments can involve considerable uncertainty. For example, airports upgraded to wider taxiways, more apron and gate space and two-level aerobridges to accommodate the introduction of the Airbus A380 in the mid-2000s. Sydney Airport planned new major international terminal infrastructure based on an expectation that Qantas would expand its fleet of A380 aircraft (sub. 53, p. 20). Ten years on, these aircraft are falling out of favour with many airlines because they are less fuel-efficient than smaller, long-range twin-engine wide-bodied aircraft, like the Airbus A350 and Boeing 787. Airlines are now running smaller aircraft more frequently and expect airports to provide services and infrastructure that can support an efficient turnaround on the ground.

Airports have also responded to an increase in the proportion of flights operated by LCCs, which require no-frills services at a lower price compared to full-service airlines. LCCs typically seek faster aircraft turnaround times in order to reduce their aircraft parking fees, and may not require an aerobridge or premium terminal facilities for passengers. Some airports, including Melbourne, have built dedicated terminals to meet these needs. The new international terminal at Avalon Airport, designed exclusively for LCCs, shares check-in facilities with Avalon's domestic services and has no aerobridges.

Technology is also driving changes in the passenger experience at airports. Passengers can be dropped off and picked up by a rideshare service, such as Uber, or compare car parking prices online. They can reduce the time spent in airport queues by checking in through a mobile app and at the airport they can take advantage of complimentary wi-fi. Passengers now have a bigger platform on which to express their satisfaction or displeasure, by posting reviews of airport and airline services on websites and social media.

1.2 The Commission's task

The purpose of this inquiry is to determine the effectiveness of the economic regulation of services provided by airports to airlines, passengers, and people and businesses that access the terminal precinct. The Australian Government has asked the Commission to assess the current regime for airport regulation against the following objectives:

- promoting economically efficient operation of, and investment in, airports and related industries

-
- minimising compliance costs
 - facilitating commercially negotiated outcomes between airport operators and users.

The terms of reference specify the consideration of aeronautical services at the main passenger airports operating in Australia's major cities. The Commission has focused on domestic and international aeronautical services at the four monitored airports, Sydney, Melbourne, Brisbane and Perth, as well as airports in the second tier of monitoring, such as Adelaide, Canberra and the Gold Coast. It has also examined the provision of car parking on-airport and access to the terminal forecourt for landside operators, including taxis and shuttle buses transferring passengers from off-airport car parks at the monitored airports.

However, the terms of reference do not preclude consideration of other airports. The Commission has also considered aeronautical services at regional airports.

The terms of reference further request that, following on from its 2011 findings, the Commission should consider:

- the effectiveness of the monitoring regime conducted by the Australian Competition and Consumer Commission (ACCC), including the methodology used and the adequacy of the information collected
- whether the current regime affects the ability of airports to price, operate and invest in airport infrastructure in an efficient and timely manner
- whether the existing regime is effective in appropriately deterring potential abuses of market power by airport operators
- whether existing arrangements for the planning and operation of land transport linkages to airports are effective.

The Australian Government has also asked the Commission to examine two specific issues: whether the arrangements for regional airlines to access Sydney Airport have unintended consequences; and competition in the market for jet fuel in Australia, including at the major airports.

1.3 A light-handed approach to regulation

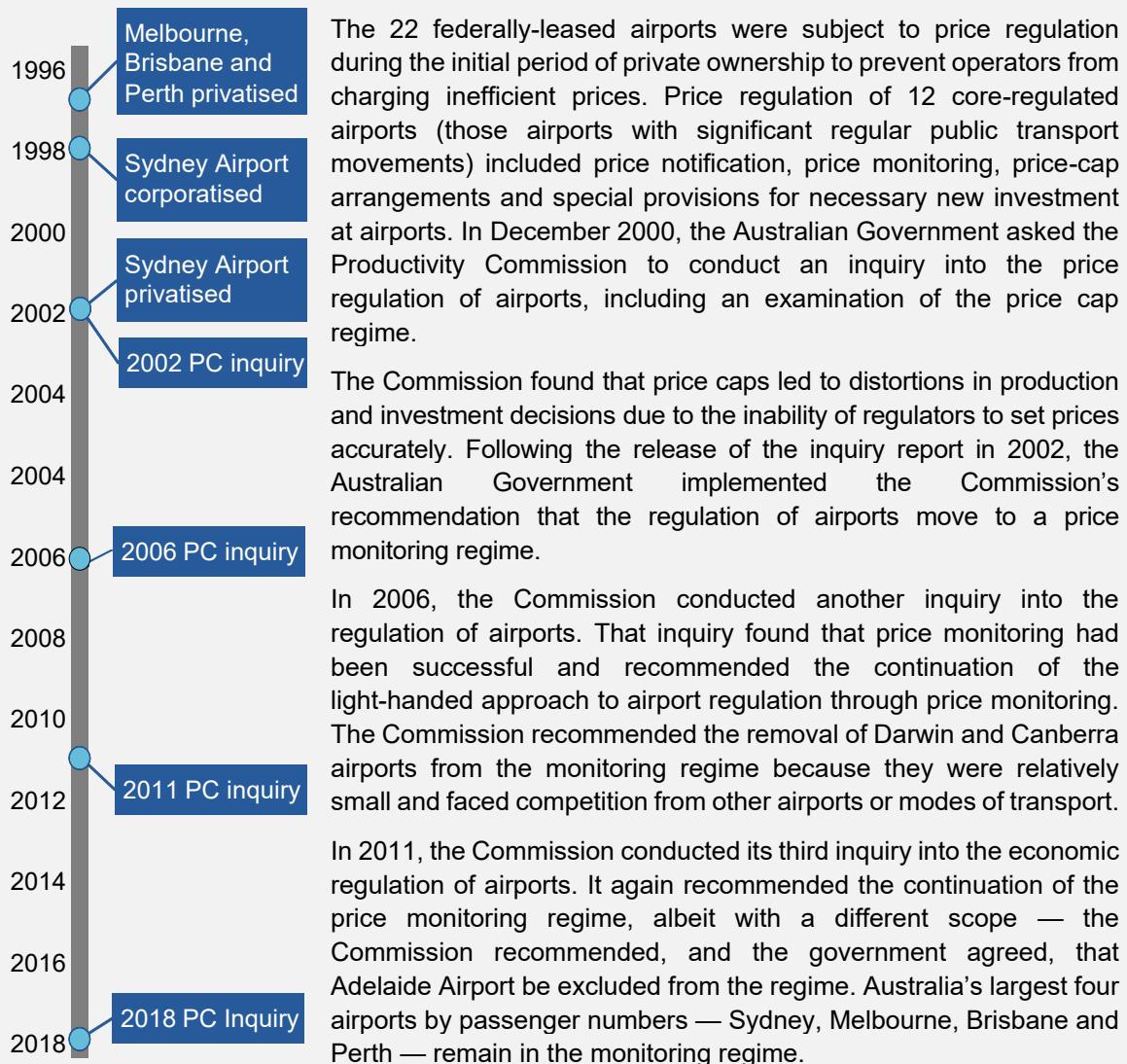
The economic regulation of airports has evolved as the ownership and management of Australian airports has changed over time (box 1.1). In the early twentieth century, the Civil Aviation Branch of the Department of Defence was responsible for licensing aerodromes, as well as an extensive program of construction and development. By 1927 there were 45 Commonwealth aerodromes, 12 privately licensed aerodromes, two private fields and 91 emergency landing grounds around the country (Australian Heritage Council 2003).

Box 1.1 A brief history of airport regulation in Australia

The Australian Government established the Federal Airports Corporation (FAC) in 1988 in a move to operate the 22 Australian Government owned airports more commercially. The FAC determined and published runway tariffs for its airports based on maximum takeoff weight.

In April 1994, the Australian Government announced the privatisation, by long-term lease, of all airports operated by the FAC. The sale of airport leases was part of the reforms to privatise government owned assets following the Hilmer Review of National Competition Policy in 1993 (Hilmer Committee 1993). The rationale for privatisation was to ‘improve the efficiency of airport investment and operation in the interests of users and the general community, and to facilitate innovative management’ (Harris, cited PC 2002, p. 45).

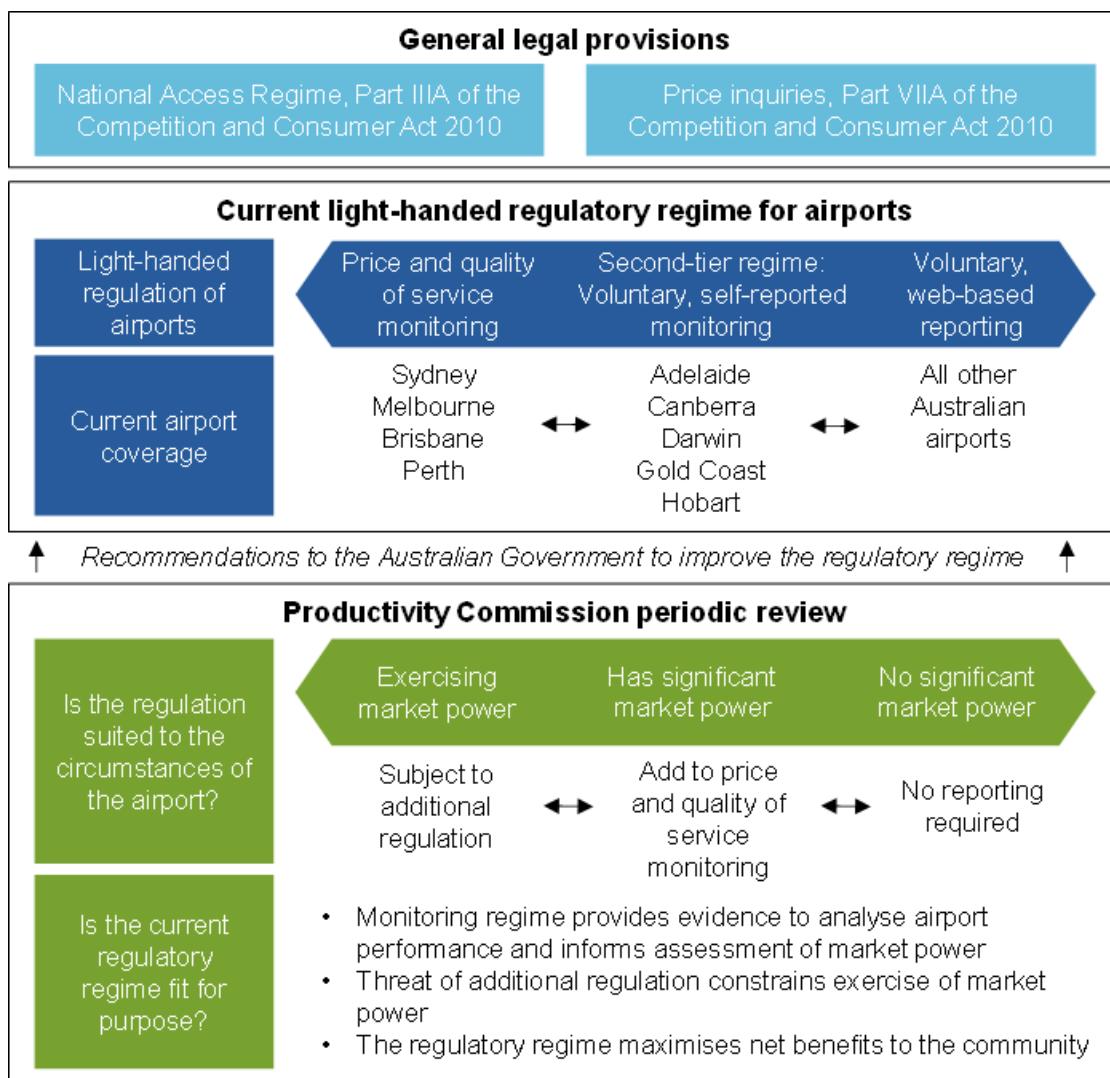
In 1997, the FAC began the sale of 50-year leases for 17 of its 22 airports to privately owned operators. Sales were completed in two phases beginning with Melbourne, Brisbane and Perth in 1997, followed by 14 other smaller airports in 1998. The remaining five airports (Sydney, Bankstown, Hoxton Park, Camden and Essendon) were leased to two government-owned corporations in 1998. In 2001, Essendon Airport was leased to private owners, and in 2002 privatisation was completed with the sale of the other Sydney basin airport leases.



Over time, regulatory responsibilities have shifted between different government departments and statutory agencies. Privatisation of the airports in the late 1990s was the catalyst for a review of airport regulation and its current form (box 1.1).

Today, the economic regulation of airports in Australia includes both general provisions of competition and consumer law, and airport-specific regulations, including price and quality of service monitoring undertaken by the ACCC (figure 1.3).

Figure 1.3 The light-handed regulatory regime



The rationale for the economic regulation of airports is that the operator of an airport with market power could *exercise* that power by setting excessively high charges for airport services, operating the airport inefficiently or making inefficient investment decisions (chapter 2). These behaviours could lead to poorer outcomes for airport users and the community more broadly. Not all regulation applies to all airports — the level and type of

regulation faced by an airport depends on whether it has market power, and then whether it has the potential to exercise that market power. All airports are subject to some form of economic regulation.

The monitoring regime

The monitored airports — Sydney, Melbourne, Brisbane and Perth — face a light-handed economic regulatory regime. Airport users, such as the airlines, negotiate directly with airport operators on charges and other terms of access to a range of infrastructure services. Governments do not intervene in the setting of charges or other terms of access (with the exception of regional services at Sydney Airport (chapter 7)), but collect and publish information about airports' financial and operational performance. These data are used to analyse airport performance and assess the extent to which an airport is exercising market power. Transparent information on airport operators' performance can also encourage improvements to service quality and form the basis for improved consultation and negotiation between airport operators and users. Comparisons of quality ratings between airports may facilitate competitive pressure among operators and provide them with incentives to improve their performance.

Light-handed regulation intends to achieve outcomes that would be consistent with those found in markets with effective competition, but will only do so if there is:

- transparency as to how an airport operator is performing over time *and*
- a credible threat of further regulatory intervention if an airport operator is found to be exercising its market power to the detriment of the community.

The ACCC administers the monitoring regime under directions issued through Part VIIA of the *Competition and Consumer Act 2010* (Cwlth) (CCA) and under Parts 7 and 8 of the *Airports Act 1996* (Cwlth).

The operators of the monitored airports are required to provide the ACCC with information annually on their prices, costs and profits for aeronautical services and car parking (figure 1.4). The ACCC also monitors the quality of some aeronautical services, such as terminal and aircraft services and facilities, and non-aeronautical services, such as car parking and landside access. At its own discretion, the ACCC collects financial information relating to landside access, including revenue and access charges for selected landside services, such as taxis, hire cars and buses. Airports comply with the ACCC's request voluntarily. The ACCC compiles these data into a monitoring report each year, and outlines general trends and developments across the industry.

In addition to the ACCC's monitoring of the four major airports, a second tier of airports — Adelaide, Canberra, Darwin, Gold Coast and Hobart — are subject to a self-administered monitoring regime. These airports voluntarily publish information on their aeronautical charges, car parking, service quality and complaint handling procedures. Cairns Airport, which is operated under a 99-year lease from the Queensland Government, is not regulated

under the Airports Act, but is subject to state regulation (*Airport Assets (Restructuring and Disposal) Act 2008* (Qld)). It has been encouraged by the Australian Government to publish the same information as the second-tier airports, and it does so with the exception of service quality outcomes.

The second-tier monitoring regime was established through a policy statement rather than legislation or regulation, there are no guidelines for the level of detail to be provided by airports (the approach is different between airports), and there are no repercussions for airports that do not participate.

The remaining airports not covered by either the ACCC monitoring regime or the second-tier self-administered regime are encouraged to publish the results of customer satisfaction surveys on their websites.

Figure 1.4 ACCC monitoring of airport services



The Productivity Commission's inquiries into the economic regulation of airports

The Commission has conducted inquiries into the performance of the regulatory regime approximately every five years since 2002 (box 1.1). Essentially the Commission's role is to conduct a health check of the regime to determine whether it remains fit for purpose. The Commission can recommend (among other things) adding airports to the annual monitoring regime or removing them; tightening or relaxing regulatory requirements for monitored airports; and consequences for any airport found to have systematically exercised its market

power to the detriment of the community. The Commission has recommended changes to the regulatory regime in each of the three previous inquiries and governments, for the most part, have implemented these recommendations.

The Commission draws on a range of information to inform its analysis. This information includes:

- financial and service quality information from the monitoring regime
- public and confidential submissions from participants
- relevant data not collected under the monitoring regime.

The Commission (and others) can use the ACCC's annual monitoring reports to make judgments about whether an airport is operating efficiently, including in its pricing and investment decisions. Airports found to have systematically exercised their market power to the detriment of the community face potentially serious consequences, including an increase in the burden of regulation. The Commission would not hesitate to recommend regulatory changes, including price regulation, for any airport found to have systematically exercised its market power to the detriment of the community. The ongoing potential for such consequences acts as a deterrent against the exercise of market power.

Has the light-handed regulatory regime been effective?

The goal of moving to light-handed regulation was to facilitate commercial negotiation between airport operators and airport users, and promote efficient investment. Reducing regulatory intervention in price setting was intended to remove the opportunity for regulatory error and consequent distortions in investment, and to lower compliance costs.

Participants in this inquiry have intensely debated the effectiveness of the current regulatory regime. Airports have broadly supported the existing regime. Some airport users, however, argue that airports are not sufficiently constrained from exercising their market power and, consequently, airports are earning excessively high profits and rates of return, and making inefficient investments.

Both airlines and airports have raised concerns over behaviour in negotiations (discussed in chapters 4 and 9). Airlines and other users of airport services, such as car rental operators, have expressed concerns that airports adopt a take-it-or-leave-it approach to negotiations. Airports have accused airlines of employing delaying tactics in negotiations on commercial agreements that would result in increases to aeronautical charges. Despite these disagreements, it is notable that participants have not called for a return to price caps — both airports and airlines have stated that they prefer commercial negotiation to determine price and other terms of access to infrastructure services.

Competition and market power protections

Airports that exercise their market power can also face consequences through general competition and market power protections.

Part VIIA of the CCA provides for the ACCC to undertake price inquiries at the behest of either the ACCC itself (with Ministerial approval), or the relevant Minister. The Productivity Commission could recommend that the Minister direct the ACCC to undertake a price inquiry. A price inquiry involves investigation of both prices and price movements of either a business or an industry, and may involve the ACCC investigating factors such as market structure, the level of competition, and potential impediments to efficient pricing. To date the ACCC has not recommended a price inquiry nor has the Minister requested it undertake one into airport services.

Also, under Part VIIA, the relevant Minister, or the ACCC with Ministerial approval, may declare goods or services to be subject to price notification. Price notification requires an airport to notify the ACCC before increasing the price of its goods or services. Currently aeronautical services provided by Sydney Airport to airlines operating flights to and from regional New South Wales are subject to price notification (chapter 7), as are some specific services provided by Airservices Australia.

The National Access Regime under Part IIIA of the CCA provides for regulatory declaration of access to infrastructure services in cases where a party has been unable to negotiate access commercially. An airline (or any other party) wishing to gain access to specific infrastructure services can apply to the National Competition Council (NCC) to recommend that the relevant Minister declare those services. The Minister also has the power to direct the NCC to examine whether to declare a particular service. Any party (not just the original applicant) can seek to negotiate access to declared infrastructure. The ACCC may be called on to arbitrate an agreement over terms of access to a declared service if commercial negotiations fail.

The National Access Regime acts as a backstop for parties to seek third party access to airport and jet fuel infrastructure services, neither of which are regulated under specific access arrangements. There have been three applications for declaration of airport services since the airports were privatised, although only one was successful. Virgin Blue applied for declaration of specific airside services at Sydney Airport in 2002 and, after a lengthy appeals process, services at Sydney Airport were declared in 2007. Inquiry participants have argued that there is uncertainty around how the NCC would apply the declaration criteria, which were amended in 2017, and how they would be interpreted by the Court if there were a review of the Minister's decision.

More broadly, Part IV of the CCA provides protection against restrictive trade practices such as cartel conduct under section 45, and the misuse of market power under section 46.

Managing access to Sydney Airport

A range of specific regulatory arrangements supports access for airlines operating flights between Sydney Airport and regional New South Wales. Other arrangements aim to manage the negative effects of aircraft noise on the health and quality of life of residential communities near Sydney Airport.

The Australian Government has put in place a regional ring fence, and price cap and price notification regimes at Sydney Airport. The regional ring fence, introduced in 1998, reserves a number of slots at Sydney Airport for airlines operating flights to regional New South Wales, with separate pools of slots for peak and off-peak periods. The price cap and notification regimes apply to aeronautical services and facilities that Sydney Airport provides to airlines operating flights to and from NSW regions. Under the regime, Sydney Airport must notify the ACCC before it can change its prices for these aeronautical services and facilities.

A curfew operates at Sydney Airport between 11 pm and 6 am, with limited exceptions including for international flights in the hour before the end of the curfew, for some small aircraft that comply with maximum noise levels, and for a limited number of freight movements using the British Aerospace 146 (BAe-146) jet aircraft (chapter 7). Aircraft movements are limited to 80 per hour during non-curfew times, measured over a rolling hour every 15 minutes. Airport Coordination Australia allocates airlines with slots (permissions for aircraft movements at specific times on specific days) consistent with the movement cap, while Airservices Australia manages air traffic and ensures that the actual number of movements is in line with the cap (chapter 7).

Commonwealth legislation and legislative instruments that set out the specific arrangements at Sydney Airport include the *Sydney Airport Demand Management Act 1997* (Cwlth), the Sydney Airport Slot Management Scheme 2013, the *Sydney Airport Curfew Act 1995* (Cwlth) and the Sydney Airport Curfew Regulations 1995. The price cap and notification regimes operate through the CCA.

Legislated planning requirements

Timely and well-planned investment in infrastructure is critical to the efficient operation of airports. The Australian, State and Territory, and Local governments and airports share responsibility for planning on airports and surrounding land. Specific planning application and assessment processes depend on the location of the airport and the nature of any proposed development, but the airports that were privatised — the federally-leased airports — are subject to a planning framework under the Airports Act (box 1.2).

Box 1.2 The Airports Act and other airport regulation

The *Airports Act 1996* (Cwlth) is the overarching legislation that governs airport activity at the airports that were privatised by the Australian Government — the federally-leased airports. Among other things, the Airports Act provides for:

- airport leases, the sale of airports and the terms of the lease agreement
- ownership restrictions — including a 49 per cent limit on foreign ownership. In addition, airlines are not permitted to own more than 5 per cent of an airport, and there is a 15 per cent limit on cross-ownership between Sydney/Melbourne, Sydney/Brisbane and Sydney/Perth airports
- site usage obligations — including that an airport site must be used as an airport, and an airport operator is not to carry out substantial non-airport trading or financial activities
- the master planning process — which sets out a 20-year forward plan to identify, among other things, development objectives, future aviation requirements, noise exposure forecasts, and intentions of land use and related development
- the major development planning process — which is necessary for each major development, and covers, among other things, the construction of or changes to a new or existing: runway; passenger terminal; or other building, taxiway, road or railway which costs more than \$25 million
- the development of demand management schemes
- ancillary requirements, which the airport operator must conform to, including environmental and safety regulations; international obligations; and standards for preparing audited accounts and reports.

Supplementing the Airports Act are several other Commonwealth Acts and legislative instruments, which cover issues such as security, environmental issues and noise. These include:

- Environment Protection and Biodiversity Conservation Act 1999
- Air Navigation Act 1920
- International Air Services Commission Act 1992
- Aviation Transport Security Act 2004
- Air Accidents (Commonwealth Government Liability) Act 1963
- Civil Aviation (Carrier's Liability) Act 1959
- Damage by Aircraft Act 1999.

Source: DIRDC (2018c).

The major requirements of the planning framework are that airports establish and regularly update a master plan and that they produce a major development plan for approval of significant infrastructure projects (those valued above \$25 million or that meet other criteria specified in the Airports Act).

Airport master plans

Master plans are strategic documents that cover all aspects of an airport's operation and investment. They cover a period of 20 years and must be updated and approved by the

Australian Government Minister for Infrastructure every five years for the monitored airports and eight years for non-monitored airports. The process seeks to align several planning laws, such as state and federal planning for airports, land transport, and development laws. Master plans must cover, among other things:

- future needs of civilian aviation users
- noise issues and flight paths, including forecasting the effects of the airport's noise on surrounding communities
- landside transport, including a ground transport plan
- environmental issues
- commercial, community, office and retail developments
- employment levels and other effects on the local economy.

The master planning process also requires that airports comply with a number of other regulations that deal with the broader operational efficiency of airports (box 1.2). A key function of the master plan is to take a community-wide perspective in airport planning. Airports are required to consult widely with the community, and Local and State and Territory governments when preparing master plans.

Airports vary in size and ownership structure

Over 100 airports in Australia offer RPT services (figure 1.5), but these range in size from small aerodromes in rural and remote areas of the country through to Australia's largest airport (by passenger movements), Sydney Airport.

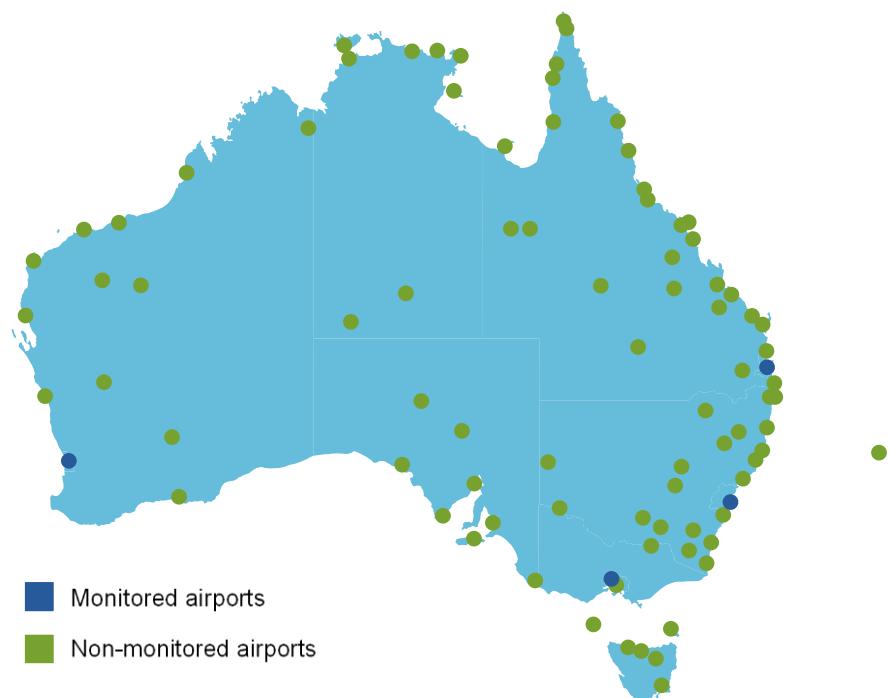
The monitored airports in Sydney, Melbourne, Brisbane and Perth are the busiest in Australia, accounting for more than 72 per cent of Australia's international and domestic RPT passenger movements (figure 1.6). Sydney Airport alone accounts for more than one quarter of total RPT passenger movements. It is a publicly traded company with more than 44 million domestic and international passengers in 2017-18, 47 airline customers, four terminals and a freight hub which transports around half of all Australian air freight and mail (by weight) (BITRE 2018b).

The monitored airports also have significant land holdings. For example, the Sydney Airport site is 900 hectares, the Melbourne Airport site is 2457 hectares, the Brisbane Airport site is 2700 hectares, and the Perth Airport site is 2105 hectares (Brisbane Airport 2014; Melbourne Airport 2013; Perth Airport 2014; Sydney Airport 2018d).

In comparison, some small regional airports service less than 10 000 passengers a year on RPT services. Other aerodromes, many of which are located in remote areas, do not provide RPT services but cater to general aviation services, such as charter flights, leisure flying, agricultural services such as mustering and spraying, and search and rescue. There are more

than 13 000 aircraft registered for general aviation purposes in Australia (Archerfield Airport Chamber of Commerce, sub. 81; BITRE 2017c).

Figure 1.5 Airports offering regular public transport services



Source: BITRE (2017).

The ownership arrangements of Australia's airports vary. The privatisation of the 22 airports operated by the Federal Airports Corporation, as discussed in box 1.1, involved the sale of the airports under 50-year lease agreements (with an option to extend for another 49 years) with the Australian Government as lessor and the airport operators as lessees. The Australian Government now leases 21 airports to private companies (Hoxton Park Airport was sold and no longer operates as an airport). These federally-leased airports include the four monitored airports, along with other airports such as Canberra, Essendon, Archerfield, Gold Coast and Hobart.

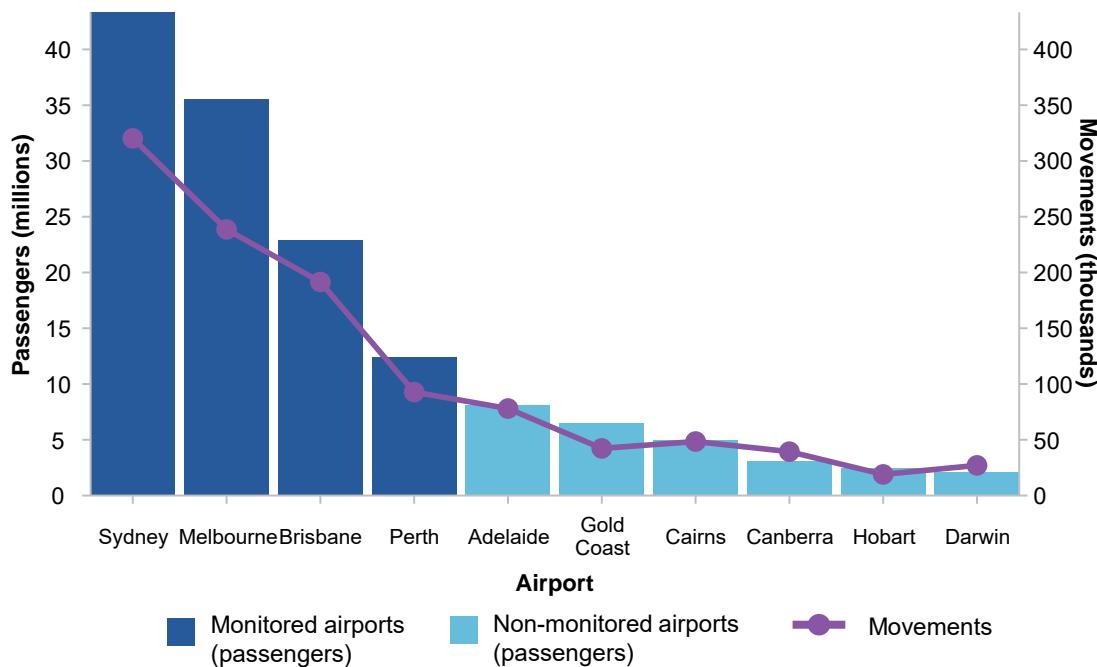
Changes in ownership of Australia's regional airports occurred in the 1980s and 1990s. During this period, the Australian Government gradually transferred regional aerodromes to local councils under the Aerodrome Local Ownership Plan. Many local councils still own and operate regional airports, such as Parkes and Emerald.

Private interests own and operate some airports, including Toowoomba Wellcamp Airport and Hamilton Island Airport. A number of privately owned airports specifically support mining and resource activity in a region, such as Moranbah Airport in Queensland, which BHP Billiton Mitsubishi Alliance owns and operates.

Finally, the Royal Australian Air Force (RAAF) and the Royal Australian Navy (RAN) are involved in some Australian airports, either separately or in conjunction with civilian operations. For example, the RAAF uses Wagga Wagga, Williamtown, Darwin, and Townsville airports alongside civilian airlines. The RAN operates through HMAS Albatross at Nowra and Jervis Bay.

Figure 1.6 Australia's ten busiest airports^a

By passenger movements, 2017-18



^a Includes international and domestic passenger and aircraft movements.

Source: BITRE (2018b).

1.4 Characteristics of Australia's airports

Airport services are diverse

The nature of the services — both aeronautical and non-aeronautical — provided by an airport depends on the airlines and the passengers that it serves. Some small airports provide basic services including a runway, taxiways, hangars, a terminal and other essential services, such as jet fuel. In contrast, many large airports are highly complex businesses. They provide a range of services to a diverse set of customers, including airlines and freight forwarding companies; businesses such as car hire companies, retailers and business park tenants; and passengers.

Aeronautical services and facilities

Aeronautical services and facilities are those that are necessary for the operation and maintenance of civil aviation. They include a range of fixed infrastructure used for the arrival and departure of aircraft, such as runways, taxiways and aprons, refuelling services and maintenance facilities. The airport operator provides many of these services and facilities, rather than third-party providers.

Aeronautical services also include passenger and freight terminals, check-in counters, baggage handling and boarding facilities. There are two models for the delivery of terminal services. Most airport terminals operate under a common-user system, which involves all airlines sharing the facilities provided by the airport operator. The other approach is for airlines to exclusively lease an entire terminal from an airport under a domestic terminal lease (DTL) arrangement. Under a DTL, airlines provide terminal services such as check-in and baggage facilities directly to passengers.

Airports are taking back terminals that are subject to a DTL. Brisbane Airport's (sub. 38) two DTLs with Qantas and Virgin expired on 30 December 2018 and 31 December 2018, respectively, while Perth Airport's DTL with Qantas expired at the end of 2018, with Terminal 4 reverting to Perth Airport operational control thereafter (sub. 51; Perth Airport, pers. comm., 23 January 2019). Melbourne Airport's DTL with Qantas is due to expire in June 2019, and the Commission understands that the airport is in negotiations with Qantas about future commercial arrangements for the operation of the terminal (Melbourne Airport, sub. 33).

The ACCC's monitoring regime does not encompass the revenues, costs and profits associated with DTLs, although they are included in the information it provides on overall airport services. Further, the monitoring regime does not report on the quality of services at DTLs, as this is determined by the relevant airline, not the airport.

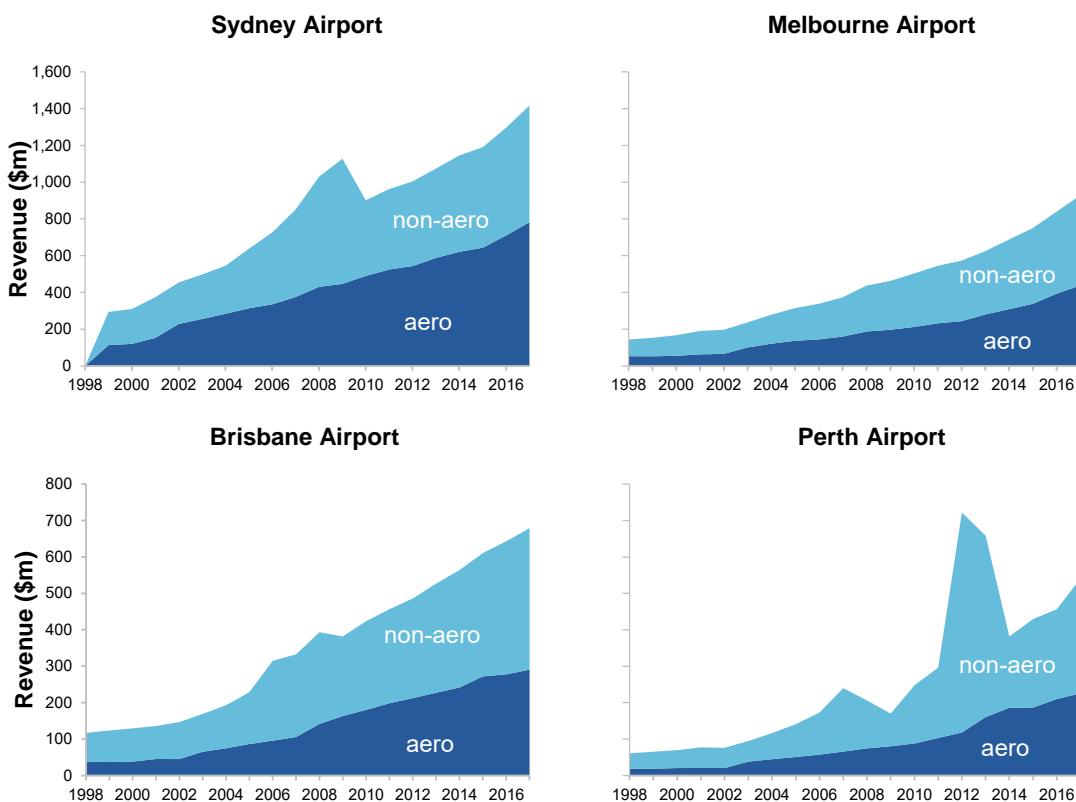
Non-aeronautical services and facilities

Airports also provide a range of non-aeronautical services such as car parks, business parks, shopping centres, and food and retail services within the terminal. Some non-aeronautical services are provided to passengers directly, such as on-airport car parking, while others are separate from passengers and the airport terminal. For example, each of the monitored airports, as well as a number of the smaller airports, has a business park. Parkes Regional Airport recently upgraded its business park after receiving funding from the Australian Government (Minister for Infrastructure and Regional Development 2016). A number of airports have also developed shopping centres on airport land. For example, Brisbane and Perth airports both have Direct Factory Outlet shopping centres and there is a proposed Costco development at Perth Airport, scheduled for completion in 2020 (sub. 51). Other airports have similar facilities. There have also been some more unusual non-aeronautical services developed (or in progress) at airports, including a surf park at Melbourne Airport.

Non-aeronautical services can generate a sizeable proportion of revenue at Australia's airports, which is also a characteristic of other airports around the world. The four monitored airports generate about half of their revenue (figure 1.7) and the majority of their profits (chapter 3) from non-aeronautical services. In 2016-17, Sydney Airport's revenue from retail services accounted for close to half of its non-aeronautical revenue, while property and car rental revenue accounted for about 30 per cent (Commission estimates based on Sydney Airport (2018a)). Non-aeronautical revenue can be more variable than aeronautical revenue at some airports — there was a significant increase in non-aeronautical revenue at Perth Airport during the mining boom that quickly dropped off in the years following.

The distinction between aeronautical and non-aeronautical revenue is important for the economic regulation of airports. Currently the ACCC reports aeronautical and non-aeronautical revenues, costs and assets separately — this is referred to as dual-till monitoring. The ACCC does not monitor retail, rental and business park activities.

Figure 1.7 Airport revenue at monitored airports
By aeronautical revenue and non-aeronautical revenue



Sources: ACCC (2018a) and various back editions.

Airports require large investments

The operation of airports requires ongoing investment in large (and lumpy) investments, such as the purchase of land or the building of new runway and terminal infrastructure, to meet growth in passenger demand and to facilitate new air transport services. Over the ten-year period to 2016-17, the four monitored airports invested around \$7 billion in aeronautical infrastructure.

Three of Australia's monitored airports have new runways in design or under construction with operation due to commence by 2020 in Brisbane, 2024 in Melbourne and 2028 in Perth (ACCC 2018a; Perth Airport 2018a). Airports, such as Canberra, have also planned upgrades to existing runways and terminals, and the Western Sydney Airport is scheduled to commence operations in 2026 (ACCC 2018a; Canberra Airport 2018a). Reaching agreement on the funding of these upgrades can be challenging (chapter 4).

Accompanying airports' high fixed costs are relatively low ongoing operating costs. This means that airports have declining average costs, known as economies of scale, and one provider can meet existing and foreseeable market demand at a lower average cost than when there is more than one provider in the market. Although a single airport may be able to provide services more efficiently than two or more airports, it can also lead to an enduring lack of effective competition and, potentially, market power (chapters 2 and 3).

This risk, along with the nature of Australia's airports as critical infrastructure, means that their performance depends on, among other things, high-quality management and a regulatory regime that promotes efficient operations and timely investment, and facilitates commercial negotiation between airport operators and users of airport services.

1.5 The Commission's approach

Although this is the Commission's fourth investigation of the economic regulation of airports since 2000, this inquiry presents an opportunity for a fresh look at whether existing regulatory arrangements are fit for purpose.

The Commission received the terms of reference for this inquiry on 22 June 2018, and released an issues paper on 9 July 2018. The issues paper outlined the scope of the inquiry, areas where the Commission was seeking information and invited submissions from interested parties (box 1.3).

The Commission has developed an analytical framework (chapter 2) for assessing the economic regulation of airports. This framework provides a consistent structure to analyse the diverse set of policy areas covered by the inquiry, including the efficient operation of and investment in airports, regional access to Sydney Airport and competition in markets to supply jet fuel. The framework establishes for each issue: the rationale for government intervention; whether the current regulatory and policy settings are fit for purpose or if there

is an alternative policy option that would result in improved outcomes; and implementation of alternative policy options.

Box 1.3 **Submissions and confidential material**

The Commission received 88 submissions prior to the release of this draft report. Submissions are available on the Commission's website and listed in appendix A.

Confidential material

The Commission received a large number of confidential or heavily redacted submissions — some with no clear justification for why the material was commercially sensitive. This is regrettable, as it has limited the public scrutiny of claims made in these submissions.

The Commission endeavours to consider submissions in cases where material is commercial-in-confidence or of a genuinely sensitive nature. The Commission has been able to verify some statements made in confidential submissions by requesting further information or access to relevant confidential documents. However, in the absence of such verification, the Commission can only give limited weight to claims that have not been subject to scrutiny by others. The Commission remains sceptical of modelling or analysis where the underlying data or assumptions are not public.

Two factors have hampered the Commission's analysis of competition in the markets for jet fuel (chapter 8). One, there is very little information and data available on aspects of the market such as fuel prices, costs of supply and terms of third party access to infrastructure services. Two, a large proportion of submissions relating to jet fuel were confidential and few participants chose to appear at the public hearings. The Commission's conclusions have relied on analysis of the characteristics of jet fuel markets, along with information provided in submissions and public hearings. It has received insufficient publishable information to present a full analysis of competition in markets to supply jet fuel.

Late submissions

The Commission received the majority of its submissions after the closing date (3 September 2018). The Commission accepted late submissions, but they were also subject to limited public scrutiny and this necessarily reduces the weight that the Commission can place on them.

The closing date for submissions to this draft report is **25 March 2019** and participants are strongly encouraged to meet this deadline. The Commission requests that participants consider the following guidance in the preparation of submissions.

- Confidential submissions to the inquiry should be accompanied by a publicly available version of the same submission with *only* the confidential material redacted.
- Submissions made in good faith are protected from civil proceedings relating to loss, damage or injury of any kind suffered by another person as a result of that submission, under Part 8 of the *Productivity Commission Act 1998* (Cwlth) (the Act). This is not the case, however, until and unless the Commission has accepted those submissions.
- Where the Commission has reason to believe that a person is capable of giving information or producing documents relevant to the inquiry, it has powers, under Part 7 of the Act, to require that person to provide the relevant information or documents.

The Commission has consulted widely, drawn on submissions and used quantitative techniques where possible. The Commission has also drawn on material and analysis of a qualitative nature to inform its conclusions and draft recommendations.

In consultations the Commission has met with representatives from the major airports, as well as some capital city and regional airports, airlines, airport and airline peak bodies, Australian, State and Territory government agencies, fuel suppliers, the financial sector and researchers.

The Commission held focused public hearings in November 2018 on competition in the markets for jet fuel. Nine participants appeared at the hearings and the transcript is available on the Commission's website. Appendix A includes a complete list of consultations, submissions and hearing participants.

This draft report provides an opportunity for the Commission to test its conclusions with stakeholders and shape its recommendations in the final report. The Commission invites further submissions on the draft report (box 1.3). It will conduct hearings in late March 2019 in Melbourne, Sydney, Canberra and Mildura.

The Commission will provide the final report to the Australian Government in June 2019.

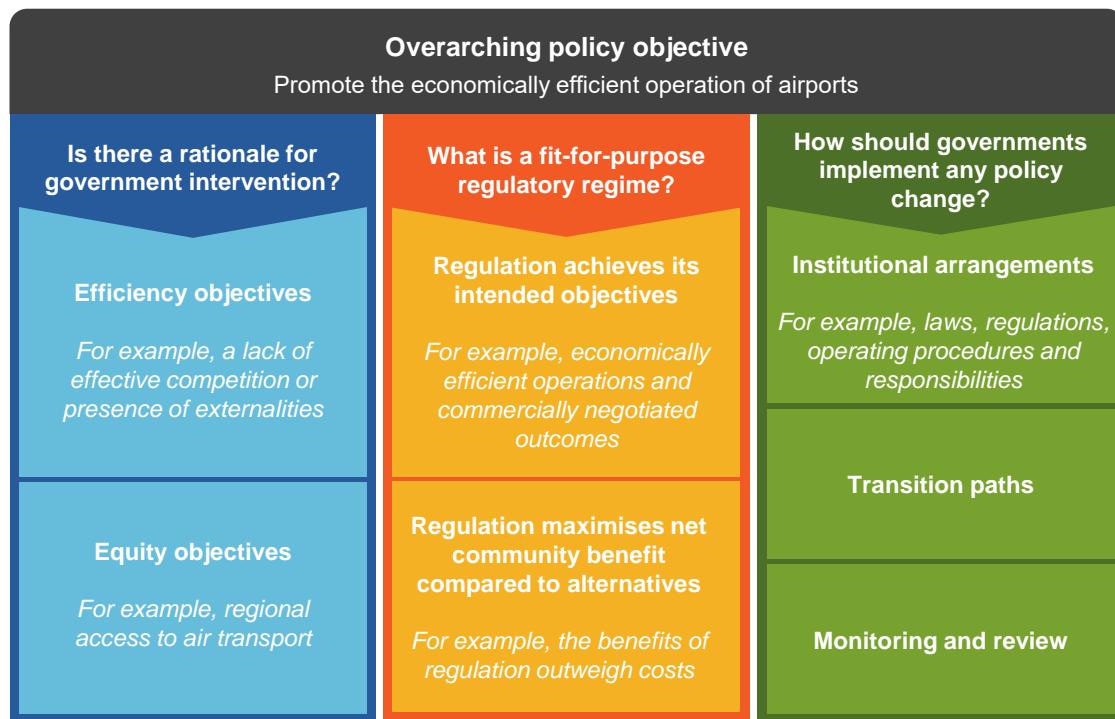
2 Analytical framework

Key points

- An enduring lack of effective competition can give rise to a provider of airport services having market power. This may compromise the economically efficient operation of airports to the detriment of the community.
- The rationale for the economic regulation of airports is that the operator of an airport with market power could exercise that power by setting excessively high charges for airport services, operating the airport inefficiently or making inefficient investment decisions.
 - An airport exercising market power may underinvest to increase profits, but is unlikely to have an incentive to overinvest. An airport operator exercising market power could raise prices to earn higher profits without needing to invest in additional infrastructure.
- There is no single indicator to demonstrate that an airport has exercised its market power.
 - A conceptual benchmark for an efficient level of aeronautical charges is long-run average cost or, in the case of an airport with capacity constraints, airport users' willingness to pay.
 - The Commission has examined a range of indicators and assessed airports' performance over time, and relative to comparable airports in Australia and overseas.
- A fit-for-purpose economic regulatory regime for airports should facilitate commercial outcomes and promote efficient airport operations and investment for the long-term benefit of the community.
 - Essential to a light-handed regulatory regime is transparency as to how an airport operator is performing and a credible threat of further regulatory intervention. The regime should be underpinned by a range of supporting data, with a consistent basis for reporting over time.
 - The monitoring regime should provide evidence on whether an airport is operating efficiently, to determine if it is exercising its market power to the detriment of the community.
 - Any proposed regulatory change should be assessed to demonstrate greater net benefits for communities than alternatives, including the status quo.

This inquiry considers a diverse set of issues related to airport services, including aeronautical services, car parking and landside access, regional access arrangements at Sydney Airport and competition in markets for jet fuel. The Commission has developed a framework to analyse the evidence in a consistent way (figure 2.1). This chapter outlines a number of key concepts used in this inquiry. It also outlines the Commission's approach to assessing whether the economic regulation of airports is fit for purpose. A guiding principle for the analysis is that the Commission takes into account the effects of existing regulations and reform options on the community as a whole.

Figure 2.1 Assessing the economic regulation of airports



2.1 Why do governments intervene?

Governments seek to intervene in markets for airport services in order to improve community welfare if, for example, a market fails to deliver the best allocation of resources to the detriment of both those who use airport services (including passengers and airlines) and the community as a whole. This could occur for a range of reasons related to the efficiency of a market, including a lack of effective competition, the presence of externalities or information asymmetries. Governments may also intervene to achieve equity objectives such as supporting regional communities with insufficient scale for a self-supporting airport.

Efficiency objectives

Governments intervening in a market or industry do so to support economically efficient outcomes (equity objectives are discussed below). Economic efficiency is the result of an allocation of resources that maximises community welfare. Achieving economically efficient outcomes requires the satisfaction of three different concepts of efficiency: allocative, productive and dynamic efficiency (box 2.1). In practice, markets are never perfectly efficient. However, comparing markets for airport services to a theoretically efficient market can help to assess the achievement of efficiency objectives and any potential requirements for government intervention.

Box 2.1 Requirements for economic efficiency

The efficient firm is a useful theoretical concept to assess whether outcomes are economically efficient. An efficient firm (as well as industry, sector or economy) satisfies three requirements.

- Allocative efficiency — the range and balance of goods and services produced are of the highest value for consumers compared with any alternative use of the given resources. A lack of effective competition (discussed below) may mean firms have an incentive to maximise profits by reducing supply and raising the price to ration that limited supply. This reduces allocative efficiency, as there is an underproduction of the services.
- Productive efficiency — goods or services are produced at the least possible cost for all quantities or quality. For services with natural monopoly characteristics, a single service provider can achieve greater productive efficiency than multiple providers can (box 2.2). A firm may operate inefficiently if it allows costs to rise or does not adopt new technology, reducing productive efficiency.
- Dynamic efficiency — productive and allocative efficiency are achieved over time, as resources are used to maximise benefit in current and future time periods. Some infrastructure services require lumpy investments that may present challenges to ensuring dynamic efficiency over time, as significant upfront costs may be required for future capacity despite uncertain future demand.

A lack of effective competition

Governments intervene in markets for airport services to address a lack of effective competition — a common feature of infrastructure markets — that can affect economic efficiency. The Commission (2013b, p. 72) noted in the *National Access Regime* inquiry:

Effective competition requires that firms should be subject to a reasonable degree of competitive constraint from actual or potential competitors, or from customers, as opposed to a theoretical — and unattainable — ideal of perfect competition. ... a lack of effective competition can impose costs on the community where this allows service providers to restrict output and maintain prices above allocatively efficient levels.

A lack of effective competition may occur in a range of circumstances including where:

- the market has the characteristics of a natural monopoly, meaning that one infrastructure provider may service demand from existing and foreseeable customers at a lower cost than multiple providers each with their own facilities (box 2.2)
- a single or small number of firms control access to a good or service and are able to deny access to potential competitors. For example, an airport that is the sole provider of access to landside terminal services may have full discretion in establishing terms of access
- a regulated monopoly has been established by government regulations or licenses. For example, the Australian Government established Airservices Australia as the sole provider of air navigation services.

Firms operating in these circumstances could seek to raise their profitability by setting excessively high charges, operating inefficiently or making inefficient investment decisions.

Markets for *some* airport services display natural monopoly characteristics. Natural monopoly characteristics (box 2.2) are common in markets for infrastructure assets that have high fixed costs and relatively low operating costs. For example, the construction of a runway requires significant upfront investments compared with the airport's ongoing cost for each plane that lands on the runway once built.

Box 2.2 **Natural monopoly characteristics**

A natural monopoly has characteristics that are linked to the shape of the average cost curve and the firm's quantity of output. Natural monopolies typically involve significant fixed costs and relatively small marginal costs, so that average cost declines with output. Declining average costs (known as economies of scale) can mean that one provider can meet existing and foreseeable market demand at a lower average cost than when there is more than one provider in the market.

Whether a market is or is not a natural monopoly can depend on the level of demand. A level of demand that leads to congestion at a facility (approaching capacity constraints) may contribute to rapid increases in the incremental cost of producing another unit. This may mean that a firm has increasing average costs (known as diseconomies of scale). A market can be a natural monopoly with increasing average costs if the total costs are still higher with two or more providers.

Natural monopolies typically operate over a range of outputs. Ongoing excess demand at a capacity-constrained facility may worsen congestion, and the firm may no longer be able to produce at least cost if it cannot expand capacity any further. At this level of demand, competition can be more efficient than a natural monopoly if it is less costly to have two or more providers — the market is no longer a natural monopoly. For example, as an airport becomes more congested, satisfying demand might require an additional airport.

Another natural monopoly characteristic is economies of scope. This occurs where a firm produces more than one type of good or service, and it is cheaper to provide these related goods and services together, rather than separately.

Sources: PC (2002, 2013b).

An enduring lack of effective competition can give rise to a provider of airport services having market power, discussed further in section 2.2 below. This may compromise the economically efficient operation of airports to the detriment of the community.

The presence of externalities

Governments may also intervene in markets for airport services in the presence of externalities. Externalities occur when the production or consumption of goods and services imposes costs or benefits on others that are not taken into account in the prices charged for the goods and services. Externalities can lead to an inefficient allocation of resources as a firm's private costs and benefits are different from the total social (or external) costs and benefits.

Airport services have the potential to generate a range of externalities. Airports and flight paths generate noise and environmental pollution that affect the quality of life of nearby residential communities. Governments have implemented policies that manage these negative externalities at Sydney Airport (chapter 7) and other airports.

There are also externalities associated with the provision of airport security services. The Australian Government regulates aviation security to ensure that the level of security across airports aligns with the net social benefits of providing airport security (box 2.3). Regulatory arrangements governing airport security, and the way costs of security are recovered can affect — sometimes materially — the efficiency of airport operations.

Box 2.3 The benefits of airport security

Airport security is an example of an airport service with externalities. Airports and airlines benefit from incorporating security procedures into their operations. They would invest in security services even in the absence of regulation to protect their assets and to maintain their reputation and sales. However, an airport (or airline) acting in its private interest is unlikely to supply security services at a level that fully accounts for the potential broader social benefits, such as:

- preventing aviation safety risks that could result in property damage, personal injury, enduring psychological effects or loss of life
- reducing theft, smuggling, tariff evasion and supporting improved export controls
- maintaining a national reputation for safety in trade, tourism and conduct of business.

The social benefits of airport security link to the network effects of airports. Airports are part of a broader aviation network connected by air transport services. This means that the benefits of increasing the level of airport security at one airport increases as other airports also adopt this level of security. The Australian Government regulates aviation security through minimum security requirements for airport operators established under the *Airports Act 1996* (Cwlth) to capture the social benefits. (Government decisions are only proxies for what the community might otherwise decide to fund.)

Minimum security requirements can be challenging to manage across airports of different sizes and locations, particularly at regional airports where security costs are a high proportion of total airport operating costs. Some inquiry participants (AAA, sub. 50; Regional Airport Users' Action Group and G. J. Breust, sub. 9) argued that additional security requirements announced by the Australian Government in 2018 may significantly increase regional airport operating costs, despite funding provided by the Australian Government to transition to the new requirements. One participant noted that in some cases, these costs could 'potentially be beyond the funding capacity of some smaller airports' (AAA, sub. 50, p. 101).

The costs of airport security are shared between the Australian Government, airports and passengers (passed on through safety and security charges). Regulatory requirements do not necessarily mean that security services are delivered cost effectively. Fit-for-purpose security regulation should be sufficiently flexible to support operators to achieve minimum security outcomes in an efficient manner.

Sources: Prentice (2015); PC (2018).

The presence of externalities does not imply that there is limited competition or market power. As such, they are not of primary focus of this inquiry.

Inadequate information and asymmetries

Governments may seek to address inadequate or asymmetric levels of information that affect the efficient operation of a market. Most market transactions or negotiations involve parties making decisions based on different levels of information. However, a major imbalance of information may allow one party to gain a significant advantage at the expense of others. For example, understanding another party's cost structure during a negotiation can confer bargaining power by signalling the minimum the seller would accept or the maximum the buyer would be prepared to pay (chapter 4). Where an imbalance of bargaining power changes key economic decisions, such as the decision to invest in new services, it may result in outcomes that are detrimental to the community.

Airline participants in this inquiry have raised concerns that there is both information asymmetry and uneven bargaining power between an airport and airport users in commercial negotiations (A4ANZ, sub. 44). Airlines commented that they require specific information to make decisions regarding proposed airport investments, including the investment scope, rationale, expected improvements to service outcomes and the estimated capital costs (A4ANZ, sub. 44; BARA, sub. 42; Virgin Australia Group, sub. 54). Information sharing in commercial negotiations is discussed in chapter 4.

Equity objectives

Governments also intervene in markets for airport services for equity reasons. Equity refers to the fairness of the distribution of society's resources and opportunities for its members. Along with efficiency, equity is intrinsic to community welfare. For example, governments may intervene to ensure that regional towns and cities have access to air transport, even if such a service is not commercially viable. The Australian Government stated its ongoing commitment to maintaining access for regional communities into Sydney Airport in the inquiry terms of reference. The effectiveness of these arrangements at meeting this objective is discussed in chapter 7.

This inquiry (as with previous Commission inquiries into airport services) has not focused on equity as the primary rationale for government intervention in airport services. The redistribution of income is typically more efficiently and effectively delivered through the tax and transfer system, which considers economic welfare in totality, rather than through industry-specific schemes (PC 2002, 2012).

2.2 Market power in airport services

The rationale for the economic regulation of airports is that the operator of an airport with market power could exercise that power by setting excessively high charges for airport services, operating the airport inefficiently or making inefficient investment decisions.

How could airport operators exercise market power?

A lack of effective competition could give rise to an airport having market power

An enduring lack of effective competition can give rise to a firm possessing significant market power. The competitive constraints faced by an airport are determined by characteristics of its operating environment. These characteristics include barriers to entry or exit, competition from nearby airports, opportunities for airlines to switch to another airport and the nature of passenger demand for air travel (chapter 3).

Even if an airport has market power, it may face constraints that limit its ability or incentive to exercise that power in a way that is detrimental to the community. Factors that may constrain an airport's ability or incentive to exercise market power include:

- the countervailing power of a customer, such as an airline, that is able to offset any airport market power. Airlines with countervailing power may negotiate a lower charge or better conditions for the same charge than other airlines
- the level of demand for an airport's services, for example, the cost of running an airport may be higher than airlines' and passengers' willingness to pay when demand for an airport's services is very low. This is the case at some regional airports
- the objectives of the airport operator, for example, some operators of larger regional airports subsidise access charges to encourage airlines to offer more flights and generate benefits to the local community by increasing the number of visitors. These airports may have market power but (in some cases) choose not to exercise it if the incentive to generate benefits to the local community is greater than the incentive to make a monopoly profit (chapter 3).

A significant level of market power may create a *prima facie* case for regulatory intervention, even when the constraints on that power are considered. The potential for market power in domestic and international aeronautical services is explored in chapter 3.

An airport exercising market power could charge, operate or invest inefficiently

While an airport may have market power in some airport services, the Commission is primarily concerned with whether the airport is *exercising* that power. Airport operators that seek to increase profits by exercising market power could:

- price services at unduly high levels (explored further below). For example, an airport may reduce supply and increase prices to increase profits at the expense of consumers

-
- lower service quality below users' reasonable expectations for a given price. This could occur by reducing staffing levels, altering the utilisation of inputs or replacing assets infrequently, to the detriment of service quality
 - underinvest in facilities. This could lead to declining service quality or quantity over time. Underinvesting in infrastructure may also lead to capacity constraints and an airport could restrict supply and price services at unduly high levels to obtain scarcity rents (discussed further below).

An airport operator could also allow costs to rise if there are limited incentives to operate efficiently. This inefficiency may not support additional profits but may provide a quiet life for managers of monopoly infrastructure. It may also potentially deteriorate service quality below users' reasonable expectations.

Identifying the potential exercise of market power in airport services

The Commission's determination of whether an airport has systematically exercised its market power is based on analysis using the evidence that is available to it. The prices of airport services, and other indicators of airport performance and investment, have been drawn on to inform this analysis.

Pricing above the efficient long-run average cost of provision

An airport exercising market power may seek to increase profits by setting charges for aeronautical services above an efficient level. Long-run average cost is the Commission's preferred conceptual benchmark for assessing whether the pricing of infrastructure services is efficient. Firms operating in competitive markets that are not natural monopolies would price at or close to this benchmark. Long-run average cost is also the minimum that a natural monopoly producer could charge to ensure it remains viable over time (box 2.4).

The Commission used this approach in previous airports inquiries, along with its 2013 report on the *National Access Regime*.

The allocative efficiency costs of a lack of effective competition can be compared with a benchmark where the service provider charges a price equal to its average cost of supply. Large sunk costs and relatively small marginal costs of supply mean that an infrastructure service provider can be operating at a point where its average cost declines with increasing output. In these circumstances, the lowest price the service provider could sustain in the longer term is average cost, where it just breaks even. This provides a reasonable conceptual benchmark for evaluating the effects of monopoly provision of infrastructure services on allocative efficiency. (PC 2013b, p. 77)

The preferred benchmark for efficient pricing of infrastructure services — long-run average cost — is a conceptual benchmark that is unable to be calculated in practice. Each airport has unique cost structures and drivers, and provides a different range of aeronautical and

non-aeronautical services and facilities. Costs can be difficult to observe and compare across sites. The costs of a small regional airport are very different to a capital city airport.

Box 2.4 Uniform pricing of services with natural monopoly characteristics

Different (uniform) pricing approaches affect a firm's profitability in services with natural monopoly characteristics, where marginal costs are typically below average costs.

Marginal cost pricing

Marginal cost pricing is the typical efficient pricing benchmark for competitive markets, at price $P(mc)$ where marginal cost (MC) intersects with demand (D). As average costs (AC) are greater than MC, pricing at MC would not cover the full costs of providing a service with natural monopoly characteristics. In the diagram below, the green shaded region represents the losses sustained by a firm in a monopoly market with price $P(mc)$ and producing quantity $Q(mc)$. The losses are equal to the difference between price $P(mc)$ and AC, multiplied by the quantity of service $Q(mc)$.

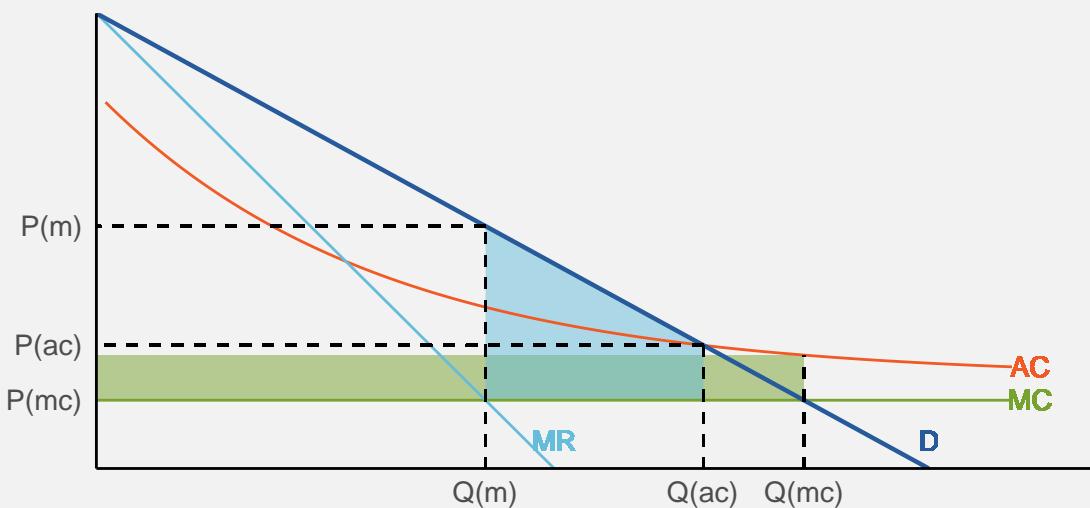
Monopoly pricing

Economic theory shows that a monopolist will maximise its profits by reducing the total quantity of services it supplies to the market to $Q(m)$ (where MC equals marginal revenue (MR)) in order to increase the price charged to $P(m)$. A firm with market power may therefore raise prices above both marginal cost pricing $P(mc)$ and average cost pricing $P(ac)$ (where D equals AC).

Average cost pricing

Average cost pricing is the lowest price a firm can charge for services with natural monopoly characteristics that is sustainable over time. In the diagram below, this is the price $P(ac)$, that is at the intersection of AC and D. The blue shaded region, under the demand curve and between $Q(m)$ and $Q(ac)$ represents the allocative efficiency gained from average cost pricing compared with monopoly pricing.

The efficiency of different pricing options also depends on the activities of downstream firms, such as airlines, discussed further below.



Other indicators can provide evidence to analyse whether an airport is charging significantly above this benchmark. For example, the return on aeronautical assets is the measure of profitability that most appropriately accounts for the efficient long-run average cost of an airport's aeronautical investments. It accounts for the opportunity cost of alternative investments and explicitly accounts for the level and timing of investment.

Efficient prices under scarcity reflect willingness to pay

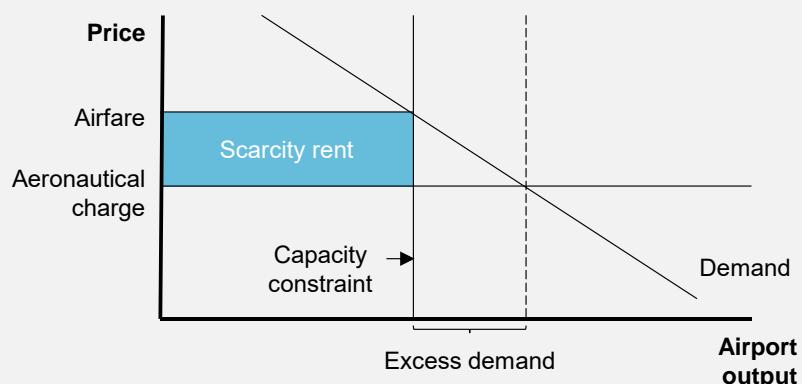
Efficient long-run average cost may not be a reasonable benchmark for prices at an airport with capacity constraints. With scarce capacity, providers of airport services may have incentives to ration services by increasing prices to reflect consumers' willingness to pay above the costs to deliver the service, resulting in scarcity rents. Rationing can also occur through non-price mechanisms, such as a slot system that allocates a fixed quantity of aircraft take off and landing permissions to airlines. For aeronautical services at a capacity-constrained airport, scarcity rents may go to the airline or the airport, depending on how aeronautical charges and airfares are set (box 2.5).

Box 2.5 Aeronautical charges, scarcity rents and airfares

Airport congestion can signal the need for further investment. Delays to investment to expand capacity can result in inefficient outcomes. In cases where capacity cannot be increased, congestion charging could improve outcomes by balancing demand and available capacity.

For example, Sydney Airport operates at or near capacity in peak periods. Sydney Airport also faces regulatory constraints associated with a limit on aircraft movements, a slot system for runway access and a curfew. However, Sydney Airport charges a flat rate for aeronautical charges regardless of demand. The regulatory price cap further limits its aeronautical charges for regional flights.

Airlines are able to adjust their passenger airfares based on demand in peak periods, allowing them to earn rents on scarce aircraft movement slots. Growing demand would likely result in larger scarcity rents. Under this framework, if aeronautical charges increased, but were still below the market clearing price, passenger airfares remain unchanged but airlines would lose some of their scarcity rents. In practice, this depends on the extent to which airlines pass on benefits to passengers through airfares — discussed further below.



Sources: AAA (sub. 50); Forsyth (sub. 15); SEO (2015); Sydney Airport (sub. 53).

Rationing scarce capacity can be socially optimal and can provide investment incentives. The lumpy nature of some airport investments may mean that a level of scarcity is optimal. For example, additional investment may be inefficient if it means moving from a congested airport to an underutilised airport with excess capacity.

In other cases, rationing may not be socially optimal. A firm exercising significant market power could delay investments that would increase capacity in order to generate scarcity. It could then price services at unduly high levels to earn monopoly rents at the expense of broader community welfare.

Prices above efficient levels may reflect monopoly rents

A provider of airport services could exercise market power by charging prices that are in excess of the efficient long-run average cost of provision. The Commission has considered the extent to which prices are in excess of efficient levels in aeronautical services (chapter 5), airport car parking and landside access (chapter 6) and markets for jet fuel (chapter 8).

The additional profits earned by an airport operator exercising market power are monopoly rents — a type of economic rent (excess payments above the cost of production) that may have detrimental efficiency effects.

However, not all forms of economic rents give rise to a loss of economic efficiency — nor do they warrant a policy response. Economic rents, such as locational or scarcity rents, can be efficient. For example, the Australian Competition and Consumer Commission (ACCC) has noted the difference between locational rents and monopoly rents in the context of car parking charges at airports (discussed in chapter 6):

To some degree, these prices reflect value of the land; that is, the convenience of parking within a short walk from airport terminals and the willingness to pay for that convenience. Of course, another reason for the different prices between different carparks is the need for airports to manage growing demand for space near the terminal entrances. These are referred to as locational factors.

It is efficient for prices to be set with consideration of locational factors. However, airports still have the ability to raise prices above efficient levels (i.e. collect revenue in excess of locational rents, referred to as monopoly rents), particularly for services where they possess significant market power. (sub. 59, pp. 43–44)

Airport operators and airport users may sometimes disagree over the extent to which economic rents are shared between them. In practice, both profit-maximising airport operators and airport users may be able to influence prices to some degree, which can lead one party to seek a transfer of rents from the other party at the margin. Short-term fluctuations, market imperfections or bargaining asymmetries may also provide an opportunity for one party to extract rent from the other.

The Aeronautical Pricing Principles

The Australian Government adopted the *Aeronautical Pricing Principles* (box 2.6) in response to the Productivity Commission's 2006 inquiry into airport services. The Commission has drawn on these principles to assess the reasonableness of current aeronautical charges and the commercial negotiation process between airports and airlines.

Box 2.6 The Aeronautical Pricing Principles

The Australian Government set out the *Aeronautical Pricing Principles* in 2007 (Costello 2007). The principles articulate how airports should set access charges for aeronautical services and facilities, as defined in Part 7 of the Airports Regulations 1997. The current principles are:

- a) that prices should:
 - (i) be set so as to generate expected revenue for a service or services that is at least sufficient to meet the efficient costs of providing the service or services; and
 - (ii) include a return on investment in tangible (non-current) aeronautical assets, commensurate with the regulatory and commercial risks involved and in accordance with these Pricing Principles;
- b) that pricing regimes should provide incentives to reduce costs or otherwise improve productivity;
- c) that prices (including service level specifications and any associated terms and conditions of access to aeronautical services) should:
 - (i) be established through commercial negotiations undertaken in good faith, with open and transparent information exchange between the airports and their customers and utilising processes for resolving disputes in a commercial manner (for example, independent commercial mediation/binding arbitration); and
 - (ii) reflect a reasonable sharing of risks and returns, as agreed between airports and their customers (including risks and returns relating to changes in passenger traffic or productivity improvements resulting in over or under recovery of agreed allowable aeronautical revenue);
- d) that price structures should:
 - (i) allow multi-part pricing and price discrimination when it aids efficiency (including the efficient development of aeronautical services); and
 - (ii) notwithstanding the cross-ownership restrictions in the Airports Act 1996, not allow a vertically integrated service provider to set terms and conditions that discriminate in favour of its downstream operations, except to the extent that the cost of providing access to other operators is higher;
- e) that service-level outcomes for aeronautical services provided by the airport operators should be consistent with users' reasonable expectations;
- f) that aeronautical asset revaluations by airports should not generally provide a basis for higher aeronautical prices, unless customers agree; and
- g) that at airports with significant capacity constraints, peak period pricing is allowed where necessary to efficiently manage demand and promote efficient investment in and use of airport infrastructure, consistent with all of the above Principles. (Costello 2007)

Indicators can be used to assess airport performance when considered collectively

There is no single indicator or benchmark that can demonstrate that an airport has market power and should be added to the monitoring regime, or that an airport in the monitoring regime is exercising its market power to the detriment of the community. Airports' exercise

of market power could be manifested in a variety of ways, and should be assessed over a period of several years to account for the long-lasting nature of airport assets and the short-term volatility in measured indicators. Rigid benchmarks could be exploited by airports operating up to or gaming those constraints. To account for this, the Commission has examined a range of indicators and assessed airports' performance over time, and relative to comparable airports in Australia and overseas (chapter 5).

Indicators that can be used to examine airport operational and financial performance include:

- rates of return, which may indicate that an airport is exercising its market power to charge higher prices and yield excessive returns. In practice, rates of return vary over time. The lumpy nature of airport investment means that assets can be relatively fixed, but their value will depreciate and may result in different rates of return over time
- infrastructure utilisation, which can indicate whether congestion or investment levels are inefficient or do not meet users' reasonable expectations for a given price — a potential sign of exercising market power
- service quality, which could include objective measures, such as the number of check-in kiosks, and subjective measures, such as airline and passenger ratings of service satisfaction that can indicate whether services meet users' reasonable expectations.

Measurement and use of indicators is constrained by the availability and quality of data, including information on prices, and operational and financial performance. Careful interpretation of indicators is required, as each has limitations in comparing between airports and over time.

Inefficient investment decisions could reflect either market power or uncertainty

An airport operator that is exercising its market power may underinvest (or delay investment) in infrastructure that would increase service quality or capacity, if doing so meant that it could earn monopoly profits or increase scarcity rents due to capacity constraints. For example, an airport may delay investments to add new car parking spaces in order to increase prices and profits.

Some airlines, such as Rex and Qantas Group have argued that overinvestment in infrastructure is evidence of airports exercising their market power. This is unlikely to be the case under a light-handed regulatory regime. Airports may have an incentive to overinvest under other regulatory regimes, such as price caps or rate of return regulation, as additional investment could provide a basis to justify a price increase to a regulator (chapter 9). Investment in facilities, even if not needed, could allow an airport to extract a rate of return on an inflated asset base that it can pass through to higher prices. Under the current light-handed regime, an airport exercising market power may underinvest to increase profits, but is unlikely to have an incentive to intentionally overinvest. An airport operator exercising market power could raise prices to earn higher profits without needing to invest in additional infrastructure.

Some airline participants have argued that airports have made inefficient investments and that airports pass on these costs to airport users. Particular airline concerns include:

- excessive costs for proposed capital investments — Qantas Group (Qantas, QantasLink and Jetstar) (sub. 48) stated that Perth Airport proposed costs to upgrade terminal infrastructure for the Perth–London flight which were excessive, and that ultimately, Qantas Group completed the upgrade at a lower cost
- overinvestment — Regional Express (Rex) (sub. 63, pp. 8–9) stated that regional airports, such as Orange and Kangaroo Island, have proposed investment with a ‘build it and they will come’ approach that does not match forecast demand. Qantas Group (sub. 48, p. 19) identified a number of challenges associated with a proposed terminal expansion at ‘Airport C’, including that the airport was ‘building ahead of demand’
- challenges with assessing investment prudence or efficiency — Virgin Australia Group (sub. 54, p. 8) noted that ‘[w]ith time sensitive negotiations, airlines often end up funding investments that they have been unable to assess as prudent’.

The ACCC has suggested that sunk investments in some infrastructure services may provide a potential alternative rationale for government intervention (box 2.7).

Box 2.7 **Regulating to protect relationship-specific sunk investments**

The Australian Competition and Consumer Commission (ACCC) has highlighted the significance of airport users making sunk investments in order to get the most out of airport services. It noted that airlines and other airport users might wish to make investments, such as customised facilities or location-specific marketing, at a particular airport to maximise the value of the product offered. If this investment is sunk, and has no alternative use or value, it is subject to the threat of hold-up. Hold-up is the risk that the airport will raise its charges to capture the value of the investment, reducing the incentive for airlines to undertake an efficient level of investment. The ACCC noted that the failure to make such investments might be another form of economic inefficiency and therefore a source of economic harm requiring regulation.

The Commission considered this approach in its 2011 inquiry into the *Economic Regulation of Airport Services* and in other previous inquiries, such as *Electricity Network Regulation*. It noted that, in practice, other factors might reduce the extent to which hold-up occurs. In particular, airports and airlines in Australia often mitigate some of the risks of hold-up by using long-term contracts. It is also not clear that airlines’ relationship-specific sunk investments are significant, particularly in the case of low-cost carriers, which can be nimble in moving their services between airports (chapter 3).

Sources: ACCC (sub. 59); PC (2012, 2013a).

Ultimately, investment decisions are subject to uncertainty and risk. Unforeseen changes to airport and airline circumstances may mean that what initially looked like a prudent investment might turn out to have been a poor idea. For example, changes in demand that are outside the airport’s control may mean that some investments appear to be above or below requirements only with the benefit of hindsight (chapter 5). A poor investment does not mean that an airport has exercised its market power and, with hindsight, poor investments happen in every industry.

How does the exercise of market power affect the community?

The exercise of market power in airport services can negatively affect passengers and customers when an airport operator is charging, operating or investing inefficiently.

Inefficient prices may have community welfare effects

Some of society's welfare is lost when prices are set above efficient levels, as some consumers are no longer willing to consume the service at the higher price. This is known as monopoly deadweight loss — the lost potential benefit that did not go to either the producer or the consumer. Such effects are of concern where it results in a material loss of community welfare. For many airport services, the extent of any negative welfare effects depends on passengers' responsiveness to airfare changes (box 2.8). Consumers are more likely to accept higher airfares if alternatives for air transport are not available — as is the case for some routes.

Box 2.8 Price responsiveness of demand and welfare effects

The welfare effects of airport operators charging above efficient levels depends on the level of competition in markets for airport services and how passengers respond to price changes.

Forsyth argued that limited competition in markets for airport services may mean that passengers are not particularly responsive to price changes (their demand is relatively inelastic). Aeronautical charges that are set above the efficient average cost of provision negatively affect individual passengers as they are required to pay higher airfares. However, the effect on the broader community is likely to be small. This is because there would be little change in the overall allocation of resources (allocative efficiency) in the community unless aeronautical charges are set at many times higher than the efficient cost (chapter 5 discusses evidence on the level of aeronautical charges at the monitored airports (Sydney, Melbourne, Brisbane and Perth)).

In contrast, Forsyth argued that in a market with competition between airports (such as in the UK), an airport operator increasing aeronautical charges above the efficient average cost of provision could result in larger allocative efficiency losses than in a less competitive market. Community welfare is negatively affected by this efficiency loss if passengers are responsive to changes in price and swap to alternatives in the market. For example, this could occur if an airport with close substitutes such as Brisbane Airport raised charges above cost such that aircraft and passenger traffic destined for Brisbane moved to Gold Coast Airport, increasing the inconvenience for passengers and the broader community.

Source: Forsyth (sub. 15).

The extent to which an airport exercising its market power affects passenger and community welfare depends on the behaviour of airlines and the structure of downstream markets. Airports provide most services to airlines rather than directly to passengers (there is derived demand for airport services).

An airline's approach to charging may also alter the extent to which any increases in airport charges are passed through to airfares. Airlines price discriminate (set different ticket prices

for the same service) through ticket classes, advance bookings, as well as flight dates and times — this can be efficient. They can also dynamically change airfares for a particular flight depending on demand for different ticket categories over time. Shielding the more price sensitive passengers in order to limit the change in passenger numbers can reduce the negative welfare effects of any increase in aeronautical charges.

The nature of competition downstream may mean that airlines pass through some or all of an increase in aeronautical charges in airfares. However, the prices paid by end-user passengers typically increase by less than the increase in the upstream charge. The extent to which these costs are passed through to passengers may depend on the concentration of the downstream market (chapter 3).

Airport performance can affect the aviation industry and community welfare

An airport operator that is investing or operating inefficiently can be detrimental to the airlines it serves and airport users.

If airports do not invest optimally in airport services over time, it can lead to congestion, inadequate infrastructure and less development of new routes. It may mean that the quality of services does not meet users' reasonable expectations for a given price. Further, inefficient investment can be detrimental to the broader community if resources invested in airports are better invested elsewhere or at another time to maximise industry or community benefit.

2.3 A fit-for-purpose regulatory regime

Economic regulatory regimes have several elements. They typically establish:

- institutional arrangements, such as the role of government agencies, including regulators
- how a price for the good or service is determined
- requirements for information collection, disclosure or analysis and reporting
- a constraint or threat of penalty, such as a move to more heavy-handed regulation.

How these elements are incorporated into the design of a regulatory regime depends on the nature of the market, the good or service in question and what the regulatory regime intends to achieve. For example, in some regimes, a regulator directly sets prices based on the data it has collected, while in others, two parties negotiate prices but call on an independent arbitrator in the case of a stalemate. Changes to the current regulatory regime proposed by inquiry participants are explored in chapter 10.

A regulatory regime is fit-for-purpose if it achieves its intended objectives and maximises net benefits to the community. These tests have been applied to the current regulatory regime and proposed alternatives, as discussed in chapters 9 and 10. This section outlines the concepts behind the Commission's assessment.

Regulation achieves its intended objectives

Any regulatory regime should achieve its intended objectives and do so in a way that is targeted and proportionate to the policy problem. The Commission considers that a fit-for-purpose economic regulatory regime for airports should facilitate commercial outcomes and promote efficient airport operations and investment for the long-term benefit of the community.

Commercial negotiations have been a central feature of the Australian light-handed regulatory regime since 2002. Commercial negotiations provide direct investment incentives and link the interests of airport users to airport operations, with less distortion of incentives compared with, for example, the price cap arrangements that were in place in Australia prior to 2002 (Littlechild 2009; PC 2012). Under the light-handed regulatory regime, airports and airport users typically engage in commercial negotiations to secure airfield and terminal agreements on prices, type of service provided, service quality and future capital investments. Negotiation outcomes should reflect end users' reasonable expectations of service quality for a given price, based on the *Aeronautical Pricing Principles* (chapter 4).

Fit-for-purpose regulation achieves economically efficient outcomes across airports and the community. Subsequent chapters consider whether there are economically efficient outcomes in aeronautical services (chapter 5), car parking and landside access (chapter 6) and markets for jet fuel (chapter 8).

A fit-for-purpose regulatory regime should also ensure consistency with broader government objectives. For example, Sydney Airport's regional ring fence, price cap and notification regimes aim to support access for airlines operating flights between Sydney Airport and regional New South Wales.

Does the monitoring regime support the objectives of the regulatory regime?

The ACCC administers a price and quality of service monitoring regime that requires the monitored airports (Sydney, Melbourne, Brisbane and Perth) to provide annual information on their prices, costs and profits for aeronautical services and car parking (chapter 1). The monitoring regime should provide evidence on whether an airport is operating efficiently to determine if it is systematically exercising its market power. The features of a monitoring regime that determine whether it is able to meet its regulatory objectives include:

- relevant indicators — data and information that are analysed to understand the drivers of airport costs, revenues and profitability and can be used to identify whether an airport is exercising its market power in a way that is detrimental to the community
- timeliness of data collection, analysis and publication — the data and information that are collected and published support government, consumer and industry decision making
- scope of services subject to monitoring — the scope of services covered by the regime should be sufficient to identify potential problems in the areas of concern.

Essential to a light-handed regulatory regime is transparency as to how an airport operator is performing and a credible threat of further regulatory intervention. The regime should be underpinned by a range of supporting data, with a consistent basis for reporting over time.

Broadly speaking, the presence of market power is sufficient for an airport to be subject to the monitoring regime, as discussed in chapters 3 and 5. Governments should only make changes to the type of regulation under which the four monitored airports operate *if* those airports are systematically exercising their market power to the detriment of the community, *and* changes to the regime would likely lead to net benefits to the community. The mere fact that an airport *has* market power is, of itself, insufficient to justify a change to the regulatory regime.

Regulation maximises net community benefit compared to alternatives

It is the Commission's view that regulatory intervention should not be focused on the allocation of profits between firms or industries. Instead, a fit-for-purpose regulatory regime should seek to maximise net benefits for the broader community. This is consistent with the community-wide perspective the Commission adopts for all its inquiries.

A fit-for-purpose regime achieves its intended objectives while minimising costs, including:

- compliance costs — direct costs incurred by firms in complying with the regulatory arrangements. Under current monitoring arrangements for major airports, these may include costs associated with submitting financial reporting or administering surveys on service quality. In some cases, anticipated costs may affect firms' operations. For example, the anticipated costs associated with having a service declared through the National Access Regime under Part IIIA of the *Competition and Consumer Act 2010* (Cwlth) may constrain firms' poor behaviour
- administration and enforcement costs — costs incurred by the regulator to ensure regulatory compliance, such as the costs for the ACCC to administer the monitoring regime
- the cost of regulatory error — costs that arise due to inherent uncertainties faced by regulators, as they are required to make decisions with imperfect information about the nature of the problem and how the regulated parties would respond
- implementation and transition costs — costs associated with implementation and transition that may present risks to the achievement of policy objectives, despite well-designed regulation. Issues of transparency and accountability are important to ensure information flow and incentives for regulatory compliance. In the shorter term, consideration of transition paths is also critical to, for example, enable investors to assess potential risks and make decisions with knowledge of how policy changes would likely affect them.

Any proposed regulatory change should be assessed to demonstrate greater net benefits for communities than alternatives, including the status quo. Some of the costs associated with changes to regulation (for example, changes to investment incentives or increased

compliance costs) may exceed the costs of retaining the status quo. Whether the benefits of further regulatory intervention would outweigh the costs is considered in chapters 9 and 10.

How should the government implement any policy change?

Well-defined institutional arrangements including any changes to the relevant laws, regulations and operating procedures are critical to the implementation of policy changes. For regulatory change, clearly articulating roles and responsibilities will also support regulators and regulated entities to ensure the achievement of regulatory objectives and outcomes.

A clear transition path should accompany any policy changes, with benefits to be realised in a timely manner. For example, transition may introduce uncertainty that can reduce investor confidence. A clear statement of objectives and announcement of the reform transition path may help to provide certainty for investors. The Commission has considered the potential institutional arrangements and transition paths for draft recommendations to change the regulatory regime (chapter 10).

Governments should also ensure that any policies or regulation and its objectives remain fit-for-purpose over time. Regular monitoring or review can assess whether reforms are having their intended effects and are continuing to deliver net benefits. For example, any assessment of regulatory reform should consider a relevant timeframe for monitoring and review, the potential compliance burden and the institutional roles to support the reform process. Regular review check-ups can ensure that the regulatory regime adjusts to changing conditions in the industry.

3 Airports' market power

Key points

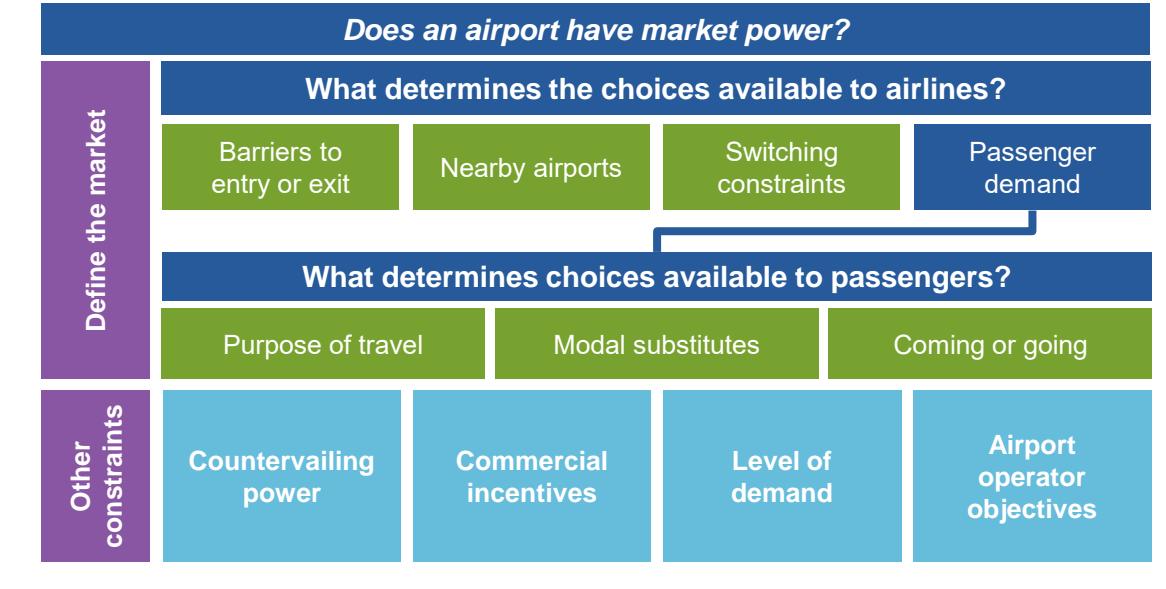
- The rationale for the economic regulation of airports is that the operator of an airport with market power could exercise that power by setting excessively high charges for airport services, operating the airport inefficiently or making inefficient investment decisions. An enduring lack of effective competition can give rise to an airport having market power.
- The competitive constraints faced by an airport are determined by characteristics of its operating environment. These characteristics include barriers to entry or exit, competition from nearby airports, opportunities for airlines to switch to another airport, and the nature of passenger demand for air travel.
- Even if an airport has market power, it is not always able, or incentivised, to use it. Constraints on an airport's exercise of market power include countervailing power from airlines, the commercial incentives of the airport, the level of demand and an airport operator's objectives.
 - Qantas Group, Regional Express and Virgin Australia Group each have countervailing power at some airports, in some circumstances.
- Sydney, Melbourne, Brisbane and Perth airports — the monitored airports — exhibit characteristics of market power in domestic and international aeronautical services that create a *prima facie* case for regulatory intervention, even when airlines' countervailing power is considered.
 - There are high barriers to other airports entering a market, including upfront capital costs, the availability of suitable land and regulatory requirements.
 - Sydney, Melbourne and Perth airports face little competition from nearby airports. Brisbane Airport faces competitive constraints from Gold Coast and Sunshine Coast airports for some domestic aeronautical services.
 - The monitored airports, especially Sydney and to a lesser extent Melbourne, are gateways to cities with unique characteristics. Passengers generally have few options when travelling to the monitored airports, particularly travelling to and from Perth.
- None of the airports that participate in the second tier voluntary monitoring regime have market power that would justify regulatory intervention.
 - While Canberra Airport has a high proportion of passengers who are travelling for business, there is some scope for modal substitution on the Canberra–Sydney route.
 - There is limited scope for modal substitution for passengers travelling to Adelaide Airport, but its market power is constrained by a relatively high proportion of leisure passengers who are responsive to changes in price.
 - Cairns, Darwin, Gold Coast and Hobart airports have a high proportion of leisure passengers. These airports have less market power in domestic aeronautical services and no significant market power in international aeronautical services.
- The case for regulation should be reassessed regularly since the features that determine an airport's market power can change over time.

The rationale for the economic regulation of airports is that the operator of an airport with market power could *exercise* that power by setting excessively high charges for airport services, operating the airport inefficiently or making inefficient investment decisions (chapter 2). These behaviours could lead to poorer outcomes for airport users and the community more broadly.

This chapter assesses which airports exhibit characteristics of market power for domestic or international aeronautical services. These characteristics include ‘competitive constraints’ which define the airport’s market, such as barriers to entry, alternative options for airlines and passenger demand. Other characteristics, such as countervailing power and an airport’s commercial incentives, can constrain an airport from exercising its market power (figure 3.1).

The Commission has adopted an approach to determining whether an airport has market power based on that developed by King (2001). This analysis focuses on whether airports have market power in domestic aeronautical services and international aeronautical services. The same approach is used to assess market power in car parking and landside access (chapter 6) and markets to supply jet fuel (chapter 8).

Figure 3.1 Assessing market power in aeronautical services



This chapter considers whether relevant airports have market power, but does not assess whether any airport is *exercising* its market power in aeronautical services. Subsequent chapters assess whether an airport is exercising its market power in negotiations with airports (chapter 4), whether they are operating efficiently and investing in a timely and efficient manner (chapter 5) and whether the benefits of further regulatory intervention would likely outweigh the costs (chapters 9 and 10).

3.1 Assessing whether an airport has market power

An airport with market power is able to raise the prices or lower the quality of goods or services without losing too much business. There are two main steps in the process set out by King (2001) to determine whether this is likely to be the case for a given airport.

The first step in this analysis is to define the market in question and, in doing so, to consider what constraints, if any, are imposed by competition. This involves an assessment of how demand for a service would change in response to a price increase for the relevant service, referred to as the price elasticity of demand. Both the market level and the firm level price elasticity of demand are relevant (box 3.1).

The second step is to consider other constraints on the exercise of market power that may exist in addition to, or apart from, those that arise from competition in the market. Such constraints could include whether airlines are able to exert pressure in the form of countervailing power or whether there are business or other incentives that might prevent an airport operator from raising prices above the efficient long-run average cost.

Considerations for market definition

Markets are defined by the availability of alternative services to both airlines and passengers (figure 3.1). If an airline switches from one airport to another in response to a small but significant ongoing increase in aeronautical charges then the airports compete with each other for airline demand and they are in the same market. If an airline does not switch to an alternative airport, the airports are in different markets.

For example, if a rise in international aeronautical charges at Sydney Airport induces an international airline to switch a significant proportion of its services to Melbourne Airport, then the two airports are part of the same market for international aeronautical services. If the airline does not move its services, then Sydney and Melbourne airports operate in different markets for international aeronautical services. In this way, substitution — the economic term for switching between alternatives — forms the basis of market definition.

This approach is well established under Australian competition law. For example, in *Boral Besser Masonry Ltd v Australian Competition and Consumer Commission*:

[T]he market is the area of actual and potential, and not purely theoretical, interaction between producers and consumers where given the right incentive ... substitution will occur. That is to say, either producers will produce another similar product or consumers will purchase an alternative but similar product. (2003) 215 Commonwealth Law Reports, 374.

Box 3.1 Elasticity of demand in airport services

Price elasticity of demand

Price elasticity of demand is a measure of the responsiveness (elasticity) of demand for a good or service to a change in its price, all else held equal. It is formally defined as the percentage change in quantity demanded for a one per cent change in price.

If, at an efficient price, a firm faces a demand curve with a price elasticity of demand greater than one then a rise in price will lead to a significant loss of business. Such a firm is less likely to have substantial market power. In contrast, if demand is inelastic (with a price elasticity of less than one) then a firm can raise its price and increase both revenue and profit.

Demand elasticity for air transport typically varies with the purpose of a passenger's travel. A study by Gillen, Morrison and Stewart (2007) found that business travellers are the most inelastic, with an elasticity of -0.7, indicating that a one per cent increase in ticket prices will lead to a 0.7 per cent fall in demand. Leisure travellers are more elastic, with an elasticity of -1.5. A one per cent increase in the price of a ticket will lead to a 1.5 per cent fall in demand by leisure travellers.

Elasticity of derived demand

Aeronautical charges are only one component of costs faced by airlines. A competitive downstream market for air transport would completely pass through a change in aeronautical charges to passengers. In this case, the percentage change in the final ticket price is proportional to the percentage of the ticket price comprised by the aeronautical charges. For example, a 10 per cent increase in aeronautical charges from \$10 to \$11 would increase a \$100 fare by \$1, or one per cent. Based on Morrison and Stewart, a one per cent increase in aeronautical charges (where charges are passed through) would lead to a fall in business passenger demand of around 0.07 per cent, and a fall in leisure passenger demand of about 0.15 per cent. The airline's response to a change in aeronautical charges is muted because its demand for airport services is derived from a passenger's demand for air travel.

Major determinants of the elasticity of an airline's demand for airport services are:

- elasticity of passenger demand
- charges for aeronautical services as a proportion of the total ticket price.

The higher the proportion of aeronautical charges to the total price of a ticket, the closer the link between passenger elasticity of demand for air transport and elasticity of demand for airport services. Even where the elasticity of demand for the final service is already low, the elasticity of demand for airport services further decreases with the proportion of the ticket price that aeronautical charges comprise.

Sources: Gillen, Morrison and Stewart (2007); Pindyck and Rubinfeld (2015); A4ANZ (sub. 44).

Analysing substitution possibilities requires consideration of several factors.

- The service in question and who consumes or (potentially) supplies it — do airlines and passengers have the ability to choose alternative suppliers or products should prices change? This depends on the scope for an alternative airport or new entrant that could provide the service, and potential alternative services for airlines and passengers (for example, alternative routes or modal substitutes).

-
- The integrated nature of a service — should the assessment include individual services, for example, airport lighting or aerobridges, or bundles of services? A bundle of aeronautical services can include a runway, lighting, aerobridges and terminal access, but the exact bundle depends on the customer. International airlines, domestic airlines, and low cost carriers (LCCs) each require a different bundle. In practice, it is not feasible (or necessarily useful) to consider airport market power at the individual service level, but each bundle should be tested separately for market power.
 - The geographic catchment area of a service — are there relevant suppliers who are located close enough to provide substitute services to airlines or passengers? The geographic catchment area can differ between airports and between different market segments. For example, some passengers may be prepared to travel further to reach an airport than others.
 - The timeframe for analysis — over what timeframe do consumers and suppliers adjust to a small but significant ongoing increase in aeronautical charges? Substitution possibilities for airport services are often limited in the short term but if a long time is required for consumers and/or suppliers to respond then that in itself can be an indicator of market power.

3.2 Defining markets for aeronautical services

What determines the choices available to airlines?

As established above, the degree to which airlines have alternative ways of satisfying their demand for aeronautical services is one driver of the competitive constraints on an airport (A4ANZ, sub. 44). Barriers to entry or exit, nearby airports, switching constraints and passenger demand all influence whether an airline can switch to an alternative airport.

Barriers to entry or exit

One mechanism for keeping market power in check is the entry, or potential entry, of new competitors. If an incumbent firm sets charges at a level that leads to excessive profits, rival firms have an incentive to enter the market, undercut prices and make an economic profit. Similarly, if the incumbent firm offers a low or reduced quality of service, rival firms have an incentive to enter the market and offer a better service for the same price. Either situation would result in customers moving from the incumbent to the rival firm. High barriers to entry and exit — as is often the case with airports — can limit this response. As noted by A4ANZ, ‘incumbent airports have reasonable certainty that a rival airport cannot enter or expand capacity’ (sub. 44, appendix A, p. 20).

The main barriers to entry for airports are the large, indivisible investments required to develop airport infrastructure, such as terminals and runways (chapter 2), the availability of suitable land and regulatory requirements. Land holdings can be substantial: the Sydney

Airport site is 900 hectares; the Melbourne Airport site is 2457 hectares; the Brisbane Airport site is 2700 hectares; and the Perth Airport site is 2105 hectares (Brisbane Airport 2014; Melbourne Airport 2013; Perth Airport 2014; Sydney Airport 2018d).

Western Sydney Airport is an example of the cost, and the time required, to develop an airport site. The Australian Government has committed up to \$5.3 billion over the next ten years to develop Western Sydney Airport, in addition to the earlier investment made to acquire the land (DIRDC 2018e). The 1700 hectare site was acquired between 1986 and 1991 as a location for a second international airport for Sydney, more than thirty years before it will be used.

Regulatory requirements include Australian, State and Territory and local government planning restrictions in or near major cities that may constrain construction and design of a new airport or inhibit landside access to the site. Noise restrictions, land buffers, air safety and environmental regulation under the *Airports Act 1996* (Cwlth), and border security requirements for international airports may inhibit potential new airport operators. Airports acknowledge these barriers to entry, including Perth Airport (sub. 51) and Hobart Airport, particularly in the context of the market for international aeronautical services. Hobart Airport argued that international border security requirements ‘effectively constitute a barrier to entry for domestic airports, such as HBA [Hobart Airport], seeking to introduce international flights’ (sub. 31, p. 2).

The scale of the barriers to entry varies depending on the objectives of the new entrant. An airport looking to facilitate domestic and international flights for a major population centre would face high land acquisition costs and infrastructure requirements, as well as the need to meet significant regulatory requirements. For these reasons, new major airports are a rare occurrence.

There may be more scope for new entrants in regional locations where land values and associated costs are lower. For example, in 2014 Toowoomba Wellcamp Airport became Australia’s first new major airport in over four decades. It took under two years to build and cost just under \$200 million (box 3.2). The Australian Airports Association (AAA) acknowledged that opening a new airport ‘is not like opening a new coffee shop’, although it argued that entry into the market is possible:

As the Badgerys Creek development has demonstrated, there can be significant legal, planning and development barriers to entry. However, the development of the Toowoomba (Wellcamp) Airport and numerous other private developments to support resources construction and extraction activities demonstrate that entry into the market may be easier in regional contexts where the scale of entry is relatively modest. (sub. 50, p. 68)

The entry of Toowoomba Wellcamp Airport does not prove that there is competitive entry, only that entry is possible under specific circumstances. Further, a new regional airport is unlikely to introduce strong competition to a monitored airport. For example, Toowoomba Wellcamp Airport is unlikely to be a significant competitive constraint on Brisbane Airport in the foreseeable future.

Box 3.2 Four decades between airports

Toowoomba Wellcamp Airport and Wellcamp Business Park, completed in 2014, is Australia's first greenfield public airport since Melbourne Airport at Tullamarine opened in 1970. The Wagner family built the airport in around 19 months at a cost of just under \$200 million. The family has described it as a 'multigenerational investment'. Originally Brisbane West Wellcamp, the airport changed its name to Toowoomba Wellcamp in late 2017.

Toowoomba Wellcamp has an estimated catchment of 350 000 people and capacity for 1.4 million passengers per year, but served around 140 000 passengers in 2017-18. A freight service operates once per week to Hong Kong.

The airport is located around 20 minutes (17 km) from the Toowoomba central business district and just under two hours (143 km) from Brisbane.

In September 2018 Toowoomba Wellcamp secured a deal with Qantas Group to be the location for a new pilot academy, scheduled to open in mid-2019. The school will have capacity to train up to 250 pilots each year and will require construction of a new hangar, classroom facilities and student accommodation at a cost of about \$35 million.

Sources: BITRE (2018b), Qantas (2018); Wagners (2014).

Nearby airports

Australia's geographic size and relatively low population means that population centres are generally not able to support more than one major airport. This can create geographic monopolies in which an airport captures the entire market in its specified geographic area. Airlines operating at airports that are geographic monopolies cannot easily respond to an increase in aeronautical charges by switching to a nearby airport. This is a characteristic of an airport with market power.

Of the monitored airports, Perth and Sydney airports (noting Western Sydney Airport will not commence operation before 2026) are geographic monopolies in most of the domestic markets in which they operate. Perth, an isolated population centre, has an effective geographic monopoly over interstate and international air transport, although it faces competition from other Australian, and potentially international, airports for visiting leisure passengers. Sydney Airport faces some competition for domestic services from modal substitutes and from other international airports for international services (discussed below), but does not face significant competition from airports operating in the same catchment.

Regional airports offering regular public transport (RPT) services can also be geographic monopolies, for example, Broome Airport in Western Australia, Alice Springs Airport in the Northern Territory and Longreach Airport in Queensland. Whether an airport is a geographic monopoly can also depend on the season — some towns in the northern parts of Australia, such as Kununurra in Western Australia, have good road access during winter, but are only accessible by air during the wet season.

Passengers living in some regional and rural locations have a choice between airports, for example, someone living in the Central West of New South Wales may be able to choose between Dubbo, Parkes and Orange airports. However, it is unlikely to be the case for island airports and those in very remote locations.

Melbourne Airport (sub. 33) and Brisbane Airport (sub 38) told the Commission that they face direct competition from nearby airports for domestic aeronautical services.

Melbourne Airport faces little competition from Avalon Airport

Melbourne Airport submitted that it faced direct competition from Avalon Airport and that this would be expected to increase over time:

With the investment in new facilities at Avalon Airport, the degree of competition it will bring as a second airport for Melbourne could be expected to increase over time. Demonstrated particularly by the move of AirAsia to Avalon, it does provide a real alternative for airlines to service the Melbourne market. (sub. 33, p. 56)

Melbourne Airport competes with Avalon Airport for some services. Around 60 per cent of domestic passenger movements at Melbourne Airport in 2017 were on routes also served by Avalon Airport. This was largely because a little over one third of Melbourne Airport's domestic passengers (around 8.5 million people) travelled on the Melbourne–Sydney route, which is also served by Avalon Airport. In theory, these passengers could have chosen to fly from Avalon Airport.

In practice, Avalon Airport offers a significantly lower variety and volume of services and, for most passengers, the time cost of travelling to Avalon is greater than to Melbourne Airport. In addition, Jetstar, an LCC, is currently the only domestic airline operating out of Avalon Airport. This may indicate that full service airlines, their passengers, and even some LCCs are unlikely to switch to Avalon Airport in response to lower prices.

The recent investment in new international facilities could increase route options and passenger numbers at Avalon Airport in the long term, especially if it is accompanied by improved transport links. In December 2018, Air Asia became the first (and, currently, only) airline to switch from Melbourne Airport to Avalon Airport's new international terminal. Avalon Airport has forecast that the new facilities will attract about half a million passengers in the first year.

Avalon Airport's new international facilities have introduced competition for passengers travelling on a single route (Melbourne–Kuala Lumpur) operated by AirAsia, and has opened the potential for competition on other routes, should they be introduced in the future. For now at least, Avalon Airport is only a substitute for those international passengers who choose to travel on an LCC, and only on one route.

Avalon Airport serves a very small proportion of Melbourne Airport's total passengers and there would have to be substantial switching for it to provide a competitive constraint to

Melbourne Airport. This has not occurred to date in domestic services. At its current level of operations, Avalon does not constitute a competitive constraint on Melbourne Airport.

Queensland airports compete for some domestic services

Brisbane Airport told the Commission that it ‘operates in a highly competitive environment, with three international airports — Gold Coast, Sunshine Coast and Wellcamp (Toowoomba) — within a two hour drive of Brisbane’ (sub. 38, p. 21) (box 3.3). Gold Coast Airport described the south east Queensland and northern NSW market as ‘undoubtedly the most competitive area in the country when it comes to aviation’ (QAL, sub. 23, p. 7).

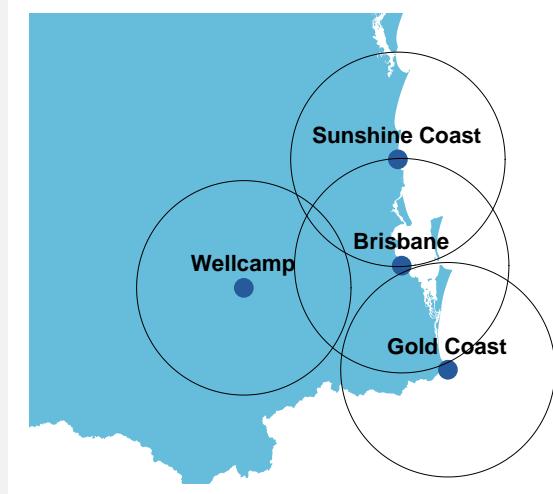
Commission analysis of domestic route availability in 2017 indicates that the Brisbane, Gold Coast and Sunshine Coast airports offered flights to many of the same destinations. Up to 90 per cent of passenger movements at Brisbane Airport could theoretically have been serviced using Sunshine Coast or Gold Coast airports, given the routes passengers travelled. More than half of total passenger movements at Brisbane Airport were along either the Brisbane–Melbourne route or the Brisbane–Sydney route (Commission estimates based on BITRE (unpublished)). On either of these city pairs, passengers could theoretically have chosen to depart or arrive at Gold Coast or Sunshine Coast airports.

Passengers could also have chosen to fly with any of the major airlines. Qantas, Jetstar, Virgin Australia Airlines (Virgin) and Tigerair all fly to Brisbane, Gold Coast and Sunshine Coast airports, and each airport has significant passenger throughput (box 3.3). This indicates that a significant proportion of airlines and passengers travelling to or from the region view Gold Coast and Sunshine Coast airports as potential alternatives to Brisbane Airport.

Passengers travelling on lower volume routes had less choice. Around six per cent of passengers had no alternative to Brisbane airport, but this represented 17 of the 31 city-pairs operating from Brisbane Airport. Gold Coast and Sunshine Coast airports did not service any destinations that were not also available at Brisbane Airport. This is likely to be associated with higher market power at Brisbane Airport, compared with Gold Coast and Sunshine Coast airports (Commission estimates based on BITRE (unpublished)). It also indicates that Brisbane Airport is a very significant competitive constraint on Gold Coast and Sunshine Coast airports.

Box 3.3

Queensland airports face (some) competition



The south east region of Queensland is serviced by four airports, the largest of which is Brisbane Airport. Sunshine Coast and Gold Coast airports are both located within 100 km of Brisbane Airport, while Toowoomba Wellcamp is around 150 km west.^a

Brisbane is Australia's third largest city with around 2.2 million residents providing a steady supply of passengers travelling for business and leisure. The region is also a popular tourist destination, with Tourism Research Australia reporting just over 20 million visitors to Brisbane in 2017-18, including those coming for the day, overnight and from overseas.

Gold Coast is a popular destination for both domestic and international visitors, with around 11 million visitors in 2017-18 — around half as many as Brisbane. The resident population of Gold Coast is about 660 000 — less than one third of Brisbane's.

Sunshine Coast has a resident population of around 311 000 (around one seventh the size of Brisbane) and had about 6.5 million visitors in 2017-18.

Toowoomba Wellcamp Airport (box 3.2) is located about 15 km from the city of Toowoomba. The resident population is about 166 000 and there are about 2.6 million visitors annually.

^a The figure depicts a radius of 100 km around each airport.

Sources: Tourism Research Australia (2018b); ABS (2018c).

In practice, these airports are not perfect substitutes. Passengers have a strong preference to use the airport closest to them, even when there are substitutes within a reasonable distance. Airlines for Australia and New Zealand (A4ANZ) quoted modelling by Frontier Economics Europe, which showed that for every one per cent increase in distance, the likelihood of a passenger choosing to depart from that airport declined by four per cent on average (A4ANZ, sub. 44, appendix A). A 2018 survey by Avalon Airport had similar findings — three quarters of Avalon Airport passengers lived within 30 km of the airport (Avalon Airport (unpublished)). (In both surveys passengers were flying with LCCs, which is likely to have influenced the results.)

Other factors, including flight schedules and airport facilities, are likely to vary significantly between Brisbane, Gold Coast and Sunshine Coast airports. In general, Brisbane Airport offers more choice of flight times than the other airports. It also has a higher proportion of business passengers and is closer to the Brisbane central business district. These factors increase Brisbane Airport's market power, relative to Sunshine Coast and Gold Coast airports.

Switching constraints

An airport has less market power if an airline can respond to an increase in aeronautical charges by switching to a different airport. An airline's ability to switch depends on a range of factors.

- Passengers' purpose of travel — airlines have a different capacity to substitute depending on the characteristics of the passengers and the route in question. An airline will be less likely to switch away from a route that has a passenger base that is inflexible, such as a high proportion of passengers travelling for business purposes, as it would likely result in a loss in passengers. This may not apply where competing airports are a similar travel time from the destination central business district, but there are very few examples of this in Australia.
- Operational constraints — capacity, price and service quality differences between airports might restrict the ability of an airline to switch to an alternative. There are also differences in airport operating hours.
- Network reach — airlines submitted that they commonly maintained services on loss-making routes due to the importance of maintaining their network reach (for example, Virgin Australia Group, sub. 54).
- Switching costs — the costs associated with relocating equipment or staff, changing or breaking contracts, and marketing the new location (box 3.4) (A4ANZ, sub. 44, appendix A, p. 20).

Box 3.4 **Airline switching costs**

Airlines incur costs when they switch some or all of their services from one airport to another. Costs can involve the physical costs associated with relocating equipment or staff, as well as the costs involved in marketing a new route or an increase in capacity on an existing route.

A4ANZ listed the major switching costs as:

- relocation of assets at a new airport, such as airline specific terminal facilities (for example, check-in desks and airport lounges) and maintenance facilities
- staff costs including relocation, recruitment or redundancy
- those incurred from breaking long-term commitments
- the loss of economies of scale, for example, if splitting operations across more than one airport
- marketing costs for the promotion of new routes to potential passengers in the catchment area.

Sources: A4ANZ (sub. 44, appendix A, p. 20); CAA (2012); IATA (2013).

Low cost carriers can change routes

LCCs are generally more nimble operations than full service airlines, with lower overheads and the ability to change routes relatively quickly (Bush and Starkie 2014). Their business

models rely more on a low price offering and less on network coverage than full service carriers. Lower average ticket prices mean that aeronautical charges make up a higher proportion of the overall ticket price and, for some routes, are the highest cost faced by the airline (Qantas Group, sub. 48). Passengers of LCCs are generally price sensitive, increasing the likelihood that the airline will switch if an airport increases charges (box 3.1).

A number of airports, including Northern Territory Airports (sub. 8), noted the ability of LCCs to switch between airports. North Queensland Airports (sub. 49) commented on the ability for LCCs to respond to changes in demand, providing an example of LCCs pulling out of Mackay, a town affected by structural changes in the sugar and mining industries (PC 2017b):

Growth in passengers has been from low cost carriers (LCCs) whose business models are optimised to re-deploy capacity to profit-maximising routes. At Mackay in the face of declining demand airlines simply scaled back services, and/or withdrew completely. (NQA, sub. 49, p. 5)

A higher proportion of LCCs in the domestic passenger market can increase competition between airports, given LCCs are more likely than full cost carriers to switch between airports. Further, airports with a high proportion of passenger movements using LCCs are likely to have less market power. Airports with significant proportions (more than 50 per cent) of passenger movements on LCCs in 2017 included Avalon (100 per cent), Ballina (78 per cent), Proserpine (75 per cent), Newcastle (66 per cent), Sunshine Coast (66 per cent), Gold Coast (61 per cent), Launceston (57 per cent) and Hobart (53 per cent) (BITRE unpublished).

In Europe, there is some evidence that LCCs have increased the level of competition between airlines and enabled greater participation by smaller airports, many of which are dedicated low cost airports and terminals. This has resulted in smaller airports increasing their share of the European market, especially in tourism regions, and increased competition between airports (Haskel, Iozzi and Valletti 2013).

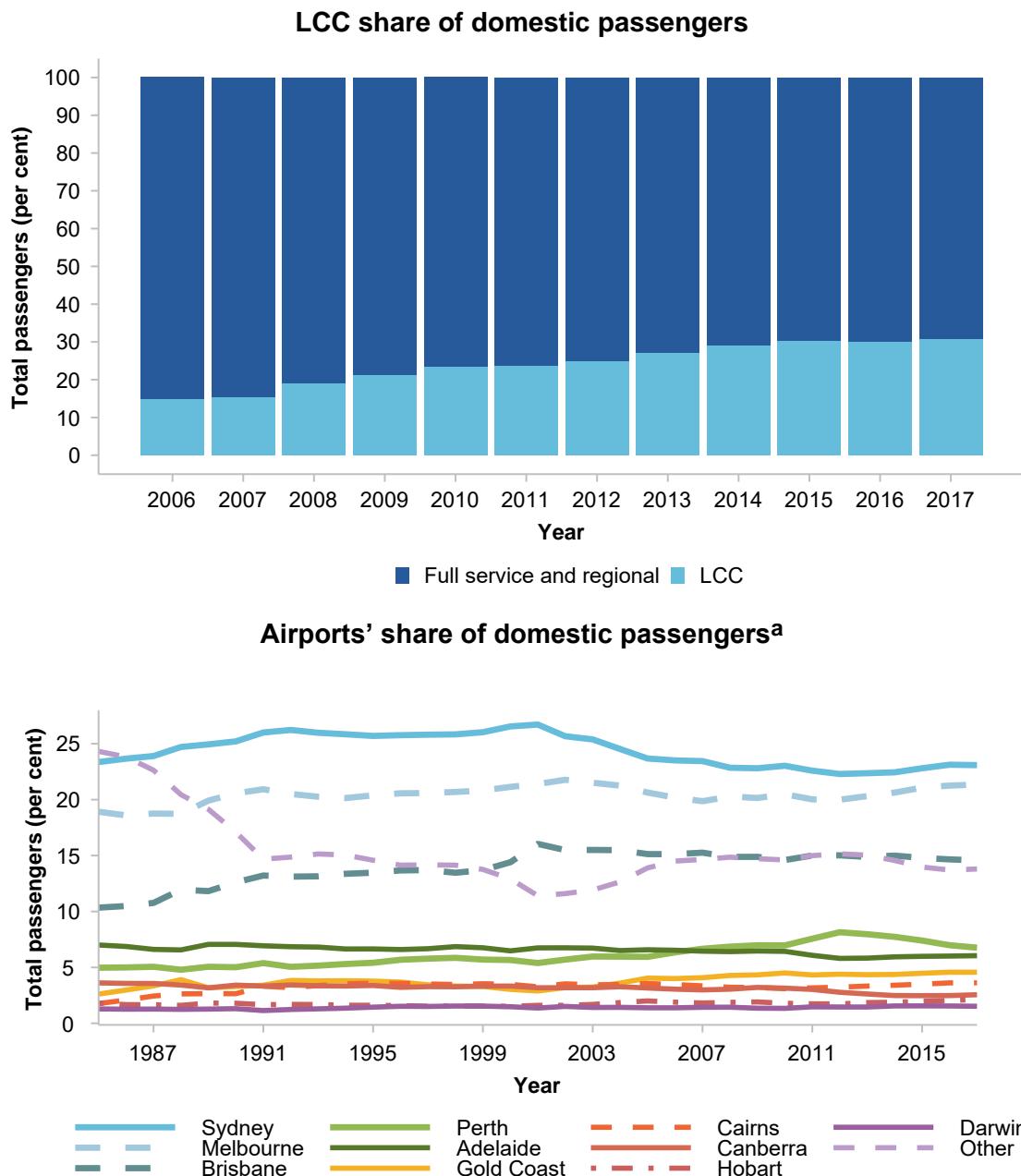
The Australian experience has been different, likely partly because LCCs tend to fly in and out of primary airports, with the exception of Avalon Airport. The proportion of passengers using domestic LCCs (Jetstar and Tigerair) in Australia has more than doubled from around 15 per cent in 2006 to over 30 per cent of flights in 2017 (figure 3.2). However, this does not appear to have corresponded with an increase in smaller airports' share of total domestic passengers. This implies that, in the Australian context, the competitive constraint that LCCs provide to the major airports is likely to be small.

Airports face more competition in international services

Compared with domestic airlines, international airlines have more freedom to substitute from one airport to another. This is partly because a higher proportion of international passengers are travelling for leisure purposes and have the ability to substitute to an alternative destination (ABS 2018b). Just over one quarter of Australian domestic trips in 2017-18 where air transport was the main mode of transport, were for leisure purposes

(TRA 2018c). In contrast, 47 per cent of short-term international visitors to Australia came for leisure purposes. A further 20 per cent visited for business purposes (which includes visits for conferences, education and employment), 30 per cent visited friends and relatives, and 3 per cent visited for ‘other’ reasons (including ‘not stated’) (ABS 2018b).

**Figure 3.2 Share of total Australian passengers
By carrier type and airport**



^a ‘Other’ includes airports with less than 1.5 million passengers in 2016-17.

Source: Commission estimates based on BITRE (unpublished).

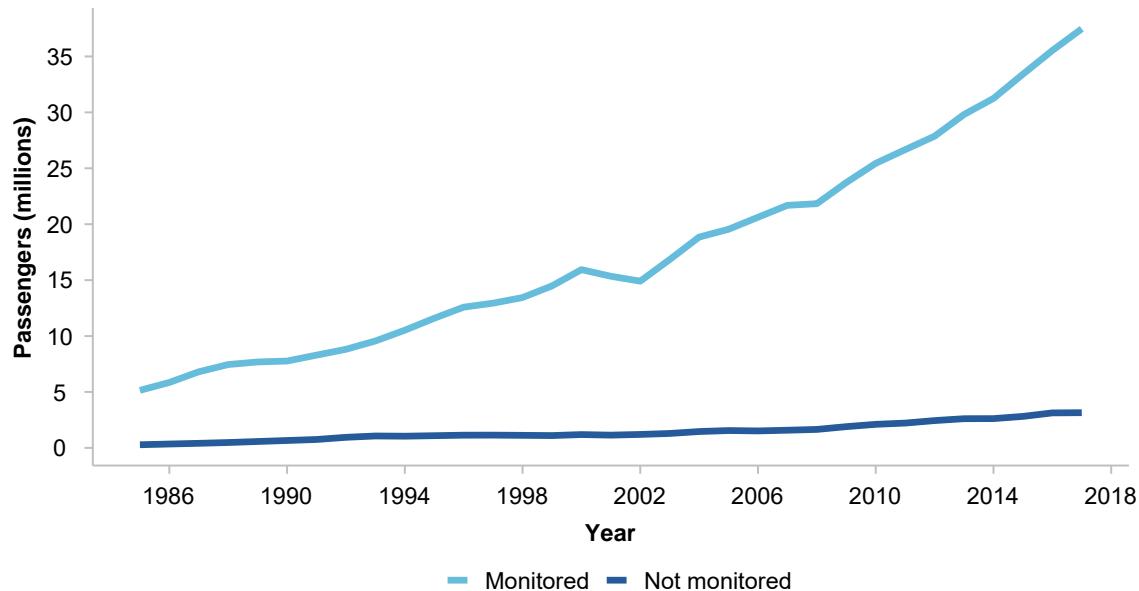
In addition, similar to LCCs, some international airlines are less likely to base their service offering on network coverage, giving them more freedom to substitute away from less profitable routes. International airlines can, and do, substitute in and out of smaller capital city airports. Northern Territory Airports said international services frequently entered and exited the market, creating uncertainty and increasing the risk associated with fluctuating passenger numbers for the airport.

Entry and exit of international carriers is a feature with 1 international carrier (Donghai) entering the Darwin market in the last 12 months and 3 (Malaysia, Philippine and Indonesia Air Asia) exiting in the same period. (sub. 8, p. 2)

However, switching by international airlines is more likely to occur between the smaller international airports (the international airports that are not monitored), which have experienced a much lower growth in international passenger numbers (figure 3.3).

The monitored airports submitted that the higher growth in international passengers was a result of their efforts to attract airlines. For example, Melbourne Airport reported that it often works with tourism bodies and the Victorian and local governments to help attract international airlines to the region, including with competitive offers and incentive schemes (Melbourne Airport, sub. 33). In addition, international aviation industry events, such as regional route summits and global conferences, facilitate a one-on-one dialogue between airlines and airports. These events often involve a joint effort from airports in conjunction with their respective tourism bodies and governments (Melbourne Airport, sub. 33).

Figure 3.3 International passenger numbers at monitored and non-monitored international airports



Source: Commission estimates based on BITRE (2018b).

Nonetheless, the monitored airports face less substitution than other airports in international services because they are gateways to differentiated products — destinations with unique characteristics that are important to passengers and consequently, airlines. Non-gateway airports compete with each other and with airports around the world to attract airlines, but the monitored airports (especially Sydney and Melbourne) face considerably less competition due to the absence of good substitutes.

Further, the passenger demand response to an increase in international aeronautical charges is generally lower than it would be for the same (absolute) increase in the charge for domestic aeronautical services. This is because aeronautical charges generally comprise a significantly lower proportion of the final ticket price for international flights.

This does not imply that increases in charges for international aeronautical services matter less. On the contrary, it means that where there are no good substitutes available, it is theoretically possible for airports to exercise market power by raising aeronautical charges to an excessively high level without a strong demand response from passengers and airlines.

What determines the choices available to passengers?

Passenger demand for air travel drives airlines' demands for airport services. The degree to which passengers have alternative ways of satisfying their demand for air travel is one driver of the competitive constraints on an airport (A4ANZ, sub. 44). Every passenger has a different amount of time available, budget and motivation for travel. However, the availability of alternatives generally depends on three factors: purpose of travel; modal substitutes; and whether a passenger lives in the catchment area of the relevant airport or is a visitor to the region.

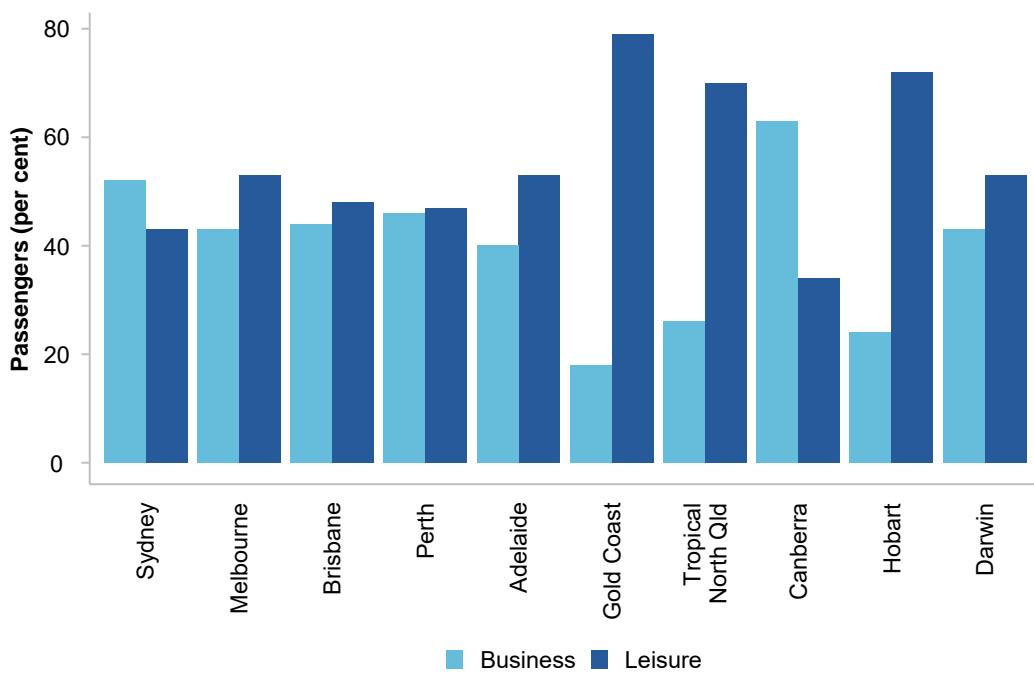
Purpose of travel

A passenger's motivation for travel influences their willingness to make different choices. Passengers tend to have different levels of flexibility over destination, travel time and flight schedule depending on their purpose of travel. The purpose of travel also affects passengers' price sensitivity (Gillen, Morrison and Stewart 2007).

- Passengers who are travelling for business have *little flexibility* over their final destination and travel schedule, but are relatively *insensitive to price changes* (inelastic demand).
- Passengers who are visiting friends or relatives have *little flexibility* over their final destination, but may have some flexibility over flight times, airline and total travel time. They are also generally *more price sensitive* than business passengers (more elastic demand).
- Passengers who are travelling for leisure are generally the *most flexible* and the *most price sensitive* (most elastic demand).

There is variation between airports with respect to the proportion of passengers travelling for business and for leisure, but data on this are limited. The Commission has drawn on 2017 survey data from Tourism Research Australia outlining overnight domestic visitors' purpose of travel to a region (figure 3.4). The data are likely to be broadly representative of passengers' purpose for travel at the airport operating in that region, but are not a precise measurement at the point of the airport. The data likely underestimate the percentage of business passengers (many domestic business travellers would make day, rather than overnight, trips) and do not account for passengers who travelled to a nearby city and then used an alternative form of transport for the final leg of their journey.

Figure 3.4 Overnight domestic visitors: purpose of travel^{a,b,c}
2017



^a Overnight domestic visitors whose main mode of transport was plane, selected regions ^b Ordered by number of passenger movements. ^c Visiting friends and relatives and 'other' categories not included.

Source: Commission estimates based on Tourism Research Australia (unpublished).

The monitored airports and Canberra generally have a high proportion of business passengers (figure 3.4). The lack of flexibility and price insensitivity of passengers travelling for business purposes increases the scope for market power in domestic aeronautical services at these airports.

By contrast, a number of other airports, especially Cairns (Tropical North Queensland), Gold Coast and Hobart, had a high proportion of leisure passengers relative to the monitored

airports and Canberra. The higher price sensitivity and flexibility of passengers travelling for leisure purposes decreases the scope for market power in domestic aeronautical services at these airports.

Data on passengers' purpose of travel through Australian regional airports indicate that just over half (54 per cent) of passengers surveyed in a sample of 54 regional airports in 2014–15 were travelling for business reasons. Around one third were travelling for leisure reasons and the rest were visiting friends and relatives (ACIL Allen 2016). The proportion of business passengers in this sample is relatively high. This may indicate that demand for flights into and out of regional destinations in the sample is relatively inelastic and that there is scope for market power, although other constraints on market power likely exist (discussed below).

Modal substitutes

Passengers have greater choice where there are suitable alternatives available, and this can constitute a significant competitive constraint for an airport. Distance (and therefore the time cost of alternative modes of transport) between destinations is the major determinant of modal substitution. Long distances between Australian cities limit the desirability of alternatives, such as driving, even when the price of air transport is high relative to the price of fuel or a bus ticket. The International Air Transport Association (IATA) commented:

Given the size of the country, most Australian end users do not have an alternative domestic transport mode options, such as rail or road transport, within a realistic time frame; and even fewer options for international travel. This means that such end users are captive and hence, they do not pose a credible threat to the airport businesses, to constrain poor behaviour. (sub. 27, p. 15)

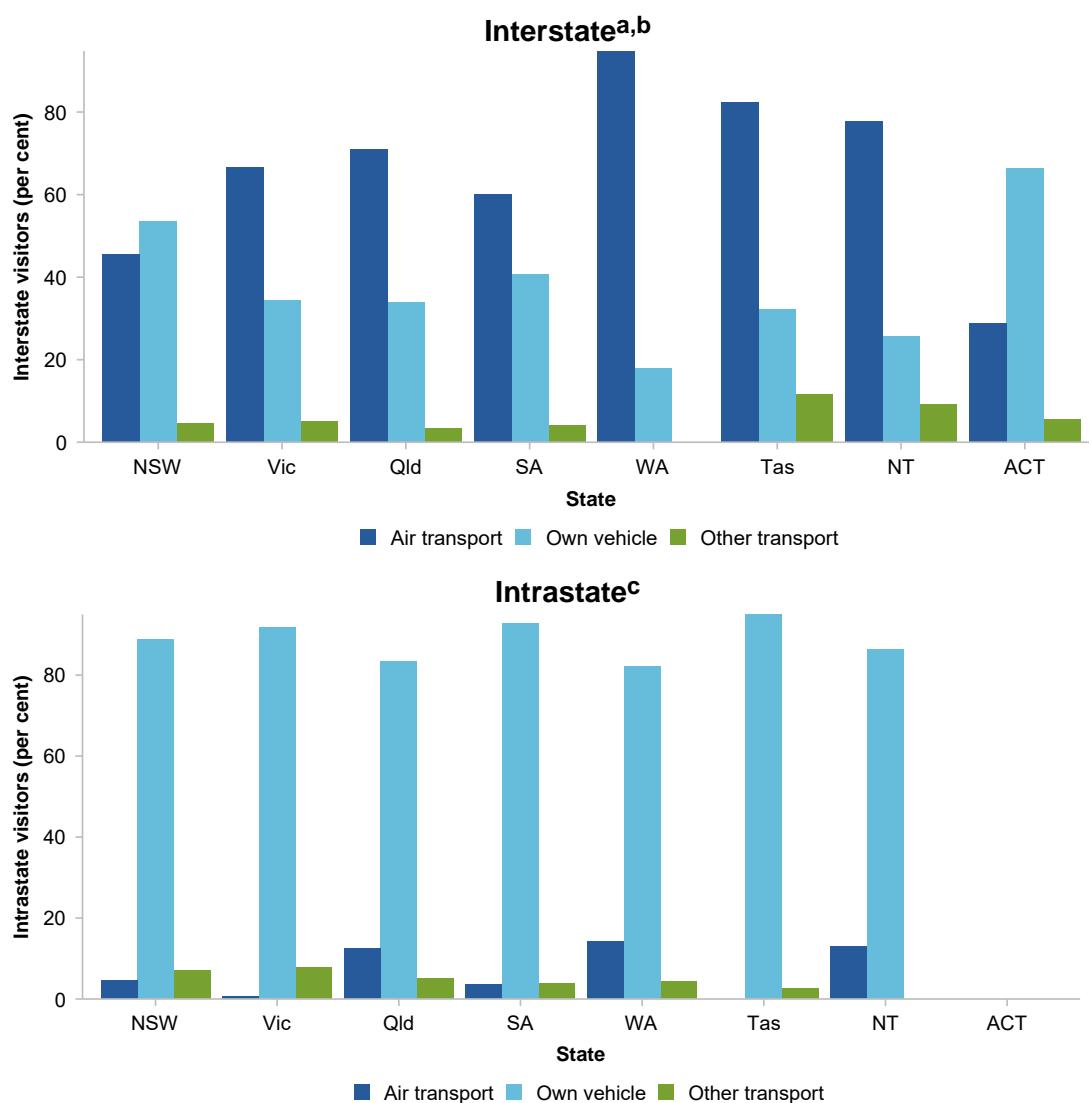
There is limited scope for modal substitution on longer routes. The main mode of transport between states and territories is air travel (figure 3.5). This is especially the case for travel to or from capital cities, and for large states and territories with isolated population centres — for example, 94 per cent of interstate overnight domestic visitors to Western Australia use air transport. Alternative modes of transport are generally poor substitutes for interstate (long distance) air transport and therefore provide little competitive constraint on airport market power, especially on routes between capital cities.

An exception to this conclusion is the Sydney–Canberra route. The proximity of Canberra to Sydney reduces the relative time and cost of travelling by car, bus or train, increasing the potential for substitutes compared with, say, the Sydney–Melbourne route. This is evident in the number of passengers that choose to substitute to different modes of transport on this route *in practice*. For example, passengers can elect to take a three hour bus trip, costing around \$39–46, on one of up to 24 bus services that operate each day. These services provide total daily transport for up to 3000 passengers, slightly more than the 2600 passengers that travel the same route by plane, on average, each day. A one-way economy-class flight from Canberra to Sydney can range from about \$150 to more than \$400. The Canberra–Melbourne route, an eight hour bus trip, costing around \$65, has only two bus services a day in each direction, catering for considerably fewer passengers than the 3100 passengers that travel on that route by plane (BITRE (unpublished); Greyhound Australia 2018; Murrays 2018).

Travellers may also consider additional factors, such as weather conditions, when assessing the desirability of road travel as an alternative to flying.

There tends to be greater use of cars compared to air travel when travelling within states and territories (figure 3.5). This is consistent with a (generally) shorter travel time and lower associated travel cost. It may also be due to the hub and spoke network of flight routes which increases passengers' total travel cost and time when they are required to travel via a second airport.

Figure 3.5 Transport choices between and within states and territories
2018



^a Components may not add to total as overnight visitors may have utilised more than one mode of transport during their trip and total includes persons not asked. ^b 'Own vehicle' for Tasmania refers to passengers travelling with their car on the interstate ferry service. ^c Data were not published for ACT due to a small sample.

Source: Tourism Research Australia (2018b).

No suitable modal substitutes are available for international travellers. However, international passengers may be willing to travel further to an airport in order to take advantage of a cheaper flight. This is because the time to get to the airport generally makes up a relatively smaller proportion of the total travel time and, therefore, the total cost of travel.

Is the passenger coming or going?

The extent to which a passenger has alternatives also depends on whether they live in the catchment area of the relevant airport. Some passengers have the flexibility to choose the destination of their trip — leisure passengers in particular have the option of switching travel destinations. For example, a passenger interested in scuba diving might choose between a holiday at the Ningaloo Reef in Western Australia and a holiday on the Great Barrier Reef in Queensland. Switching may also occur between international destinations — a passenger may choose between Queenstown and Thredbo for a skiing holiday, or between Sydney and New York for a place to spend the New Year. In these examples, passengers generally have little choice of departure point, regardless of the purpose of their travel (even leisure travellers) but there is no requirement for the two destination airports to be near to each other to be good substitutes.

All airports face a limited amount of competition from other airports due to switching from visiting leisure passengers. Airports with both a high proportion of passengers travelling for leisure and a very small permanent population in their catchment area, such as Hamilton or Whitsunday Island airports in Queensland, will face more competition and have less market power than airports with densely populated catchment areas.

3.3 Constraints on the exercise of market power

Even if an airport has market power, it may face constraints that limit its ability or incentive to exercise that power in a way that is detrimental to the community. Such constraints may occur due to countervailing (buyer) power, airport operator commercial incentives or a low level of demand. In some cases, usually where an airport is government or council-owned, the airport operator may have an objective other than profit maximisation, such as regional development.

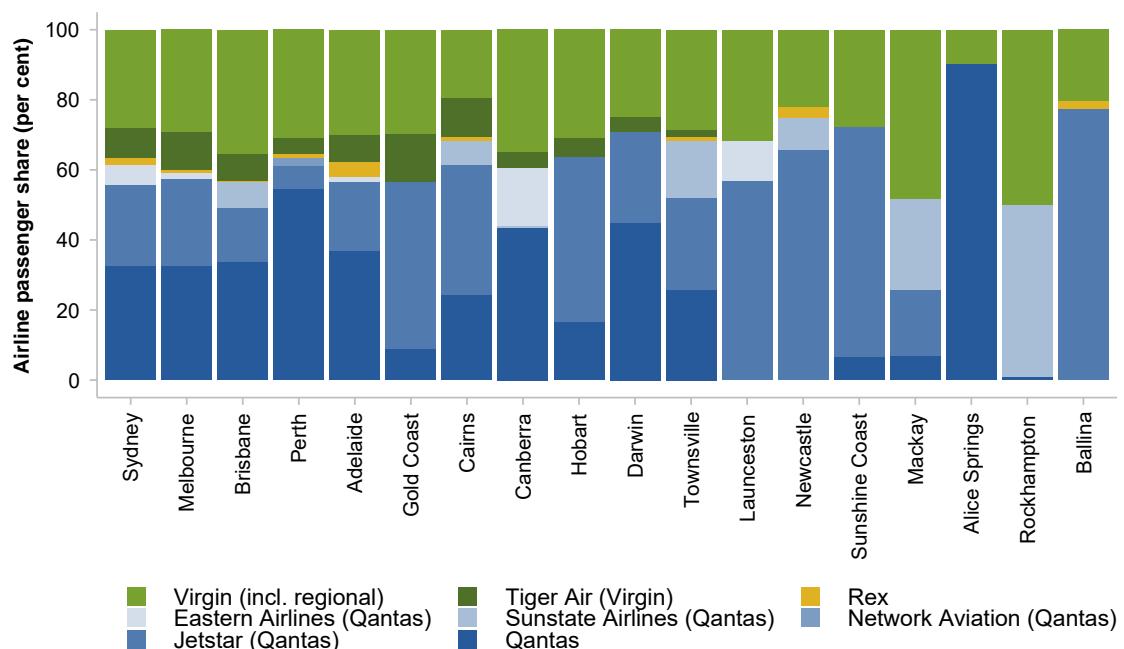
Airlines' countervailing power

Airlines can sometimes exert countervailing power, preventing or at least mitigating an airport operator from exercising market power. Countervailing power can arise when an airline controls a significant proportion of the market. The market for domestic air transport services in Australia is highly concentrated. Together, Qantas Group, Virgin Australia Group and Regional Express (Rex) account for over 95 per cent of all domestic RPT flights (BITRE 2017b).

- Qantas Group operates around 60 per cent of all domestic passenger movements in Australia. It also services the majority share of domestic passengers at all Australian airports with passenger volumes above 500 000 (figure 3.6) and for 38 of the busiest 40 routes (by passenger movements).
- Virgin Australia Group operates about one third of total passenger movements in Australia. It does not have a majority share of passengers at any airports with passenger volumes greater than 500 000, but it has a majority share of passengers on two of the busiest 40 routes.
- Rex's share of total passenger movements is modest compared with Qantas Group and Virgin Australia Group (about 2 per cent). It does not have a majority share of passengers at any airports with passenger volumes greater than 500 000, or on any of the busiest 40 routes, yet it is the sole operator on about 80 per cent of the routes that it services (Rex, sub. 63, p. 4).

Inquiry participants, particularly airports, said that domestic airlines have significant countervailing power. Participants with this view included Adelaide Airport (sub. 32), Brisbane Airport (sub 38), Canberra Airport (sub. 56), Hobart Airport (sub. 31), Melbourne Airport (sub. 33), Perth Airport (sub. 51), Sydney Airport (sub. 53), North Queensland Airports (sub. 49), Northern Territory Airports (sub. 8), David Starkie (sub. 22), Australian Airports Investors Group (sub. 20) and AAA (sub. 50).

Figure 3.6 Domestic air transport services are concentrated^a



^a Airports that served more than 500 000 passengers in 2017.

Source: Commission estimates based on BITRE (unpublished).

IATA (sub. 27), Qantas Group (sub. 48), Virgin Australia Group (sub. 54), A4ANZ (sub. 83) and the ACCC (sub. 59) said that airlines did not have countervailing power as they could not withdraw their services from routes.

The degree of airline countervailing power is dependent on the credibility of the threat of airlines withdrawing or significantly reducing services from an airport. Because the major airports are in the major population centres and face little or no competition, the majority of the airlines are unlikely to have the choice of leaving or significantly reducing services to those airports. (ACCC, sub. 59, p. 17)

An airline can credibly threaten to withdraw services to an airport where the total cost to the airline of withdrawing services, including the cost of changes to its overall network, is less than the cost to the airport operator of losing its business (chapter 4).

An airline's threat to reduce services is less credible at a congested airport, such as Sydney Airport, given its competitors could readily meet any gap in demand for services. In practice, complete withdrawal of services is only likely to occur at regional airports, where a single airline is the airport's main, or only, customer. Chapter 4 details several examples where Rex has threatened to withdraw from a route or airport in response to a rise in aeronautical charges. The decision to reduce the number of services may be due to high aeronautical charges, but it may also be partially (or wholly) due to external factors, such as the level of patronage or the availability of aircraft.

Reducing services is an extreme way, but not the only way, for an airline to exercise countervailing power. As passenger numbers often form the basis of aeronautical charges, an airline can also exercise countervailing power by reducing the size of aircraft that it uses on a route. A major airline, such as Qantas, could redistribute its fleet over its network of routes to achieve a change in passenger numbers at a particular airport.

Airlines can also exercise countervailing power in negotiations. Even without an agreement in place, airlines are able to access airport services and can refuse to pay charges at the level determined by the airport (AAA, sub. 50). Airlines may be able to delay concluding negotiations on contracts that would result in an increase to charges (chapter 4).

The Commission considers that airlines can, and do, exert countervailing power on airport operators. Qantas Group is likely to have substantial countervailing power in domestic aeronautical services at most airports where it is a major customer, including at the monitored airports. Rex is also likely to have significant countervailing power at regional airports where it is the only RPT operator or where it has a significant majority of passengers. Under certain conditions, Virgin Australia Group and other airlines have some countervailing power too. International airlines are less likely to have countervailing power as they operate in a highly competitive market (differentials between charges for international and domestic services for the monitored airports are discussed in chapter 5).

It does not follow that regulation is less warranted because airlines have countervailing power. Countervailing power is not helpful from the consumer's perspective, as passengers still pay a high price that reflects the exercise of market power (Forsyth, sub. 15). The key

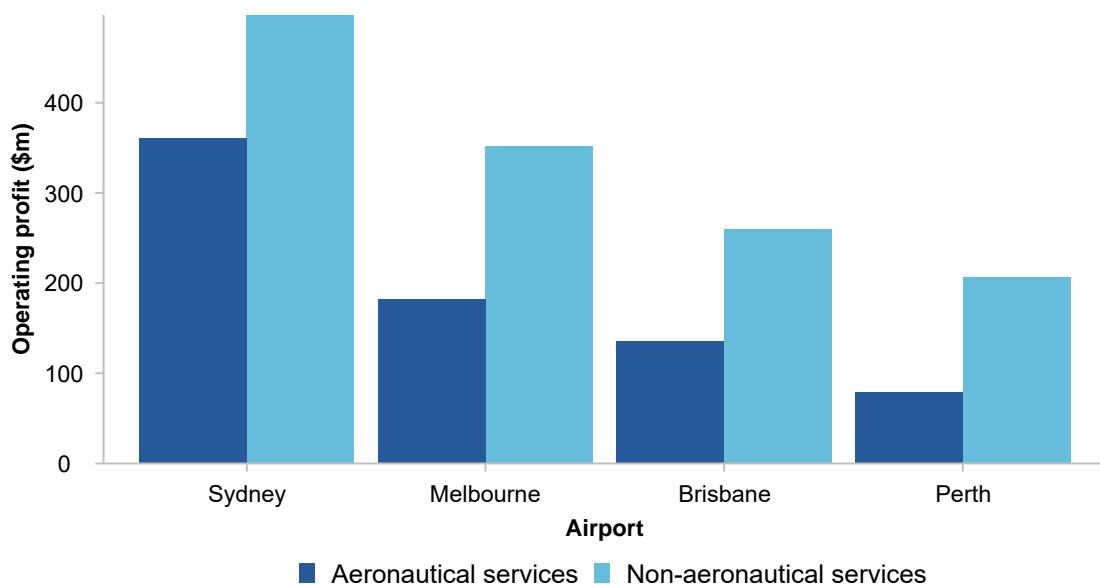
difference in cases where airlines have countervailing power is that any rents are shared between airports and airlines. This means that a reduction in aeronautical charges, for example, will not necessarily be passed on in part or in full to consumers through less expensive airfares (chapter 2).

Airports' commercial incentives

Operators of the monitored airports argued that the significance of (complementary) non-aeronautical revenue reduces their incentive to overcharge for aeronautical services, as it could constrain growth in passenger throughput. Non-aeronautical services accounted for more than half of the operating profits of the monitored airports in 2016-17 (figure 3.7).

Figure 3.7 **Operating profits at monitored airports**

2016-17



Source: ACCC (2018).

Not all non-aeronautical revenue relies on passenger throughput. For example, revenue from shopping centres and business parks, which are features at airports such as Essendon, Canberra and Brisbane airports, is unlikely to vary with the number of flights and passengers. Other sources of revenue are more closely linked to passenger throughput, including parking charges, landside access charges, and rental revenue from shops and cafes located within the terminal.

The Commission considers that airports' profits from non-aeronautical services are unlikely to be a significant constraint on the exercise of market power in aeronautical services. The passenger demand response for non-aeronautical services to a change in aeronautical charges

is likely to be very small given aeronautical charges make up a small proportion of the total cost of an airfare (box 3.1).

Level of demand

The cost of running an airport may be higher than airlines' and passengers' willingness to pay when demand for an airport's services is very low. This is often the case with regional airports.

The Regional Airport Users' Action Group and Geoff J Breust commented that airports operated by local governments often run at a loss:

They have little ability to generate any real revenue. Most consider their airport as a mandatory community facility and fund it from ratepayers. While a few impose aircraft landing charges most do not because they wish to attract visitors. Local leases provide minimal revenue. Accordingly, many local government authorities are extremely concerned about the future of their airports because they are unable to adequately fund them. (sub. 9, p. 4)

Regional airports that face these circumstances do not (and cannot) possess market power. This is because there is no incentive for inefficient investment in, and use of, airport infrastructure or for airport operators to charge higher prices. Operators price services below the long-run average cost of operating the airport.

Objectives of the airport operator

Regional airport operators (usually local councils) sometimes subsidise the cost of airport access in order to achieve other objectives, such as to facilitate regional communities' access to air transport. This is often the case when demand is very low and airports are unable to recover their costs (described above).

As the size of an airport (with respect to passenger numbers) increases, there will be a point at which an airport that is operating efficiently can break even. This point will differ between airports. Airports smaller than this point will only operate if subsidies from tax payers or rate payers are available. Operators of larger regional airports may also elect to subsidise access charges. This could encourage airlines to offer more flights and generate benefits to the local community through, for example, increasing the number of visitors. These larger airports may have market power but (in some cases) choose not to exercise it if the incentive to generate benefits to the local community is greater than the incentive to make a monopoly profit.

Some participants argued that some regional airports' infrastructure upgrades have been unnecessary and have resulted in increased aeronautical charges (A4ANZ, sub. 44; RAAA, sub. 66; Rex, sub. 63). It is unlikely that the upgrades or the increases in charges reflect the exercise of market power. More likely explanations relate to the capability of local councils in managing airport infrastructure investment, including issues of transparency and asset management practices (chapter 10).

3.4 Summary of findings

The Commission has assessed whether Australian airports have market power at a level that warrants regulatory intervention in the provision of either aeronautical services for domestic flights, international flights, or both. The analysis has focused on defining the market for aeronautical services. The conclusions have been formed by examining a range of characteristics, rather than forming precise market definitions. Market power depends on factors such as the availability of alternative airports, services offered and passenger demand. It can be constrained by factors including whether an airport has a dominant airline as a customer or is dependent on non-aeronautical revenue. In many cases, market power is influenced by a range of competing forces that may both increase and decrease the potential for an airport to have market power. For example, an airport may be a geographic monopoly, but it may have a large proportion of leisure passengers that are more price sensitive. These factors can change over time — a new airport, better connectivity for passengers accessing an existing airport, or a change in passenger demand could each affect the level of an airport's market power in international or domestic aeronautical services.

Domestic aeronautical services

The monitored airports

The Commission considers that the monitored airports — Sydney, Melbourne, Brisbane and Perth airports — exhibit characteristics of market power in domestic aeronautical services that create a *prima facie* case for regulatory intervention, even when airlines' countervailing power is considered. However, there is considerable variation in the level of airports' market power.

Sydney Airport has strong market power in the provision of domestic aeronautical services. It is a geographic monopoly, at least until Western Sydney Airport commences operation after 2026, and the extent to which the new airport would provide significant competition is not yet clear. It is also the gateway to the city of Sydney, which is a significant business hub and highly differentiated product in domestic (and international) tourism markets, meaning passengers are less likely to substitute to another destination. There are few modal substitutes, with the exception of Canberra which accounts for less than two per cent of total domestic passenger movements at Sydney Airport. Consequently, Sydney Airport operates in a market for domestic aeronautical services where it is the only major provider.

Melbourne Airport has strong market power in the provision of domestic aeronautical services. Like Sydney, as a business and tourism hub, passengers are less likely to substitute to another destination. There are no strong modal substitutes for the majority of its passengers and it faces little competitive constraint from Avalon Airport, even in the market to serve LCCs. Consequently, Melbourne Airport operates in a market for domestic aeronautical services where it is essentially the only major provider.

Brisbane Airport has a high level of market power in the provision of domestic aeronautical services. Brisbane faces competition for some domestic services — the Gold Coast and Sunshine Coast airports could theoretically service up to 90 per cent of its passenger movements. In reality, these two airports are imperfect substitutes for Brisbane Airport as flight times and schedules, facilities and travel time to Brisbane vary significantly. There is also a significant difference in passenger mix — Gold Coast and Sunshine Coast airports have a much higher proportion of non-business passengers compared with Brisbane Airport. This reflects limited substitutability for a significant proportion of passengers using Brisbane Airport. Gold Coast and Sunshine Coast airports act as competitive constraints on Brisbane Airport, but Brisbane Airport maintains a high level of market power in domestic services.

Perth Airport also has a high level of market power in the provision of domestic aeronautical services. It is a geographic monopoly with few modal substitutes — the National Visitors Survey reported that 94 per cent of interstate overnight domestic visitors to Western Australia use air transport. However, it is less of a business and tourism hub compared to the other monitored airports (and following the end of the mining investment boom). Consequently, Perth Airport operates in a market for domestic aeronautical services where it is the only provider.

Many stakeholders acknowledge that these airports have some market power. For example, the Australian Airports Association, which represents over 300 airports and aerodromes Australia-wide commented:

Since the structural likelihood that the airports [Brisbane, Melbourne, Perth and Sydney] hold a degree of market power is taken as a given, the examination as to the exercise of that market power principally involves an assessment of whether prices or profits have been significantly above the workably competitive level over a sustained period. (AAA, sub. 50, attachment 1, p. i)

At a minimum, these findings point to the need for continued monitoring of these airports. Whether further regulation is warranted, however, will depend on whether airports have exercised their market power to the detriment of the community, discussed in chapter 5.

The non-monitored airports

The airports that participate in the second tier voluntary monitoring regime — Adelaide, Cairns, Canberra, Darwin, Gold Coast and Hobart — do not have a level of market power that warrants regulatory intervention, although this could change over time. The Productivity Commission would not hesitate to recommend monitoring for a non-monitored airport if it were found to have market power at a level that created a *prima facie* case for regulatory intervention. There is sufficient public information available for the Commission to make this assessment.

Adelaide and Canberra airports have previously had a level of market power that warranted monitoring. They were part of the monitoring regime until 2012. The Commission is satisfied that neither Adelaide nor Canberra airports currently have market power that would justify regulatory intervention.

-
- Canberra Airport has a high proportion of non-leisure passengers, which tend to be relatively insensitive to price changes. There is some scope for modal substitution, however, and there is good availability of road transport alternatives for the Canberra–Sydney route, a route that accounts for one third of passenger movements at Canberra Airport. The ACT is the only state for which passengers are least likely to use air transport for interstate travel (figure 3.5).
 - Adelaide Airport serves a relatively higher proportion of leisure passengers than the monitored airports. Leisure passengers are more responsive than non-leisure travellers to increases in charges (which reduces the airport's market power). It is also not a gateway to a major business hub.

Of the two, Canberra Airport is closer to the threshold for concern and the Commission will again examine the characteristics of market power at Canberra Airport closely in its next inquiry into airport regulation.

Cairns, Darwin, Gold Coast and Hobart airports do not have a level of market power that warrants regulation at this time. In summary:

- none of these airports are gateways to major business hubs — at least not to the extent of the monitored airports. They are more substitutable as a result and have less market power
- these airports serve a higher proportion of leisure passengers than the monitored airports, which is associated with more elastic demand (and less market power). Leisure passengers also have more flexibility in their holiday destination, meaning these airports compete with characteristically similar airports that are not nearby. This is especially the case for Cairns, Gold Coast and Hobart. Gold Coast Airport is also significantly constrained by Brisbane Airport and Sunshine Coast Airport.

Regional airports

Many regional airports do not have sufficient demand to cover the costs of running the airport, which means the efficient charge for aeronautical services is more than passengers are prepared to pay. Regional airports that face these circumstances do not (and cannot) possess market power. Such airports rely on local, regional or other government assistance to fund the airport's operations and maintenance.

There may be cases where regional airports have some market power and the capacity to exercise it but the majority of such airports are owned by local councils who are, in principle, incentivised to price airport services at long-run average cost. This can benefit the community through increased access and, where savings to the airline are passed through, lower ticket prices. Countervailing power from airlines generally constitutes an additional constraint — of the 103 airports for which the Commission has data, 51 are serviced by a single RPT airline (BITRE (unpublished)). In the unlikely event a regional airport was

capable of exercising its market power, the benefits from any regulation would likely be low and outweighed by the costs.

Some inquiry participants have raised concerns relating to regional airports, including infrastructure upgrades, consultation with airlines, transparency in financial reporting and asset management practices. It is unlikely that these issues reflect the exercise of market power by regional airports. Nevertheless, local councils have scope to improve their capability and transparency of their asset management practices and setting of charges at regional airports (chapter 10).

International aeronautical services

International aeronautical charges generally make up a small proportion (less than three per cent) of the total cost of an international airfare. This means that it is more likely that airports could raise aeronautical charges without a strong demand response from passengers (and consequently airlines). Further to this, the market for international flights is highly competitive, reducing the potential for countervailing power on the part of airlines. These factors are associated with higher market power for the airport providing those services.

This does not mean all airports providing international aeronautical services have market power — it will only be the case for airports that do not face effective competition.

Airports providing international services face varying levels of competition from both Australian and international airports. The monitored airports are gateways to cultural, business and tourism hubs and are not readily substitutable. This is especially the case for Sydney, Melbourne and Brisbane airports. Perth Airport is less of a gateway airport than the other monitored airports, which reduces its competitive constraints, but it is more isolated. The monitored airports, Sydney, Melbourne, Brisbane and Perth, each have market power in international aeronautical services at a level that creates a *prima facie* case for regulatory intervention.

Smaller international airports, such as Adelaide and Darwin, are not gateways to regions or cities that are major business or cultural hubs. They face strong competition and have little market power in international aeronautical services. No Australian airport, other than the monitored airports, has significant market power in international services.

4 Negotiating agreements with airports

Key points

- Under the light-handed regulatory regime, airports and airlines typically engage in commercial negotiations to secure airfield and terminal agreements on prices, types of service provided, service quality and future capital investments.
- Negotiating commercial agreements between airports and airlines is challenging. The process can also be lengthy — some five-year agreements have taken three years to negotiate. This is in part because agreements often specify access terms for many different infrastructure services and facilities. Agreements can also involve complex, long-term and contested investments that affect many stakeholders, including potential rivals.
- Some recent agreements are more sophisticated than previous iterations, with inclusions such as improved key performance indicators, rebates to airlines where airports fail to meet specified service standards, and provisions for collaborative forums and data sharing.
- A persistent lack of good faith bargaining in the negotiation process or unreasonable sharing of risk and returns, can provide evidence that a negotiating party is exercising market power.
 - An airport operator exercising its market power could, for example, deny access to the service (or threaten to), refuse to provide sufficient and timely information to negotiating parties, or set inefficiently high charges.
- Both airports and airlines provided examples of behaviour that may lack good faith, including refusal to negotiate, threats, lobbying or complaints to media. Airlines also argued that airports exercise their market power to earn a rate of return that does not reflect the risks faced (that is, achieve monopoly rents).
- Challenging commercial negotiations are not unique to aviation. The conduct of negotiating parties may reflect divergent incentives, and the inherent conflict of negotiations involving significant financial consequences, rather than an exercise of market power *per se*.
- Ultimately, airports and airlines have commercial and operational incentives to reach an agreement, especially given the need for new investments to meet demand growth and passengers' expectations of service quality.
- On balance, commercial negotiations between airports and airlines give little cause for concern. Airports have not systematically exercised their market power in negotiations with airlines to the detriment of the community, despite a small number of instances of poor behaviour. Agreements have underpinned significant long-term investment in aeronautical assets.
- Some agreements contain clauses that constrain an airline's access to regulatory remedies for the exercise of market power and clauses that restrict an airport's ability to offer incentives to airlines other than the signatory airline.
 - These clauses are anticompetitive and should be removed from all agreements.

Negotiations have been a central feature of the Australian light-handed regulatory regime since 2002. Under the light-handed regulatory regime, airports and airlines typically engage in commercial negotiations to secure airfield and terminal agreements on prices, types of service provided, service quality and future capital investments. This is in line with global trends in airport regulation, where commercial negotiations between airports and airport users are an increasingly prominent feature (Oxera 2013). Commercial negotiations provide direct investment incentives and link the interests of airport users to airport operations, with less distortion of incentives compared with, for example, the price cap arrangements that were in place in Australia prior to 2002 (Littlechild 2009; PC 2012). However, an airport operator exercising market power could use commercial negotiations to set excessively high charges or to justify inefficient investment decisions. These outcomes may warrant government intervention, as they could lead to services that do not meet users' reasonable expectations or may affect community welfare (chapter 2).

4.1 Assessing commercial negotiations

A focus on process and outcomes

The terms of reference request the Commission to consider, among other things, whether the current regulatory regime is effective in 'facilitating commercially negotiated outcomes in airport operations'. The primary focus of this chapter is negotiations between airports and airlines for airfield and terminal services at the monitored airports — Sydney, Melbourne, Brisbane and Perth. Airport negotiations with car parking and landside operators are discussed in chapter 6.

The Commission has considered changes in the features of agreements since its 2011 inquiry into the *Economic Regulation of Airport Services*. It has also assessed two aspects of commercial negotiations:

- the behaviour of parties in the negotiation *process*
- the negotiation *outcomes* reached by the parties.

The *Aeronautical Pricing Principles* have informed the Commission's approach (chapter 2). These set out general principles for negotiation and the pricing of airport services, including:

... that prices (including service level specifications and any associated terms and conditions of access to aeronautical services) should:

- (i) be established through commercial negotiations undertaken in good faith, with open and transparent information exchange between the airports and their customers and utilising processes for resolving disputes in a commercial manner (for example, independent commercial mediation/binding arbitration); and
- (ii) reflect a reasonable sharing of risks and returns, as agreed between airports and their customers (including risks and returns relating to changes in passenger traffic or productivity)

improvements resulting in over or under recovery of agreed allowable aeronautical revenue). (Costello 2007)

Assessing negotiations against these principles ultimately relies on evidence-based judgment — there are no hard and fast rules that conclusively determine that an airport operator is systematically exercising its market power through its behaviour. The *Aeronautical Pricing Principles* state that the parties should act in good faith, but do not expand on what ‘good faith’ entails. There is also no agreed legal definition of the concept in Australia. Courts have generally emphasised that good faith involves honesty, cooperation and a consideration of the other party’s interests.

While good faith requires a party to consider the rights of the other party, it does not require them to act in the other party’s interests. It also does not prevent a party from acting in its own legitimate commercial interests. (ACCC 2014b, p. 6)

A persistent lack of good faith bargaining in the negotiation process or unreasonable sharing of risk and returns, can provide evidence that a negotiating party is exercising market power.

An airport operator may demonstrate a lack of good faith bargaining during the negotiation process if it:

- makes take-it-or-leave-it offers on charges and other terms of access that are accepted by negotiating parties, given an inability to negotiate any alternative
- denies access to the service (or threatens to)
- refuses to provide sufficient and timely information to negotiating parties to assess the service offer.

An agreement *outcome* may not reflect a reasonable sharing of risk and returns if it includes:

- charges that are set above the efficient long-run average cost of provision — the minimum an airport operator can charge to ensure it remains viable over time (and a benchmark for economic efficiency (chapter 2))
- risks that are disproportionately borne by airport users.

The content of agreements and the processes to negotiate them are confidential between the signatory parties. The Commission has examined a number of airfield and terminal agreements from Sydney and Melbourne airports as part of this inquiry to help inform its conclusions.

Negotiations are influenced by incentives and bargaining power

Both parties have incentives to reach an agreement

The incentives of negotiating parties influence both the negotiation process and outcomes achieved. As with any negotiation, conflicts can arise because parties have divergent interests and seek to maximise the benefits to themselves. Sydney Airport (sub. 53, p. 32) noted that ‘[t]here is an inherent tension between airlines, which generally have much shorter

term commercial imperatives, and airports, which must undertake long-term infrastructure investment’.

Airports have strong incentives to reach agreements with airlines. The federally-leased airports, which include the monitored airports along with a number of others (chapter 1), are commercial businesses that seek to maximise their profitability. They are motivated to:

- provide investment certainty and maintain cash flow, particularly in cases where third party investors are involved with an airport
- increase passenger volumes, if an increase in airport passenger throughput or capacity leads to increases in aeronautical and non-aeronautical revenue (Melbourne Airport, sub. 33)
- share investment risks with airport users, given the ongoing need for infrastructure investment to meet increasing passenger and air freight demand.

The federally-leased airports are required to fulfil their lease terms, which only allow airports to deny access to airlines under limited circumstances (Melbourne Airport, sub. 33; AAA, sub. 50). Lease terms also require airport operators to invest in airport infrastructure to maintain the airport site in ‘good and substantial repair’ (AAA, sub. 50, p. 76).

Airlines also seek to maximise their profit, but their specific incentives differ depending on their commercial and operating needs. Incumbent airlines may dispute investments that expand airport capacity if it would attract competitor airlines or routes, despite having similar incentives to airports to increase passenger numbers. Low-cost carriers (LCCs) may be more likely to dispute investments that improve service quality or amenities for passengers at common-use facilities, to keep their costs low (PC 2012).

Ultimately, airports and airlines have commercial and operational incentives to reach an agreement. Agreements underpin cash flow and other measures of financial performance that support investor certainty. Further, both airports and airlines have incentives to invest in infrastructure to meet demand growth and passengers’ expectations of service quality. Virgin Australia Group noted that:

This is because, if we do not agree to fund the investment, we face a risk that we constrain our ability to grow, and potentially face higher operating costs to manage congestion at airports. (sub. 54, p. 8)

Uneven bargaining power could lead to an exercise of market power

The relative bargaining power of parties influences the negotiation process and the outcomes achieved. Bargaining power is determined by a number of factors (Concina 2015; Muthoo 2000).

- Alternative buyers or sellers — a party has more bargaining power if it is able to choose between alternative buyers or sellers compared to if it has few or no alternatives. For example, an airport that services several airlines may have more bargaining power over

an individual airline than if it had a single airline customer. Similarly, airlines with a large market share may have more bargaining power relative to airlines with a small market share or with a number of competitors.

- Access to information — understanding the other party's cost structure can confer bargaining power by signalling the minimum price the seller would accept or the maximum the buyer would be prepared to pay.
- Previous commitments — a party may undertake actions prior to or during the negotiation process that commit it to a particular position.
- Risk of breakdown — a party may have more bargaining power if it is unconcerned about a breakdown or 'stalemate' in negotiations.
- Patience — the party that has a higher opportunity cost of negotiating and a greater relative benefit from reaching an agreement may have less bargaining power. For example, airports may seek quick resolution to negotiations in order to maintain cash flows and provide certainty for investors.

Harper et al. (2015, p. 334) observed that the use of bargaining power is not a policy problem *per se*, but that it can have undesirable effects on economic efficiency.

While imbalance in bargaining power is a normal feature of commercial transactions, policy concerns are raised when strong bargaining power is exploited through imposing unreasonable obligations on suppliers and business customers. Such exploitation can traverse beyond accepted norms of commercial behaviour and damage efficiency and investment in the affected market sectors, requiring the law to respond both as a matter of commercial morality and to protect efficient market outcomes.

A significant imbalance of bargaining power in the negotiation process could lead to an airport exercising market power, with detrimental outcomes for the community. Airline participants have raised concerns that there is both information asymmetry and uneven bargaining power between an airport and airport users in commercial negotiations (A4ANZ, sub. 44).

4.2 Characteristics of airport–airline agreements

Negotiations centre on securing the terms of access to airport services. Airports and airlines generally reach separate agreements for airfield services, such as aircraft and runway services, and terminal services. They may also negotiate agreements for specific services, such as aircraft hangars. Airports and airlines have previously negotiated domestic terminal leases, although airlines and airports are phasing out these arrangements as leases end (chapter 1). The implications of domestic terminal leases for indicators of aeronautical cost and revenue are discussed in box 5.1.

Agreements generally run for five years, although this varies depending on the circumstances. For example, Brisbane Airport signed an 11 year agreement with most domestic and international airlines in 2012 to support the development of the third runway

that is now under construction (Brisbane Airport, sub. 38; Brisbane Airport, pers. comm., 18 January 2019).

Airport operators typically negotiate agreements with representatives from individual airlines for domestic services. The Board of Airline Representatives of Australia (BARA) negotiates on behalf of most international airlines for common-use services at international airports. International airlines can still negotiate individually and do so for airline-specific services, such as airline lounges (BARA, sub. 42).

Agreements are complex and becoming broader in scope

Commercial agreements have evolved since the reforms to the regulatory regime in 2002 (chapter 1) (Melbourne Airport, sub. 33; Brisbane Airport, sub. 38). The Productivity Commission's 2011 inquiry into the *Economic Regulation of Airport Services* noted that:

While unduly protracted negotiations are undesirable, commercial negotiation is still maturing. As noted, there have been few rounds of negotiated contracts to date. The matters under negotiation for multi-product entities, such as airports, are inherently complex. (2012, p. 172)

Melbourne Airport noted that the content of agreements has continued to evolve:

Commercial negotiation is evolving relatively quickly in the context of a system that is just 15 years old and where agreements are generally struck once every five years. Melbourne Airport's most recent Aeronautical Services Agreement (ASA) features a number of elements which increase the input and influence of airlines into the capital planning process and increases accountability on the airport for service delivery. (sub. 33, p. 9)

Agreements often specify access terms for many different infrastructure services and facilities. Agreements can also involve complex, long-term and contested investments that affect many stakeholders, including potential rivals. Agreements with airlines typically include:

- charges for airport services, with price paths for future access. This may include landing, runway and aircraft parking charges or per-passenger terminal charges
- other charges to recover direct costs, such as per-passenger security charges
- discounts on standard scheduled charges, also known as rack rates, such as discounts to support new or expanded routes or if agreed passenger numbers are reached
- agreed service levels, often with outcomes defined in a service level agreement (SLA)
- rebates in the event of airport performance failures
- consultation and information requirements prior to new capital investment
- dispute resolution processes, including escalation processes or resolution through use of an independent third party such as a commercial arbitrator.

Tailored agreements add to complexity but support flexibility

Agreements are tailored to the requirements of an airline, sometimes with bespoke arrangements within the same corporate group, which airport operators noted adds to the complexity of each negotiation (Sydney Airport, sub. 53; Melbourne Airport, sub. 33). The specific details of an agreement depend on an airline's needs. For example, airlines require different access terms and levels of service, agreement lengths, branding and timing of capital charges (either commencing when infrastructure is completed or as part of a continuous price path) (Sydney Airport, sub. 53). LCCs typically use a different bundle of services compared with a full service carrier, for example, they may opt for stairs rather than an aerobridge, and will often pay a lower charge. Regional airlines may have a different set of arrangements again. They may opt to pay scheduled charges in place of negotiating an agreement for aeronautical and terminal charges, or secure agreements for specific needs, such as aircraft hangars.

The complexity of an agreement does not necessarily indicate greater sophistication. BARA (sub. 42) argued that contract documents are often repetitive and lack a logical structure, which unnecessarily adds to agreement length and complexity. BARA (sub. 42, p. 40) also identified ongoing issues in negotiating 'reasonable commercial terms' that meet the accountability benchmarks published by the Airports Council International. It suggested that there is a need for a set of simplified contract terms containing standard 'boilerplate' clauses in order to streamline current processes and reduce contract review costs for both parties. The Australian Airports Association (AAA) notionally supported this proposal (AAA, sub. 73).

Airport operators are of the view that current negotiation processes provide flexibility for parties to reach an agreement on investment that balances individual airline and collective airport-wide requirements. This was the case in the negotiations for a new runway at Brisbane Airport. The airport and airlines were able to bundle together a number of different elements as part of a package in order to reach a mutually beneficial agreement (Brisbane Airport, pers. comm., 18 January 2019).

Service level agreements include performance indicators and rebates

The Commission observed in 2011 that SLAs were increasingly commonplace in negotiations — 93 per cent of agreements specified at least one required service level (PC 2012). The Commission highlighted the value of commercially negotiated SLAs that included agreed service quality standards and options for recourse where standards were not met (PC 2012).

Key performance indicators (KPIs) and service failure rebates have become more prevalent features of SLAs since 2011. All monitored airports have developed or are negotiating KPIs of service quality (Sydney Airport, sub. 53; Melbourne Airport, sub. 33; Brisbane Airport, sub. 38; Perth Airport, sub. 51). Recently negotiated agreements include improved performance indicators for, among other things, on-time performance, queue time or baggage handling, and financial consequences where those outcomes are not met

(Melbourne Airport, sub. 33). Some airports also include KPI results in consultation processes and capital development plans in order to align their future investments with identified service quality issues (AAIG, sub. 20; Sydney Airport, sub. 53). At Sydney Airport, KPI results are discussed with airlines through the quarterly Industry Consultative Forum (Sydney Airport, sub. 53).

SLAs also increasingly include rebates for airlines where performance failures are attributable to the airport operator. For example, Melbourne Airport's 2017 aeronautical services agreement includes 'an Immediate Service Failure Rebate if Melbourne Airport's equipment is not available for use and causes an OTP [on-time performance] issue in excess of 15 minutes' (Melbourne Airport, sub. 33, p. 9). The Australian Competition and Consumer Commission (ACCC) previously noted the potential for SLAs to include rebates that more closely reflect the costs borne by airlines due to airport non-performance (ACCC 2017a). BARA (sub. 42) highlighted that incorporating commercial consequences, such as financial incentives, into agreements could support ongoing improvement in service delivery. Service quality outcomes at the monitored airports are examined in chapter 5.

Including SLAs in negotiated agreements is international best practice (IATA 2017a). The ACCC (2017a, p. 10) noted that SLAs can improve accountability for and transparency of service outcomes and foster a 'culture of continuous improvement' in service quality. Use of SLAs is common in Australian agreements, although the scope and sophistication of SLAs has not necessarily kept pace with international developments. BARA (sub. 42, p. 20) noted that the KPI regime is 'at least a decade behind its scheduled need'.

Dispute resolution is available during negotiation and in agreements

The *Aeronautical Pricing Principles* emphasise the need to resolve disputes in a commercial manner. Airports and airlines can use formal dispute resolution processes during negotiation and after negotiation has concluded.

Dispute resolution options available to parties *during the negotiation process* include:

- independent dispute resolution. The Commission is aware of examples of airports and airlines using third-party conciliators in negotiations (for example, Sydney Airport (sub. 53)), although it is not mandatory and the outcome is not necessarily binding. Some participants raised concerns in consultations that arbitration or conciliation lacked the flexibility for disputes with complex investments or packages of non-price terms
- application for declaration under the National Access Regime. An airline that seeks to gain access to airport services can apply to the National Competition Council to recommend that the relevant minister declare those services. Airline participants stated that seeking declaration is costly, time consuming and uncertain (A4ANZ, sub. 44; Qantas Group, sub. 48; Virgin Australia Group, sub. 54), particularly given the 2017 changes to the declaration criteria are yet to be tested in court (chapter 9)

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- other legal dispute resolution mechanisms, including State and Territory legislation that may facilitate the recovery of aeronautical charges (AAA, sub. 50). For example, Perth Airport commenced legal action in the Supreme Court of Western Australia to recover charges for aeronautical services from Qantas Group (Qantas, QantasLink and Jetstar) in December 2018.

The AAA noted that use of formal dispute resolution mechanisms was uncommon during the negotiation process (sub. 50). Airlines have argued for alternative arrangements for dispute resolution (chapter 10).

Agreements usually contain mechanisms for commercial dispute resolution that apply *once agreements are executed* (AAA, sub. 50; Sydney Airport, sub. 53; Perth Airport, sub. 51; Brisbane Airport, sub. 38). These mechanisms typically involve dispute escalation processes and can include provisions for binding third party commercial resolution by mediation or arbitration. Parties may have the right to seek remedies through legal action depending on agreed terms (AAA, sub. 50).

4.3 Good faith conduct in the negotiation process

A systematic or persistent lack of good faith conduct by an airport operator in negotiations may indicate an exercise of market power. An airport operator exercising market power could make take-it-or-leave-it offers; deny, or threaten to deny, access to services; or refuse to share sufficient information in a timely manner.

Limited evidence of take-it-or-leave-it offers

An airport making take-it-or-leave-it offers, and the acceptance of such offers by negotiating parties, could indicate bargaining asymmetry and the potential exercise of market power.

Some airlines stated that airports adopt a take-it-or-leave-it position during negotiations (A4ANZ, sub. 44; Qantas Group, sub. 48). Monitored airports have rebutted this claim (Sydney Airport, sub. 53; Brisbane Airport, sub. 38; Melbourne Airport, sub. 33; Perth Airport, sub. 51).

Regional airports often offer simpler terms of access compared to monitored airports, and in some cases, these offers may only entail scheduled charges. Such offers may reflect the straightforward nature of services offered by many regional airports, rather than a take-it-or-leave-it offer *per se*. As noted in chapter 3, many regional airports are unlikely to have market power given they do not have sufficient demand to cover the costs of running the airport.

Airport operators have some incentive to exercise their market power in landside access by setting higher than efficient charges and restricting access. The more restrictive the conditions for landside access, the less competition the airport faces in on-airport car

parking, particularly from off-airport car parks (chapter 6). Landside operators do not have the same degree of countervailing power as airlines and are more likely to be at risk of receiving and accepting take-it-or-leave-it contracts. A4ANZ stated that:

... rental car companies, taxi operators, ride share companies and off-site airport parking operators are faced with take-it-or-leave-it deals — however, many operators note that historically, they have been unable to publicly challenge an airport's monopoly position for fear of commercial retribution. (sub. 44, p. 18)

The Australian Finance Industry Association, a representative for car rental companies, commented:

They are not commercial negotiations at all. We have no leverage as the airport knows we need to be there and so there is no meaningful negotiation. There have been occasions where we have tried to negotiate on issues which we think create an unfair outcome for consumers and have literally been told that if we are still on the airport the next day that we are deemed to have accepted the concession agreement as presented. (sub. 67, p. 11)

The Commission had insufficient evidence to conclude that airport operators make take-it-or-leave-it offers to airlines *and* that airlines are compelled to accept them. Further, Qantas Group, Regional Express (Rex) and Virgin Australia Group each have countervailing power at some airports, in some circumstances (chapter 3). Where this is the case, airports have limited ability to exercise their market power using take-it-or-leave-it offers. The Commission is seeking further evidence of take-it-or-leave-it offers in airport negotiations with airlines and other airport users.

INFORMATION REQUEST 4.1

The Commission is seeking additional information or examples of take-it-or-leave-it offers by airport operators, including:

- *scope and circumstances of the negotiation*
 - *overview of the negotiation process and actions of each party*
 - *negotiation outcomes, including acceptance of such offers by airport users*
 - *the extent to which such conduct during the negotiation process may reflect an exercise of market power.*
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Parties adopt a range of tactics but typically avoid service disruptions

Airports adopt tactics to prompt an outcome but can rarely deny airlines access

An airport could gain bargaining power in negotiations if it is able to deny, or threaten to deny, access to airport services. However, as noted above, the government lease conditions that airports operate under do not permit them to deny airlines access to airport services. Even without an agreement in place, airlines are able to access airport services and can refuse

to pay new pricing arrangements determined by the airport. For example, Northern Territory Airports (sub. 8, p. 3) argued that Qantas Group refused to negotiate new long-term price agreements or pay price increases at Darwin and Alice Springs airports ‘on the basis that it does not pay charges it does not agree to’ (box 4.1).

Box 4.1 Airlines can refuse to pay charges at the level determined by an airport when an agreement expires

Northern Territory Airports argued that Qantas Group has refused to negotiate new long-term price agreements (LTPAs) and continued to pay charges at the level of the expired agreement.

- At Darwin International Airport:

Prior to and since the expiry of LTPA's in June 2017 [Darwin International Airport] has found it difficult to engage meaningfully with the Qantas Group. On expiry of LTPA's, and without new ones in place for the 2 main airline groups, [Darwin International Airport] applied a 2.5% increase to airline airport charges on 1 July 2017 and a 2.5% increase on 1 July 2018. ... Most airlines, in the absence of an LTPA, are paying the increased charges. (Northern Territory Airports, sub. 8, p. 3)

- At Alice Springs Airport:

[Alice Springs Airport] has attempted a number of times to engage Qantas Group, in the absence of an LTPA, on payment of the notified increases since 1 July 2015. This has included [Alice Springs Airport's] proposed mediation/arbitration. There has been no change in the Qantas position. (Northern Territory Airports, sub. 8, p. 5)

Northern Territory Airports argued that there is no viable commercial response available at either Darwin or Alice Springs airports, and that airlines can continue to refuse to pay higher charges indefinitely. Northern Territory Airports stated that ‘after 3 years [Alice Springs Airport] is seriously contemplating legal action as its only avenue of redress’ (sub. 8, p. 5).

In December 2018, Perth Airport commenced legal action against Qantas Group in the Supreme Court of Western Australia to seek to recover what it claims are unpaid charges following the expiry of the previous agreement on 1 July 2018. Perth Airport stated that Qantas Group refused to accept a new aeronautical services agreement, while Qantas Group argued that although negotiations have been ongoing, ‘we have continued to pay Perth Airport — just not at the unjustified rates they have proposed’ (David 2018).

Other airlines have previously refused to pay charges at the level determined by airports. The Commission’s 2011 inquiry into the *Economic Regulation of Airport Services* identified examples of this behaviour by Regional Express (Rex) at Sydney and Melbourne airports (PC 2012).

Airports may not be able to deny access to airlines, but they can use other strategies to press for a favourable negotiation outcome. Airline participants made a number of claims of airport behaviour that could be considered to lack good faith, including:

- public statements or complaints reported in the media. For example, two disagreements between Canberra Airport and Qantas played out publicly in 2017. These were over a diversion fee for international aircraft and the number of flight cancellations on the Sydney–Canberra route
- obstructive operational tactics. For example, Qantas Group stated that during negotiations for terminal and apron redevelopment at Townsville Airport ‘airport

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- management's questionable tactics included instructing staff to obstruct the entrance to the Qantas Lounge at Townsville' (Qantas Group, sub. 48, p. 19)
- unilateral behaviour. For example, Qantas Group stated:

[F]ollowing a negotiation dispute with Melbourne Airport, Qantas Group's invitation to attend Quality Control meetings where service standards at the terminal were to be agreed, was unilaterally rescinded. Qantas is the largest user of this facility and lack of input threatens the customer proposition at Melbourne Airport. Poor negotiating behaviour was also demonstrated when Melbourne Airport warned Qantas Group that if their Aeronautical Services Agreement terms were not agreed, Qantas Group ran the risk of 'being left behind' on terminal redevelopments. (sub. 48, p. 23; Qantas Group, pers. comm., 23 January 2019)

Such behaviour is not unique to contract negotiation in aviation and occurs in other commercial negotiations and industries. For example, the media has reported on a number of contract enforcement disputes between Acciona and the NSW Government for the Sydney Light Rail project regarding infrastructure delays and information sharing (Wiggins 2018).

Airlines can delay negotiations or threaten to withdraw services

Airlines may have incentives to delay negotiations or credibly threaten to withdraw some or all of their services, depending on their characteristics and the extent of their bargaining power. Such behaviour may indicate that airlines have countervailing power, particularly in the domestic market. For example:

- incumbent airlines have an incentive to dispute agreements or new investments that expand capacity to attract competitor airlines or routes, as noted above. The Commission has been made aware of such an occurrence on a confidential basis
- airlines can pay existing (or sometimes lower) charges until a new agreement is reached (box 4.1). This practice means it may be airlines, rather than airports, that have an incentive to hold out on reaching agreement
- airlines can credibly threaten to withdraw their services where the total cost to the airline of withdrawing services, including the cost of changes to its overall network, is less than the cost to the airport operator of losing their business (chapter 3). For example, Rex (sub. 63, pp. 7–8) withdrew services on the Mildura–Sydney route in response to what it described as 'exorbitant' aeronautical charges and has redeployed resources to Griffith as part of a five-year partnership agreement with Griffith City Council.

Some airports, including Perth, Adelaide, Darwin, Alice Springs and Townsville told the Commission that they did not have current agreements in place with Qantas Group as the previous agreements had expired (Adelaide Airport, sub. 32; Northern Territory Airports, sub. 8; Perth Airport, sub. 51; Queensland Airports, sub. 23).

Both airlines and airports can also lobby governments or local political representatives, for example, in the dispute between Rex and King Island Council (box 4.2).

Box 4.2 Rex services to King Island

King Island is located off the north-west coast of Tasmania and has a population of just under 1600. Passengers access King Island using either regular public transport (RPT) flights or charter aircraft as there are no regular ferry services. In 2017, the council-operated airport had over 43 000 RPT passenger movements and 11 000 charter passenger movements. Rex carried approximately one third of all RPT passengers and is the only airline to provide flights to Melbourne Airport. Other carriers include King Island Air, with flights to Moorabbin, Victoria and Sharp Airlines, which flies to Essendon, Victoria as well as Burnie and Launceston in Tasmania.

In July 2018, King Island Council (KIC) announced that the King Island airport made a loss of \$470 000 in 2017-18. KIC announced plans to increase overall fees and charges to stem financial losses, and introduced a user pays model to move toward operational cost neutrality. KIC introduced a passenger charge of \$7.50 per leg (including GST) and increased landing charges from \$23 to \$27.50 (including GST) per tonne maximum take-off weight.

The increased charges sparked a war of words between Rex and KIC. Rex stated that it had not been consulted on the increased charges and accused KIC of ‘lies’, ‘fabrication’, ‘defamatory statements’, ‘scurrilous accusation’ and ‘deliberately xenophobic statements’ (Rex 2018e). KIC accused Rex of ‘corporate bullying’ and ‘a heavy-handed attack, with a view to dictating commercial arrangements to our remote Island community’ (King Island Council 2018c). Rex subsequently cancelled 30 per cent of its services to King Island.

KIC requested assistance from the Tasmanian Government to resolve ongoing issues. It stated that Rex’s schedule changes affected tourism operators and that media releases from Rex had damaged the reputation of King Island as a tourist destination. In September 2018, KIC, Rex and the Tasmanian Government reached a resolution, with services and negotiations recommencing. By October 2018, Rex announced it was reducing services again, with the Rex Executive Chairman stating that the ‘very marginal route has consumed too much management effort and I have directed my staff to no longer entertain any more discussions with KIC or with any intermediaries’ (Rex 2018f).

Sources: King Island Council, sub. 26; Rex sub. 63; King Island Council (2018a, 2018b, 2018c); King Island Council and Rex (2018); Rex (2018b, 2018d, 2018e, 2018f).

Airlines operating in the domestic market are unlikely to withdraw services from the monitored airports, as these locations are gateways to cultural, business or tourism hubs that are not readily substitutable. In practice, complete withdrawal of services is only likely to occur at regional airports, where a single airline is the airport’s main, or only, customer (chapter 3). Qantas Group, for example, stated that it could not withdraw its services from some routes:

In reality, airlines cannot afford to make good on that possibility for reasons including loss of network connectivity, loss of business, claims by passengers with bookings, loss of revenue, redundancy of aircraft assets, redundancy of airport investments such as hangar and lounges, and competition from other entrants. (sub. 48, p. 8)

However, an airline could reduce the number of flights into or out of a particular airport. Airlines base their decision to service a specific route on many factors, such as network coverage, charges at origin and destination airports, fuel costs, passenger demand and slot

availability. Virgin Australia Group argued that it maintained some loss-making routes in order to maintain network reach (Virgin Australia Group, sub. 54).

Mixed views on information sharing and consultation

Negotiating agreements is information intensive and the extent of information sharing can influence parties' bargaining power (Muthoo 2000). Refusal to provide information may indicate that an airport is exercising market power.

The *Aeronautical Pricing Principles* note that commercial negotiations should include open and transparent information exchange. The extent of information provided by airports varies depending on the scope of the agreement. Typically, airports provide information on:

- aeronautical charges, which are often in the form of a building block model (BBM) for price determination, albeit to varying degrees (discussed below)
- capital investment plans, including for example, terminal designs, passenger and air freight forecasts, investment rationale and forecast capital and operational costs.

Airlines may also share information, such as proposed route changes, expansion plans or service use forecasts. Activity forecasts are a particular point of contest and the AAA (sub. 73) has argued that airlines could share more detailed forecast information.

Information sharing through consultation and engagement

Information exchange occurs through consultation between airports and airport users. Most agreements with airlines require airports to consult prior to undertaking major capital investments. All of the monitored airports have processes in place for consultation and engagement with airlines, in addition to master planning consultation requirements (chapter 1). Some airports have taken steps to improve the flow of timely and relevant information to airlines. For example, Melbourne Airport has created a Capital Consultation Group to facilitate collaboration and communication with airlines. It also established a Quarterly Consultation Forum to review service quality issues and share data on on-time performance with its airline customers that have reached an agreement (Australian Airports Investors Group, sub. 20; Melbourne Airport, sub. 33). As noted above, Melbourne Airport excluded Qantas from participating in Quality Control meetings until an agreement was reached for aeronautical services (sub. 48, p. 23; Qantas Group, pers. comm., 23 January 2019).

Some inquiry participants raised concerns regarding the lack of consultation between airports and airport users. Airlines and other airport service users, such as operators of off-airport car parks, argued that there is inadequate consultation with airports through the negotiation process (Andrew's Airport Parking Group, sub. 30; AFIA, sub. 67; Qantas Group, sub. 48; BARA, sub. 42; A4ANZ, sub. 44) (chapter 6). Some participants noted that regional airports were less likely to undertake consultation, and that there was insufficient

engagement on proposed capital works or increases to aeronautical charges (A4ANZ, sub. 44; Virgin Australia Group, sub. 54).

The quality and type of information shared can vary

Airlines stated that they require specific information to make decisions regarding proposed airport investments, including the rationale for, and scope of, proposed investments, expected improvements to service outcomes and estimated capital costs (A4ANZ, sub. 44; BARA, sub. 42; Virgin Australia Group, sub. 54). As noted earlier, inquiry participants identified occasions where airports have refused to provide information. A4ANZ (sub. 44, p. 22) argued that airports may delay or refuse ‘to disclose necessary background information or material facts, thus delaying settlement’. The AAA instead noted that:

... it is the AAA’s view that the information provided to airlines by major airports in Australia is broadly consistent with the information [the International Air Transport Association] suggests should be provided ... The production of information is not costless, the information needs of different airlines vary and change over time. Airports therefore produce information on the basis of what they assume will address most of the needs of most airlines in full knowledge that questions will be asked for further detail on some, but by no means all, matters. (sub. 73, p. 9)

The Commission is also aware of examples of airports providing information that is consistent with the types of information sought by airlines. Perth Airport provides information to airlines (and others) to assess investment proposals and price terms through a publicly accessible website. The information provided includes:

- an indicative 10 year capital expenditure plan, with project descriptions, rationales and changes to price calculations
- 10 year forecasts of passenger numbers and operational costs
- the opening aeronautical asset base used to determine charges, with information on additions, depreciation, indexation and reallocation of assets between aeronautical and non-aeronautical services
- the methodology of proposed pricing models and assumptions adopted, and the proposed weighted average cost of capital (Perth Airport, sub. 51).

BARA (sub. 42, p. 25) stated that the information provided by airports on their proposed investments ‘is considered well below that expected by the Australian Government for the level of cost sought for proposed infrastructure projects’. It advocated for airports to provide more detailed investment proposals, including cost benefit analysis or business cases, depending on the size of the investment. The ACCC (sub. 59) also argued for additional information disclosure in negotiations in order to improve the bargaining position of airlines, and particularly smaller airlines. Proposals to require airports to provide additional information are discussed further in chapter 9.

The commercial negotiation process is effective

Both airport and airline operators have generally displayed good faith conduct through the commercial negotiation process, despite the dissatisfaction of some participants and a small number of instances of poor behaviour. The behaviour of parties during negotiation does not indicate the systematic exercise of market power by airports. A number of participants, particularly airports, identified that the negotiation process was generally positive. For example, Brisbane Airport noted that:

The negotiation processes have been firm and commercially robust but open and transparent, with the airlines heavily involved in agreeing the capital expenditure programs. (sub. 38, p. 6)

Airlines also identified some positive negotiation experiences. A4ANZ noted an imbalance of bargaining power between airlines and airports, but stated:

This is not to say, however, that all airports display these behaviours in negotiations; our members have also shared some examples of airports working collaboratively and constructively with them in the process of coming to an agreement, and at an operational level. (sub. 44, p. 22)

Adelaide Airport (sub. 32, p. 8) stated that it had ‘experienced a very constructive approach’ from Virgin Australia Group, which supported investment in additional apron capacity even though Virgin Australia Group was not the direct user. The Australian Airport Investors Group also noted the success of Adelaide Airport’s collaborative approach to negotiations. Initial plans for a terminal were reduced in scope at the request of airlines to meet ‘airline expectations whilst satisfying the pressing need for international capacity in the short to medium term and a full retail transformation that benefits all airport users’ (AAIG, sub. 20, p. 12).

Other participants also emphasised the benefits of the commercial negotiation process. For example, the Department of Infrastructure, Regional Development and Cities identified that commercial negotiations can balance the needs of multiple stakeholders and provided the example of negotiations for Melbourne Airport’s proposed third runway:

It is reported airline engagement has heavily influenced the project scope and preliminary airspace design. Negotiated changes from the 2013 Master Plan have removed approximately \$250 million in construction costs. The scope agreed to date takes into account how airlines can best utilise a parallel runway system. Melbourne Airport’s engagement with airlines has resulted in runway lengths, widths, taxiways and navigational aids being revised, demonstrating commercial collaboration and the influence of airline stakeholders to ensure major projects are adequate and cost-conscious. (sub. 40, p. 16)

There is no doubt that negotiating agreements for airport services is challenging — it is time consuming, resource intensive and costly, and the argy-bargy between airports and airlines sometimes plays out in the media (A4ANZ, sub. 44; Qantas Group, sub. 48; Virgin Australia Group, sub. 54). A challenging process, however, does not necessarily indicate the exercise of market power. While threats and colourful language are commonplace between some parties, ultimately airports and airlines have commercial and operational incentives to reach

an agreement, especially given the need for new investments to meet demand growth and passengers' expectations of service quality.

The process can be lengthy — some five-year agreements have taken three years to negotiate. However, length of time taken to negotiate does not necessarily indicate an imbalance of bargaining power. The length of time considered reasonable for negotiating one agreement may not hold for another. For example, based on a small number of agreements with Brisbane Airport, agreements that took over a year to negotiate typically related to aeronautical infrastructure, involved multiple parties or were for agreements of five or more years in length. Other agreements were negotiated more quickly. The most recent terminal services agreements (in force from January 2019 to June 2023) generally took 7 months to negotiate acceptable commercial terms with Virgin, BARA and other international airlines that are not members of BARA (Brisbane Airport, pers. comm., 18 January 2019).

4.4 Negotiation outcomes

Commercial negotiations have typically led to airports and airlines securing agreements to provide terminal and airfield services. Most airports have agreements in place for all or most of the services provided to airport users. Commercial negotiations have also supported the delivery of major infrastructure projects. Infrastructure Partnerships Australia (sub. 58, p. 1) stated that ‘... Australia’s major airports have continued to invest significant capital, increase asset efficiency and innovate, while keeping infrastructure charges low and competitive’.

Airports have undertaken significant investment since the reforms to the regulatory regime in 2002. Total additions to aeronautical assets by the monitored airports exceeded \$7 billion over the past 10 years (ACCC 2018a). This investment is a significant share of airports’ value, and increased the total aeronautical asset base by almost 70 per cent after accounting for depreciation. However, this investment does not necessarily mean that airports have invested efficiently (chapter 9).

Reaching agreement does not provide evidence of whether an airport is exercising its market power. A4ANZ (sub. 44, p. 23) noted that ‘the fact that an outcome is produced does not have any inherent value’. A commercially negotiated outcome may still involve an airport exercising its market power if, for example, an airport user has no choice but to accept what it considers to be a poor offer.

The Commission has therefore examined whether agreements result in:

- charges that are set above the efficient long-run average cost of provision
- risks that are disproportionately borne by airport users.

Features of negotiation may constrain inefficient charges

An airport exercising its market power may seek to negotiate agreements that set aeronautical charges above the efficient long-run cost of provision (chapter 2). The preferred benchmark for efficient pricing of infrastructure services — efficient long-run average cost — is a conceptual benchmark that is unable to be calculated in practice (chapter 2). However, other indicators and proxies can give an insight into whether an airport is charging significantly above this benchmark. The Commission has therefore assessed indicators of the four monitored airports' operational and financial performance in chapter 5. This section instead focuses on the features of commercial negotiations that affect prices and outcomes.

Negotiated charges are often informed by a model of airports' expected costs

Many airport operators use a BBM as a starting point for determining their aeronautical charges (AAA, sub. 50). This approach may constrain airports from exercising their market power and setting charges above the efficient long-run average cost of provision.

A BBM determines charges by 'building up' an airport's expected costs, such as capital costs, operating costs and tax liabilities (PC 2012). Airlines are able to test each block of the model for reasonableness (Qantas Group, sub. 48). Some infrastructure regulators use a BBM to determine total allowable revenue for regulated firms and ensure that prices reflect the efficient long-run cost of provision. Use of the BBM in negotiations may provide similar information to airlines to assess aeronautical charges. It may also increase an airline's bargaining power during negotiations as information regarding an airport's costs could signal the minimum offer that an airport is willing to accept.

However, some airlines have argued for further cost transparency and consistency to support pricing proposals (Qantas Group, sub. 48; Virgin Australia Group, sub. 54). Virgin Australia Group (sub. 54) argued that, in practice, airports can inflate BBM inputs to justify excessive charges. An airport operator could recover non-aeronautical costs from airlines by revaluing the opening asset base or by shifting the allocation of assets between aeronautical and non-aeronautical services (Virgin Australia Group, sub. 54).

As part of the BBM, airlines have requested that airports provide information they can use to determine the airport's expected rate of return, including the underlying cost models and assumptions (A4ANZ, sub. 44; Qantas Group, sub. 48; Virgin Australia Group, sub. 54). This has meant that in some cases, negotiating aeronautical charges has become a negotiation over an airport's expected rate of return, which can be fraught.

Risk sharing between airports and airport users

The *Aeronautical Pricing Principles* identify that charges should reflect a reasonable sharing of risk and returns. An airport exercising market power may seek to negotiate agreements where risks are disproportionately borne by airport users.

Airports seek negotiated outcomes that mitigate the risk of ‘stranded’ assets

Both airports and airlines are subject to a number of risks that affect their incentives and bargaining power in commercial negotiations, although these may differ between parties. The Australian Airport Investors Group (sub. 20, p. 4) stated that ‘unlike their airline customers, airports’ assets are large in scale, fixed and immobile, resulting in exposure to a broad range of risks, including demand risk’. Airports seek outcomes from the negotiation process that mitigate the risk of stranded assets, given that airlines have more mobile capital than airports and, as discussed above, are able to reduce or withdraw services at some airports. This means that the risks that an airport faces are dependent on the behaviour and decisions of airlines:

An infrastructure owner with a largely fixed cost base, and substantial market power, might choose to avoid taking volume risk. This is because it would appear to be poorly placed to manage this risk on behalf of its customers and would be in a position to impose the risk on its customers. Airports however take considerable volume risk on behalf of airlines and there is little evidence of them successfully using market power to impose this risk on airlines. Airlines are able to control their capacity, i.e. aircraft, by size and frequency of operations, and have done so in the past. (Brisbane Airport, sub. 38, p. 14)

One example of this risk is the infrastructure upgrades undertaken by the monitored airports, such as to widen taxi and runways and adjust aprons, gates and aerobridges, in order to accommodate A380 aircraft (Melbourne Airport, sub. 33). Ten years on, these aircraft are falling out of favour with many airlines because they are less fuel-efficient than smaller, long-range twin-engine wide-bodied aircraft like the Airbus A350 and Boeing 787. Perth Airport also accommodated aircraft-specific needs for the non-stop flight to London, where the airport:

... facilitated Qantas’ particular needs to operate its 787 aircraft internationally from a pre-existing domestic terminal despite this not being the most efficient solution from a whole of airport perspective. (sub. 51, p 6)

Regional airports also noted the demand risk associated with airline decisions, and that this risk may be higher at airports with smaller population catchments and fewer airlines (Northern Territory Airports, sub. 8). Karratha Airport noted that this risk affects its bargaining power:

We have little or no influence over the policies and network decisions of large airlines with significant market power who possess movable assets that can be deployed to other airports either if the services are not viable or new markets open up. The airport does not have this luxury and needs to make sure the asset is self-sustaining and provides a level of service expected by the community. (sub. 12, p. 2)

Further information is required to assess whether risk sharing is reasonable

Airlines argued that airports exercise their market power to earn a rate of return that does not reflect the risks faced (in order to achieve monopoly rents). Particular concerns highlighted by airlines include:

- pre-financing capital projects — airports sometimes seek to finance investments by negotiating price paths that reflect investment costs *prior* to the infrastructure being operational. Airports stated that pre-financing for large projects can reduce the overall capital costs compared with debt financing (AAA, sub. 50; Adelaide Airport, sub. 32). However, A4ANZ (sub. 44) stated that these practices contribute to airlines paying for investment that is not necessarily required for their operations. A4ANZ (sub. 44) and the International Air Transport Association (2015) noted that this practice is uncommon in other transport sectors where public or private sector financing is available
- capital investment overruns — airlines argued that airports ‘seek to shift the risk for overruns in capital projects to airlines by including cost overruns in the opening asset base at the next price period’ (A4ANZ, sub. 44, p. 23; Virgin Australia Group, sub. 54). In contrast, Melbourne Airport (sub. 33, p. 9) argued that agreements include terms to reduce airlines’ risk associated with underinvestment, such as ‘an annual price reset if actual expenditure falls short of planned expenditure’
- downstream changes in airline operations and passenger traffic volumes — airlines argued that they bear the ‘risk of generating passenger and cargo demand, competition and external market factors’ (Qantas Group, sub. 48, p. 9). Airports argued that they face greater volume risk when agreements include per passenger charges compared with aircraft weight based charges (Brisbane Airport, sub. 38). Some demand risk is also borne by airports where they make capital investments to support new airline technology or services (discussed above).

The outcomes of any agreement are subject to uncertainty and risk. Unforeseen changes to airport and airline circumstances may mean that what initially looked like a prudent agreement might turn out to have been a poor idea. For example, changes in demand that are outside the airport’s control may mean that some investments appear to be above or below requirements only with the benefit of hindsight (chapter 2). However, this does not mean that an airport has exercised its market power.

An imbalance in risk exposure is not unique to airports and airlines. In markets for other infrastructure services that involve large fixed upstream investments, such as gas pipelines, it is common for infrastructure owners to require customers to agree to take-or-pay contracts. In these contracts, a customer guarantees to pay for a future level of services, regardless of whether or not the customer uses them. This can significantly reduce the risk of large capital investments faced by the infrastructure owner. Surprisingly, no examples of take-or-pay contracts for airport services were identified, despite their common use in other industries.

Further information is required to understand the extent of risk sharing in commercial negotiations and make an assessment against the *Aeronautical Pricing Principles* to

determine whether airports exercise their market power to shift risks disproportionately to airport users.

INFORMATION REQUEST 4.2

The Commission is seeking additional information on the ways in which airports and airport users share risks through negotiated agreements including:

- *mechanisms to share investment risks, such as offers or use of take-or-pay contracts, where users are required to guarantee a level of future service use*
 - *current or proposed contract terms that do not reflect a reasonable sharing of risk, and the rationale for their use*
 - *instances where airport users have pre-financed capital projects and why this did or did not represent a reasonable sharing of risk*
 - *the extent to which any risk transfer reflects an exercise of market power, and why.*
-

4.5 Are airports exercising market power through commercial negotiations?

As noted above, some recent agreements are more sophisticated than previous iterations, with inclusions such as improved KPIs, rebates to airlines where airports fail to meet specified service standards, and provisions for collaborative forums and data sharing. However, there remains scope for improvement. Airlines have indicated that airports could better demonstrate that services meet user expectations and deliver value for money. For example, contract terms to enhance accountability and support continuous improvement in service delivery in future rounds of negotiation would align with industry best practice.

No systematic exercise of market power

On balance, commercial negotiations between airports and airlines give little cause for concern. The Commission is satisfied that airports have not systematically exercised their market power in negotiations with airlines to the detriment of the community, despite a small number of instances of poor behaviour. Agreements have underpinned significant long-term investment in aeronautical assets. This is despite the potential stranded asset risk associated with airport investments, given airlines have more mobile capital than airports and, as discussed above, are able to reduce or withdraw services at some airports. Airlines instead argue that airports use negotiations to shift risks disproportionately to airport users.

Claimed instances of a lack of good faith bargaining have typically related to negotiations for domestic aeronautical services, although not all of these instances have been about the behaviour of airport operators. Both airports and airlines provided examples of behaviour that may lack good faith, including refusal to negotiate, threats, lobbying or complaints to

media. The behaviour of some airlines during the negotiation process may indicate that they have strong countervailing power. In contrast, stronger downstream competition coupled with collective negotiation through BARA may lead to fewer disputes in agreements with international airlines, compared with domestic aeronautical services (chapter 3).

Challenging commercial negotiations are not unique to aviation. The conduct of negotiating parties may reflect divergent incentives, and the inherent conflict of negotiations involving significant financial consequences, rather than an exercise of market power *per se*.

This does not mean that an airport with market power would not exercise that power in the future if there were changes in the structure of the market in which it operates. The monitored airports could systematically exercise that power in future negotiations. The annual monitoring regime, periodic reviews by the Productivity Commission and a credible threat of consequences are essential to encourage airports to engage in genuine commercial negotiations with airlines and other airport users in the future.

Anticompetitive clauses should be removed from all agreements

The Commission is satisfied that airports have not systematically exercised their market power in commercial negotiations. However, some agreements contain anticompetitive clauses that:

- establish financial disincentives or loss of contractual rights if an airline is involved in a declaration application under the National Access Regime — these clauses could reduce the effectiveness of the regulatory regime by reducing the threat of declaration (A4ANZ, sub. 44) (box 4.3)
- restrict an airport operator's ability to offer lower charges or other incentives to airlines other than the signatory airline — these 'no less favourable' clauses seek to limit competition in both domestic and international markets, and protect the incumbency of an airline that has negotiated these favourable terms (AAA, sub. 50)

Some airports justified the clauses that establish disincentives for involvement in access declarations on the basis that they prevent the use of the declaration process to undermine an agreement. These airports argued that airlines could engage in regulatory gaming or cherry picking to have certain agreement terms changed, although it is not clear how an application to *declare* a service provides scope for cherry picking by the applicant.

Agreements that contain 'no less favourable' clauses seek to prevent an airport from offering incentives like lower charges for new entrants or specific routes. Such clauses are not advantageous for an airport where it would otherwise benefit from higher passenger throughput. Inquiry participants noted to the Commission that this could particularly affect the entry of new LCCs.

These (and any other) anticompetitive clauses should be removed from all agreements.

Box 4.3 **Contract terms with consequences for airlines seeking declaration**

Airline participants stated that their contracts with airports contain clauses that would penalise them for taking part in an application for declaration under the National Access Regime.

- In several instances, airports successfully negotiated clauses that penalise or withdraw incentives if Qantas Group sought or became involved in a declaration. At least 4 of Qantas Group's current pricing agreements and incentive contracts with 2 major airports include these contract clauses. (Qantas Group, sub. 48, p. 23)
- Furthermore, A4ANZ is aware of airports proposing agreement clauses which create a financial disincentive or a loss of contractual rights if an airline lodged a declaration application or assisted/supported a third party in making a declaration application. This is another example of monopolistic behaviour that runs contrary to both the legislation and public policy objectives. The intent of Part IIIA of the *Competition and Consumer Act* (CCA) is that any business should have the ability to seek access on reasonable terms and conditions to essential facilities such as an airport, yet we see private monopoly infrastructure operators attempting to force their customers to forgo their rights in this regard. (A4ANZ, sub. 44, p. 23)
- Airports will in some cases seek to impose other non-price terms of access which are particularly onerous on airlines and out of proportion with the legitimate commercial interests of the airport. One example of this is a clause proposed by one airport which gives the airport the right to terminate the agreement should the airline lodge (or support or be in any way involved in) an application for declaration under Part IIIA of the *Competition and Consumer Act 2010* (Cth) (CCA). For any party to seek the right to terminate an agreement because the other party seeks to exercise a statutory right is inappropriate and contrary to public policy. For a monopolist to do so is a clear abuse of market power. (Virgin Australia Group, sub. 54, p. 9)

5 Performance of Australia's airports

Key points

- The Commission has analysed three areas of airport performance to provide insights into whether airports are exercising their market power in aeronautical services:
 - operational efficiency — whether an airport provides services at relatively low cost and uses its inputs efficiently, with a level of service quality that meets users' reasonable expectations
 - aeronautical revenues and charges — whether the prices of aeronautical services (as measured by revenues and charges) reflect efficient costs
 - profitability — whether an airport's returns are reflective of the cost of capital, accounting for the long-term nature of airport investments and operational constraints.
- Indicators of performance in each area were measured over time and compared with other airports, including overseas peers where relevant and comparable.
 - In most cases, sensitivity analysis verified that results were robust, with some exceptions noted.
- Most indicators of airports' operational and financial performance are within reasonable bounds. In isolation, some indicators of performance could be cause for concern. However, the evidence as a whole does not suggest that the four monitored airports have systematically exercised their market power in a way that would justify significant change to the current form of regulation of aeronautical services at these airports.
 - Sydney Airport has relatively high returns, but this is less concerning in the context of land constraints that have limited growth in its asset base more than at the other monitored airports. Further, returns should be assessed over a long time period, and on that basis Sydney Airport's returns are not indicative of the systematic exercise of market power.
 - Melbourne Airport has relatively low costs and, on balance, good service quality when compared with overseas airports. Its aeronautical charges are in line with overseas airports and its returns on aeronautical assets are not excessive.
 - Brisbane Airport has invested heavily in international capacity. It has good service quality and low cost compared with the other monitored airports and its returns have been lower than other monitored airports.
 - Perth Airport invested in terminal expansions during the mining investment boom. While supported by airlines at the time, there is now excess capacity which has led to declining operational efficiency and falling returns.
- There is reason for vigilance over aeronautical charges for international services at Sydney and Brisbane airports, which are high compared with overseas airports.
 - Improvements to the monitoring regime to collect specific information on the costs and revenues associated with international services are required to assess whether charges reflect the efficient cost of providing these services.

The rationale for the economic regulation of airports is that the operator of an airport with market power could *exercise* that power by setting excessively high charges for airport services, operating the airport inefficiently or making inefficient investment decisions. Any of these behaviours could lead to poor outcomes for airport users and the community more broadly. Chapter 4 examined whether airports had exercised their market power in aeronautical services through commercial negotiations. The purpose of this chapter is to assess whether airports have exercised their market power through their operational and financial performance. This analysis can inform judgments about whether the existing regulatory regime is effective or if there is a need for change.

This chapter focuses on aeronautical services, such as runways and terminal infrastructure, and concentrates primarily on the monitored airports — Sydney, Melbourne, Brisbane and Perth.

5.1 Assessing airport performance

The four monitored airports exhibit structural indicators of market power that create a *prima facie* case for regulatory intervention (chapter 3) and by exercising that power they could cause detriment to airport users and the wider community (chapter 2). The Commission has examined a range of indicators covering three broad areas where performance could be affected by the exercise of market power (figure 5.1).

- Operational efficiency — whether an airport provides services at relatively low cost and uses its inputs efficiently, with a level of service quality that meets users' reasonable expectations.
- Aeronautical revenues and charges — whether the prices of aeronautical services (as measured by revenues and charges) reflect efficient costs.
- Profitability — whether an airports' returns are reflective of the cost of capital, accounting for the long-term nature of airport investments and operational constraints. Persistently high returns could indicate that airport operators are exercising their market power by setting prices above the efficient level, that is, long-run average cost or, in the case of exogenous capacity constraints, airport users' willingness to pay (chapter 2).

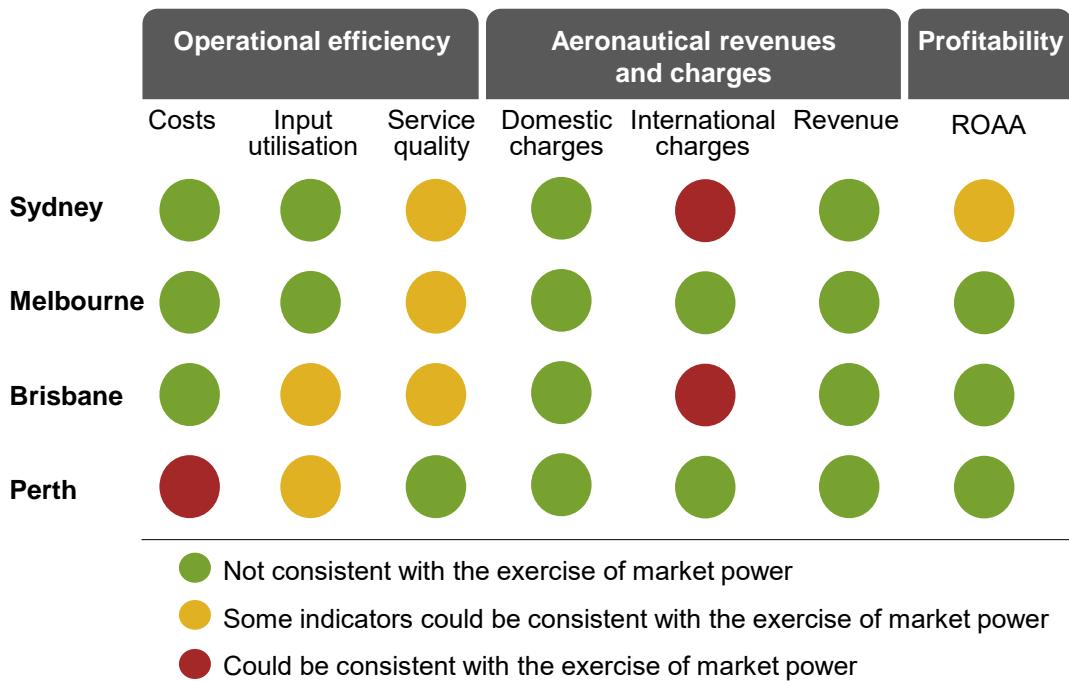
The Commission has not sought to set benchmarks for individual indicators. Each airport has different circumstances so it is not practical (or sensible) to define a benchmark for each indicator that would signal an exercise of market power at each airport. Instead of comparing indicators with benchmarks, the Commission has assessed indicators of airport performance over time, and relative to comparable airports in Australia and overseas to determine whether they could be consistent with the exercise of market power. It has then assessed whether the overall performance of each airport could be consistent with the systematic exercise of market power.

Figure 5.1 Assessing airport performance



The Commission's analysis shows that some indicators of operational and financial performance at particular airports could be consistent with the exercise of market power when taken in isolation (figure 5.2). However, when taken as a whole the evidence does not suggest that airports have systematically exercised their market power to the detriment of the community (section 5.5).

Figure 5.2 Summary of airport performance



The Commission found that international charges for aeronautical services are relatively high at Sydney and Brisbane airports. More specific data on costs and revenues for international and domestic aeronautical services would enable greater scrutiny of performance in this area in the future.

The monitored airports performed well relative to overseas airports on passenger service quality measures but airline service quality measures present a less favourable picture. There is scope for improvements to the monitoring regime that would enable a more thorough assessment of whether airports are exercising their market power by setting excessively high charges for airport services, operating inefficiently or making inefficient investment decisions. Methodological issues and biases limit the robustness of quality of service ratings under the monitoring regime. Among other improvements, quality of service monitoring should be updated to emphasise indicators that reflect outcomes that are valued by airport users (airlines and passengers), drawing on the indicators that airports and airlines use in service level agreements (chapter 10).

Data used in the Commission's analysis

The Commission has used the best available and comparable data, from several sources.

- Australian Competition and Consumer Commission (ACCC) monitoring reports are used to assess, for each monitored airport, its position relative to the other monitored airports,

and how its performance in each indicator has changed over time. Caveats with the ACCC data are noted in box 5.1.

- Most of the comparisons with overseas airports were made using data from the Air Transport Research Society (ATRS). The approach used to select airports from that database for overseas comparisons is described in box 5.2.
- Other data are sourced from the Bureau of Infrastructure, Transport and Regional Economics (BITRE), airport and airline reports and publications, and evidence provided in submissions to this inquiry.

A period of 10 years was used for time series analysis. While airport investments typically last much longer than this, it is a sufficient length of time to assess trends in performance, without being overly influenced by short-term volatility. Further, many key indicators in the ACCC monitoring reports are only available on a consistent basis from 2007–08.

Indicators for each airport need to be measured on the same basis. For overseas comparisons of monetary indicators, the Commission adjusted results by using purchasing power parity (box 5.3). The sensitivity of results was tested using nominal exchange rate conversions.

Box 5.1 Limitations of ACCC data for analysis of monitored airports

Domestic terminal leases

Most terminals at the monitored airports are owned and operated by the airports, with airlines being charged for access. However, some domestic terminals are operated exclusively by a single airline, under a domestic terminal lease (DTL) arrangement.

The ACCC's monitoring role for aeronautical services only covers terminals owned and operated by the monitored airports. DTL costs and revenues are not included in figures specifically for aeronautical services, but are included in 'total airport' figures. Figures for total passenger numbers also cover DTLs. This distorts results by significantly lowering aeronautical costs and revenues per passenger and should be taken into consideration when making comparisons between airports.

The DTLs at Brisbane and Perth airports expired in December 2018 and the DTL at Melbourne Airport is due to expire in June 2019, after which this issue will cease to affect reported outcomes.

Objective quality of service indicators

The ACCC collects data on a range of objective quality of service indicators. For example, it reports the number of departing passengers per check-in desk, kiosk and bag drop facility (during peak hour) and other ratios of the number of passengers to the number of a certain facility. It is not always clear whether an increase or decrease in the provision of certain facilities represents an improved outcome for airport users. For example, the number of departing passengers per check-in desk, kiosk and bag drop facility will decrease if traditional check-in desks are replaced with a greater number of modern kiosk and bag drop facilities. Whether this represents an improvement in quality depends on airport users' preferences for each technology and the performance of each technology.

(continued next page)

Box 5.1 (continued)

Further, objective indicators cannot capture improvements in quality that do not lead to an increase in the number of facilities (Sydney Airport, sub. 53). For example, replacing flight information display screens with larger and more legible screens would not be reflected in the indicator of the number of passengers per flight information display screen.

The ACCC also converts each objective indicator into a rating out of 5 in order to include these indicators in overall quality ratings. A rating of 3 is considered the average for an objective indicator. Airports that perform better (worse) than the average of the monitored airports are rated higher (lower) than 3. Accordingly, an airport's rating could decrease not because of any change at the airport itself, but because of an improvement in the average relative performance of other monitored airports (ACCC, sub. 59). Monitored airports also measure some indicators differently, which further limits comparisons between airports (ACCC 2013b).

Subjective quality of service indicators

The ACCC also takes into account subjective quality of service indicators collected through surveys. Subjective survey data can show whether service quality is meeting expectations but are less useful for assessing long-term improvements because they are more likely to reflect recent experiences and current expectations than improvements from past experiences.

Subjective responses also depend on who is being surveyed — participants might be more likely to respond if they experience poor quality service, or airlines might be motivated to ‘game’ the regulatory system by giving low ratings (AAA, sub. 50; ACCC 2018a). The reliability of the ACCC’s airline survey ratings could also be affected by low response rates (AAA, sub. 50; ACCC, sub. 59), the equal weighting of responses regardless of airline size (ACCC, sub. 59), potentially negative connotations in the survey (Brisbane Airport, sub. 38) and limited representation of airline employees (Sydney Airport, sub. 53).

Box 5.2 Airports used in international comparisons

For international comparisons of costs, input utilisation and revenues, the Commission primarily used data from the Air Transport Research Society (ATRS) annual global benchmarking report (ATRS 2018), which provides data for more than 200 airports across the world. The Commission selected several samples of airports from the ATRS data set. An important factor for airport performance is likely to be size. Liebert and Niemeier (2013) reviewed literature analysing airport productivity and found mixed evidence on the importance of scale (passenger numbers or aircraft movements). For example, one study suggested economies of scale flattened out for airports with more than about 3–5 million passengers, meaning that medium- and large- sized airports could be compared with each other. Other studies had a higher threshold level. Although there is not a consensus regarding scale effects, the Commission has used airports in the database with more than 10 million passengers for its international comparisons (more than 100 airports in total), as these are at least as large as Perth Airport, which had the fewest passenger numbers of the monitored airports.

(continued next page)

Box 5.2 (continued)

Other factors have also been considered when assessing overall airport performance. Regulatory requirements differ across regions and also within countries. For example, Sydney Airport has regulatory constraints, including a movement cap and curfew (chapter 7).

Airport performance may also be affected by other airport characteristics such as the passenger mix and the types of aircraft flown. The monitored airports have a relatively low share of international passengers and service (on average) larger aircraft than many overseas airports. These factors, as well as passenger numbers, have been considered by using four different samples of airports:

- airports with greater than 10 million passengers (the main sample used in this chapter)
- airports with 10 to 50 million passengers
- airports with greater than 10 million passengers and less than 50 per cent international passengers
- airports with greater than 10 million passengers and a relatively high number of passengers per aircraft movement on average.

All sub-samples include at least 50 airports and depend on ATRS data availability for each indicator. International comparisons of costs, input utilisation and revenues using all four samples are presented in appendix B.^a

International comparisons of profits and aeronautical charges use different (smaller) samples of airports based on those included in analyses presented in submissions. International comparisons of service quality are based on the airports included in international survey and rating programs. General conclusions are made from these analyses without altering the choice of airports.

^a Available online only from: www.pc.gov.au/inquiries/current/airports-2019/draft.

Box 5.3 Purchasing power parity

The purchasing power parity (PPP) concept states that, in the absence of transaction costs and barriers to trade, identical goods or services will have the same price in different markets when converted to a common currency. In the markets for aeronautical services, if PPP holds, then similar services will trade at similar prices at airports throughout the world.

In practice, this does not occur. In a general sense, PPP may fail to hold when the general price level in a country relative to another country shifts and the exchange rate is not able to adjust to compensate.

If PPP does not hold, then similar goods or services may trade at different prices in different markets. This can occur because factors that affect prices and exchange rates may mean that the same amount of money (once converted into a common currency) does not purchase the same quantity of services across a sample of countries. A PPP adjustment corrects for fluctuations in the nominal exchange rate by determining an equivalent exchange rate so that, broadly, the same type of goods and services can be acquired in both countries. Using a PPP rate facilitates international comparisons by removing price differentials that are due to nominal exchange rate fluctuations and focusing on those due to underlying differences in technology or competition.

Caveats for international comparisons

The Commission encountered challenges in making comparisons between Australia and overseas airports. Airports can have very different characteristics, including size, mix of domestic and international passengers, and the number of airlines served. Overseas airports operate under different regulatory regimes and ownership structures. Airports also structure their aeronautical charges, value their assets and measure service quality indicators differently, which can lead to difficulties in comparing airports' performance. Changes in reporting methodologies can also affect comparisons over time.

Airport and airline groups both raised these issues. Airlines for Australia and New Zealand (A4ANZ) (sub. 44, p. 26) said that results of international comparisons should be interpreted with caution.

... given the unique characteristics of Australian airports (the high proportion of domestic travel, type of ownership, network connectivity, and variable hub characteristics), it is difficult to find appropriate international airports for meaningful comparison via [Data Envelopment Analysis] DEA or [Stochastic Frontier Analysis] SFA analysis; they are more likely to match other Australian airports. Attempts to assess efficiency or performance against international airports may therefore produce flawed results, to be interpreted with caution.

The Australian Airports Association (AAA) (sub. 50, attachment 2, p. 11) also noted that comparisons are difficult, but can still be useful.

The literature makes clear that benchmarking is not a simple exercise. There are common issues with data availability and consistency. As well, determining a perfect set of comparable airports is a challenging task as there will always be inherent differences between airports. This, however, does not mean that there is no merit in benchmarking exercises; it means that the comparable airports chosen should be reasonably similar, but the differences between them and the implications of these differences should be noted. In addition, the differences in structure, operation, regulation, subsidy, etc. should be taken into account when interpreting the overall results.

The Commission agrees that data limitations and other factors make comparisons of airports across different countries challenging. The additional insights from international comparisons outweigh the limitations, provided that the analysis and interpretation is done with caution. Sensitivity analysis using different samples of comparator airports (box 5.2) supports the overall qualitative findings on costs, input utilisation and revenues.

5.2 Operational efficiency

An airport can exercise market power in a way that is harmful to the community by operating in an inefficient manner. Airports could allow their costs to rise, provide a quality of service that is not in line with customers' reasonable expectations, or underinvest in infrastructure (chapter 2).

Australian airports generally argued that they invest and operate efficiently. For example, according to Perth Airport (sub. 51), its consolidation strategy sees all regular public transport services relocating into the airport's central precinct, with the use of swing gates where possible and a combined baggage make up area for international and domestic services. Similarly, Queensland Airports Limited said that the 'Gold Coast Airport terminal currently incorporates swing departure gates, capable of handling both domestic and international passengers, to maximise efficiency for airlines' (QAL, sub. 23, p. 10). Queensland Airports Limited (sub. 23) also noted that future plans to upgrade the Townsville terminal include the installation of innovative check-in and automatic bag-drop facilities, which are increasingly being used in many other airports.

Airline participants argued that operational efficiency is declining.

- A4ANZ (sub. 44) stated that rising operating costs per passenger provide evidence that airports have become less efficient, especially in light of technological innovations and growing passenger numbers over the past decade.
- Qantas Group (sub. 48, p. 19) said that 'inefficient investment decisions by Australian monopoly airports have increased passenger costs over the past decade'. Qantas Group highlighted its experiences at Perth and Townsville airports as examples that 'demonstrate that Australian airports can simply recover costs from airlines'.
- A4ANZ (2018) stated that airports could operate more efficiently by utilising their existing infrastructure better, through more modest increases in operating costs.
- Qantas Group (sub. 48, p. 6) said that 'ACCC price and quality monitoring data shows service quality levels for passengers at the monitored airports are stagnant or declining'. Virgin Australia Group (sub. 54) and A4ANZ (sub. 44) made similar comments.
- Airlines said they themselves experience higher costs and reduced operational efficiency, with this 'stemming from the airport operator not adequately responding to growth in passenger volumes and flights above that forecast' (BARA, sub. 42, p. 32).

The Commission has analysed the evidence to reach its own conclusions on operational performance. This section focuses on financial costs, utilisation of infrastructure and service quality of the monitored airports.

These measures of operational performance are affected by changes in investment and in passenger numbers, but not necessarily in the same ways. An increase in investment in infrastructure can lead to a fall in some measures of performance, for example, through an increase in total costs and fall in the utilisation of inputs (decline in measured productivity). However, measured service quality could increase because of lower congestion and associated improvements in airline and passenger experiences. Similar outcomes will be seen with a fall in passenger numbers at an airport, even if there are no changes in the provision of infrastructure. This highlights the need to look at various indicators collectively to assess overall operational efficiency.

Costs have increased at most of the monitored airports

The ACCC (2018a) reports airports' total costs in its annual monitoring reports, as well as detail on the operating and capital expenditure items that comprise total cost. Costs include salaries and wages, depreciation, amortisation, services and utilities, property maintenance, security, contract services and general administration. It is important to consider total costs as airports are capital intensive. Additional insight can be gleaned from looking separately at operating costs (defined here as total costs less depreciation and amortisation). Operating costs represent ongoing expenses, such as labour and utility costs.

Both total and operating costs per passenger over time can be used to assess operational performance. If an airport is being run efficiently then changes in costs per passenger should reflect this. That is not to say that costs will not increase over time for an efficient airport. For example, some airports argued that the costs of servicing international passengers are greater than domestic passengers (Sydney Airport, sub. 53). International aeronautical services generally require more terminal space for security and immigration processes, baggage handling and full separation of arriving and departing passengers. As a result, costs per passenger will tend to be higher for airports with a higher proportion of international passengers, all else being equal. Following from this, costs would be expected to increase if international passengers increase as a share of total passengers.

Sydney, Melbourne and Brisbane airports have had fairly stable operating costs per passenger, increasing only slightly over the past decade (figure 5.3). Operating costs per passenger at Perth Airport increased more rapidly — by over 50 per cent from 2007-08 to 2016-17.

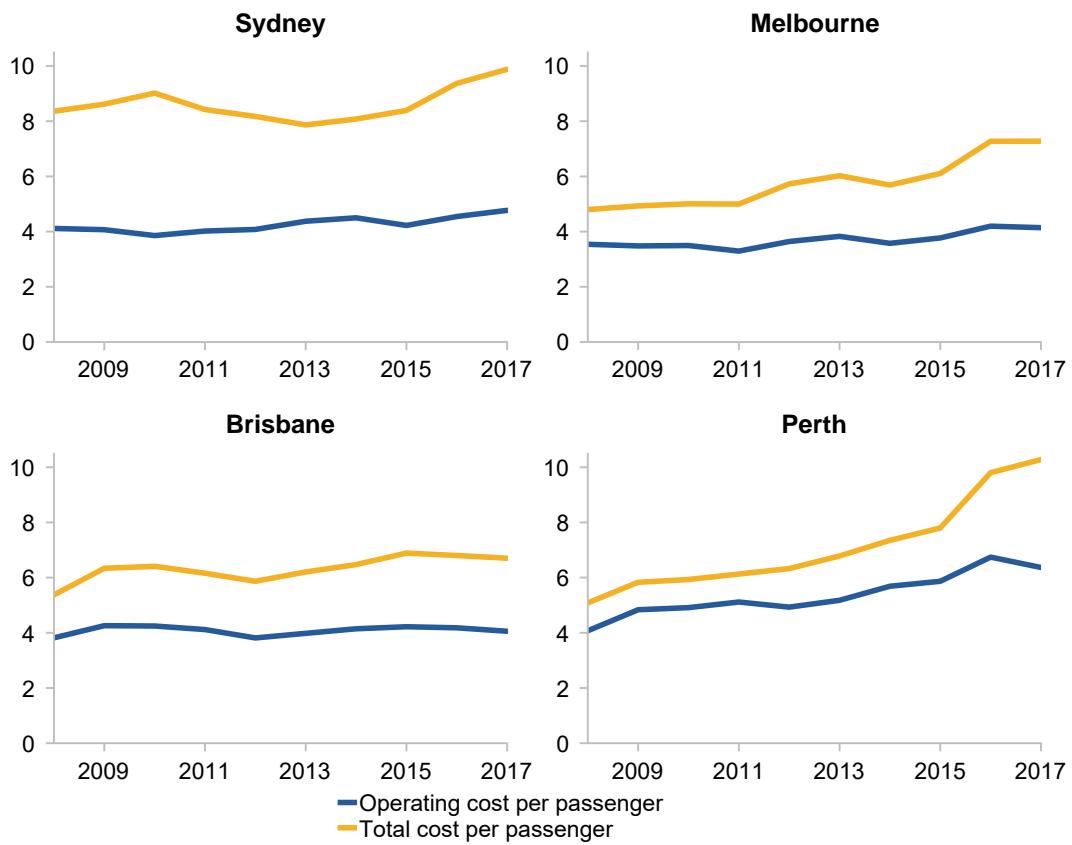
Total costs per passenger followed a similar pattern, increasing modestly in Sydney, Melbourne and Brisbane and more rapidly at Perth Airport. A large proportion of Perth Airport's relatively rapid increase in total costs was the result of increased depreciation. In contrast, its operating costs per passenger have risen more gradually in recent years, and declined in real terms by about 6 per cent from 2015-16 to 2016-17.

Cost drivers at the monitored airports

The AAA (sub. 50, p. 56) stated that the rise in operating costs in recent years at the monitored airports is 'probably due to increasing security costs, maintenance costs associated with ageing assets, and economy-wide increases in energy costs'.

Analysis of ACCC monitoring report data confirms that security costs have consistently made up the greatest share of operational costs at the monitored airports, comprising about 30–40 per cent of operating costs over the past decade, which was fairly constant over that time.

Figure 5.3 Costs have increased at most airports in the past decade
 Dollars per passenger (constant 2017 dollars), 2007-08 to 2016-17



Sources: Commission estimates based on ACCC (2018a) and various back editions.

Submissions provided by airlines and A4ANZ argued that airports provide government mandated security at a higher cost than what some airlines can provide the same service for.

The inefficiency of airport operations is further exemplified by the significant difference between security screening services managed by airlines, and the cost of equivalent services charged at common user terminals which are managed by the airport authority. In some cases, the difference in price is so stark that airlines opt to pay a competitor airline with screening authority to undertake security screening services on their behalf, rather than pay the exorbitant prices charged by the airport; which may be almost double that of the airline's price. (sub. 44, p. 21)

Qantas Group (sub. 48, p. 29) also argued that security costs at airports were higher than necessary, and stated that in some cases airports are broadening the coverage of security costs to 'go beyond those security services necessary to safeguard against unlawful interference with aviation'. Qantas Group (sub. 48) listed examples of services Qantas and Jetstar have routinely had to pay for, including car licence plate readers in car parks, taxi and hire car areas, arrivals areas and departure areas, as well as screening of retail and other non-aeronautical goods and staff.

In response to the Qantas Group submission, the AAA (sub. 73) said that CCTV technology and number plate recognition systems have been implemented at several major airports in consultation with the Australian Federal Police, Australian Border Force and airlines, to assist in identifying persons of interest.

The AAA (sub. 73, p. 13) acknowledged that some airports do not separately charge retailers for the screening of goods and staff. However, it said that a significant portion of retail goods may be consumed in airport lounges and that, in any case, the costs are small, estimating that ‘retail and lounge consumable screening makes up three per cent or less of the total costs associated with passenger screening’.

Cost drivers at Perth Airport

Perth Airport (sub. 51, p. 43) identified several reasons for its increased costs per passenger, and also stated that costs should start growing more slowly.

For the duration of the recently expired aeronautical agreements, costs were higher than expected over a number of years. This increase in cost is primarily attributed to the underestimation of the cost for the stepped increase in operations over the period including the opening of 2 additional new terminals (T1 (Domestic) and T2), exacerbated by the mining boom which drove a significant increase in labour cost. However, it should be noted that because of the fixed real price nature of the PSA agreements [Prices and Services Agreements], these additional costs were not passed on to airlines but were instead absorbed by Perth Airport shareholders. Further, as a result of a range of efficiency initiatives introduced since 2016, operating costs per passenger in 2019 are expected to be at the same levels as they were forecast to be when the PSA contracts were entered into in 2011 and are forecast to grow below inflation until FY21.

Qantas Group (sub. 48, p. 19) was critical of the cost of some of Perth Airport’s investment decisions. Terminal 3 at Perth Airport was recently retrofitted by Qantas Group. According to Qantas Group, Perth Airport’s expected cost of doing this itself was 80 per cent more than Qantas Group’s estimate of the cost.

Perth Airport has experienced declining domestic passenger numbers since the end of the mining boom. Overall, total passenger growth was much lower than forecast in its most recent Master Plan (Perth Airport 2014). It is likely that the growth in both total costs per passenger and operating costs per passenger would have been more contained had passenger numbers increased in line with their forecast levels. This is because many costs cannot scale with passenger demand. For example, depreciation is an entirely fixed cost, and it may not be possible to scale electricity usage to match passenger demand.

The utilisation of some inputs declined

Another measure of operational performance is to examine how intensively an airport uses its physical assets. This can be done by measuring the utilisation rate of an input (for example, runways per million passengers) or its inverse (essentially a partial productivity measure). The

Commission estimated the utilisation rate (per million passengers) of runways, gates and terminal area in 2016 and over time (table 5.1). All airports had higher runway utilisation in 2016 than in 2008. This change reflected growth in passengers, because no new runways were completed at any of the airports during the period. Brisbane and Perth airports had lower gate utilisation in 2016 than in 2008, driven by an increase in the number of gates over that period.

Results should be interpreted with care. For instance, a high utilisation for an input such as terminal area (that is, low terminal area per million passengers) could mean the terminal is more congested. Passengers are likely to prefer it to be less congested — so long as lower congestion does not lead to higher passenger charges. Further, low utilisation may not be of concern if a relatively high amount of physical infrastructure is needed to accommodate relatively high peak demand, or if it reflects recent investments to support expected growth in long-term demand.

These caveats limit the insights that can be gleaned from using input utilisation rates as indicators of operational performance. Nevertheless, they provide another reference point for assessing operational efficiency — for instance, it would be expected that an airport with a high utilisation of a capital inputs has more scope to maintain lower costs (on a per passenger basis) than one with low utilisation of resources, all else being equal. An airport with high input utilisation uses less of the resource to generate the same output as another airport.

Table 5.1 Capital input utilisation rates

Per million passengers^a

Airport	Utilisation rate 2016			Change 2008–2016 (per cent) ^b		
	Number of runways	Terminal area ('000 square metres)	Number of gates	Number of runways	Terminal area ('000 square metres)	Number of gates
Sydney	0.07	9.20	1.29	-21.3	-21.7	-34.6
Melbourne	0.06	6.74	1.97	-29.1	30.1	-22.3
Brisbane	0.09	11.08	3.76	-17.2	110	13.1
Perth	0.14	6.18	4.65	-34.3	-13.3	91.5

^a Passenger numbers for Australian airports are sourced from the ACCC monitoring report. ^b An increase in the utilisation rate between 2008 and 2016 signifies a reduction in utilisation and partial productivity, whereas a decrease in the utilisation rate over time signifies an increase in utilisation and partial productivity.

Sources: Commission estimates based on ATRS (2010, 2018) and ACCC (2018a).

International comparisons of costs and input utilisation

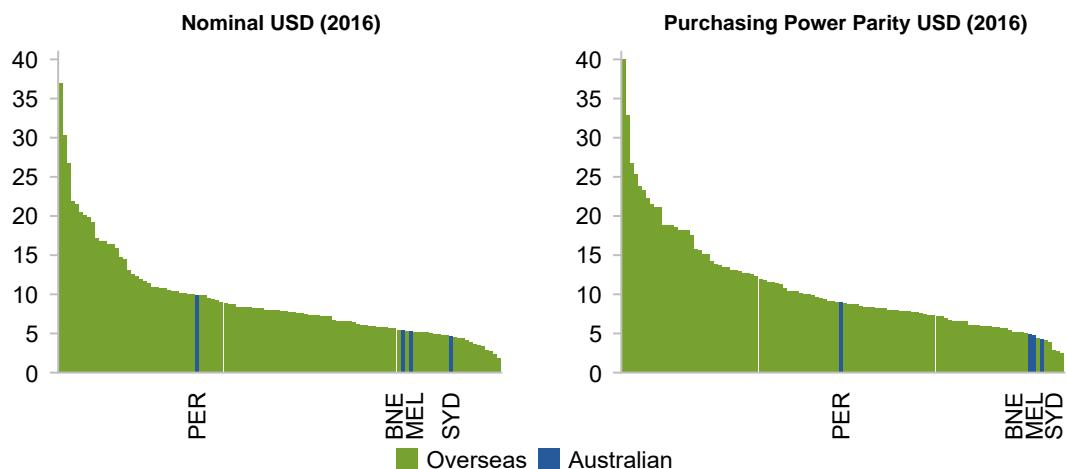
The Commission examined whether Australian airports' costs and capital input utilisation (for runways, gates and terminal area) are in line with overseas airports.

Separate data on aeronautical and non-aeronautical services were not available for overseas airports. Thus the data that the Commission has used for its analysis on costs, and evidence

provided in submissions, are whole of airport figures. These comparisons should be interpreted with care. Airports with relatively low whole of airport operational costs may not necessarily have relatively low aeronautical costs. Despite data limitations, cross-country comparisons can provide another reference point to examine if the monitored airports are performing broadly in line with overseas airports.

Sydney, Melbourne and Brisbane airports' whole of airport operating costs per passenger in 2016 were below average (figure 5.4). These results held when other samples of airports were used (appendix B). Perth Airport's whole of airport operating costs per passenger were in line with the average of the sample after adjusting for differences in purchasing power between countries (figure 5.4). However, they are higher on a nominal basis and relatively high when compared with airports that have a low share of international passengers (appendix B). Total cost comparisons across airports were not made because the ATRS does not provide relevant data (there are no depreciation and amortisation costs).

Figure 5.4 Whole of airport operating costs per passenger^{a,b}
Comparison with selected overseas airports^c



^a The Commission has used variable costs from the ATRS report as a proxy for operating costs. The ATRS defines variable costs as all non-capital related costs. Estimates are from whole of airport company financial reports and include non-aeronautical costs. PPP conversions are approximate based on average exchange rates and PPP rates for 2016. ^b Passenger numbers for Australian airports are sourced from the ACCC monitoring report. ^c Airports in the ATRS database with more than 10 million passengers in 2016.

Sources: Commission estimates based on ATRS (2018) and ACCC (2018a).

As was noted in submissions by airport and airline groups, international comparisons need to be made with caution. Empirical results provided in some submissions used alternative samples of airports but came to similar conclusions, further corroborating the Commission's findings.

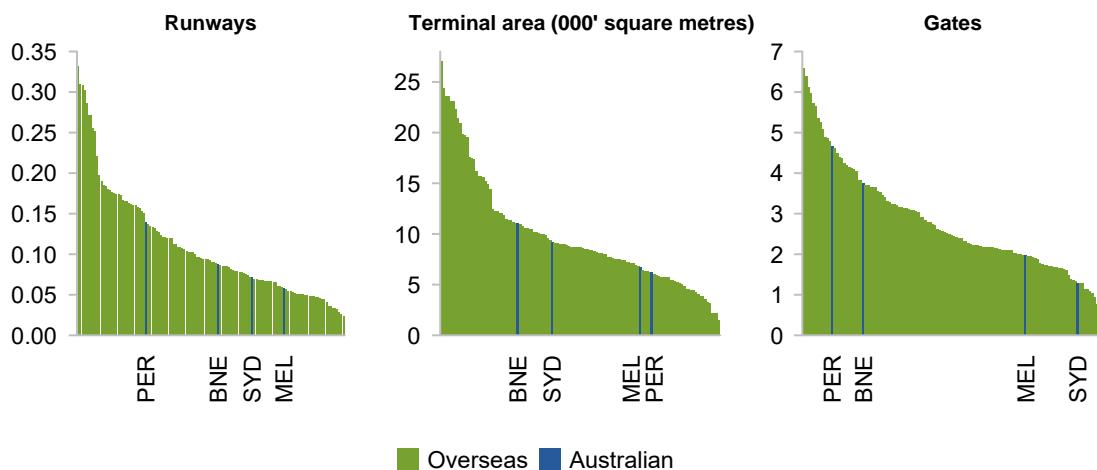
- The AAA (sub. 50, p. 59) provided results generated by InterVISTAS comparing the whole of airport operating costs of the five largest Australian airports with a selection of overseas peers (14 airports in total). Peer airports were selected on the basis of their

traffic profile. Perth Airport was the only Australian airport with operating costs and total costs above the median.

- The Airports Council International (sub. 16, p. 6) presented data from Leigh Fisher for the 50 largest international airports. It showed that the monitored airports ranked between the 6th (Melbourne) and 21st (Perth) lowest total costs per passenger.

With regard to capital inputs, most of the utilisation rates in 2016 for the monitored airports were average or above average compared with overseas airports, although Perth and Brisbane airports generally had lower utilisation rates than Melbourne and Sydney, particularly for number of gates per passenger (figure 5.5).

Figure 5.5 Input utilisation per million passengers^a in 2016
Comparison with selected overseas airports^b



^a Passenger numbers for Australian airports are sourced from the ACCC monitoring report. ^b Airports in the ATRS database with more than 10 million passengers in 2016.

Sources: Commission estimates based on ATRS (2018) and ACCC (2018a).

Measures of productivity

One limitation of the partial analysis of input utilisation rates above is that too much emphasis can be given to one indicator. While one input might be utilised relatively efficiently (in line with other airports' utilisation of that input), it may come at the expense of other inputs not being utilised as efficiently. One way to address this is to measure total factor productivity (TFP) — where more than one input (and output) can be modelled. Measures of TFP essentially weight individual inputs and outputs to calculate an overall summary measure of productivity over time. Productivity (the ratio of an output index to an input index) is akin to the inverse of input utilisation (an input relative to output) described above, but extends that analysis by jointly considering the effect of all inputs.

Niemeier, Forsyth and See (2018) (and discussed in Forsyth, sub. 15) estimated the TFP of the four monitored airports. According to their preliminary results, productivity increased at the monitored airports from about 2002 to 2008, but has declined since then. The study estimated that productivity declined between 2008 and 2017 at Sydney Airport by 2.3 per cent per year, at Melbourne Airport by about 2.5 per cent per year, at Brisbane Airport by 3.6 per cent per year and that Perth Airport had the largest decline, at 4.2 per cent per year. In explaining why this may have occurred, Forsyth (sub 15. p. 4) said that the decline in productivity across all airports is consistent with rising costs over that period.

Niemeier, Forsyth and See (2018) used a financial measure to estimate TFP, but other studies typically employ physical quantities of inputs and outputs. This is useful for cross-country comparisons of airport productivity, because it avoids the issue of differing financial accounting methodologies across countries.

As noted for partial input utilisation measures above, TFP results should also be interpreted carefully. Changes in airports' estimated productivity reflect changes in their utilisation of inputs and the constraints they face during the measurement period. Capital expansion at airports is often large-scale and lumpy, whereas passenger growth increases more steadily over time. Therefore, a large capital expansion will typically lead to a fall in measured productivity of airports over the short term. A measured productivity decline is not necessarily a 'poor' outcome if upgrades in infrastructure are required to accommodate growth in passenger numbers, and especially if it can be built at low cost.

Relative productivity can be compared across airports. The Commission explored the use of data envelopment analysis (DEA) and other statistical techniques to do this. Although there is now a large literature of research that has used DEA and similar techniques to compare airports' productivity, there are difficulties in doing this analysis. For example, airports are very heterogeneous and so a relevant sample is required. Much of the literature has focused on airports within the same country or geographic region.

DEA estimates a summary 'productivity score' for each airport. Airports that maximise their output, given the inputs used in production, are identified as being on the 'best practice frontier' and have a score of 1. For example an airport with a score of 0.8 is 20 per cent below the frontier, or uses 20 per cent more inputs (for example, terminal area and gates) relative to the most productive airport, to process a given number of passengers.¹

The performance of each airport is based on the specific inputs used in the DEA model, and can only provide information on whether the quantities of those inputs are close to the quantities used by the most productive comparator airports. That is, whether an airport could use less inputs to process the same number of passengers, if it were to change its production processes to match those of an airport that uses less resources per passenger. A limitation of

¹ This is usually referred to as efficiency in the literature. For example, an airport's relative efficiency is determined by comparing the actual ratio of its outputs to inputs with the optimal ratio of outputs to inputs. For consistency with the terminology used in this chapter, the term 'productivity' or 'productivity score' is used here instead.

the approach is that it assumes that only those inputs specified in the model are used to produce airport services.

The Commission used DEA on data from the ATRS for 2016 and explored the effect of using different airports in the sample (box 5.2) and inputs. It assumed that there was only one output (passenger numbers) and the inputs used were:

- number of runways
- terminal area
- number of gates (in some specifications)
- whole of airport operating costs (defined as variable costs by the ATRS).

As this analysis used whole of airport operating costs, results should also be interpreted as being for whole of airport (not aeronautical services only).

The DEA analysis complemented the partial indicator analysis above, and provided similar insights. This is because the DEA model summarises in one measure each airport's combined use of inputs relative to others (information presented in figures 5.4 and 5.5).

Results were found to be sensitive to model parameters, including:

- the sample of airports used (as described in box 5.2)
- variables chosen as inputs into production
- production technology (constant or variable returns to scale).

There was not always a consistent trend in the results across all airports from changing an assumption. This limited the insights that could be made from the analysis, but some general observations are noted below.

Sydney and Melbourne airports had productivity scores above the median of the other airports chosen in the sample (and this was the case when using different inputs, different choices of production technology and across various samples of airports). Sydney Airport was usually ranked as being the most productive of the monitored airports. In the model, a more productive airport is one that processes more passengers per unit of input. However, the model does not account for service quality, and an increase in the number of passengers (and hence productivity score) at an already congested airport will likely be accompanied by a further increase in congestion. Sydney Airport's relatively high productivity score could partially reflect that it is more congested than other airports (chapter 7). It also likely reflects that Sydney Airport is further into its investment cycle than the other monitored airports. As noted above, an airport that undertakes new investment can initially experience a fall in productivity. The number of passengers that Sydney Airport processes is also affected by its regulatory constraints on aircraft movements, which can exacerbate aircraft delays and lead to flight cancellations. Reforms to these regulatory constraints would most likely increase Sydney Airport's measured productivity (chapter 7).

Brisbane and Perth airports had lower productivity scores in 2016 than the other monitored airports. They performed broadly in line with the median of other airports in the sample, and in some cases (depending on the assumptions) were slightly below the median. When interpreting these results, note the lower utilisation rates for most of the physical inputs at Brisbane and Perth airports in 2016 (figure 5.5). In the DEA model, this translates into a lower score at Brisbane and Perth airports. According to the model they had more scope to reduce inputs (or increase passenger numbers), and move closer to best practice. Significant investment at Perth and Brisbane airports has increased the quantity of some of their capital inputs. The low utilisation for some inputs at these airports may not be of concern if a relatively high amount of physical infrastructure is needed to accommodate relatively high peak demand, or if it reflects the timing of the investment cycle. Utilisation could be a concern if investments were not economically efficient, taking into account the circumstances at the time of investment.

On-time performance has declined but remains average to high

On-time performance is measured as the percentage of flights that operate within 15 minutes of their scheduled time. On-time performance can materially affect a passenger's experience and airlines' operational efficiency. This indicator is often used as a measure of performance in service level agreements (SLAs) between airports and airlines, and airlines may receive rebates as compensation for delays (Melbourne Airport, sub. 33; Perth Airport, sub. 51; Sydney Airport, sub. 53). On-time performance is not wholly within an airport's control. Airlines themselves affect an airport's on-time performance, for example, through their scheduling and resource planning. It can also be affected by exogenous factors such as passenger disruptions, resource shortages, weather, regulatory constraints (such as the movement cap at Sydney Airport (chapter 7)), and flow-on effects from delays at other airports. Reflecting this, airports pay rebates for aircraft delays only if they are the result of the unavailability of airport facilities (Melbourne Airport, sub. 33; Sydney Airport, sub. 53).

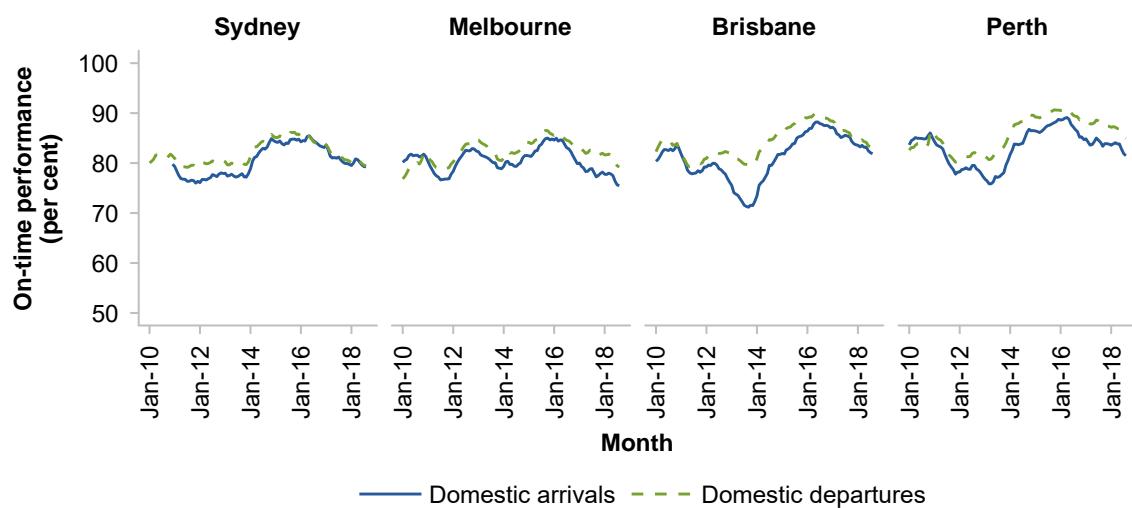
New technologies and methods being rolled out by Airservices Australia have improved the predictability of flight departures and arrivals of domestic aircraft, resulting in lower airborne holding time for aircraft on arrival (Airservices Australia, pers. comm., 8 January 2019). Improvements are expected to continue with the implementation of long range air traffic flow management (ASA 2018b), airport collaborative decision making (ASA 2018a) (commenced in 2018-19) and the completion of the new civil and military air traffic management system by 2023 (ASA 2018d). These developments are expected to lead to more efficient flights and better outcomes for passengers, airlines, airports and the environment (Airservices Australia, pers. comm., 8 January 2019).

There was significant variation in domestic on-time performance across airports and over time, which ranged mainly between 75 and 90 per cent from 2011 to 2018. On-time performance peaked above 85 per cent at the four monitored airports in 2016 (figure 5.6). Brisbane and Perth airports had the largest improvements in domestic on-time performance from 2011 to 2016. These observations could partly be attributed to airport capacity

expansions and the end of the mining investment boom, which reduced the number of domestic mining-related airport services, particularly at Perth Airport (AAIG, sub. 20). Domestic on-time performance at the monitored airports has declined since 2016, with it returning to close to 2011 levels at each of the monitored airports.

The OAG Punctuality League report shows that the monitored airports ranked mid-range to high on whole of airport on-time performance in 2017, among other airports around the world within the same size category (OAG 2018b, 2018a). Melbourne Airport ranked 13th and Sydney Airport ranked 16th among 27 major airports, despite Sydney Airport facing unique operational constraints that affects its on-time performance (chapter 7). Brisbane Airport ranked sixth among 55 large airports, and Perth Airport ranked eighth among 59 medium airports.

Figure 5.6 Domestic on-time performance by airport^a
12-month moving average, December 2010 to August 2018



^a A flight is considered on time if it arrives or departs within 15 minutes of its scheduled time. The measurement of on-time performance excludes cancellations. Data only reflect published routes operated by Qantas Group, Virgin Australia Group and Rex. BITRE publishes routes that averaged 8000 or more passengers per month over the previous six months and that had two or more airlines operating in competition.

Source: Commission estimates based on BITRE (2018a).

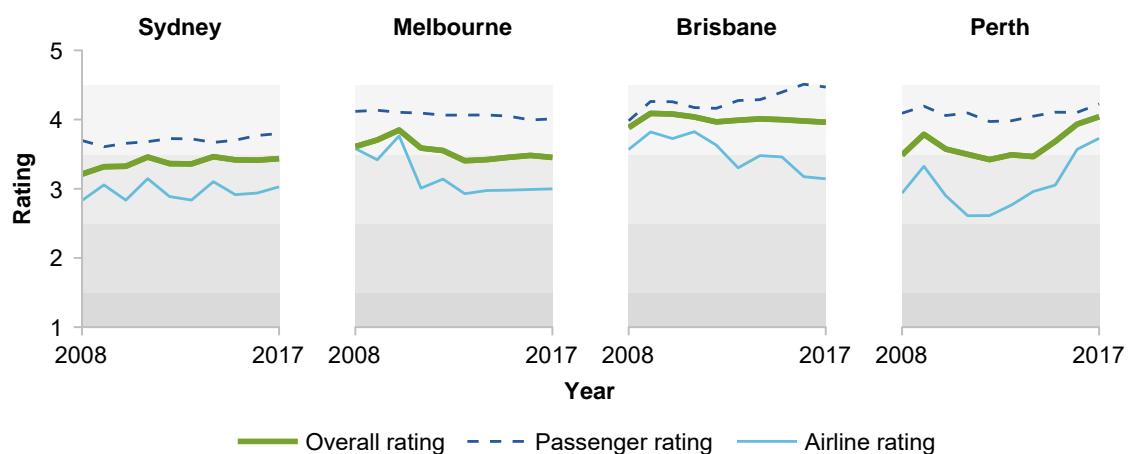
Passengers and airlines have differing views on airport service quality

Airport service quality can be measured using a range of approaches that differ in their coverage of airport services and facilities, and in quality attributes, such as the standard and availability of facilities, and time spent waiting in queues.

ACCC quality of service ratings

The ACCC's quality of service monitoring covers passenger-related and aircraft-related services and facilities, and is informed by both objective and subjective data from passengers and airlines. The ACCC's overall service quality ratings across the four monitored airports have remained within the 'good' to 'satisfactory' range since 2007-08 (figure 5.7). As mentioned in box 5.1, methodological issues and biases limit the robustness of these ratings. Average airline ratings are much more volatile than passenger ratings, which could be explained by low airline response rates.

Figure 5.7 Average quality of service ratings from ACCC monitoring^{a,b}
2007-08 to 2016-17



^a Shading indicates the ACCC's five-point rating scale: very poor (1–1.49), poor (1.50–2.49), satisfactory (2.50–3.49), good (3.50–4.49), and excellent (4.5–5) (ACCC 2018a). ^b Overall ratings cover aeronautical, car parking, and some landside operations.

Source: Commission estimates based on underlying data provided by the ACCC from charts in ACCC (2018a) and various back editions.

Perth Airport had the largest increase in its overall quality rating since 2011-12 (figure 5.7), which coincides with large-scale investments in terminals and a fall in total passenger numbers at the airport. Sydney, Melbourne and Brisbane airports have also invested substantially, but their overall quality ratings have been relatively steady. Some of these investments may have been required to keep pace with increasing passenger numbers at these airports, meaning that they will not necessarily be reflected in better service quality ratings.

International passenger surveys and ratings

International passenger surveys and ratings can be used to compare service quality across airports globally. These cover many areas of passenger experience, including terminal facilities, ease with which passengers navigate through the airport, security and immigration,

baggage delivery and ground transport. These measures differ from ACCC monitoring in that they include DTLs and non-aeronautical services and facilities, as they are mainly used for commercial rather than regulatory purposes. These subjective indicators could be affected by bias in the same way as the ACCC quality of service ratings. The four monitored airports performed relatively well by international standards on most measures.

- Skytrax, an international air transport rating agency, rates airports according to the passenger experiences they offer. Of the 139 airports that have been rated, only 9 achieved a 5 out of 5 star rating, 47 achieved 4 stars (including Sydney, Brisbane and Perth) and the remainder achieved 3 stars (including Melbourne) (Skytrax 2018a).
- Skytrax also conducts an annual passenger satisfaction survey, which was completed by over 13 million passengers and included 550 airports in 2018 (Skytrax 2018b). Rankings of the four monitored airports have improved slightly since 2011, with Sydney, Melbourne and Brisbane airports sitting within the top 30 airports in the world in 2018, while Perth ranked 59th (figure 5.8).
- The Airports Council International (ACI) Airport Service Quality survey programme compares passenger satisfaction at over 330 participating airports (ACI 2018). Overall ratings for the four monitored airports have improved since 2012, and all had ratings of at least 4 out of 5 by 2018 (AAA, sub. 50, p. 55). The ACI (sub. 16, p. 7) stated that ‘Australian airports perform very well in general and at the same level of the world average score of participating airports’.

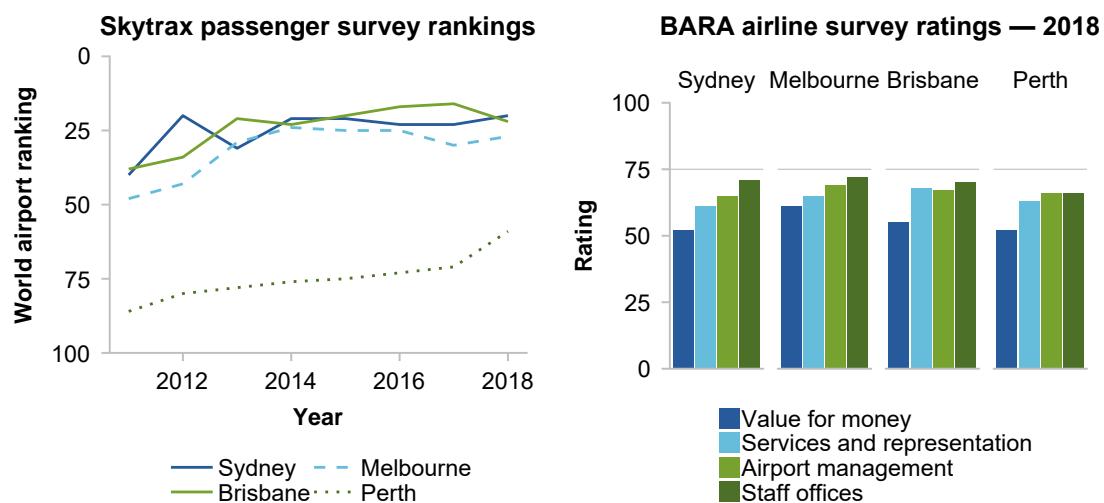
Airline ratings

Airline ratings tend to present a less favourable picture of airport service quality. The Board of Airlines Representatives of Australia (BARA) conducted a survey of its international airline members in February 2018 and received 70 individual responses across the four monitored airports (BARA, sub. 42, p. 11). On average, airports achieved ratings below the ‘acceptable threshold’ of 75 out of 100, with ‘value for money’ receiving the lowest average score at all airports (figure 5.8). About 69 per cent of airlines did not believe that they were getting value for money in airport services (BARA, sub. 42, p. 13). The ACCC’s monitoring also shows lower airline ratings compared with passenger ratings (figure 5.7). Airlines often cited issues with increasing congestion, and wear and tear and cleanliness of facilities in their commentary accompanying survey ratings (ACCC 2018a). These subjective data have limitations (box 5.1), but they do provide an indication of airlines’ concerns about service quality.

The quality of service provided to airlines is also captured through SLAs, which are developed in consultation between airports and airlines (chapter 4). SLAs are increasingly incorporating key performance indicators. However, airline participants questioned the benefits that SLAs have had so far on the quality of airport services. BARA (sub. 42) acknowledged improvements achieved under the service level agreement (SLA) with Sydney Airport, but noted some remaining concerns. BARA (sub. 42) and Qantas Group (sub. 48, p. 22) considered that there was a disconnect between the performance assumed by airports and the actual quality of services delivered to passengers and airlines for prices paid.

This shows that there may be a need for airports to demonstrate to airlines (and more broadly) how they are meeting expectations of value for money. Penalties for poor service delivery (for example, on-time performance rebates mentioned above) provide a way to make airports more accountable for the quality of services they deliver.

Figure 5.8 Passenger and airline survey ratings of airports^a



^a In BARA's airline survey, an overall score of 75 indicates that airlines are satisfied with the airport's performance on average.

Sources: BARA (sub. 42, pp. 15–18); Skytrax (2018f, 2018e, 2018d, 2018c).

Airport workers' views

The Transport Workers' Union of Australia (sub. 60, p. 3) also highlighted the need to consider the quality of service provided to airport workers.

Any examination of the effectiveness of price and quality of service - particularly in terms of airport operations - must include an examination of labour standards. Service providers such as companies employing ground handlers, caterers, cleaners, security and check-in staff pay exorbitant amounts in rent and have to adhere to numerous 'conditions of use', rules and regulations in order to operate at the airport, which have a direct impact on the working conditions of their workforce. Yet airports don't have any accountability or responsibility for the conditions these workers operate under, despite having the capacity to do so through their contracts with service providers.

The Transport Workers' Union of Australia (sub. 60) argued that job security, full-time work, pay rates and conditions for airport workers have declined in recent years, which they said has led to safety and security problems.

5.3 Aeronautical revenues and charges

Airports with market power could increase their aeronautical charges in excess of efficient levels. The preferred reference point for efficient pricing of infrastructure services — efficient long-run average cost — is a conceptual benchmark that is unable to be calculated in practice (chapter 2). However, other indicators and proxies can give an insight into whether an airport is charging significantly above this benchmark.

Aeronautical revenue per passenger is widely used as a measure of prices in airport monitoring, but it obscures relevant factors including airports' domestic and international passenger mixes and differences in charges for domestic and international aeronautical services. These are important because the markets for domestic and international air transport are separate, with differences in costs (section 5.2) and in incentives for airports to exercise their market power (chapter 3). Analyses in this section aim to delve into the reasons behind changes in aeronautical revenue per passenger. Proxies for international and domestic aeronautical charges can provide a useful (albeit imprecise) insight into these drivers.

Scheduled charges as a proxy for aeronautical charges

Airports require airlines to pay charges for the use of the airfield and terminals. Some charges are levied on a per passenger basis and others are based on aircraft capacity (maximum take-off weight (MTOW)). Australian airports negotiate directly with individual airport users or user groups on the terms of access, including aeronautical charges (chapter 4). This can lead to airlines paying different prices for the same service.

Contracts between airports and airport users are confidential and there is limited publicly available information on negotiated outcomes. Instead the Commission has used publicly available proxies from several data sources to examine trends in international and domestic aeronautical charges at Australian airports, and compared them with overseas airports. Data include:

- airports' published schedules of charges, often referred to as the 'rack rate' aeronautical charges. The actual charges that airlines negotiate with Australian airports are likely to be lower than the scheduled charges for comparable services
- ACCC data on inflation-adjusted price indexes for different components of charges and aeronautical revenue per passenger, at the four monitored airports
- ATRS data on aeronautical revenues from a sample of overseas airports.

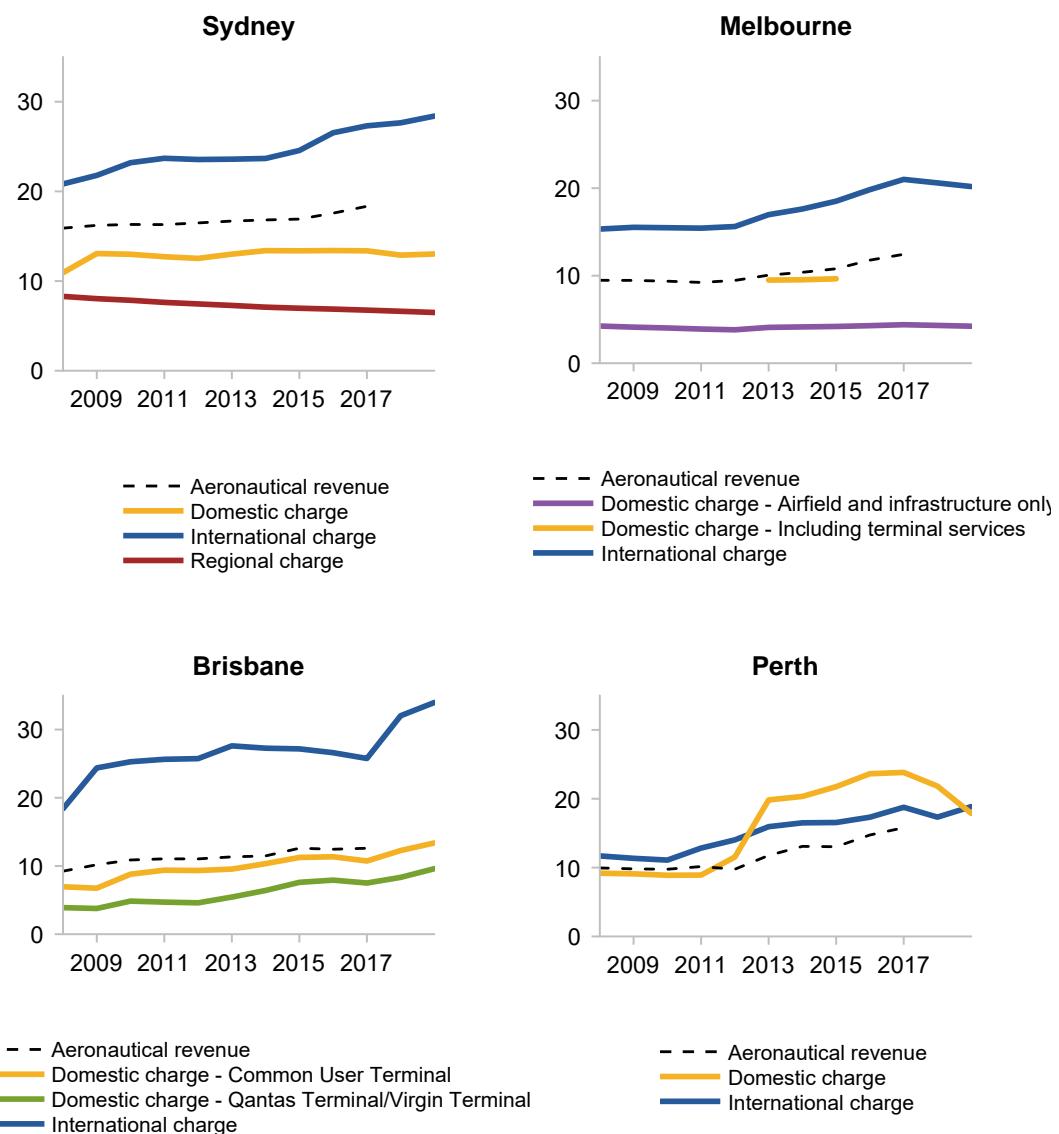
Trends in aeronautical revenue and charges

ACCC data on revenue per passenger for the four monitored airports is available to 2016-17. Scheduled charges are forward looking, so two additional years of data for this measure are presented for the four monitored airports, using charges as of 1 July 2017 and 1 July 2018

(figure 5.9). Movements in aeronautical revenue per passenger can be largely explained by changes in scheduled charges and the passenger mix.

Figure 5.9 Aeronautical revenue and scheduled charges^a

Dollars per passenger (constant 2017 dollars)



^a Average scheduled charges per financial year. Estimates based on publicly available price schedules, cross referenced (and supplemented where data were not available) with ACCC monitoring report data. Aeronautical charges are presented exclusive of GST. Security charges are excluded. Only core passenger service charges are included (for example, additional check-in or baggage handling fees are excluded).

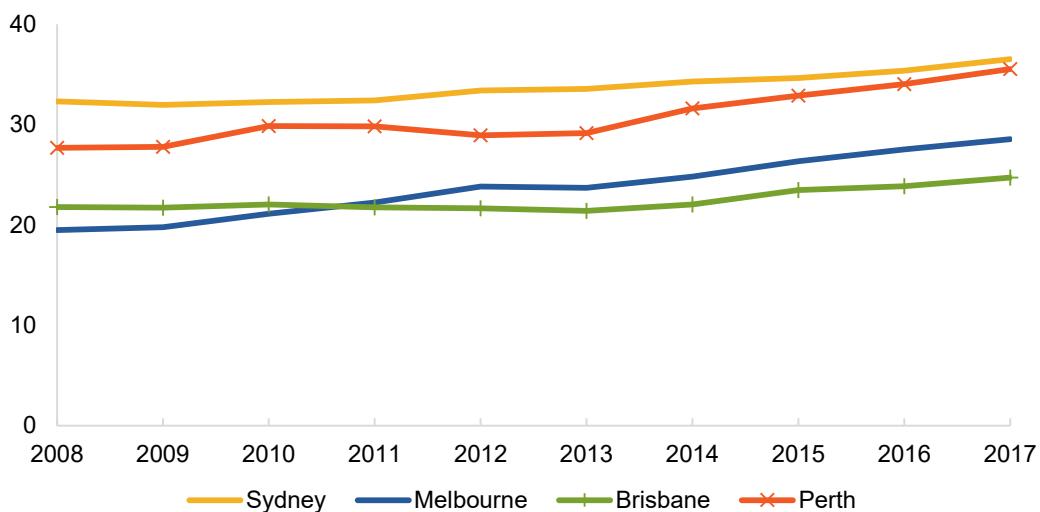
Source: Commission reconciliation of scheduled charges and data from ACCC (2018a).

At Sydney, Melbourne and Brisbane airports, the growth in aeronautical revenue per passenger to 2016-17, adjusted for inflation, has been gradual (figure 5.9). At Sydney and Melbourne airports, changes in revenue per passenger align with shifts in the passenger mix toward a greater share of international passengers (figure 5.10) and steadily increasing

international aeronautical charges, which are significantly higher than domestic charges (figure 5.9).

Melbourne Airport had the biggest shift in its passenger mix, from less than 20 per cent international passengers in 2007-08 to almost 30 per cent in 2016-17, which has had a pronounced effect on aeronautical revenue per passenger. Melbourne Airport's international charge, including both airfield and terminal charges, is currently more than \$20 per passenger (excluding GST). From 1 July 2015 Melbourne Airport stopped publishing an all-inclusive domestic charge, so figure 5.9 only shows its domestic airfield and infrastructure charge (excluding terminal services) for the full time period depicted. The airfield and infrastructure charge has remained stable at less than \$5 per passenger. The 2016-17 ACCC monitoring report included a 'walk-up' rate for domestic passengers for terminal access. This amounts to \$9.48 per passenger when added to airfield access is included — this is not included in figure 5.9 as it is not fully consistent with the previous scheduled charges.

Figure 5.10 Proportion of international passengers at monitored airports^a
Per cent, 2007-08 to 2016-17^b



^a This figure uses BITRE airport traffic data as the ACCC monitoring report only includes a breakdown of passenger numbers by type (international, domestic) from 2010-11 onwards. Charter flights and general aviation are excluded from BITRE data. ^b Financial years ending 30 June.

Source: Commission estimates based on BITRE (2018b).

Brisbane Airport experienced less growth in international passenger numbers than the other monitored airports (figure 5.10), which may partly explain why its revenue per passenger moved less in line with increases in international charges (figure 5.9). Brisbane Airport's most recent scheduled international charges increased sharply after a long period of relative stability, while its domestic charges increased more gradually. However, the findings may simply highlight the limitations of monitoring scheduled rather than negotiated charges.

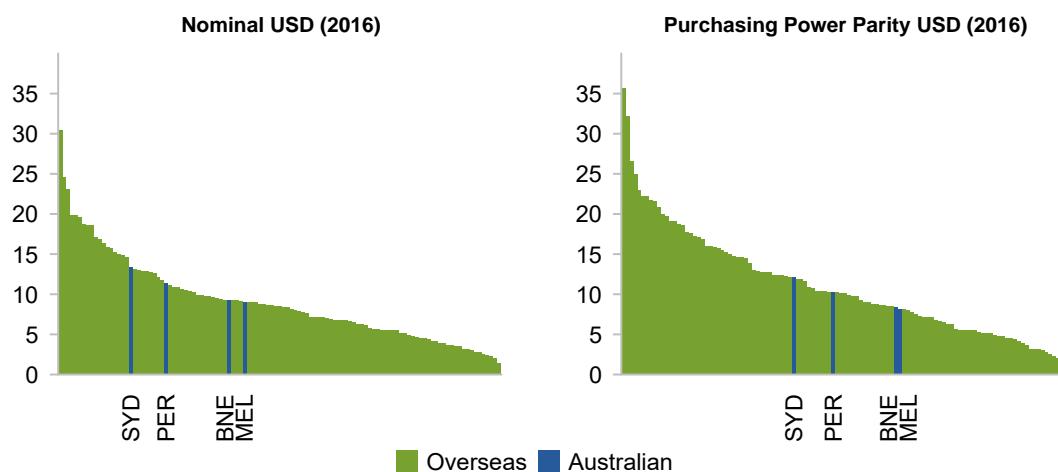
Unlike the other monitored airports, Perth Airport's revenue per passenger increased significantly from 2011-12, which was also when it significantly increased its scheduled aeronautical charges (figure 5.9) and experienced an increase in its proportion of international passengers (figure 5.10). Perth Airport's most recent scheduled charges include large reductions in domestic charges with international charges remaining steady.

International comparisons of aeronautical revenues and charges

Aeronautical revenue per passenger at the monitored airports was mid-range when compared with overseas airports, after adjusting for differences in purchasing power between countries (figure 5.11). Sydney and Perth Airports were higher in the distribution on a nominal basis, but were still within the range of comparator airports. Sensitivity analysis showed that the monitored airports typically have higher average aeronautical revenue per passenger when compared only with overseas airports with a low proportion of international passengers (appendix B).

Figure 5.11 Aeronautical revenue per passenger in 2016^a

Comparison with selected overseas airports^b



^a ATRS estimates of total revenue from landing, terminal and other fees for overseas airports, based on annual financial reports for 2016. ATRS figures exclude security charges. For consistency with figure 5.9, this figure uses ACCC monitoring report data for Australian airports. Average values are used for 2015-16 and 2016-17. This includes aeronautical security charges and as a result, aeronautical revenue per passenger will be overstated for Australian airport relative to overseas airports in the sample. ^b Airports in the ATRS database with more than 10 million passengers in 2016.

Sources: Commission estimates based on ATRS (2018) and ACCC (2018a).

An alternative way to compare aeronautical charges across countries is to estimate the charge for a specific aircraft type per turnaround (landing and take-off), taking into account the actual charges at each airport. Undertaking such an exercise is complex and imprecise given the range of charge types used internationally. Nevertheless it still provides a useful basis

for making general conclusions about the level of charges at Australian airports. While Australian airports' scheduled charges are almost exclusively on a per passenger movement basis (departure or arrival), most other airports in the sample charge:

- a landing charge based on MTOW and/or on the level of noise generated by the aircraft
- a terminal charge (which often applies to departing passengers only).

Australian airports also differentiate between domestic and international passengers, whereas in Europe domestic charges are often the same as charges for flights within Europe. Seasonal and peak/off-peak pricing are also commonly used around the world but are not common in Australia.

The Commission estimated aggregate landing charges, terminal charges and parking charges for Boeing 737-800 and Boeing 777-300ER aircraft. These aircraft are commonly used for short haul (domestic and international) and long haul flights departing from Australia's four monitored airports. The assumptions used were:

- Boeing 737-800 — MTOW of 79 tonnes; load factor of 80 per cent; maximum capacity of 174 passengers
- Boeing 777-300ER — MTOW of 352 tonnes; load factor of 80 per cent; maximum capacity of 396 passengers.

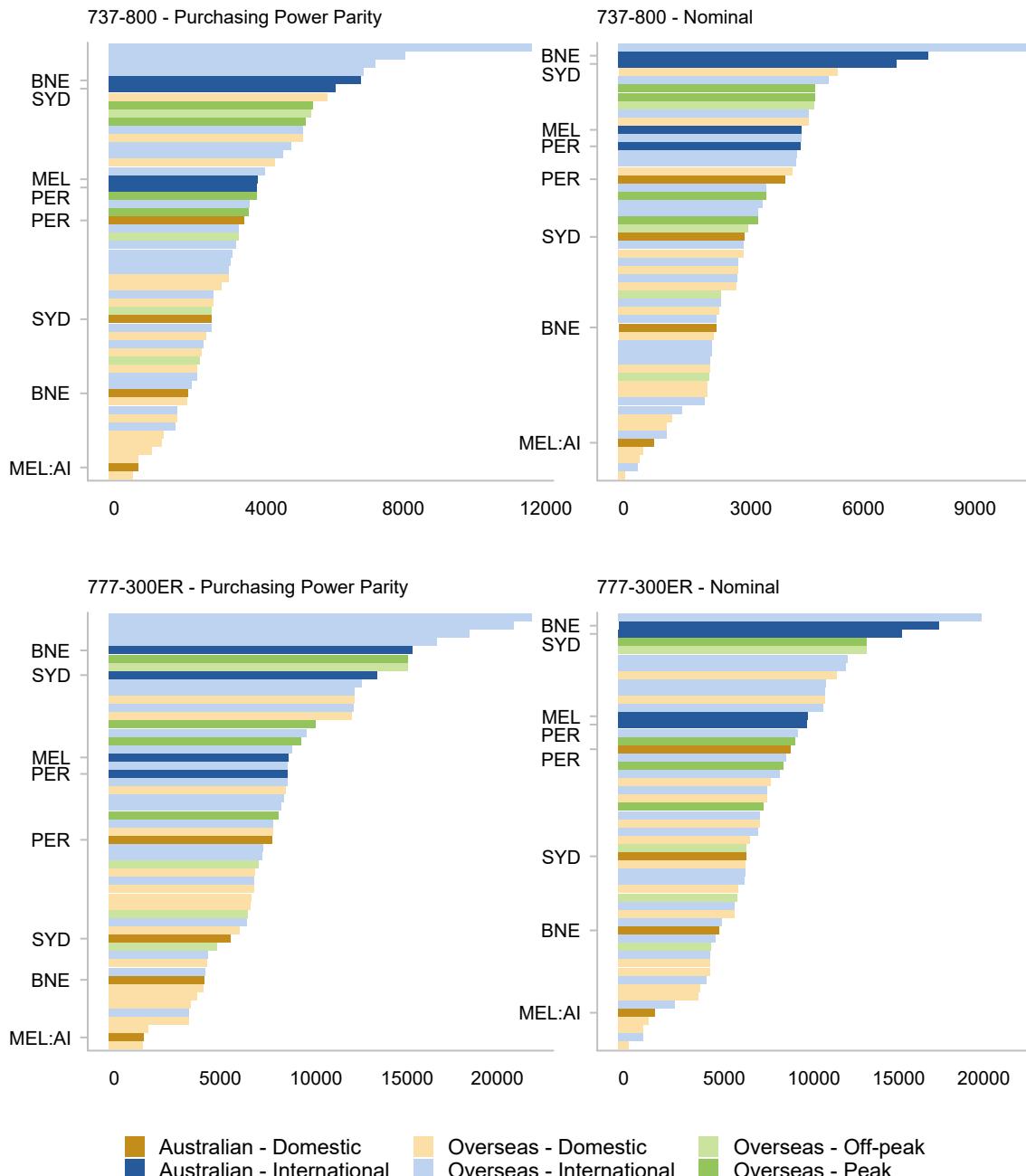
Both aircraft are assumed to be parked for two hours per turnaround. All core landing/runway and terminal charges are included. Additional charges such as check-in, baggage handling charges and emissions charges are excluded. Security screening charges are included because it is not possible to separate out security charges from general aeronautical charges at all comparator airports. This has the effect of overstating charges at Australian airports relative to airports in jurisdictions where security services are provided by the government, such as New Zealand. For all airports in the sample, charges are based on published schedules as at October 2018. Some schedules in the sample were most recently updated in 2016. Data for all four Australian airports are as of 1 July 2018.

The estimated turnaround costs for the two aircraft show that in nominal USD Australian international aeronautical charges are relatively high but domestic charges are lower (figure 5.12). After accounting for the differences in purchasing power between countries, for the monitored airports:

- domestic charges are generally about or below average
- international charges span a broad range — charges at Sydney and Brisbane airports are relatively high and Melbourne and Perth airports' charges are above average.

Figure 5.12 Australian and overseas aeronautical charges

Airport turnaround costs in USD (current published schedules)^{a,b}



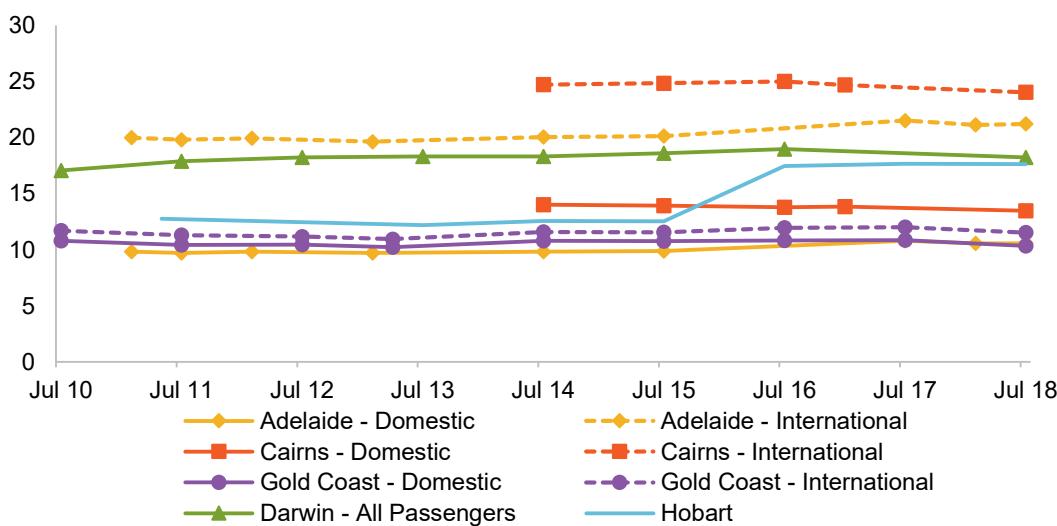
^a Schedules published as at October 2018. Charges were most recently updated at most of the airports between 1 January and 1 July 2018. Data for all four Australian airports are as of 1 July 2018. Peak and off-peak includes time of day or seasonal charges. Charges exclude value added taxes. ^b The domestic charge at Melbourne Airport (MEL: AI) is for airfield and infrastructure only (it excludes terminal services). The 2016-17 ACCC monitoring report included a walk-up rate for domestic passengers for terminal access. Although it is not entirely comparable with current published schedules, on that basis, Melbourne Airport's domestic charges would remain lower than the other monitored airports, and low compared with overseas airports.

Source: Commission estimates based on scheduled charges from airport websites.

Charges at non-monitored airports

The Commission concluded in chapter 3 that the characteristics of the non-monitored airports mean they are significantly constrained in their ability to exercise market power and so the effects of market power on aeronautical charges will be minimal. Nevertheless, the Commission has collected data on scheduled charges from July 2011 or earlier for Adelaide, Darwin, Gold Coast and Hobart airports and from 2014 for Cairns Airport (figure 5.13). These charges do not represent the actual charges that airlines negotiate with airports, but they likely reflect the general trends and levels of charges at these airports.

Figure 5.13 **Scheduled charges at Australia's non-monitored airports^{a,b}**
Dollars per passenger (constant 2017 dollars)



a Airports with greater than 2 million passengers per year. A time series of charges could not be obtained from public sources for Canberra Airport and Canberra Airport declined to provide figures for publication. International charges are only shown at airports with scheduled international regular public transport services.

b Excludes GST.

Source: Commission estimates based on scheduled charges from airport websites and archived copies of airport websites.

Domestic scheduled charges at Adelaide, Darwin and Gold Coast airports have remained relatively flat or grown slowly in real terms since 2011 and at Cairns since 2014. Charges at Hobart Airport increased substantially in 2016 after several years of minimal change and have remained fairly constant in real terms since then.

At Gold Coast and Darwin airports, there is little or no difference between domestic and international charges. At Adelaide and Cairns Airport there has been a persistent gap of more than \$10 between the two charges.

Although charges are only one element of airport performance, these relatively stable results provide further support to the conclusions in chapter 3 that the non-monitored airports do not have market power that create a *prima facie* case for regulatory intervention at this stage.

Discounting is unlikely to change general conclusions

The actual aeronautical charges that airlines pay are likely to be below scheduled charges. The AAA (sub. 50, p. 32) submitted that domestic aeronautical charges were discounted by about 24 per cent on average for nine of the largest airports, and international charges by about 10 per cent. The AAA (sub. 50, p. 32) outlined the types of discounts made:

- temporary discounts to support the establishment of new routes or the expansion (either by increased frequency or larger aircraft) of existing routes – these are more common on international than domestic routes although a number of smaller regional airports are seen to be doing so;
- discounts for total passenger volume delivered by an individual airline or all airlines to the airport – these typically operate on a sliding scale and are more common in the domestic markets; and
- discounts in the form of penalties for poor service quality or late delivery of infrastructure by airports.

Discounts may be constrained by ‘no less favourable terms and conditions’ clauses in some commercially negotiated contracts between airports and airlines. These are discussed in chapter 4. Although the Commission was not able to obtain public data on discounts by specific airports over time, it considers that it is unlikely that they would materially alter the overall conclusions about trends and levels in aeronautical charges on the basis of confidential information it has viewed.

5.4 Profits and profitability

An airport that does not consistently achieve sufficient profits (revenues minus costs) will struggle to attract capital to maintain its infrastructure or invest in new assets. Profits that are persistently high, however, can indicate that airport operators are exercising their market power by setting prices above the efficient level, with potential negative effects on downstream competition and consumer wellbeing through higher airfares.

Measures of profitability are the company’s profit scaled in some way, such as profit as a percentage of revenue or assets or (for airports) profit per passenger. In its annual monitoring reports, the ACCC presents operating profit margins (as a percentage of revenue and per passenger) and return on aeronautical assets (refer to the glossary at the front of this report for technical definitions used in this chapter).

From an economic perspective, return on aeronautical assets (ROAA) — operating profit divided by tangible non-current aeronautical assets — is a more informative measure of

profitability than operating profit margins. ROAA represents the ‘opportunity cost’ of investing in one airport over another or other types of business. Although operating profit margins adjust for size of the business, they do not directly account for differences between airports in the level and timing of investment. There is also no robust basis to determine whether a given operating profit margin is sufficiently high to be indicative of the exercise of market power.

Determining whether returns are ‘reasonable’ requires an estimate of the value of the aeronautical asset base, and an assessment of the level of risk faced by airport financiers — both of these are highly contentious (chapter 4).

A high ROAA is not necessarily an indicator that an airport has exercised its market power. Profitability will vary from year to year depending on where an airport is in the investment (and economic) cycle. When capacity is constrained at an airport, it may be efficient to set aeronautical charges above the cost of existing infrastructure to manage congestion. In this way, price and profitability increases can indicate that the existing asset base is not sufficient to meet existing demand and that new investment is required. Similarly, when new infrastructure is first built, ROAA would be expected to fall because the value of the asset base has increased.

While price rationing and higher than anticipated demand can explain temporarily high profits, high profits should not persist unless airports are becoming fundamentally more risky investments, or further capacity expansion is not possible. If an airport’s risk profile is not changing and capacity expansions are possible, then any persistent increase in profitability above an efficient level may be the result of airports exercising market power.

Assessing returns on aeronautical assets

One reference point for assessing whether profits are excessive is the weighted average cost of capital (WACC). The WACC includes the required rate of return to be earned by debt and equity providers. It is one element of ‘building block’ models that airports use in their commercial negotiations with airlines over aeronautical charges (chapter 4). The higher the WACC, the higher the aeronautical charge needed to cover the cost of capital.

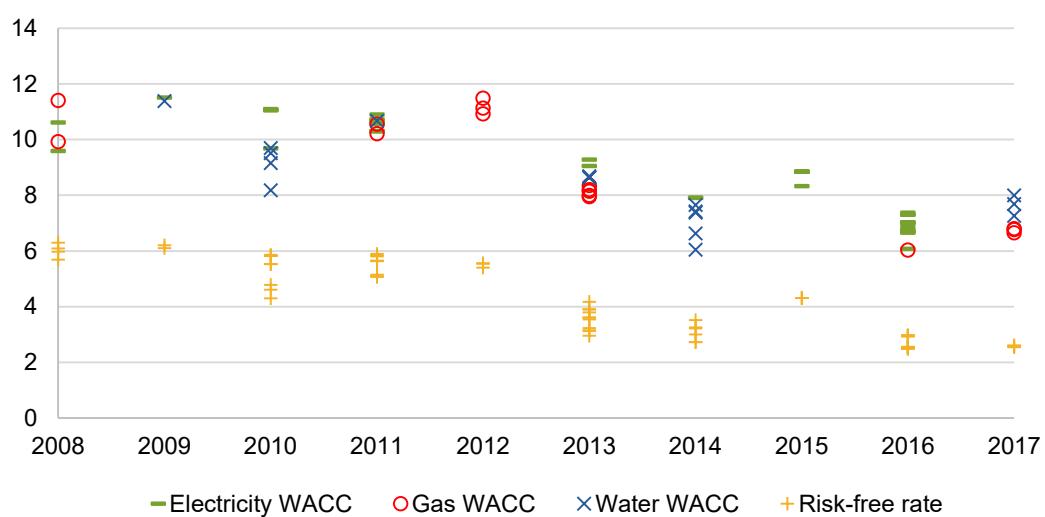
For some infrastructure services with natural monopoly characteristics, including energy and water infrastructure, the WACC is set by a regulator as an indirect mechanism for preventing service providers from charging monopoly prices. The WACC that is set as part of a regulatory pricing determination is often controversial and requires some significant (and often unrealistic) modelling assumptions. The precise methodology used to calculate a regulated WACC has changed considerably over the past twenty years in Australia (often due to Court rulings on regulatory decisions) and there remains active debate about many of the elements used to determine a regulatory WACC. There has been no Australian regulatory estimate of a benchmark rate of return for aeronautical services since the implementation of light handed regulation in 2002, and the Commission does not consider that it is desirable to estimate a precise regulatory WACC for the current inquiry. Instead, it has assessed some of the elements

that are used in estimating WACCs for infrastructure services and discussed how they have changed over time, and in comparison to other infrastructure services.

The risk free rate has fallen since 2008

Regulated WACCs have fallen in Australia since 2008 in line with changes in the risk free rate, which is now at record low levels (figure 5.14). In regulatory determinations since 2008 most other factors that contribute to WACCs for energy and water networks have remained unchanged.

Figure 5.14 Australian energy and water WACCs and the risk free rate^a
Nominal pre-tax per cent per year



^a Commission analysis of nominal pre-tax regulated WACCs and the risk free rate used in regulatory determinations. Some WACCs are for the calendar year, but most are for the financial year ending 30 June.

Sources: Regulatory determinations by Australian Energy Regulator (AER various), Independent Pricing and Regulatory Tribunal of New South Wales (IPART various), Essential Services Commission (Victoria) (ESC various), Essential Services Commission of South Australia (ESCOSA various) and Economic Regulation Authority (Western Australia) (ERA various).

Airport-specific risks are relatively unchanged

Changes in the commercial and regulatory environment relative to other types of businesses would change the underlying risk of investing in airports, and the changes will flow through to the WACC. Potential risks to airports include:

- changes to the economic and tourism outlook. This can have a significant effect on the cost of capital and result in passenger numbers that differ substantially from forecasts
- changes in the level of competition and countervailing power in downstream markets, such as airlines

-
- catastrophic risks — terrorism, disease outbreaks and aircraft disasters
 - regulatory risks — changes to regulation.

The current regulatory regime has been in place since the early 2000s with only incremental changes to the monitoring regime since then. Airports, airlines and the ACCC have differing views on whether airports face a credible threat of increased regulation and of how recent changes to the National Access Regime are likely to affect airports (chapter 9). However, given the incremental changes in the regulatory regime since 2002 it is reasonable to suggest that the threat — and hence the regulatory risk — is relatively unchanged over the past ten years.

The Transport Workers' Union (sub. 60, pp. 2–3) stated that airports are increasingly outsourcing aspects of their operations and that this reduces their exposure to risks.

The majority of airport functions are outsourced, which transfers most of the economic and financial risk to suppliers. This leads to airports often remaining profitable throughout economic downturns while air-transport businesses (and their workers) are exposed to market volatility.

The Commission agrees that some risks are shared between airports and their suppliers, but has not seen evidence that the primary sources of commercial and regulatory risk have changed materially in recent years.

Each airport's cost of capital would have fallen since 2008

Although there have been some minor changes in the regulatory and commercial environment since 2008, the net effect on airports' cost of capital (and hence expected returns) is likely to have been small. The fall in the risk-free rate since 2008 has been much more significant and would be expected to have had a much greater effect on airports' WACC. On balance, airports' WACC should be about 3 percentage points lower in 2018 than it was in 2008.

'Line in the sand' asset values

The value of aeronautical (and whole of airport) assets is an important input into evaluations of airports' returns on assets and has been the subject of controversy since airport privatisation. The Commission reviewed airport services in 2006 and recommended drawing a 'line in the sand' at 30 June 2005 for asset valuations to ensure that upward asset revaluations do not affect measures of profitability in the monitoring report (PC 2006). The Commission stressed at the time that these asset values were intended as a simple set of asset valuation rules for monitoring purposes, rather than the set of asset values that must be used by airports in negotiating charges, which involve more complicated valuation considerations.

The 'line in the sand' was implemented in the 2007-08 ACCC monitoring report and all subsequent reports. Asset values at 30 June 2005 were taken as given and airports could include new assets on a cost basis as agreed between airports and airport users. This may help to determine whether airports are exercising their market power to a greater extent today than they were ten years earlier.

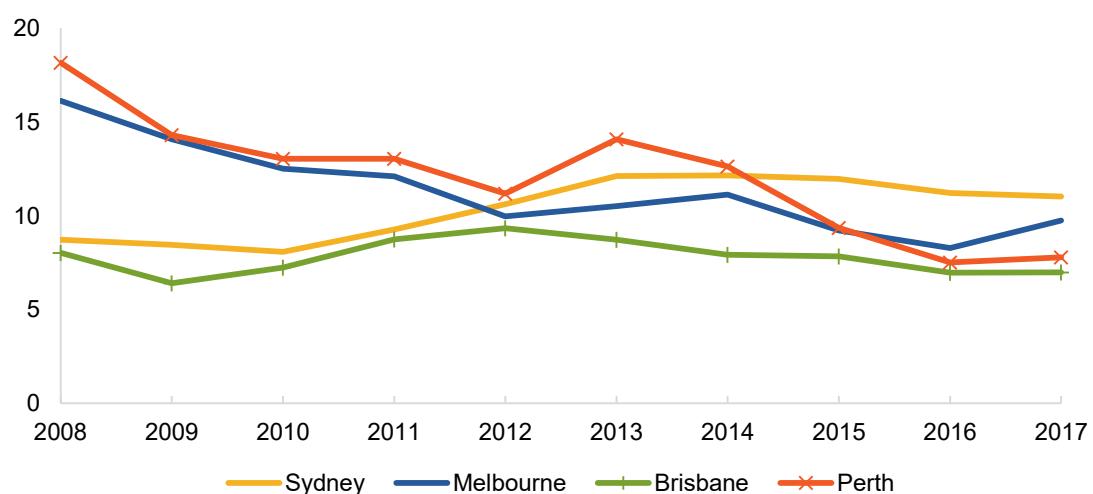
The asset base used to evaluate the ROAA is not a regulatory asset base (RAB). Estimating a RAB usually involves a regulator approving, and potentially adjusting, the value of assets that can be added into the RAB, either prior to or following investment. This regulatory intervention can lead to well-known incentive problems, such as an incentive by asset owners to attempt to over-invest in assets, when it may be more efficient to increase operational expenditure (chapter 9). The Commission has not attempted to construct a RAB for any airport as such an approach is inconsistent with the light-handed approach to airport regulation.

Return on aeronautical assets

The ROAA is the measure of profitability that most appropriately accounts for the efficient long-run average cost of an airport's aeronautical investments. It accounts for the opportunity cost of alternative investments and explicitly accounts for the level and timing of investment by allowing higher returns for new assets and lower returns for largely depreciated assets. Across the four monitored airports there have been large variations in ROAA over the period 2007-08 to 2016-17 (figure 5.15).

- Brisbane Airport's ROAA has been relatively stable, seldom exceeding 8 per cent.
- Melbourne Airport's ROAA decreased from about 16 per cent in 2007-08 to less than 10 per cent for the past three financial years.
- Perth Airport's ROAA was about 18 per cent in 2007-08. After sharp falls it has been less than 8 per cent in the past two financial years.
- Sydney Airport's ROAA has increased from about 9 per cent in 2007-08 to 11 per cent in 2011-12.

Figure 5.15 Return on aeronautical assets
Per cent per year from 2007-08 to 2016-17



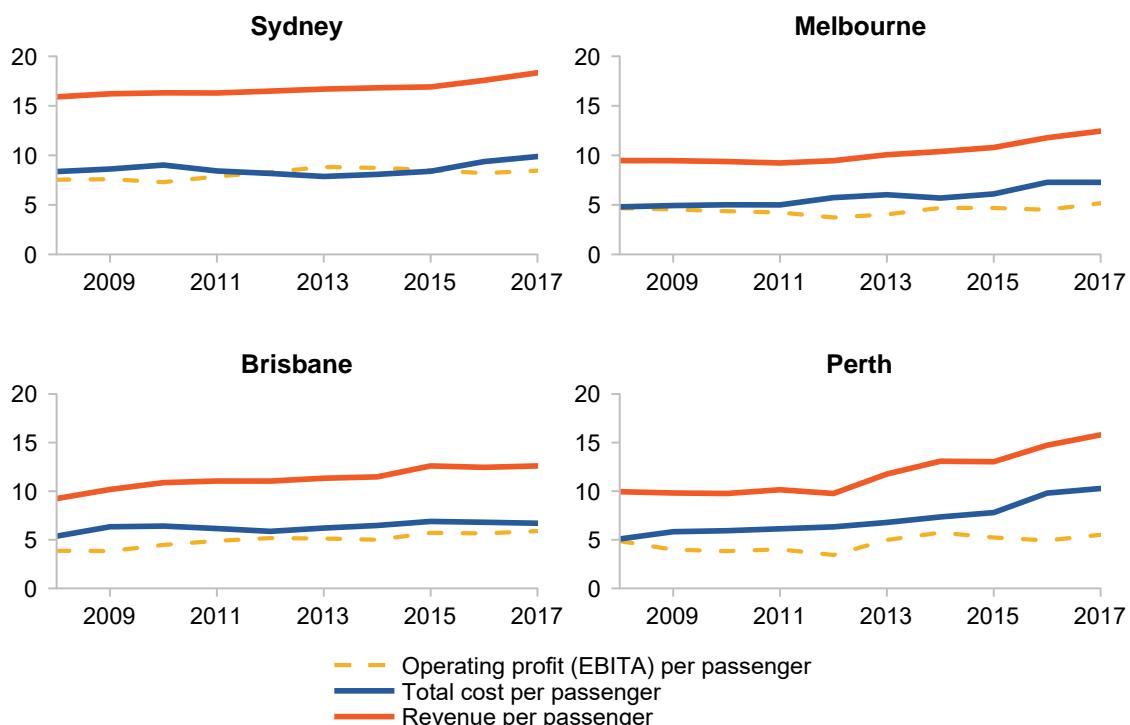
Source: Commission estimates based on ACCC (2018a).

Operating profit margins have been relatively stable over time

Operating profit margins per passenger are equal to aeronautical revenue per passenger minus aeronautical costs per passenger and can be considered on either a per passenger basis or as a percentage of revenue. The Commission found similar outcomes on each measure, as they are strongly related to each other, so this section only discusses operating profit margins per passenger (margins are calculated using earnings before interest, taxes and amortisation (EBITA) as reported in ACCC monitoring reports).

Over the past decade, operating profit margins have been relatively stable at Sydney, Melbourne and Perth airports, and have increased at Brisbane Airport (figure 5.16). Revenue per passenger has been increasing at a slower rate than costs per passenger at Sydney, Melbourne and Perth airports, putting downward pressure on operating profit margins. At Brisbane Airport, growth in revenue per passenger has exceeded growth in costs per passenger. Costs increased at Brisbane from a relatively low base in 2007-08 and operating profit margins per passenger are now similar at Melbourne, Brisbane, and Perth airports (\$5 to \$6 per passenger). Operating profit margins have been consistently higher at Sydney Airport (\$7 to \$9 since 2007-08) than the other monitored airports, although as the next section demonstrates, there are significant limitations in comparing operating profit margins across airports.

Figure 5.16 Aeronautical revenue, costs and operating profit margins
Dollars per passenger (constant 2017 dollars)



Source: Commission estimates based on ACCC (2018a).

International comparisons of operating profits for airport companies

Some inquiry participants argued that operating profit margins are excessive in Australia compared with overseas airports. Data limitations make it difficult to compare aeronautical profits across jurisdictions so it is common to report whole of airport company profits from annual reports (including aeronautical and non-aeronautical services). A number of submissions, including those by Qantas Group (sub. 48), Air New Zealand (sub. 43) and the International Air Transport Association (sub 27), showed that Australian airports had the highest operating profit margins, assessed using earnings before interest, taxes, depreciation and amortisation (EBITDA) (margins after deducting operating costs), among their samples of Australian and overseas airports. Qantas Group also presented analysis using a different sample of international airports showing that Australian airports had relatively high operating profit margins assessed using earnings before interest and taxes (EBIT) (margins after deducting operating costs, depreciation and amortisation).

Comparisons of an airport's financial performance using these measures are flawed for a number of reasons. International comparisons of whole of airport company operating profit margins can be heavily influenced by the types of non-aeronautical activities that are reported in annual financial reports. For example, annual reports include earnings from retail leases and in some cases revenue from retail operations such as duty free stores. Even if aeronautical operating profit margins could be reliably calculated for a range of international airports, these measures have limitations as indicators of economic behaviour. The main weakness of EBITDA margins is that airports are capital intensive and this measure excludes all capital costs. EBIT margins include depreciation of capital, but do not appropriately account for the opportunity cost of alternative investments or for the level and timing of investment (box 5.4).

Box 5.4 An example of the limitations of comparing operating profit margins between airports

Consider the case where two airports report similar accounting costs, but have very different aeronautical asset bases.

- One airport is old — its assets are mostly depreciated, so its asset base is relatively low.
- The other airport has recently invested in new runway and terminal infrastructure and has a much larger asset base.
- The airports set their charges to earn the same rate of return on aeronautical assets (ROAA).
- The airport with the lower asset base can achieve its ROAA with lower charges and lower operating profit margins than the airport with more recent investment.

The two airports report the same ROAA, but very different operating profit margins.

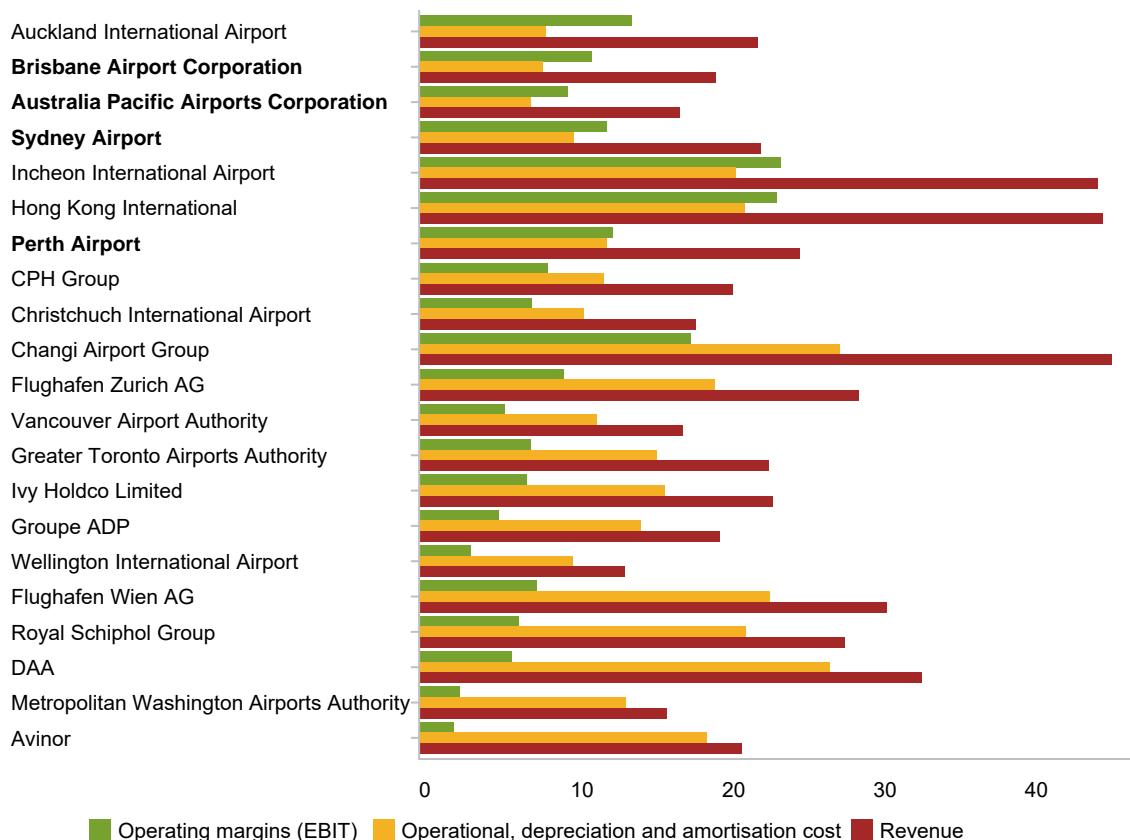
Noting these shortcomings, the Commission examined the relationship between operating profit margins, revenues and costs using financial reports of airport companies that were included in analyses received in submissions. Figure 5.17 presents EBIT operating profit margins on a per passenger basis, and is ordered by operating profit margins as a percentage of revenue, from

highest to lowest. EBIT margins are preferable to using EBITDA margins because EBIT partially accounts for the cost of capital through depreciation. Regardless of the measure used, the conclusions were similar. Data from financial reports are used for the Australian airports for consistency with the comparator airports, although use of total airport figures from ACCC regulatory accounts does not materially affect the results.

The analysis showed that compared to the sample of overseas airports Australian airport companies have:

- higher operating profit margins than most as a percentage of revenue, and to a lesser extent when considered on a PPP adjusted per passenger basis
- low annual operational, depreciation and amortisation costs per passenger
- below average to average levels of revenue per passenger.

Figure 5.17 Operating profit margins, costs and revenue per passenger^a
Ordered by EBIT margin as a percentage of revenue^b



^a 2017 PPP adjusted USD and for whole of airport operations. Most data are for financial years 2017. Australian airport companies in bold. Australia Pacific Airports Corporation owns Melbourne Airport, however the financial figures also include revenues and costs for Launceston Airport. Passenger numbers are sourced from annual reports to align with the financial data. ^b Airports with the highest operating profit margins are at the top of the figure.

Source: Commission estimates based on whole of company financial reports.

Overall, Australian airports are relatively efficient businesses with about average revenue generation capability. This aligns with the conclusions in sections 5.2 and 5.3, but provides little additional insight into airport profitability, as it inadequately addresses the level and timing of investment, and ignores the opportunity cost of airport investment. This analysis demonstrates the limitations of comparing operating margins between airports, or any other measure that does not appropriately account for the cost of capital, whether they cover only aeronautical services or include non-aeronautical services as well.

5.5 Performance of the monitored airports

The monitored airports performed well on most measures. While the Commission did not find strong evidence that they have systematically exercised market power in aeronautical services to the detriment of the community, there were some findings that warrant closer examination.

Sydney Airport

Sydney Airport faces physical and regulatory constraints — it has limited space to expand and its operations are constrained by caps on aircraft movements and a curfew. These constraints and strong passenger growth have led to some congestion at peak times, but Sydney Airport continues to operate efficiently. Its aeronautical operating costs per passenger are the lowest of the monitored airports, and it has very low whole of airport operating costs when compared with most overseas airports. Similarly it processes a large number of passengers for the number of gates and runways it uses and has reasonably good service quality ratings relative to other airports, including overseas peers. Sydney Airport's operating efficiency could be further increased with changes to regulatory constraints on aircraft movements (chapter 7).

Aeronautical charges for domestic services at Sydney Airport are higher than those for Melbourne and Brisbane airports, but are not particularly high by international standards and have been relatively stable (in real terms) in recent years. Charges for international services have grown more rapidly and are high when compared with overseas airports. Most of the growth in revenue per passenger is attributable to the combined effects of increasing international passenger charges, coupled with an increasing proportion of international passengers. The divergence in growth rates between international and domestic charges could reflect the higher levels of competition and lower levels of countervailing power in the downstream market for international air transport (chapter 3), although it could also be explained by the additional costs of providing international aeronautical services. Sydney Airport (sub. 53, p. 96) stated ‘charges for international passengers are necessarily higher to reflect the higher capital and operational costs associated with facilitating those passengers’.

Sydney Airport is a profitable business. In 2016-17 it earned the highest ROAA of all the monitored airports (11 per cent), a figure that could present cause for concern when

considered in isolation. Deeper analysis reduces the concern that Sydney Airport's profitability might reflect the systematic exercise of market power.

First, the long-lasting nature of airport assets and the inherent lumpiness of their investment schedules means that returns in a single year have little value as evidence. Sydney Airport's ROAA averaged about 10 per cent per year over the 10 year period to 2016-17 — still an attractive return, but less than Melbourne and Perth airports, which averaged about 11 per cent and 12 per cent per year, respectively. Second, at least part of the reason for Sydney Airport's high returns is that it has had fewer opportunities to invest than the other monitored airports due to land constraints. Passenger demand has grown more rapidly than the asset base, which has led to increasing returns on the existing assets.

Sydney Airport's ROAA would be expected to continue to increase if current regulatory constraints remain in place and demand for Sydney Airport's aeronautical services continues to grow. With scarce capacity, the airport may have an incentive to efficiently ration services by increasing prices (chapter 2). This would not be caused by an exercise of market power by the airport (or airlines), but by 'scarcity rents' that are created by regulations, to the detriment of passengers.

Sydney Airport (sub. 53) stated a key reason for its increasing ROAA is because it uses a real WACC and asset base indexation when setting prices (in line with its privatisation model), while the ACCC's method of calculating ROAA uses a nominal WACC and no asset base indexation (in line with the model used when the other monitored airports were privatised). The use of asset indexation does not affect the long term present value of aeronautical investments but results in a more stable price path over time. As a consequence, prices are lower when new investments are first commissioned but are higher in later periods than if the nominal method had been used. Sydney Airport argued this leads to an inflated impression of Sydney Airport's ROAA in the ACCC monitoring report.

The Commission accepts that Sydney Airport would report a lower ROAA if asset indexation was used and that this should be taken into consideration. However, this does not completely negate that the risk free rate has fallen by over 3 percentage points since 2007-08 and so returns relative to the WACC are likely to have increased.

Sydney Airport clearly belongs in the monitoring regime — it has market power and its returns on assets and aeronautical charges for international services present some cause for concern that it could exercise that power. However, there are many factors that have influenced its performance, including lumpiness of investment and physical and regulatory constraints. More information on domestic and international costs would help elicit whether high international charges reflect higher costs of servicing international passengers. Taken as a whole though, the indicators of Sydney Airport's performance do not suggest that it has systematically exercised its market power in aeronautical services.

Melbourne Airport

Melbourne Airport had the fastest passenger growth of the monitored airports. International passenger numbers have more than doubled over the past decade, which meant they went from comprising less than 20 per cent of all passengers in 2007-08 to almost 30 per cent in 2016-17. In contrast, international passenger numbers grew by only 40 to 70 per cent at the other monitored airports, although international passengers continue to make up a greater proportion of passengers at Sydney and Perth airports than at Melbourne Airport.

Meeting this growth has required continued investment, including new and upgraded terminal infrastructure. Melbourne Airport has high input utilisation and low costs and on balance, it also has good service quality when compared with overseas airports.

Revenue per passenger has risen in line with increased costs and changes in the passenger mix. Melbourne Airport is serving an increasing proportion of international passengers and earns higher revenue from those passengers than domestic passengers. Relative to overseas airports, Melbourne Airport has mid-range international charges and low domestic charges. Melbourne Airport (sub. 33, p. 148) stated that ‘there is a higher cost to serve and charges are therefore higher’ for international passengers.

ROAA has averaged about 11 per cent since 2007-08, which was below Perth Airport but higher than Sydney and Brisbane airports. Substantial investment at Melbourne Airport came with a decline in profitability — the airport’s ROAA decreased from about 16 per cent in 2007-08 to less than 10 per cent for the past three financial years. This investment is inconsistent with the airport attempting to limit capacity to raise its prices.

Melbourne Airport’s trend in profitability and high level of operational efficiency do not suggest it is exercising its market power. Although international charges have increased somewhat faster than domestic charges, they are in line with overseas airports and are unlikely to reflect the systematic exercise of market power.

Brisbane Airport

Brisbane Airport had the highest scheduled international charges of the monitored airports, and these charges are also high when compared with its overseas peers. There were large increases in international charges in 2009 and again in 2017 and 2018. In contrast, domestic charges at Brisbane Airport have increased much slower. These differences could be due to one or more of the following factors.

- Exercise of market power for international aeronautical services — Brisbane Airport likely faces a higher level of competition in the domestic market than the other monitored airports (from Gold Coast and Sunshine Coast airports), but less competition in the international market (chapter 3). This will limit its ability to raise prices for its domestic aeronautical services, relative to its international aeronautical services.

-
- Divergence in costs to process domestic and international passengers — it costs more to service international passengers than domestic passengers, and this difference might have been exacerbated in recent years. Brisbane Airport's total costs per passenger increased markedly, rising by 25 per cent in real terms since 2007-08. It would be useful to explore how much of this was due to an increase in the costs of servicing international rather than domestic passengers, but the data are not available to do this within the existing monitoring regime.
 - Recovery of investment costs — related to the above point, the large increases in international charges may have been justified to recover the costs of its recently expanded international terminal building and associated apron and aircraft parking facilities.

While Brisbane Airport's international charges were relatively high, it performed better on other indicators. Its total costs per passenger increased significantly from 2007-08 to 2016-17 but were low compared with other monitored airports. Brisbane Airport's overall service quality rating was the highest of the monitored airports in nine of the past ten years according to ACCC monitoring. Its utilisation of some capital inputs is low (for instance, it has a large number of gates and terminal area given the number of passengers it services), but this can at least partly be explained by the fact that it has not experienced the high growth in international passengers that the other monitored airports have. It also likely reflects the timing of the investment cycle with large investment having occurred recently (as noted above), which will reduce input utilisation in the short-term.

Finally, high international charges have not translated into higher profitability, with Brisbane Airport's ROAA seldom exceeding 8 per cent in the past decade. Overall, Brisbane Airport's moderate level of profitability and reasonable operational performance suggest that it is not exercising its market power. However, high international aeronautical charges at both Brisbane and Sydney airports are a potential concern.

Perth Airport

Perth Airport opened a dedicated regional terminal in 2013 and a new domestic pier in 2015, but with the end of the mining investment boom there was a fall in passenger numbers. The fall in total passenger numbers was unexpected at the time of Perth Airport's most recent (2014) Master Plan, which predicted ongoing annual increases in passenger growth for 2015 and onwards (Perth Airport 2014). (Total passenger numbers for 2016-17 were about 10 per cent below their forecast level.)

These investments resulted in the greatest improvement in ACCC quality of service ratings since 2011-12, largely because of an improvement in airline survey ratings. In 2015, when announcing the opening of the new domestic terminal for Virgin Australia Group, their CEO said that it will 'provide access to twice the number of departure gates, with the ability to board up to twelve aircraft at one time, offering a world-class gateway for regional, domestic and international travel' (Virgin Australia 2015).

The combination of large investments and falling passenger numbers partly explains why Perth Airport had the highest operating costs and the most underutilised resources of the monitored airports. As shown in section 5.2, the number of gates per passenger increased significantly at Perth Airport between 2008 and 2016, which indicates a decline in the utilisation of gates. As passenger growth recovers, Perth Airport's gates and other infrastructure will begin to be more efficiently utilised. Furthermore, it has made efforts to reduce costs, with operating costs falling in 2016-17. Perth Airport's whole of airport operating costs per passenger are in line with overseas airports.

Perth Airport displays different trends in aeronautical charges to the other three monitored airports. Recent investments were accompanied by a more than 100 per cent increase in domestic scheduled charges from 2011-12 to 2016-17, while international charges increased by 33 per cent. Over this period, revenue per passenger increased at a compound average growth rate of over 10 per cent per year. This increase was moderated by changes in the passenger mix — the proportion of international passengers increased, but international charges were lower than domestic charges, which damped the overall effect.

Perth Airport (sub. 51, p. 46) has stated that the large increase in domestic charges from 2012 was implemented to fund the construction of two new terminals and major expansions to a third terminal, and that domestic charges will be reduced by 39 per cent in real terms in the 2018-19. Perth Airport (sub. 51, p. 43) stated that 'floor area is the key driver of the cost of cleaning and energy, which are the main operating costs of terminals'. The increase in charges is somewhat correlated with its increased operating costs. This suggests that at least a proportion of the increase in charges can be attributed to efficient pricing.

Movements in Perth Airport's ROAA appear to be heavily influenced by its investment decisions. Since 2007-08, ROAA at Perth Airport has averaged about 12 per cent, which is the highest of the monitored airports. This was driven by higher returns earlier in the period when it had a relatively small asset base and increasing passenger numbers. Its asset base quadrupled in real terms from 2007-08 to 2016-17, with significant terminal expansions. This investment, combined with lower passenger numbers in recent years, led to a substantial fall in ROAA over the period. ROAA was about 18 per cent in 2007-08, and fell sharply to about 13 per cent by 2009-10. It rose again in 2012-13 but fell again in 2014-15 and has been less than 8 per cent in the past two financial years.

As noted in chapter 3, Perth Airport likely has less market power than Melbourne and Sydney airports, and analysis of its performance suggests that it has not systematically exercised any market power that it does have. Overall Perth Airport's performance can be partly explained by increased passenger demand during the mining investment boom and substantial investment, followed by a decline in passenger numbers after the mining investment boom. The investments undertaken by the airport seem to have been considered necessary, given that airlines were supportive of them at the time and, to the extent that they were completed at a reasonable cost, then these findings do not suggest that Perth Airport has exercised its market power.

No systematic problem but airport performance requires more scrutiny

The analysis in this chapter shows that most indicators of the operational and financial performance of the monitored airports are within reasonable bounds, although some financial indicators could be consistent with the exercise of market power when taken in isolation. The high international charges at Sydney and Brisbane airports, Sydney Airport's profitability and the high operating costs at Perth Airport show that there is reason to be vigilant.

When taken as a whole, the evidence does not suggest that airports have systematically exercised their market power to the detriment of the community. There is no justification for significant change to the current form of regulation of aeronautical services at these airports. There is, however, a need to increase the transparency of airport performance through changes to the monitoring regime.

The Commission would need information on the costs and revenues associated with international aeronautical services to determine whether relatively high international aeronautical charges at Sydney and Brisbane airports are a result of an exercise of market power. This evidence base does not exist because airport operators are not currently required to provide this information to the ACCC. The Commission is recommending improvements to the monitoring regime so the magnitude of international aeronautical costs and revenues can be evaluated in the future (chapter 10).

DRAFT FINDING 5.1

The four monitored airports — Sydney, Melbourne, Brisbane and Perth — have market power in aeronautical services, but they have not systematically exercised their market power to the detriment of the community. There is no justification for significant change to the current form of regulation of aeronautical services at these airports.

5.6 The profitability of non-monitored airports

Airports outside the four monitored airports have less market power and therefore less ability to exercise that power to earn excessive profits from aeronautical services (chapter 3). Nevertheless, some inquiry participants have raised concerns about their behaviour.

There are no reliable data on the non-monitored airports to determine whether profits on aeronautical services are sufficiently high to be indicative of the exercise of market power. ROAA cannot be reliably calculated due to a lack of asset value information and limited information on the split between aeronautical and non-aeronautical services. Operating profit margins are only reported for the whole of airport, and as discussed earlier there are significant limitations with comparing operating profit margins between airports.

Although there are no reference points to determine whether operating profit margins are excessive, they still offer some insights into the overall financial viability of non-monitored airports and the size of their operations relative to the monitored airports. The Commission has obtained a snapshot of EBIT operating profit margins data for 40 airports/airport companies across Australia that are not subject to monitoring, including 35 regional airports and five that serve capital city regions. The data were sourced from local government accounts and financial reports and are mostly for 2016-17. Including these airports with the monitored airports gives a total sample of 44 airports/airport companies, which covers more than 90 per cent of all passenger movements at Australian airports.

The data for non-monitored airports are subject to a number of limitations.

- The data do not separate aeronautical and non-aeronautical services.
- There is no equivalent to the monitored airports' line in the sand asset values or depreciation costs.
- Many regional airports are owned by local governments that choose to subsidise airport services.
- Results for individual airports may be heavily influenced by one off costs.

Smaller regional airports are less profitable

On the whole, regional airports are not highly profitable businesses. About a third of regional airports in the sample did not cover their costs (table 5.2). Profits at the 35 regional airports/airport companies in the sample accounted for 4 per cent of total revenue but less than 2 per cent of total profit for the 44 airports within the sample, on account of their higher total costs.

The five non-monitored capital city airports in the sample also made up a relatively small proportion of total revenues and profits. The largest non-monitored airport, Adelaide Airport generated less than half the revenue of the smallest monitored airport, Perth Airport. In total, the five non-monitored capital city airports in the sample generated 13 per cent of revenue and 11 per cent of total operating profit.

Although the relationship is not precise, smaller regional airports are less likely to recover their total costs from customers than larger capital city airports (that is, they appear to be more likely to run an operating deficit). All the non-monitored capital city airports had positive EBIT operating profit margins at a similar level to or below the level of the four monitored airports.

Table 5.2 Airport financial results ordered by increasing revenue^a

Airport or airport company	Owner	State/ territory	Revenue (\$'000)	Total costs ^b (\$'000)	EBIT (\$'000)	Operating margin (%)
Narrandera ^c	Council	NSW	104	330	-226	-217
Grafton	Council	NSW	168	539	-371	-221
Taree	Council	NSW	220	1 419	-1 199	-545
Lismore	Council	NSW	277	468	-191	-69
Moruya	Council	NSW	381	524	-143	-38
Bathurst	Council	NSW	484	666	-182	-38
Moree	Council	NSW	701	411	290	41
Broken Hill	Council	NSW	725	1 146	-421	-58
Whylla ^d	Council	SA	738	760	-22	-3
Griffith	Council	NSW	808	687	121	15
Mount Gambier	Council	SA	935	855	81	9
Esperance	Council	WA	1 100	1 087	13	1
Orange	Council	NSW	1 166	1 390	-224	-19
Armidale	Council	NSW	1 746	1 424	322	18
Cloncurry ^d	Council	Qld	2 023	1 506	517	26
Port Lincoln ^d	Council	SA	2 028	1 540	488	24
Hervey Bay	Council	Qld	3 522	3 318	204	6
Wagga Wagga	Council	NSW	3 767	5 459	-1 692	-45
Learmonth	Council	WA	4 016	3 370	646	16
Roma	Council	Qld	4 307	3 618	689	16
Dubbo	Council	NSW	4 549	3 521	1 028	23
Proserpine	Council	Qld	5 170	5 117	53	1
Tamworth	Council	NSW	5 185	5 193	-8	0
Port Macquarie	Council	NSW	5 230	4 003	1 227	23
Bundaberg	Council	Qld	5 438	3 801	1 637	30
Ballina	Council	NSW	5 780	4 930	850	15
Albury	Council	NSW	6 546	4 627	1 919	29
Coffs Harbour	Council	NSW	7 243	4 954	2 289	32
Emerald	Council	Qld	7 475	5 574	1 901	25
Kalgoorlie	Council	WA	10 410	8 703	1 707	16
Newman	Council	WA	12 210	8 416	3 793	31
Gladstone ^c	Council	Qld	14 144	9 817	4 327	31
Rockhampton	Council	Qld	15 314	14 240	1 075	7
Port Hedland ^d	Council	WA	19 838	12 545	7 293	37
Karratha	Council	WA	21 946	12 772	9 174	42
Hobart	Private	TAS	48 080	18 441	23 813	50
Canberra ^e	Private	ACT	60 073	48 265	11 368	19
Northern Territory Airports	Private	NT	122 076	81 267	40 809	33
Queensland Airports	Private	Qld	130 428	62 821	67 607	52
Adelaide	Private	SA	198 519	97 337	101 182	51
Perth	Private	WA	519 598	256 167	263 431	51
Brisbane	Private	Qld	675 809	284 233	391 576	58
Australia Pacific Airports Corporation	Private	Vic	951 841	409 719	542 122	57
Sydney	Private	NSW	1 483 300	670 200	813 100	55
Total for sample			4 365 418	2 067 180	2 289 472	Average=52

^a Data are from 2017 annual financial reports unless otherwise noted. ^b Total costs is operational expenditure plus depreciation and amortisation but excluding finance and interest costs. ^c Data are for 2015-16. ^d Data are based on budget forecasts, rather than actual outcomes. ^e Data are for Capital Airport Group which manages the airport and property assets at Canberra Airport.

Source: Commission estimates based on council and company financial statements.

6 Car parking and landside access

Key points

- Prices at airport-owned car parks attract substantial public attention, but passengers have several other options when travelling to and from an airport.
 - Kerbside drop-off or pick-up using a private car, independent off-airport car parks, rideshare, taxi, car rental, car share, chauffeured services and public transport can be suitable substitutes to parking at airport-owned car parks.
- There is little evidence that Sydney, Melbourne, Brisbane and Perth airports are exercising their market power in car parking.
 - Airport car park prices can largely be explained by the value that airport users place on convenience and proximity to the terminal; opportunity cost of land; need to manage congestion; and the cost of building and maintaining multi-storey car parks and providing their amenities and services.
 - Since 2011 some airport car parking prices have decreased, such as for long-term users at Sydney and Melbourne airports. Prices are also not out of line with those at other locations, such as entertainment venues, where users value convenience.
 - The number of public car parking spaces available at airport-owned car parks has increased and the measured quality of service for car park facilities has remained relatively constant.
 - Alternative options in ground transport across the monitored airports put some competitive pressure on airports.
- Airport operators provide, for a charge, landside access to terminals for taxis, buses servicing off-airport car parks and other ground transport operators.
 - Airport operators have an incentive to limit competition from landside operators where this increases demand for on-airport car parking.
 - The Commission's assessment of whether landside access charges and other terms of access are consistent with airports exercising market power has been constrained by a lack of evidence.
 - Participants raised concerns around landside access. These included inadequate consultation and engagement with landside operators, and the transparency and sharing of methods used to set charges and allocate costs for common-use landside areas.
- The data collected under the monitoring regime are not adequate to determine whether airport operators have systematically exercised their market power in landside access. Data collected under the monitoring regime for car parking could and should be improved.
 - The Commission is seeking further evidence to assist it to determine whether Sydney, Melbourne, Brisbane and Perth airports have exercised market power in landside access.
- The monitoring regime should be improved to ensure that more detailed data are collected that enable the Commission to assess the systematic exercise of market power in car parking and landside access.

Airports own and operate on-airport car parks, including at-terminal car parks and at-distance car parks (which have shuttle-bus connections to terminals). Airports also have control over landside access for other ground transport options including taxis, hire cars and shuttle buses for independently operated off-airport car parks. Their monopoly on access to terminals provides airport operators with market power in at-terminal parking and landside access.

Airport operators could exercise their market power through:

- setting car park and landside access prices above an efficient level
- inadequate investment in infrastructure and operational aspects of services, leading to a reduction in the quality of car park facilities or landside access areas and loss in economic efficiency
- restricting competition from landside services that compete with on-airport car parks, by denying access or setting unfavourable terms of access to service providers.

Many inquiry participants raised concerns about airports' market power in both car parking and landside access (A4ANZ, sub. 44; Andrew's Airport Parking Group, sub. 30; ACCC, sub. 59; AFIA, sub. 67; AMAC, sub. 10; ESC, sub. 7; Hassel, sub. 55; Prosper Australia, sub. 19; Qantas Group, sub. 48; SAFC, sub. 14; Virgin Australia Group, sub. 54).

This chapter sets out the Commission's assessment of the extent of airports' market power in public car parking and landside access and whether they have exercised market power in these two areas to the detriment of the community.

6.1 Ground transport options

Passengers have a range of ground transport options when travelling to and from the airport — for example, private car, taxi, car rental, chauffeured services, private bus and public transport including buses and trains (table 6.1). At some airports, passengers can use rideshare services, such as, Uber and Ola and car share services, such as, GoGet.

Passengers being dropped off or picked up by family or friends (meeters and greeters) can use at-terminal car parks, kerbside drop-off and pick-up facilities and designated waiting areas (table 6.2). Free but time-limited waiting areas are facilities close to terminals where parking is free for a limited time. Meeters and greeters can wait in these areas until their family or friends are ready for pick up at the kerbside. Improved availability of flight arrival information through airport websites and mobile apps mean that meeters and greeters can more accurately judge pick-up times, improving the functionality of kerbside pick-up areas.

At the monitored airports — Sydney, Melbourne, Brisbane and Perth — a high proportion (and at some a majority) of airport users choose private vehicle options, such as kerbside drop off or pick up, or parking at or near the airport terminal. Passengers that prefer to travel to the airport in a private vehicle and leave it there for the duration of the trip can choose

from on- and off-airport car park options. Most airport operators differentiate on-airport product offerings by:

- proximity to terminal — such as, at-terminal car parks where users can walk to the terminal, or at-distance car parks where users need to catch a shuttle bus between the car park and terminal
- type of product — for example, self-park or valet, undercover or open parking
- length of stay — short-term or long-term car park facilities.

Table 6.1 Estimated use of ground transport options
Per cent of passengers

	Sydney ^a	Melbourne ^b	Brisbane ^c	Perth ^d
Kerbside pick up/drop off ^e	23	37	45	33
Car parking (on-airport)	7	14	14	40
Taxi	19	19	11	11
Rideshare	8	..	3	..
Train	24	..	na	..
Bus (private and public)	17	19	13	2
Bus (off-airport car park operators)	na	4	4	na
Car rental	2	3	8	5
Other ^f	na	4	1	9

^a Data are for 2017. Bus (private and public) category includes limousine services and off-airport car park operators. ^b Data are for 2016-17. ^c Data are for 2016-17. Kerbside pick up and drop off includes train.

^d Data are for 2014-15. Kerbside pick up and drop off includes taxi drop offs. Taxi only includes pick ups.

^e Refers to the use of free kerbside pick-up and drop-off areas by family and friends, and may include drop offs or pick ups by ground transport operators. ^f Includes all other transport modes, for example chauffeured services. **na** Not available. **..** Not applicable

Sources: Brisbane Airport (pers. comm., 21 January 2019); Melbourne Airport (sub. 33, p. 126); Perth Airport (sub. 51, p. 68; pers. comm., 15 November 2018); Sydney Airport (sub. 53, Appendix 9, p. 16).

Airports offer discounts for booking parking online, particularly for longer stays. Sydney Airport (sub. 53, appendix 9, p. 10) stated that car park users who book at-terminal car parking online can save over 50 per cent on the drive-up rates.

Off-airport car parks are independently owned facilities generally located outside the airport precinct. As with the airport operated at-distance car parks, users generally catch a shuttle bus between the car park and the terminals. Shuttle buses are included in the price of parking and usually operate on demand. Operators of off-airport car parks have access agreements with airport operators to enable them to pick up and drop off customers near the terminal for a fee. The number of off-airport car parks around each airport has increased since the monitored airports were privatised. Currently, there are at least 19 off-airport car parks in Melbourne, 7 in Sydney, 5 in Brisbane and 5 in Perth.

Table 6.2 Options for meeters and greeters close to the terminal

	Sydney ^a	Melbourne ^b	Brisbane ^c	Perth ^d
Kerbside drop off and pick up ^e	Free	Free	Free	Free
Waiting area				
<i>Domestic</i>	First 15 minutes free	First 10 minutes free	First 30 minutes free	First 10 minutes free
<i>International</i>	First 15 minutes free	First 10 minutes free	First 10 minutes free	First 10 minutes free

^a First 15 minutes free applies only to the P3 car park at the domestic terminal and express pick-up car park at the international terminal. Sydney Airport also offers one hour free parking at its at-distance car park.

^b The 10 minute free parking zone is for pickups only. It is a designated area adjacent to the multi-story car park at Terminal 1, 2 and 3. Melbourne Airport also offers a 20 minute free waiting zone located close to the at-distance car park. The 20-minute free zone has 79 car park spaces. ^c Waiting areas are for pick-ups only. Brisbane Airport also offers one hour free parking at its at-distance car park. ^d Perth Airport also offers one hour free parking at its at-distance car park. ^e Kerbside drop-off and pick-up areas have strict time limits, generally 1 to 2 minutes.

Sources: Brisbane Airport (sub. 38, appendix B, p. 31); Melbourne Airport (sub. 33, p. 131); Perth Airport (sub. 51, appendix 2, p. 18); Sydney Airport (sub. 53, appendix 9, p. 25).

6.2 Car parking

The Australian Competition and Consumer Commission (ACCC) collects information from airports and airport users, and reports on some financial and quality aspects of car parking services including:

- number of on-airport car park spaces
- annual and average daily throughput
- on-airport car parking prices
- revenue and expenses per car park space and per vehicle
- car parking revenue share of total airport revenue
- operating profit (earnings before interest, taxes and amortisation, EBITA)
- operating profit margin (EBITA/revenue)
- operating profit per car park space and per vehicle
- investments in car parking services
- quality of car parking facilities (availability, standard, time taken to enter).

Most of the data collected are objective and are provided to the ACCC by airport operators. The exception is data on the quality of car parking facilities, which are collected through passenger surveys (chapter 5).

The extent of airports' market power in on-airport car parking

The extent of airports' market power depends on whether good substitutes are available, which in turn depends on who consumes the service and their ability to choose alternative suppliers or products should prices change (chapter 3).

Car parking data obtained from the operators of monitored airports show that there are two types of car park users — short-term and long-term users. The characteristics of these user groups have implications for airports' market power in car parking.

Users of at-terminal car parks

People who use at-terminal car parks are generally not airline passengers. These users can be described as meeters and greeters and typically park for less than 3 hours. On average across the monitored airports, short-term users accounted for approximately 78 per cent of at-terminal car park users in 2016-17. (This average is based on data of two airports for the 2017 calendar year, and two airports for the 2016-17 financial year.)

People who use at-terminal car parks value proximity to terminal buildings and park within walking distance to the terminal. At-distance and off-airport car parks are poor substitutes for terminal-adjacent car parks for most short-term users.

Airport operators provide services that are imperfect substitutes for at-terminal parking for short-term users, including facilities for meeters and greeters, such as kerbside drop off and pick up, and free waiting areas (table 6.2). Since 2011, the availability of alternatives for short-term users has increased at most monitored airports (Brisbane Airport, sub. 38; Melbourne Airport, sub. 33; Perth Airport, sub. 51; Sydney Airport, sub. 53). For example, in 2017, Melbourne Airport introduced the Value Short Stay car park, which is serviced by a shuttle bus that runs every 10 minutes. The price of parking at the Value Short Stay car park is \$10 for four hours (Melbourne Airport, sub. 33, p. 121).

These options put some constraint on the ability of airport operators to increase prices significantly for at-terminal car parking. If airports increase at-terminal car parking prices significantly, some short-term users would switch to other alternatives, such as kerbside drop off and pick up (Melbourne Airport, sub. 33; TRB 2010).

Users of at-distance car parks

People who use at-distance car parks are airline passengers who park their vehicle at an airport for the duration of their trip.

People who use long-term car parks have three parking options — at-terminal, at-distance and off-airport — and can also use other transport modes. Different airport users regard the potential substitutes differently. Business travellers tend to be more time sensitive than

leisure travellers — researchers have estimated that the value of time to businesses travellers is more than two times that of leisure travellers (Gupta, Vovsha and Donnelly 2008; Roh 2013; Tam, Lam and Lo 2011). For business travellers, transport options that are reliable, convenient and take the least amount of time could be effective substitutes for on-airport car parking. Slower options, such as public or private buses, are generally not good substitutes for on-airport car parking for these users.

The range of substitutes for on-airport car parking has increased since the monitored airports were privatised. For example, ridesharing services have entered the market, car share and trains are available at some airports, and the number of off-airport car parks operating near airports has increased. The greater availability of substitutes constrain, to some extent, the ability of airport operators to exercise their market power in on-airport car parking for long-term users.

Airports' market power is higher in at-terminal car parks

Airports have a higher degree of market power in at-terminal car parks compared to at-distance car parks. The ACCC identified the main drivers of airports' market power in at-terminal car parking.

Airport market power is likely to be greatest in the supply of short-term (defined as less than 24 hours) car parking that is closest to airport terminals, compared to that at some distance from the airport (i.e. require shuttle bus transportation). This is because all four of the monitored airports are also serviced by a number of independent car parking operators that provide some level of competition to the long-term parking services provided by each airport (i.e. more than one day). (sub. 59, p. 43)

The effectiveness of competition from independent car park operators depends on the terms of access of landside services. Off-airport car parking could provide effective competition to airport-operated at-distance car parking, provided operators have access to landside areas for drop off and pick up on reasonable terms.

Evidence of exercise of market power

An airport operator that is exercising their market power in on-airport car parking would be expected to set car parking prices above efficient levels, underinvest in car parking infrastructure and capacity, or reduce the quality of car park facilities. To assess whether airports have exercised market power in on-airport car parking, the Commission has examined:

- on-airport car park prices and the factors that drive them
- investment in on-airport car parking infrastructure including capacity, utilisation and quality of on-airport car parks.

On-airport car park prices

The price of on-airport car parking attracts substantial public attention, in part, because ‘it is very apparent to consumers how much they pay for the service’ (ACCC, sub. 59, p. 43). Prices for on-airport car parks at the monitored airports have changed over the period 2010-11 to 2016-17 — in some cases increasing and in some decreasing (table 6.3). Price reductions have mostly occurred for long-term users of at-terminal (Sydney and Melbourne airports) and at-distance car park facilities (Melbourne Airport).

Some airport operators have increased their car parking prices significantly. For example, between 2010-11 and 2016-17, the price of parking for one hour at Perth Airport’s at-terminal car park doubled in real terms, from \$6.31 to \$12.60, but remains the least expensive of the four major airports. Perth Airport stated that higher short-term prices are a result of increased investment in car park facilities and demand management of scarce parking capacity.

An increase to these prices was made in 2017 to reflect the significant investment into car park expansion and infrastructure upgrades in both T1 and T2 Short Term. It was also identified these prices were significantly undervalued when compared to the local market and other airports.

The increases to 24-hour Short Term prices reflect the increased demand for proximate to terminal parking, and identifying that these passengers were consuming significant car park capacity near the terminal for extended periods. (sub. 51, p. 72)

Table 6.3 Price of parking at the monitored airports

Prices in 2016-17 dollars

	At-terminal ^a				At-distance	
	\$ one hour		\$ one day		\$ one day	
	2010-11	2016-17	2010-11	2016-17	2010-11	2016-17
Sydney	16.91	16.50	58.61	50.00	28.18	33.00
Melbourne	13.53	15.00	58.61	49.00	32.69	25.00
Brisbane ^b	14.65	16.00	39.45	54.00	..	31.77
Perth	6.31	12.60	40.58	46.50	18.03	25.00

^a At-terminal prices are average drive-up prices for both domestic and international car park facilities.

^b Brisbane Airport’s at-distance 2016-17 price is an average online price. .. Not applicable.

Source: ACCC (2018b).

Drivers of on-airport car park prices

The price of on-airport car parking could exceed the long-run average cost of providing car parking for several reasons, some of which are consistent with the efficient operation of car parks, while others are not.

- Where few substitutes exist, airports could exercise market power by increasing prices.
- Land near terminal buildings is limited, which means that it has a high opportunity cost (Forsyth, sub. 15). Airports could rent the land out for other uses, such as car rental facilities, retail outlets or hotels. Efficient prices reflect the opportunity cost of resources.
- Car park users value the convenience of parking close to terminals. The premium that users are prepared to pay for limited space close to terminals creates locational rents (box 6.1) (ACCC, sub. 59; Forsyth 2004).
- Car park amenities, such as covered parking, and services such as valet parking, can increase the cost of building and operating facilities.
- Airports can use pricing to manage the demand for and reduce congestion in highly-sought-after car parking facilities, such as at-terminal car parks (ACCC, sub. 59; Forsyth 2004). Airports also use car parking prices to reduce congestion in landside areas, such as kerbside pick up and drop off (L.E.K. Consulting 2018).

The Commission has examined each of these drivers to assess the effects they have on the prices of on-airport car parking.

Substitutes for airport car parking provide some constraint on prices

Some airport operators said that their ability to increase car parking prices has been constrained by the existence of substitutes. Melbourne Airport stated that competition from other landside access modes led to a price increase being reversed.

... some drive-up prices at the Terminal 1, 2 and 3 car park increased in October 2015. These price increases reduced demand from passengers for these products, with passengers switching to other modes of transport to the airport, reflecting the competitive market in which Melbourne Airport parking operates (Table 8.5). Subsequently prices for At-Terminal parking have been reduced in order to win back market share from competitors, as would be expected in a competitive market. (sub. 33, pp. 124)

Land near terminals has a high opportunity cost

Airports argued that the opportunity cost of land near terminals is high because the land around terminals tends to be scarce and could be rented out for other uses.

At Sydney Airport, land close to the terminals is scarce, and the opportunity cost of the land used for parking is significant. (Sydney Airport, sub. 53, p. 129)

HoustonKemp were commissioned by the monitored airports to provide a market power assessment relating to car parking and ground access. HoustonKemp found that:

- instead of providing car parking, airports could rent out the land for other uses, such as hotels or retail outlets
- the value of the land used for car parks at Sydney, Melbourne, Brisbane and Perth airports has increased since 2013 (Brisbane Airport, sub. 38, appendix B, p. 46; Melbourne Airport, sub. 33, attachment, p. 31; Perth Airport, sub. 51, appendix 2, p. 33; Sydney Airport, sub. 52, appendix 9, p. 43).

Box 6.1 **The difference between locational and monopoly rents**

Airport operators can obtain economic rents — payments for providing a good or service in excess of cost of supply, including opportunity cost. Two types of rents are relevant in car parking and landside access — locational and monopoly rents.

Locational rents arise because ‘users are prepared to pay a premium for preferred locations for economic activity’, such as parking or being dropped off by a taxi close to the airport terminal (Forsyth 2004, p. 51). A principal driver of locational rents is that space at the preferred location is limited. Locational rents can be observed throughout the economy. The Australian Airports Association (sub. 50, p. 96) stated:

There are many examples of locational rents having a significant role in the economy, including residential land values that increase with proximity to city centres, desirable schools or beaches. Locational rents reflect that the land in premium locations is scarce, and that people are willing to pay more for the land as a result. Unless users of premium land are charged prices that reflect its locational attributes, over-crowding or congestion is inevitable.

Locational rents are consistent with efficient pricing because they represent the consumers’ willingness to pay for limited space. Monopoly rents arise through the exercise of market power. The owner of a facility has the scope to raise the price of using the facility above the cost of supply — incorporating the opportunity cost of all resources used, including locational rents.

When monopoly rents are present the price of the service is set above an efficient level, reducing the welfare of the community as a whole. It is not easy to distinguish between monopoly and locational rents.

The Commission has not sought to quantify locational rents because, in practice, it is not possible. The size of the rent itself depends on the degree of scarcity of the land and the ‘premium users are prepared to pay’ to use the service located in close proximity to the airport (Forsyth 2004, p. 53). Nor is it possible to quantify monopoly rents, in the absence of an estimate of locational rents.

Car park users value proximity to terminals

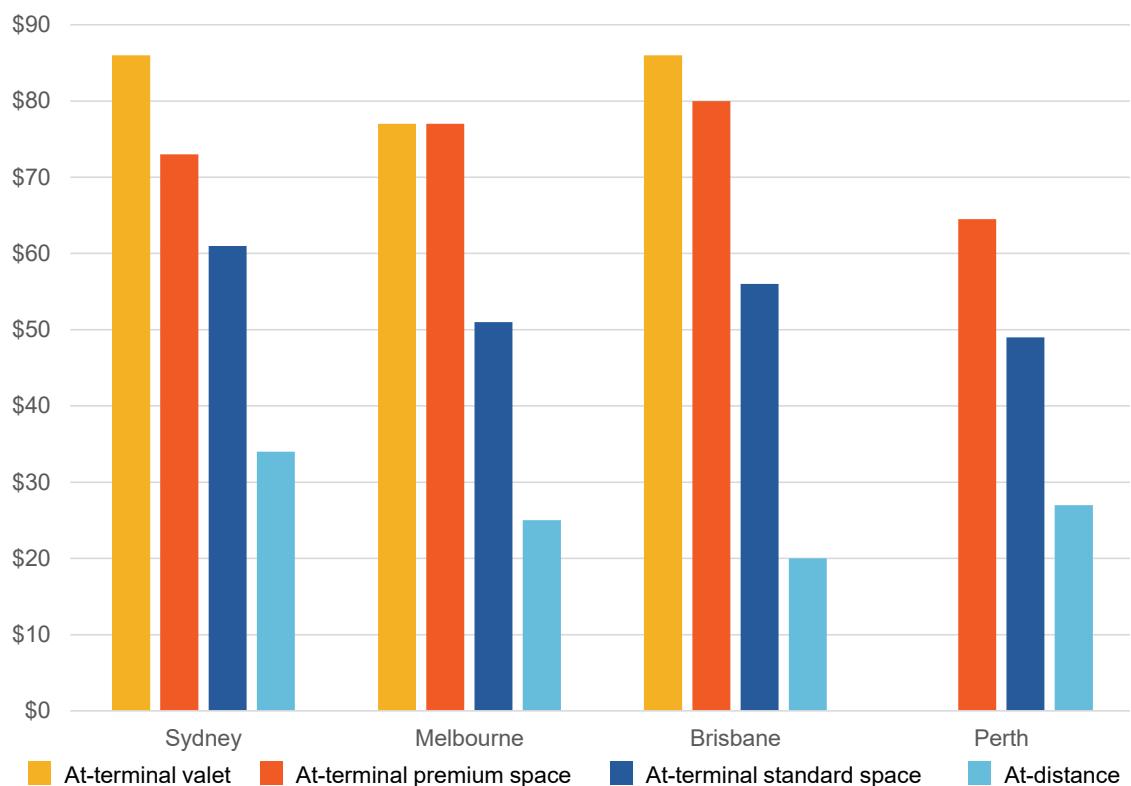
The price of parking increases the closer the car park facility or space is to the terminal (figure 6.1). Across the monitored airports, the price of at-terminal parking compared with at-distance parking is, on average, double. There is also a premium for parking closer to the terminal *within* at-terminal car park facilities. On average, it costs 36 per cent more to park

in a premium space (1-2 minutes walk to terminals) compared with a standard space (3-5 minutes walk to terminals).

This result holds for off-airport car parks as well. For example, off-airport car park operators located 3 to 5 km from the Melbourne Airport terminal charge, on average, approximately \$24 for 1 day for outdoor parking and \$77 for 7 days. Operators located 5 to 7 km away charge (for the same type of facilities), on average, approximately \$19 and \$71 for 1 and 7 days, respectively.

Figure 6.1 Price of parking for 24 hours at the monitored airports^a

2018 drive-up prices, by distance to the terminal



^a Prices reflect drive up rates, except for Sydney at-terminal premium parking which can only be booked online. Standard spaces reflect self-park spaces approximately 5 minutes walk from terminals, premium spaces are also self-park, 1-2 minute walk from terminals. Valet spaces are also generally a few minutes walk from terminals however these spaces are not self-park.

Sources: Brisbane Airport (2018); Melbourne Airport (2018a); Perth Airport (2018b); Sydney Airport (2018e).

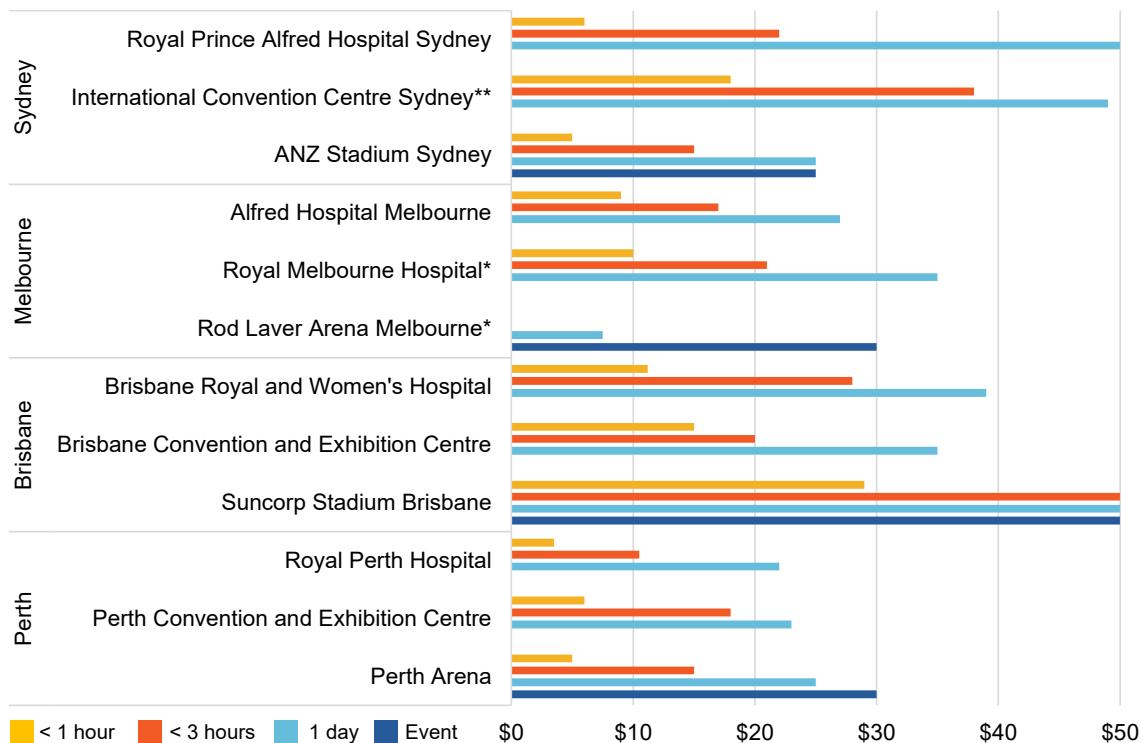
Similar relationships hold at smaller airports. For example:

- Canberra Airport — 24 hours in a car park adjacent to the terminal costs \$30; the same period at a car park further away (but still walking distance to the terminal) costs \$24 (Canberra Airport 2018b)

- Adelaide Airport — 24 hours in the at-terminal car park costs \$40; the same period in the long-term car park (at-distance) costs \$31 (Adelaide Airport, sub. 32, p. 19)
- Karratha Airport — 24 hours at the short-term car park (close proximity to terminal) costs \$25, compared with \$16 to park at the long-term car park (greater distance from the terminal) for the same duration (Karratha Airport, sub. 12, p. 3).

The value people place on convenience is not limited to airports. People are prepared to pay a premium to park close to other venues, such as hospitals, and entertainment and sporting venues (figure 6.2). For example, the price of parking when an entertainment or sporting event is on in some of the cities is almost equivalent to parking at the airport for an equivalent time. Parking at Rod Laver Arena during an event (duration of a few hours) costs \$30, compared to \$24 for 3 hours at the Melbourne Airport at-terminal car park. Similarly, event car parking at Perth Arena costs \$30, compared to \$23 for 3 hours at Perth Airport's at-terminal car park.

Figure 6.2 Car park prices at selected hospitals, and entertainment and sporting venues^{a,b}



a State-government annual congestion levies apply to car parks in some metro areas of Sydney and Melbourne. ** Congestion levy of \$2400 per car park space. * Congestion levy of \$1400 per car park space.

b Car park prices at some event venues are dynamic.

Sources: Alfred Health (2018); BCEC (2018); City of Perth (2018a, 2018b); ICC Sydney (2018); Metro Parking (2018); RAC Arena (2018); RMH (2018); Rod Laver Arena (2018); Secure Parking (2018b, 2018c, 2018a); Sydney Olympic Park (2018).

Amenities and higher level of service increase parking prices

At-terminal car parks are generally multi-storey building structures and provide covered parking, have security services such as CCTV, and offer premium parking services such as valet. At-distance on-airport and off-airport car parks tend to be paved areas with few structures and do not provide the same amenities that are available in at-terminal car parks. The cost of building and maintaining at-terminal car parks and providing their amenities and services could explain part of the price premium at-terminal car parks attract (figure 6.1). An example of how this affects consumers' willingness to pay for car parking amenities is the premium attached to parking in covered or shaded parking spaces (table 6.4).

Table 6.4 Prices of on-airport at-distance and off-airport car parks^a
For 7 days, covered and uncovered

	No cover	Cover/shaded	Premium
	\$	\$	%
Sydney			
On-airport at-distance ^b	141	176	25
Off-airport	115	146	26
Melbourne			
On-airport at-distance ^{b,c}	99
Off-airport	73	94	29
Brisbane			
On-airport at-distance ^d	84	96	14
Off-airport	67	95	42
Perth			
On-airport at-distance ^{b,e}	128
Off-airport	106	140	33

^a Off-airport car park prices represent an average of the off-airport car park operators. For Sydney, the average is calculated using prices of 7 covered and 5 uncovered car parks. Average for Melbourne is calculated using prices of 17 covered and 15 uncovered car parks. Average for Brisbane is calculated using prices of 4 covered and 5 uncovered car parks. Average for Perth is calculated using prices of 4 covered and 5 uncovered car parks. ^b Drive-up prices. ^c Melbourne Airport does not offer shaded parking spaces at the at-distance car park. ^d Online prices. ^e Perth Airport does not offer shaded parking spaces at the at-distance car parks. .. Not applicable.

Source: Commission estimates using prices listed on car parks' websites.

Airport operators use prices to manage demand

Airport operators vary prices to manage demand and reduce congestion across the different parking options they offer.

SACL [Sydney Airport] has indicated that drive up parking prices have been set to address these different users' stay durations, as well as proximity to the terminals to ensure a distribution of usage across all car parks and minimise congestion. (Sydney Airport, sub. 53, appendix 9, p. 10)

Capacity is most constrained in the short-term car park at T1, owing to international hourly parking demand and online upsell from long term parking. PAPL's [Perth Airport's] short term car parks have experienced the highest price increases over the period. Taken together, these facts suggest that the pricing structure for PAPL's car parks is consistent with efficient price signalling and capacity rationing. (Perth Airport, sub. 51, appendix 2, p. 30)

All the monitored airports charge significantly lower rates at their long-term car parks (at-distance) compared to their short-term car parks (at-terminal) (figure 6.1). Similarly, areas adjacent to at-terminal car parks that allow meeters and greeters to park for free for a limited amount of time (while waiting for passengers) charge higher rates for long-term users. For example, the price of parking for one day in the Melbourne Airport 10 minute free pickup area is \$78, compared with \$51 for the adjacent at-terminal car park (Melbourne Airport 2018a, 2018b).

As the ACCC has acknowledged, using price to ration scarce resources is efficient, otherwise there would be queuing, delays, or some customers missing out on receiving the service.

High prices can be an efficient rationing mechanism that apportions the limited available car spaces among users who are willing to pay the most for them. Otherwise, there could be excessive demand for the most convenient car parking spaces, which would result in queuing and, consequently, delay costs to users. (2011, p. 73)

Summary

The price of car parking reflects many factors, including that airports could use the land for other activities that would yield higher returns; some people place a high value on convenience and are prepared to pay to park near the terminal; and airports use prices to avoid overcrowding and congestion. Airports face some competition from other transport options and their ability to increase prices is somewhat constrained.

Investment in car park facilities

An airport operator that is exercising their market power in on-airport car parking would be expected to underinvest in car parking infrastructure and capacity, leading to congested car parks and lower quality car park facilities. Alternatively, the airport operator could set prices too high leading to underutilisation of car parks.

The monitored airports have undertaken investments to increase the capacity and quality of their car park facilities. Improvements in existing car park facilities, such as installation of parking guidance technology or CCTV security, could entail higher operating costs. ACCC data show that since 2010-11 operating expenses per vehicle have increased significantly at

some airports. For example, total operating expenses and expenses per vehicle at Perth and Melbourne airports doubled in real terms between 2010-11 and 2016-17 (ACCC 2018a, pp. 108, 139). Airports would seek to recover increased costs through price rises even in highly competitive markets.

Supply of car park spaces

Forsyth (2004) argued that in the long run, monopoly rents can be disguised to look like locational rents if airports restrict the supply of car parks close to the terminal. Examining the supply of car park spaces in at-terminal car parks over time does not suggest that this has occurred.

The number of public car parking spaces available in at-terminal and at-distance car parks increased substantially between 2010-11 and 2016-17 (table 6.5). The largest percentage increase over this period was at Brisbane and Sydney airports. The ACCC (2018a) found that the growth in car parking spaces at Brisbane and Perth airports has exceeded passenger growth, while parking capacity growth at Melbourne and Sydney airports has been in line with the growth in passenger numbers.

Table 6.5 Availability and use of on-airport car parking^a
2010-11 to 2016-17

	Car park spaces 2010-11	Car park spaces 2016-17	Change in supply	Change in the number of cars using the car park
	number	number	%	%
Sydney				
Total	9 857	17 094	73	18
At-terminal	5 550	11 155	101	19
At-distance	4 307	5 939	38	-9
Melbourne				
Total	20 029	23 603	18	-2
At-terminal	7 529	10 201	35	-7
At-distance	12 500	13 402	7	20
Brisbane				
Total	7 283	13 127	80	20
At-terminal	7 283	10 627	46	18
At-distance	..	2 500	14 ^b	69 ^b
Perth				
Total	13 256	21 673	63	-2
At-terminal	2 382	3 510	47	-4
At-distance	10 874	18 163	67	10

^a Excludes staff parking. ^b Change relative to 2015-16. .. Not applicable.

Sources: ACCC (2018a, 2018b).

The number of cars entering and exiting on-airport car parks (throughput) has also changed since 2011. Throughput fell at Melbourne and Perth airports and increased at Sydney and Brisbane airports (table 6.5). Changes in throughput could reflect changes in user behaviour and other factors that affect demand for airport car parking. For example, throughput at Perth Airport's domestic terminal car parks fell after the mining investment boom (ACCC 2018a).

Utilisation of on-airport car parks

Congestion and underutilisation could both indicate that an airport is exercising its market power in on-airport car parking. The Commission has not sought to identify an optimal level of utilisation for airport car parks as a benchmark because the level of utilisation can depend on where an airport is in its investment cycle and also on exogenous factors that influence demand for air travel. Nevertheless, comparisons between airports can be informative.

Airport operators argued that the capacity of car park facilities must significantly exceed the average utilisation rate to accommodate demand during busy times of the year, such as school holidays (Brisbane Airport, sub. 38; Melbourne Airport, sub. 33; Perth Airport, sub. 51; Sydney Airport, sub. 53). For example, Sydney Airport stated:

Maintaining sufficient capacity to meet consumer expectations at the busiest times of the year imposes a high opportunity cost of intermittent usage, since average utilisation must be well below peak demand to accommodate this level of service availability. (sub. 53, appendix 9, p. 5)

Overall, utilisation data do not indicate that monitored airports have provided too few car park spaces (Brisbane Airport, sub. 38, appendix B; Melbourne Airport, sub. 33; Perth Airport, sub. 51, appendix 2; Sydney Airport, sub. 53, appendix 9). There is, however, evidence that could be consistent with underutilisation of some car parks at some monitored airports.

- At Perth Airport in 2016-17, the average utilisation rates for the at-terminal car parks adjacent to some of the domestic terminals were between 24 and 28 per cent. The average utilisation rate for the at-distance car parks ranged between 33 and 35 per cent (Perth Airport, sub. 51, appendix 2, p. 7).
- At Brisbane Airport in 2016-17, the average utilisation rate of the domestic park-short at-terminal car park was about 26 per cent (Brisbane Airport, sub. 38, appendix B, p. 10).

The utilisation rates of at-terminal domestic car parks at Perth and Brisbane airports could indicate the exercise of market power or timing in the airports' investment cycle. The relatively low average utilisation rates at Perth Airport's at-distance car parks in 2016-17 are likely to be a result of significant investment in at-distance car park capacity (table 6.5) over the past decade to meet demand from the resource sector, which has now tailed off (Perth Airport, sub. 51). The Commission would require time-series data on utilisation rates of at-terminal domestic car parks at the monitored airports to rule out the exercise of market power in car parking by some airports.

Reported quality of service for car parking

The monitored airports have made investments with the aim of improving quality of service of their car park products (ACCC 2013a, 2015, 2018a).

- Sydney Airport replaced its car park access equipment, including gates and pay machines, and installed parking guidance indicators at its multi-storey car parks in 2012.
- Melbourne Airport installed new bay-finding technology in 2016.
- Brisbane Airport constructed an undercover elevated walkway in 2012 that connects multi-level car parks to the terminal.
- Perth Airport implemented CCTV security for car parking at Terminal 2 in 2014.

Measured quality of service for car park facilities — availability and standard of car parking facilities, and time taken to enter — has remained relatively constant since 2011, with most airport car parking facilities rated either ‘good’ or ‘excellent’ (ACCC 2018a). An exception is Melbourne Airport where since 2015-16 the availability of car parking was found to be ‘satisfactory’.

Airports have not exercised their market power to the detriment of the community

Although many consumers resent the price of airport car parking (particularly at-terminal), the Commission considers there is little evidence that the monitored airports are exercising their market power in car parking.

Since 2011 some car parking prices have decreased in real terms, such as for long-term users at Sydney and Melbourne airports. In addition, the number of public car parking spaces available at on-airport car parks has increased and the measured quality of service for car park facilities has remained relatively constant. At-terminal car park prices can largely be explained by the value that airport users place on convenience; the opportunity cost of land; the need to manage congestion; and the cost of building and maintaining at-terminal car parks and providing their amenities and services. Intervention to bring down the price of at-terminal car parking could lead to increased congestion and reduce investment.

Alternative options in ground transport across the monitored airports put some constraint on the ability of airport operators to increase prices significantly. For example, if airport operators increase at-terminal car parking prices, some users would switch to alternatives, such as waiting areas and kerbside pick up and drop off.

Likewise, the increase in the use of technology and apps to compare car parking options and prices provides consumers with more information about their options and the means to decide in advance rather than be hit with a nasty surprise. The use of mobile phones has also made using waiting areas and kerbside pick up and drop off more practical.

The monitoring regime remains the best approach to achieving good outcomes for consumers and the community in general. Draft recommendations to improve its effectiveness, including for car parking, are discussed in chapter 10.

6.3 Landside access

There is no substitute for the land that airport operators control for people and businesses needing to access airport terminals. Airport operators have some incentive to exercise their market power in landside access by setting higher-than-efficient charges and restricting access. The more restrictive the terms of access for landside services, the less competition the airport faces in on-airport car parking, particularly from off-airport car parks.

ACCC monitoring of landside access

The ACCC monitors aspects of landside access at the monitored airports. Some elements of the monitoring regime are carried out under Ministerial direction while others are done at the discretion of the ACCC with voluntary cooperation from the airports. Monitoring under Ministerial direction includes:

- the number of parking spaces available to landside operators, such as taxis, and to the public for kerbside passenger pick up and drop off
- the quality of landside access — data are collected using a passenger survey and include kerbside pick-up and drop-off facilities, taxi waiting time and kerbside space congestion.

The ACCC, at its own discretion and with voluntary cooperation from the airports, began collecting financial information relating to landside access in 2009-10, including revenue and access charges for selected landside services (ACCC 2011). The ACCC also started collecting survey information in 2013-14 to gauge the views of landside operators on the quality of landside access services (ACCC 2015). The ACCC discontinued the survey in 2016-17, citing low response rates from landside operators as the reason (ACCC 2018a).

Evidence of exercise of market power

An airport operator that is exercising market power in landside access would be expected to:

- set access charges above an efficient level and other unfavourable terms of access for landside operators
- underinvest in infrastructure and operational aspects of landside services.

A systematic or persistent lack of good faith conduct by an airport in negotiations could also indicate an exercise of market power. Such behaviour may involve an airport: making take-it-or-leave-it offers, with landside operators compelled to accept them; denying, or

credibly threatening to deny, access to services; or refusing to share relevant and timely information (chapter 4). Submissions to the inquiry identified concerns about airports' behaviour in landside access, including inadequate consultation and engagement with landside operators, and the transparency and sharing of methods used to set charges and allocate costs for common-use landside areas.

To assess whether airports have exercised market power in landside access, the Commission examined:

- landside access charges and other terms of access, such as length of stay and drop-off and pick-up areas
- investment in landside access infrastructure and quality of landside access
- airport operators' behaviour when negotiating with landside access operators.

Landside access charges and other terms of access

Taxi and rideshare services

Taxi access charges have increased since 2011 across the monitored airports, with the largest increase at Melbourne Airport (table 6.6). Access charges for ridesharing services have recently been introduced and are similar to access charges for taxis at the monitored airports — \$4.20 at Sydney, \$4.50 at Melbourne, \$3.90 at Brisbane and \$3.00 at Perth per pick-up (Brisbane Airport, sub. 38, appendix B, p. 32; Melbourne Airport, sub. 33, attachment, p. 20; Perth Airport, sub. 51, appendix 2, p. 19; Sydney Airport, sub. 53, appendix 9, p. 28). There is no charge for drop-off. Taxis and rideshare services have access to waiting facilities and amenities, and have designated, operator-specific, pick-up and drop-off areas close to terminals.

Access charges for taxis and rideshare services at some regional airports are similar to those of the monitored airports. For example, North Queensland Airports (sub. 49, pp. 30-31) stated that at Cairns Airport, landside access fees for taxis and ridesharing services are \$4.40 and \$4.84, respectively. Like the monitored airports, Cairns Airport provides taxi and rideshare drivers access to waiting facilities and amenities.

Table 6.6 Access charges for taxis

Prices in 2016-17 dollars

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
	\$	\$	\$	\$	\$	\$	\$
Sydney	3.38	3.86	3.77	3.93	4.12	4.17	4.25
Melbourne	1.49	1.45	1.42	2.83	2.78	2.75	3.58
Brisbane	3.42	3.31	3.56	3.46	3.51	3.56	3.60
Perth	2.25	2.20	2.15	2.10	2.06	3.05	3.00

Source: Commission estimates based on ACCC (2018a) and various back editions.

Other landside access services

The monitored airports set significantly different charges and other terms of access for landside services other than taxis and rideshare operators.

- Sydney, Melbourne and Brisbane airports charge almost all ground transport operators for accessing landside areas. Landside operators generally have designated, and in some cases operator-specific, pick-up and drop-off areas.
- Perth Airport levies access charges on chauffeured car services and provides designated pick-up and drop-off space close to terminals.
- Public buses are exempt from access charges at Sydney, Melbourne and Perth airports.
- Sydney, Melbourne and Brisbane airports all have different pricing structures for private buses, including those run by off-airport car park operators. Access charges depend on bus size and length of stay. Charges for private buses at Sydney, Melbourne and Brisbane airports have increased over time and other terms of access have changed (Andrew's Airport Parking Group, sub. 30; Melbourne Airport, sub. 33, attachment; Brisbane Airport, sub. 38, appendix B; Sydney Airport, sub. 53, appendix 9).
- Sydney and Brisbane airports have a train service. Sydney Airport does not collect any revenue for use of the train service. Brisbane Airport charges the train operator (Airtrain) an annual corridor charge. The corridor charge was \$165 000 in 2016-17, and has increased by less than 1 per cent (in real terms) since 2010-11.
- There are six on-airport car rental operators at each of the monitored airports. The specific details relating to the structure and level of charges for each operator at each airport are outlined in confidential access agreements. Examples of car rental operator charges at each of the monitored airports were provided to the Commission on a confidential basis. At the monitored airports, charges for car rental operators generally cover terminal space for customer service desks, allocated car parking in at-terminal car parks, and facilities for maintaining and cleaning vehicles (AFIA, sub. 67). Car rental operators also pay a concession fee, which is charged as a percentage of revenue earned, and are subject to minimum annual guarantees relating to the concession payments.

The Commission's assessment of whether landside access charges and other terms of access are consistent with airports exercising market power has been constrained by a lack of evidence. The Commission does not have access to detailed information about the charges and other terms of access for various landside operators over time. Nor does it have information that would enable it to assess whether the costs of access are consistent with the efficient costs of providing services (taking into account locational rents and the opportunity cost of airport land).

Changes to the monitoring regime to collect detailed data on access charges, costs and revenues would inform future assessments of exercise of market power in landside access (chapter 10).

Landside infrastructure investment and reported quality of landside areas

Infrastructure investment — existing ground transport services

Airports have invested in landside areas with the aim of improving the quality of services for existing landside operators and the public in general. Infrastructure improvements for existing landside operators since 2011 include:

- Sydney Airport — expanded taxi ranks and parking for chauffeured services; improved roadway signage; and has widened several roads
- Melbourne Airport — introduced a taxi-only lane and a separate lane for buses, shuttles and private cars; constructed new freeway access ramps; and has built new roads and widened some existing roads
- Brisbane Airport — reconfigured domestic terminal roads; constructed an off ramp from the airport's main arterial road; built a pick-up facility for domestic passengers; expanded the taxi holding area; and upgraded sheltered facilities
- Perth Airport — constructed new taxi, car rental and bus facilities; upgraded some roads; and has constructed an interchange between two of the terminals (ACCC 2013a, 2014a, 2015, 2016a, 2017a, 2018a).

Some airports have introduced (or are introducing) new technologies to improve the quality of landside access. Brisbane Airport installed an Electronic Access Fee Collection System in 2012-13 to facilitate quicker access to various roads and pick-up zones. Melbourne Airport is in the process of implementing a new traffic management system that includes digital lane allocation screens with variable message signs (ACCC 2014a; Melbourne Airport, sub. 33).

Inquiry participants had mixed views about investments in landside infrastructure. Airport operators stated that they have undertaken investments to improve landside access areas for shuttle buses (off-airport car park operators) and facilities for car rental operators (Melbourne Airport, sub. 33, pp. 82–83; Brisbane Airport, sub. 38, appendix B, p. 20). Some

regional airports have also invested in infrastructure specific to landside operators. Dubbo Airport, for example, has constructed a separate parking area for car rental operators.

Not all landside operators were satisfied with the investments. The Australian Financial Industry Association (AFIA) (sub. 67, p. 12) representing car rental operators said ‘we receive no benefit of investment back into car rental facilities from any increase in fees paid’. Andrew’s Airport Parking Group (sub. 30) representing some off-airport car park operators at Melbourne and Brisbane airports argued that changes in access charges are not reflected in service or infrastructure specific to off-airport car park operators. Off-airport car park operators also raised infrastructure-related concerns for some airports to the ACCC through the landside operator survey, conducted between 2015 and 2017 (ACCC 2015, 2016a, 2017a).

Infrastructure investment — new ground transport services

The number of ground transport options to and from airports has increased since 2011. In some cases these changes have led to increased demand for kerbside space at airports.

Monitored and some non-monitored airports, such as Canberra, Cairns and Hobart, have made changes to landside infrastructure to facilitate the use of ridesharing services, such as Uber. Facilities include designated pick-up and drop-off areas located close to terminals, holding areas for drivers waiting to pick up customers, dedicated areas for customers waiting for pick up (in some airports) and signage to assist passengers in navigating through the airport to access ridesharing services (ACCC 2018a). Car share services, such as GoGet, are also available at Sydney, Melbourne and Brisbane airports.

These landside services use scarce, high-value land close to terminals and can limit the use of the land by other airport users. For example, the introduction of Uber would have led to a reduction in kerbside pick-up and drop-off space for other landside operators. Similarly, at Melbourne Airport, the GoGet cars are located in an at-terminal car park, reducing the number of car parks available to other users.

A train line that connects Perth Airport to the surrounding suburbs is under construction, and is expected to open in 2021 (Western Australian Government 2018). The train service is expected to take 18 minutes from the airport to Perth CBD and cost approximately \$5 one way. Likewise, the Victorian and Australian Governments have announced that a train service to Melbourne Airport will be built, with construction planned to start by end of 2022 (Victoria’s Big Build 2018). (Land transport links are discussed in chapter 10.)

Reported quality of service

Since 2011 the reported quality of landside access — kerbside pick-up and drop-off facilities, taxi facilities waiting time, and kerbside congestion, as rated by passengers across three monitored airports — has improved. More airports were rated as ‘good’ or ‘excellent’ in 2016-17, compared to 2010-11 (ACCC 2012, 2018a). Kerbside congestion at Sydney Airport however, has been rated consistently ‘satisfactory’. Sydney Airport (sub. 53, p. 115) stated that as a result of ‘a greater number of people travelling to and past the airport each day’ ground access challenges have become ‘more acute’. The airport also stated that it has encouraged airport users to travel to the airport by train and has supported improvements to the airport train link.

... the NSW Government’s announcement in 2018 of an \$880 million investment in technology improvements to the Sydney train network which will increase the number of trains that can run during the morning and afternoon peaks on the T8 Airport Line. Sydney Airport welcomed this announcement and will continue to work with the NSW government to seek upgrades to the capacity of the Airport Line. If these further upgrades occur, they will facilitate improved services to be added in the future to cope with increasing customer demand. (sub. 53, p. 123)

Consultation and engagement with landside operators

As noted above and discussed in chapter 4, a persistent lack of good faith bargaining by airport operators could be consistent with the exercise of market power. The ACCC landside operator survey showed that in general, between 2014-15 and 2016-17, some landside operators and industry bodies, including taxis and buses, found consultation about landside access arrangements to be satisfactory at the monitored airports. For example, in relation to Brisbane Airport in 2014-15, the ACCC noted:

In terms of management responsiveness, industry groups stated that Brisbane Airport works closely with the industries and have regular meetings to address concerns and issues. (2016a, p. 74)

Similarly, in relation to Sydney Airport in 2015-16, the ACCC noted:

Management responsiveness to addressing quality of service problems was rated as ‘satisfactory’ for both availability and standard. Landside users commented that management was generally approachable. During 2015-16 Sydney Airport and the New South Wales Taxi Council implemented a new working group to improve taxi services for customers. (2017a, p. 167)

Not all landside operators surveyed between 2014-15 and 2016-17 were satisfied with landside access arrangements. Off-airport car park operators expressed concerns to the ACCC about the behaviour of some airport operators in landside access (ACCC 2015, 2016a, 2017a).

... off-airport parking operators commented that Brisbane Airport is unresponsive to their needs and have poor communication. (ACCC 2016a, p. 74)

Off-airport parking operators commented that Melbourne Airport’s management is generally dismissive of issues raised and that negotiations have not resulted in outcomes that are acceptable to any party other than the airport. (ACCC 2016a, p. 103)

Inquiry participants have voiced similar concerns (ESC, sub. 7; ACCC, sub. 59). For example, Andrew's Airport Parking Group stated:

While APAM [Melbourne Airport] does host and document quarterly briefings to advise service providers of changes and developments at the airport, these meetings do not provide an appropriate or timely opportunity for off-airport parking operators to raise individual cases of access or parking issues. (sub. 30, p. 3)

... to comment on Brisbane Airport's level of consultation, it is minimal. Where Melbourne has quarterly meetings that follow a structure and are documented, Brisbane have bi-annual meetings, without pre-communicated agenda or documentation (or at least minutes or similar are not circulated). We could not count the number of times that our suggestions were put "into future planning" only to disappear by the next meeting 6 months later. (sub. 30, p. 4)

The AFIA noted:

They are not commercial negotiations at all. We have no leverage as the airport knows we need to be there and so there is no meaningful negotiation. There have been occasions where we have tried to negotiate on issues which we think create an unfair outcome for consumers and have literally been told that if we are still on the airport the next day that we are deemed to have accepted the concession agreement as presented. (sub. 67, p. 11)

Take-it-or-leave-it offers could be consistent with airport operators exercising their market power in negotiations with landside operators. The Commission is seeking further evidence of take-it-or-leave-it offers in airport negotiations with landside operators and on aspects of consultation and engagement between airports and landside operators. (A formal information request is in the next section.)

Transparency and information sharing relating to the setting of access charges

An airport operator could exercise its market power in landside access by refusing to share relevant and timely information with landside operators (chapter 4). Some landside operators argued that airport operators are not transparent in the way they set landside access charges.

Since AAP [Andrew's Airport Parking] began paying access fees at Melbourne Airport in September 2004, these fees have continued to increase without any formal notification or clarification of the methodology used to calculate these increases. (Andrew's Airport Parking Group, sub. 30, p. 3)

Participants also argued that some airport operators are not being transparent in how they recover costs of common-use landside areas, such as roads (BARA, sub. 42; Qantas Group, sub. 58). For example, Virgin Australia Group stated:

Virgin Australia is concerned that, due to the lack of overall transparency [in pricing frameworks], airports have the ability to over-allocate or inappropriately allocate assets to the aeronautical asset base while still having regard to the cost of those assets when setting terms and conditions of landside access and other non-aeronautical facilities. This can result in "double-dipping", whereby costs may be allocated to both aeronautical and non-aeronautical services, resulting in duplication of recovery by the airport. (sub. 54, p. 21)

Similarly, A4ANZ outlined that:

In one case, a major capital city airport sought to allocate over 87% of road investment to aeronautical users. This of course does not accurately reflect the benefit that non-aeronautical users of airport facilities (e.g. car park users, industrial park tenants and retail operators) derive from those road assets. (sub. 44, p. 19)

Monitored airports argued that pricing for landside access services reflects the capital and operating costs of providing the infrastructure and facilities, and locational rents associated with the scarce land close to terminals (Brisbane Airport, sub. 38; Melbourne Airport, sub. 33; Perth Airport, sub. 51; Sydney Airport, sub. 53).

This user-pays model is based on accepted building block methodology and looks to recover operational and capital costs of providing ground access services, and is also overlaid with a locational rent. (Melbourne Airport, sub. 33, p. 137)

BAC [Brisbane Airport] levies landside access fees on some vehicles that enter the airport precinct, with these covering the costs that BAC incurs in providing, operating and maintaining the access facilities, such as kerbside management, covered waiting areas and taxi queuing areas. (Brisbane Airport, sub. 38, appendix B, p. 16)

The Commission received very limited evidence on how airport operators set landside access charges, allocate the cost of common-use landside areas between aeronautical and non-aeronautical services, and whether this information is shared with landside operators in negotiations.

The Commission is seeking further evidence on landside access

Landside access charges and other terms of access for taxis and rideshare services at the four monitored airports are transparent, as are charges for some other services including private cars and some bus services. Charges and other terms of access for some private bus services and car rental operators are confidential. Access to airport terminals is essential for these businesses — off-airport car parks cannot operate without terminal access. The AFIA (sub. 67, p. 11) stated that in many cities, about 50 per cent of a car rental operators' revenues come from customer demand at airports. Airports have some incentive to exercise their market power over these operators and the Commission cannot say for sure that they have not done so.

While airports have invested in landside infrastructure, landside operators have expressed concerns about the adequacy of infrastructure and consultation arrangements at some airports. On the basis of the information before it, the Commission is unable at this stage to determine whether airports have made efficient and timely investments in landside infrastructure or are using take-it-or-leave-it tactics when negotiating terms of access, with landside operators compelled to accept the take-it-or-leave-it offers.

Reported quality of service has been within reasonable ranges at the monitored airports, although there is scope for improvement at Sydney Airport.

The Commission has not received enough evidence to reach a conclusion about whether the monitored airports have exercised market power in landside access and will withhold its judgment on whether airports have done so until the final report. Interested parties are invited to provide further evidence on the matter.

INFORMATION REQUEST 6.1

The Commission is seeking evidence on:

- *how airport operators consult and engage with landside operators when setting access charges and undertaking investment in landside infrastructure*
 - *how consultation between airports and landside operators could be improved*
 - *mechanisms available to landside operators to raise issues with airport operators that relate to landside access and how issues are resolved*
 - *the pricing frameworks airport operators employ to determine the access price of specific- and common-use landside infrastructure and whether these frameworks, and the associated methodology, are included in negotiations with airport users*
 - *airport operators making take-it-or-leave-it offers when negotiating charges and other terms of access with landside operators*
 - *negotiation outcomes, including acceptance of take-it-or-leave-it offers by landside operators.*
-

6.4 Effectiveness of the monitoring regime

Car parking

The ACCC reports the operating profit margin for car parking and has made public comments related to airports' car parking profits using this measure. Airports and other inquiry participants raised concerns about the use of the operating profit margin as an indicator of the exercise of market power (AAIG, sub. 20; Melbourne Airport; sub. 33; Sydney Airport, sub. 53). The Australian Airports Association argued:

... this measure [EBITA] is incapable of supporting any conclusion as to the existence of exercise of market power.

EBITA is an accounting measure of profit that does not take into account the opportunity cost of the capital assets employed in providing the relevant service. By its nature, EBITA as a percentage of revenue will be high for firms providing services that involve relatively high levels of capital (including valuable land) and low for firms providing services that require relatively little capital.

It follows that observations made by the ACCC using EBITA are apt to mislead, particularly where the opportunity cost of the capital assets is substantial. In the context of car parking, an

important element of the opportunity cost of the capital assets is the cost of the land upon which the car parks are located. (sub. 50, p. 95)

As well as excluding capital and land from consideration, using operating profit margins as a measure of profitability does not account for the presence of locational rents. As such, it is not well suited to identifying the exercise of market power in car parking.

An alternative indicator of profitability is revenue or profit per unit of output, such as revenue or profit per vehicle. Although these indicators indirectly control for the value of the airport's assets (output is often correlated to assets), they have limitations when used to assess whether airports are exercising their market power in car parking. For example, an increase in revenue per vehicle (as was the case across the monitored airports in 2016-17) does not *necessarily* suggest that the price of parking has increased across these airports or that these airports are exercising market power. It could reflect changes in behaviour, such as customers parking for longer durations or choosing premium services.

The data currently collected for the monitoring regime can reveal changes over time in profit margins, revenue and profit per vehicle, and quality and supply of car parking. The indicators collected are useful in understanding whether car parking is becoming more expensive, profit margins are increasing or decreasing, and if airports are investing in car park facilities. However, these indicators alone cannot determine whether airports are exercising market power in car parking. The ACCC acknowledged limitations of the information collected:

Car parking information collected for the ACCC monitoring report is less detailed than what is collected for aeronautical services. For example, asset values are not provided for car parking services, although it is noted that there are challenges with providing information at this level of detail. Furthermore, monitoring does not provide conclusive evidence about whether airports are earning monopoly rents. (sub. 59, p. 50)

Landside access

Airport operators voluntarily provide financial data relating to landside access to the ACCC, but the data are not adequate to determine whether airports are exercising market power in landside access. The Commission would need information on the costs and revenues associated with different landside services to determine whether airports have exercised market power. Currently, revenues are reported for selected landside services only, without any reference to operating costs and, similar to car parking, the capital-intensive nature of the service is not considered (for example, the cost of constructing facilities for operators). Quality of service measures collected through the passenger survey are helpful in understanding whether airports are maintaining the quality of landside access but are not useful in identifying exercise of market power.

Quality of service measures that were collected through the landside operator survey may shed light on airports' behaviour in regards to landside access. For example, measures relating to an airport's willingness to consult and negotiate with landside operators and

measures of conflict resolution, together with some financial indicators, could help identify signs of monopolistic behaviour. The collection of these measures is currently not mandated and the landside operator survey ceased in 2017.

Conclusions on exercise of market power can be difficult to make, given the presence of locational rents for landside areas and the traffic and security management strategies that the airports generally have in place to facilitate the efficient operation of landside areas. The ACCC has acknowledged the limitations of the landside access data collected.

As part of the monitoring program, the ACCC also requests information on costs and assets for landside access. However, responses to these requests have varied. For instance, some airports advised that it is difficult to allocate for various landside access services. Some airports also stated that charges reflect the value of the location and service provided. A lack of cost information limits the ACCC's ability to draw meaningful conclusions about the level of prices and revenues generated from landside access activity and its likely effect on an airport's performance. (2012, p. 47)

The Commission agrees with the ACCC's conclusions about the limitations of the monitoring regime as it relates to car parking and landside access. Landside access data are not adequate to determine the exercise of market power of airport operators in the provision of landside services. Similarly, data currently collected for the monitoring of car parking could be more detailed. Chapter 10 outlines the reform options for the monitoring regime which would allow the collection of more detailed data to inform an assessment on the exercise of market power.

7 Sydney Airport's regional access regimes

Key points

- Sydney Airport's regional ring fence, price cap and notification regimes aim to support access for airlines operating flights between Sydney Airport and regional New South Wales. Airline access to Sydney Airport is more difficult than to other Australian airports because of its regulatory constraints, including restrictions on the number of aircraft movements, along with congestion during the morning and evening peak hours.
- Regional access objectives are important. They need to be achieved in the most efficient and effective way, and be balanced against the community-wide costs of achieving them. The current arrangements help to facilitate access for airlines operating regional flights into Sydney Airport but they can be improved.
- Aircraft movement slots that are not within the regional ring fence cannot be used by airlines for regional air transport, even if this would generate greater benefits to the community.
 - Changes to the regime to allow non-regional slots to be used for either regional or non-regional flights would enable airlines to test and grow regional routes and use their aircraft more efficiently. Non-regional slots that are used for regional air transport should not become permanent regional slots as this would reduce the flexibility of these slots.
 - The price cap should remain limited to existing regional (ring fenced) slots to prevent the price cap regime, and associated costs, from expanding due to a change in the use of slots.
- The price cap is only one factor in airlines' decisions to service a route. Airlines base their decisions on many other factors, such as passenger demand, charges at destination airports, fuel and other operating costs and slot capacity constraints. The benefits of the price cap appear to be limited to marginally profitable routes and the costs are uncertain. Given the potential benefits at the margin, the price cap should be retained in its current form at this time.
- The public nature of price notifications could discourage commercially negotiated outcomes between Sydney Airport and the airlines operating regional flights if they are unwilling to release commercially sensitive information that would otherwise be contained in agreements. Amendments to the price notification regime would encourage commercially negotiated outcomes.
- The planned opening of Western Sydney Airport in 2026 may provide more opportunities for regional air transport in the long term. Future reviews of regional access arrangements at Sydney Airport should consider the need for such arrangements in light of this.
- The movement cap and curfew compound delays, prevent airport and airline assets from being used efficiently and result in unintended noise and adverse environmental effects. Greater flexibility and more direct targeting of noise outcomes would improve operational efficiency.
- Sydney Airport's slot management scheme prevents new entrants from gaining access to the airport and can be exploited by incumbent airlines. The Australian Government should commission a public review of the scheme.

Regional air transport typically consists of short-haul routes with low passenger numbers (Mills 2017). These routes are often serviced by a single airline with relatively small aircraft running a small number of flights. Regional Express (Rex) is Australia's largest dedicated regional airline and operates using 34-seat turboprop aircraft (Rex, sub. 63, p. 4). The two major domestic airlines, Qantas Group and Virgin Australia Group, also have regional brands (QantasLink and Virgin Australia Regional Airlines) that operate turboprop aircraft with 68–74 seats and jet airliners with 100–125 seats (Qantas Group 2018, pp. 47–50; Virgin 2016). Some smaller regional airlines operate 19-seat turboprop aircraft (for example, Fly Corporate nd; FlyPelican 2018).

Most regional flights in Australia connect regional communities to state capital hubs (Mills 2017). They provide regional communities with access to emergency and essential services, such as healthcare and disaster relief, which might not be as easily accessible otherwise. They can also promote regional connectivity and development through greater social cohesion, access to markets and tourism (Deloitte Access Economics 2018; Donehue and Baker 2012). Sydney Airport is a vital hub for passengers in NSW regions, many of whom go on to use other domestic or international air transport services (Sydney Airport, sub. 53). Return flights within a day also allow travellers to make day trips between Sydney and regional areas (Virgin Australia Group, sub. 54).

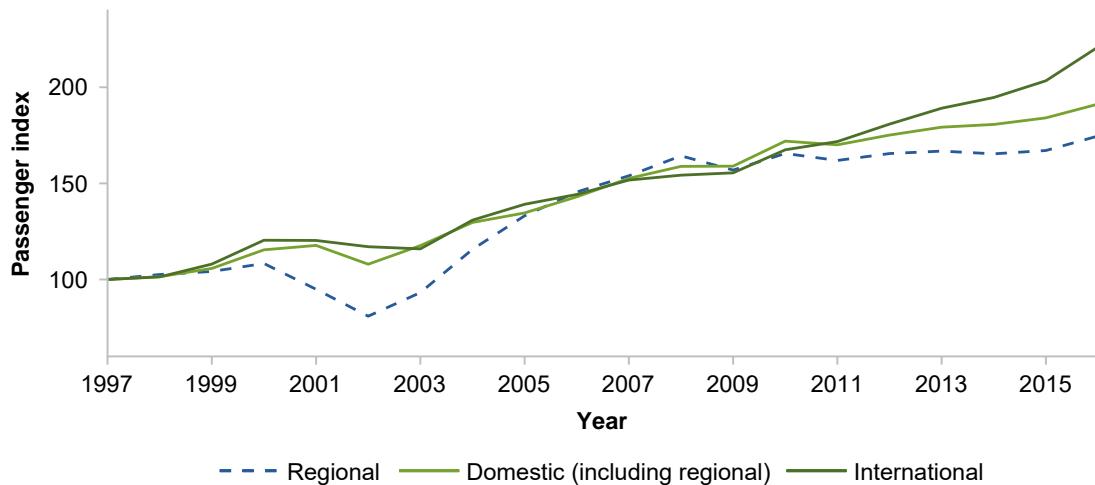
Over 60 per cent of routes between Sydney and NSW regions were serviced by a single airline group in 2016 (Commission estimates based on NSW BTS (2018) and BITRE (unpublished)). The routes that were serviced by more than one airline group tend to have larger passenger numbers, such as those connecting Sydney to Albury, Ballina, Dubbo, Tamworth and Wagga Wagga.

The number of passengers travelling between Sydney and NSW regions has grown by 75 per cent, from 1.3 to 2.2 million, between 1997 and 2016, although the number and growth of regional passengers is small relative to domestic and international passengers at Sydney Airport (figure 7.1). Domestic passenger numbers (including regional) reached 26.9 million and international passenger numbers reached 15.1 million in 2016 (growth of 91 per cent and 121 per cent, respectively since 1997). Growth is expected to continue, with forecasts of 34.1 million domestic passengers (including regional) and 31.5 million international passengers in 2039 (Sydney Airport 2018d, p. 54).

Without government intervention, airlines and operators of airport hubs could have a greater incentive to cater to higher volume (and potentially more profitable) interstate and international routes rather than regional routes. This is particularly the case during congested peak periods, which are becoming more acute at Sydney Airport. Sydney Airport presents specific challenges given its important role as a hub for domestic and international passengers, and its proximity to residential communities, which has led to strict noise management policies. The Regional Aviation Association of Australia (RAAA) (sub. 66, p. 23) stated:

The financial incentive[s] for large capacity restricted airports like Sydney to force out small airlines are huge when it is considered that a 34 seat or 19 seat aircraft occupies a slot that could be filled by a large international or domestic operator which generates far more revenue for the airport.

Figure 7.1 Index of passenger numbers at Sydney Airport
1997 to 2016, base year = 1997



Sources: Commission estimates based on NSW BTS (2018) and BITRE (2017a).

Accordingly, there are a number of policies intended to facilitate access into Sydney for airlines servicing regional communities. The Australian Government has asked the Commission to review the regional price cap and notification regime at Sydney Airport. The Commission has also examined the regional ring fence, which reserves aircraft movement slots for regional air transport. Regional access objectives should be balanced against the community-wide costs of achieving them. For example, supporting regional access could result in fewer or poorer choices in flight times and destinations for non-regional passengers due to the use of airport slots and infrastructure for regional flights. This chapter assesses Sydney Airport's regional access regimes against regional access objectives and efficiency.

Regional access regimes operate within the context of broader regulatory constraints at Sydney Airport, in particular, the slot management scheme, movement cap and curfew. This chapter also considers these broader constraints to provide a more holistic review of the regimes at Sydney Airport.

7.1 Regional access within Sydney Airport's constraints

Past and present Australian Governments have affirmed their commitment to supporting regional communities' access to major cities. When airport price regulation shifted from price controls to price and quality monitoring in 2002, the Australian Government announced that:

... these new arrangements would not impact on regional airline operations into and out of Sydney. They will continue to be guaranteed reasonable access to Sydney airport under the slot management system and with a prohibition on any increases in aeronautical charges that exceed the Consumer Price Index. (Minister for Transport and Regional Services and Treasurer 2002)

In 2009, the Australian Government said that 'Australians in regional and remote communities should have reasonable access to air services to major cities and other key centres' (Australian Government 2009, p. 3). The Australian Government stated in the terms of reference for this inquiry that it 'remains strongly committed to maintaining access for regional communities into Sydney Airport'.

Connecting regions to Sydney Airport is more challenging than at other airports due to capacity constraints arising from aircraft movement restrictions and congestion.

- Aircraft movement restrictions at Sydney Airport are intended to manage the negative effects of aircraft noise on the health and quality of life of residential communities (ASA and AAA nd; PC 2012). A movement cap limits the number of hourly aircraft movements, and a curfew restricts overnight movements (box 7.1).
- Sydney Airport is a significant domestic and international air transport hub and its passenger numbers are higher than at any other Australian airport, with 43 million passengers in 2016-17 (ACCC 2018a, p. 28). High demand for the airport's infrastructure shows up in congestion, especially during the morning and evening peak hours. A slot management scheme is used to allocate scarce movement slots to airlines and manage congestion (box 7.2).

The Australian Government has put in place unique arrangements — a regional ring fence, price cap and price notification regime — at Sydney Airport, to facilitate access for airlines servicing destinations in regional New South Wales to help manage the consequences of these capacity constraints.

Box 7.1 Managing the effects of aircraft noise at Sydney Airport

Night-time curfew

The rules governing Sydney Airport's curfew are laid down in the *Sydney Airport Curfew Act 1995* (Cwlth) and *Sydney Airport Curfew Regulations 1995* (Cwlth). The curfew limits aircraft movements between 11 pm and 6 am, with only a small number of flights permitted:

- pre-approved international flights — up to 24 weekly landings between 5 am and 6 am (as prescribed in the Regulations), with no more than 5 per day
- pre-approved freight aircraft — up to 74 British Aerospace 146 (BAe-146) aircraft freight movements per week
- propeller-driven aircraft that weigh up to 34 000 kg and comply with maximum noise levels specified by the International Civil Aviation Organization (ICAO)
- jet aircraft that weigh up to 34 000 kg, comply with the ICAO's maximum noise levels, meet the 90–95 'effective perceived noise in decibels' rule and are specified by the Minister.

Since its inception in 1995, the Sydney Airport Curfew Act has stipulated that the latter three permissions will no longer apply after the airport to be constructed at Badgerys Creek (Western Sydney Airport) is available for night use.

Exceptions to the curfew currently apply in emergencies or under exceptional circumstances.

On average, there are 12 aircraft movements a night during curfew hours (ASA 2018f).

Aircraft movement cap

Aircraft movements are limited to 80 an hour during non-curfew times, as specified in the *Sydney Airport Demand Management Act 1997* (Cwlth). This limit is measured over a rolling hour every 15 minutes. Exceptions apply in emergencies, for safety or international relations reasons, or for certain aircraft used as part of defence force, military, customs or police services.

The Sydney Airport Slot Management Scheme 2013 (Cwlth) provides a system for the allocation of slots (permissions for aircraft movements), consistent with the movement cap. Airport Coordination Australia is responsible for allocating slots for scheduled movements, while Airservices Australia manages air traffic and ensures that the actual number of movements is in line with the cap.

Long Term Operating Plan

The Sydney Airport Long Term Operating Plan aims to manage the effect of aircraft noise by operating flights over water and non-residential land as much as possible. When this is not practicable, the plan aims to spread aircraft noise across communities, providing periods of respite to residents by changing the mode of runway operations (ASA 2014). However, implementation of the plan can be limited by safety considerations, weather, traffic congestion and other factors (ASA 2014). The two parallel north–south runways are usually used during peak periods because they enable a greater number of aircraft to operate (ASA 2018e).

Other noise management measures

The Australian Government funded the insulation of 4083 eligible homes and 99 public buildings after the opening of Sydney Airport's third runway in 1995 (DIRDC 2014; Sydney Airport nd). This was partly funded by an aircraft noise levy on airlines (*Aircraft Noise Levy Act 1995* (Cwlth) and *Aircraft Noise Levy Collection Act 1995* (Cwlth)).

(continued next page)

Box 7.1 (continued)

Recent developments in the aviation industry, such as quieter aircraft technology, also help to reduce noise (ASA and AAA nd). For example, the Boeing 787, introduced in 2011, is quieter than the aircraft types it is likely to replace. The UK Civil Aviation Authority found that, on average, it is up to 7 dB quieter on departure than the Boeing 767 and 8 dB quieter than the Airbus A330 (CAA 2014, p. 2).

Other developments that help to reduce noise include: Smart Tracking navigation technology to allow aircraft to follow existing noise corridors and avoid noise sensitive areas; trials of new flight paths over fewer residential areas (for example, ASA 2018g); the continuous descent approach to landing (rather than the traditional stepped approach); and reduced thrust take off.

Sydney Airport stated that it takes an active role in managing airport noise by providing infrastructure to support quieter aircraft, and working with governments and the local community to address noise concerns (Sydney Airport 2018c).

Box 7.2 Slot coordination

A **slot** is a permission to take off or land at an airport at a specific time on a specific day. **Slot coordination** is the process of allocating slots to airlines at congested airports, and is aimed at promoting the efficient use of airport infrastructure. Eight Australian airports — Sydney, Melbourne, Brisbane, Gold Coast, Cairns, Adelaide, Perth and Darwin — are designated by Airport Coordination Australia as congested airports requiring slot coordination.

The International Air Transport Association publishes Worldwide Slot Guidelines (WSG) to provide the global air transport industry with a set of standards for the management of airport slots. Airport coordinators allocate slots to airlines twice a year, for the northern winter and northern summer scheduling seasons. Twice yearly slot conferences provide a forum for airlines and airport coordinators to discuss slots and schedule adjustments.

Some key features of slot coordination outlined in the WSG include the following:

- slots may be transferred or swapped between airlines or used as part of a shared operation.
- airlines are entitled to retain slots on the basis of historical precedence if they used the slots at least 80 per cent of the time in the previous equivalent season (the ‘use it or lose it’ rule).
- following the allocation of and changes to historic slots, the remaining slots form a slot pool. Fifty per cent of the slot pool must be allocated to new entrants, if possible.
- additional criteria to be considered in allocating slots include the level of competition, the balance of different types of air transport (scheduled, charter, cargo) and markets (domestic, regional, long-haul), and the requirements of the travelling public, importers and exporters.

Slot coordination at Sydney Airport is governed by a specific set of rules in the *Sydney Airport Demand Management Act 1997* (Cwlth) and associated legislative instruments. This was developed with reference to the WSG but includes deviations such as guaranteed slots for NSW regional air transport and a ‘size of aircraft’ test.

Sources: DIRDC (2016a); IATA (2017b, 2018b).

7.2 Current regional access regimes at Sydney Airport

Regional ring fence

Slots are allocated to airlines to authorise aircraft movements at specific times (box 7.2). The regional ring fence, introduced in 1998, reserves a number of slots at Sydney Airport for airlines operating flights to or from regional New South Wales, with separate pools of slots for peak and off-peak periods.¹ Its aim is to ‘ensure equitable access to Sydney Airport for regional airlines’ (Minister for Infrastructure and Transport 2013, p. 5). The number of permanent regional slots in legislated peak periods (weekdays from 6 am to 11 am, and 3 pm to 8 pm) was capped at then-current levels in 2001. This effectively reserves the remaining slots in those periods for interstate and international flights.

About 21 per cent of all slots in legislated peak periods were allocated to airlines operating regional flights in the northern summer of 2018, and about 17 per cent in the northern winter of 2017, based on sample weeks of data (ACA, unpublished).

Restrictions in the legislation prevent progressive swapping of peak period regional slots for non-regional slots out of peak periods. The legislation also prevents conversion of non-regional slots into regional slots during peak periods. Box 7.3 provides further details on how Sydney Airport’s slots can be swapped and converted.

Regional price cap and price notification

A price cap and notification regime applies to aeronautical services and facilities that Sydney Airport provides to airlines operating flights servicing NSW regions.² The regime applies to terminal and airfield charges (discussed in chapter 5), as well as prices for other aeronautical services and facilities, such as hangars. Under the regime, Sydney Airport must notify the Australian Competition and Consumer Commission (ACCC) before it can change its prices for these aeronautical services and facilities. The ACCC can object to a price increase proposed in a price notification if it considers the increase would exceed the CPI-linked price cap, or if the increase is not required to recover the costs for the provision of aeronautical services to airlines operating regional flights. The ACCC publishes details of price notifications on its website. The ACCC’s decision to object to a proposal is not binding — Sydney Airport could still implement the price increase 21 days after notification (or longer

¹ The regional ring fence operates through the *Sydney Airport Slot Management Scheme 2013* (Cwlth), made under subsection 44 (2) of the *Sydney Airport Demand Management Act 1997* (Cwlth).

² The price notification regime and the price cap operate through Declaration no. 94 under section 95X and Direction no. 35 under section 95ZH of the *Competition and Consumer Act 2010* (Cwlth), respectively (Treasurer 2016a, 2016b). Aeronautical services and facilities covered by the cap include aircraft-related and passenger-related services and facilities described in the Airports Regulations 1997 (Cwlth). The price cap requires that the total revenue-weighted percentage increase in prices from 1 July 2016 should not exceed the total percentage increase in the CPI over the same period.

if extended). Sydney Airport (sub. 53, p. 111) considered that ‘[t]he regime is designed to discourage Sydney Airport from increasing its prices in the event of ACCC opposition, as doing so could lead to a formal ACCC pricing inquiry’.

Sydney Airport has made three price notifications for regional aeronautical services since the regime was introduced in 2002. In 2002, Sydney Airport sought to introduce an option for regional airlines to pay either a new single passenger facilitation charge (covering terminal facilities, apron parking and check-in counters), or the existing separate charges for the same facilities, which summed approximately to the proposed charge. In 2013, Sydney Airport submitted a price notification to again restructure its charges to facilitate Qantas Group moving its regional flights from terminal 2 to terminal 3, and to allow Qantas Group to utilise apron parking services at terminal 2 only on occasion. The ACCC did not object to either of these structural price changes as it concluded that they were unlikely to result in price increases (ACCC 2002, 2013e).

The ACCC did object to Sydney Airport’s proposed price increase in passenger facilitation, runway and security charges in 2010. This was because the ACCC considered that Sydney Airport did not demonstrate that the price increase was required to recover costs for the efficient provision of aeronautical services, or that prices at that time signalled an inefficient use of airport assets by airlines operating regional flights (ACCC 2010). Sydney Airport decided not to proceed with this proposed price increase.

The price cap and notification regime has meant that regional aeronautical charges have not increased in nominal terms since 2002 (Sydney Airport, sub. 53), and have actually fallen by 32 per cent in real terms over the period to 2018 (ABS 2018a). Regional aeronautical charges are about half of the scheduled domestic aeronautical charges (or rack rates), at \$15.86 compared with \$34.08 per passenger return, including terminal, runway and security charges and GST (Sydney Airport, sub. 53, pp. 80–81). The difference is likely to be smaller in practice as domestic airlines that have separate commercial agreements with Sydney Airport generally pay charges lower than those that are published. Charges are estimated to be 24 per cent lower for domestic flights on average across nine major Australian airports (AAA, sub. 50, p. 32).

Box 7.3 **Swapping and converting Sydney Airport regional slot series**

Sydney Airport's regional ring fence is implemented through slot series called permanent regional service series (PRSS).^a Airport Coordination Australia (ACA) is responsible for allocating these slots. The features of the regime are described below.

Regional slots cannot be progressively swapped out of peak hours

Airlines can apply to ACA to swap the times of their slots. A slot that is part of a PRSS can only be swapped with a slot that is not part of a PRSS if the time of the non-PRSS slot is within 30 minutes of the time of the PRSS slot when it first became such a slot. This ensures there is no progressive swapping of PRSS slots out of peak hours^b in favour of interstate or international flights.

Regional slots can still be converted to non-regional slots

An airline that holds a PRSS has historical precedence to that slot series if the airline used it to operate a regional flight in the previous equivalent scheduling season.^c To ensure historical precedence for any slot, airlines must also meet a:

- ‘use it or lose it’ test — at least 80 per cent of the slots must have been used
- ‘size of aircraft’ test — if there is an aircraft size requirement for the slot series, at least 80 per cent of the slots must have been used by an aircraft of at least that size.

If an airline that previously held a PRSS loses historical precedence, ACA must, if possible, offer the PRSS to an airline that proposes to operate a regional flight. However, if no airline takes up the offer, then the PRSS can be offered to an airline to operate a non-regional flight. The airline will not have historical precedence to the PRSS in the equivalent scheduling season immediately after it is used to operate a non-regional flight — the PRSS must again be offered to an airline operating a regional flight. However, if the PRSS has been used for a non-regional flight for two equivalent scheduling seasons in a row, the airline in the second equivalent scheduling season will gain historical precedence and the PRSS will be converted to non-PRSS.

Non-regional slots cannot be used for regional flights during peak hours

Non-PRSS can be converted to PRSS if the slot series was used for regional flights in the previous two equivalent scheduling seasons. However, an airline can only offer a regional flight in non-PRSS slots during off-peak periods. This combination of restrictions means that new PRSS cannot be created in peak periods. It also means that once a slot series ceases to be a PRSS in a peak period, this cannot be reversed.

<i>Allowed slot series conversions</i>	<i>Peak period</i>	<i>Off-peak period</i>
Regional → Non-regional	✓	✓
Non-regional → Regional	X	✓

^a A slot series means 5 or more slots that authorise the same kind of aircraft movement at exactly or approximately the same time on the same day of consecutive weeks within one scheduling season.

^b Legislated peak hours are 6 am to 11 am, and 3 pm to 8 pm, on weekdays. ^c If the slot series was in a northern summer (roughly corresponding to April to October), this means the same slot series in another northern summer.

Source: Sydney Airport Slot Management Scheme 2013 (Cwlth).

7.3 The effectiveness and efficiency of the regimes

The regimes allow airlines to choose which regional routes to service

Any airline operating flights between Sydney Airport and regions within New South Wales is able to access the regional ring fence and price cap. The regimes are not tied to specific routes — airlines can choose which regional routes to service, which gives them flexibility to adapt in response to changes in market conditions.

The market for regional air transport is dynamic, with airlines entering and exiting different routes over time. The number of routes with low passenger numbers has declined over time and many regional airports that once had direct flights to Sydney no longer did in 2016 (NSW BTS 2018). In some cases, declining patronage or rising costs have led to the reduced viability of air transport. For example, Rex withdrew from the route connecting Sydney and West Wyalong in 2007 after it experienced significant falls in patronage and failed to recover operating costs when construction of the Lake Cowal Gold Mine finished (Rex 2007).

The collapse of regional airlines has also led to changes in regional routes. For example, scheduled routes connecting Sydney and five NSW regions were lost when Yanda Airlines terminated operations in 2001 and have not been serviced by other airlines since (TfNSW 2016, p. 4). The collapse of Brindabella Airlines in 2013 resulted in the temporary loss of some regional routes, before they were taken up by other airlines (TfNSW 2016, p. 5).

Some participants in the 2014 NSW legislative council inquiry into *Regional Aviation Services*, particularly local councils, suggested that regional slots should be tied to specific regions (Standing Committee on State Development 2014). Some regional routes, inside and outside of New South Wales, already receive assistance through other policies such as monopoly licences and route subsidies (box 7.4).

Box 7.4 Examples of regimes affecting specific regional routes linked to Sydney Airport

NSW government licensing for regional air routes

The NSW Government currently requires airlines servicing routes connecting Sydney with Lord Howe Island and Moree to have a licence to operate (NSW Government, sub. 62; *Air Transport Act 1964* (NSW); *Passenger Transport Act 2014* (NSW)). Route licences are provided on a monopoly basis. Previously, low volume routes (with less than 50 000 passengers) were licensed to limit competition, with the intention of providing stability and encouraging route development (TfNSW 2017b). Since 2015, the NSW Government has shifted toward deregulating most regional routes to reduce red tape associated with the licence application process and to encourage airlines to establish new regional routes (TfNSW 2017a). There are 24 deregulated routes connected to Sydney Airport.^a

Airservices Australia Enroute Charges Payment Scheme

The Australian Government subsidises airlines through the Airservices Australia Enroute Charges Payment Scheme to support new and low volume routes to regional and remote communities (DIRDC 2017b). Airlines must propose routes that have no more than 15 000 passengers a year and that have an economic or social benefit to the community, among other eligibility requirements, in order to receive the subsidy. Successful applicants can receive subsidies worth up to 60 per cent of Airservices Australia's enroute navigation charges, or up to 100 per cent for new routes for the first three years. A separate component of the scheme exists for aeromedical service providers.

In May 2018, there were six routes that linked Sydney and NSW regions under the scheme (Cooma, Grafton, Narrandera, Newcastle (Williamtown), Mudgee and Taree) (DIRDC 2018b). One route connected Sydney with Mildura (a region in Victoria that borders New South Wales), but Rex announced in September 2018 that it would exit that route due to increased charges at Mildura Airport (Rex 2018a). Rex operated its last service on the Sydney–Mildura route on 27 October 2018, and redeployed its slots and resources to the Sydney–Griffith route. Mildura Airport still has direct flights to and from other capital cities (Melbourne and Adelaide).

Rex Community Fare Scheme

Rex has partnered with 14 regional airports across Australia (including those in the NSW regions of Broken Hill, Griffith, Orange, Parkes and Narrandera) to improve fare affordability through its Rex Community Fare Scheme (Rex 2018c). As part of its partnership with Griffith City Council, Rex offers the cheaper Community Fare on 25 per cent of seats booked at least 30 days in advance and all remaining seats one day before departure. This partnership also introduced an additional 10 weekly flights between Griffith and Sydney, and a new flight linkage between Griffith and Broken Hill (Rex 2018b).

^a The deregulated routes are Albury, Armidale, Ballina, Bathurst, Broken Hill, Cobar, Coffs Harbour, Cooma, Dubbo, Grafton, Griffith, Lismore, Merimbula, Moruya, Mudgee, Narrabri, Narrandera, Orange, Parkes, Port Macquarie, Tamworth, Taree, Wagga Wagga and Newcastle (Williamtown) (NSW Government 2018a).

Assistance that is tied to a specific route has some benefits. For example, providing subsidies for a particular route supports transparency by making the amount of the assistance explicit. However, route-specific assistance can also come with costs and risks.

- It can impose additional red tape on airlines. In fact, the NSW Government has shifted away from providing monopoly licences for this reason (box 7.4).
- Governments could ‘get it wrong’ when assessing which routes to support. Assistance for certain regional routes diverts resources away from other regional routes that airlines might have chosen to service instead, or provides assistance to a route that would have operated anyway.
- Route-specific subsidies provided to airlines may give regional airports an incentive to raise their aeronautical charges to capture some of the value of the subsidy. This could lead to fewer flights on the route than if aeronautical charges remained unchanged.
- External factors can mean that a route will not necessarily remain in operation even with route-specific assistance. This is illustrated by the Sydney–Mildura route, which currently has no services and was not covered by the price cap or regional ring fence but received route-specific Australian government funding while it operated (box 7.4).

The Australian Government should retain the broad nature of Sydney Airport’s current regional access regimes as it avoids the complexity and costs associated with route-specific assistance. The current regimes allow airlines to switch between regional routes in response to changes in market dynamics. Nonetheless, there is scope for improvements to the regimes, as discussed below.

The ring fence supports regional access but could be improved

Flexibility to swap and convert regional slots reduces broader efficiency costs ...

The regional ring fence reserves slots for airlines operating regional flights in New South Wales to ensure they have access into Sydney Airport. This comes at the cost of a less efficient allocation of limited airport capacity if the community more broadly place a higher value on using those slots for interstate or international flights.

The regional access versus efficiency trade-off inherent in the ring fence was recognised in the 2012 joint study on aviation capacity in the Sydney region, which stated that ‘while the protection of regional access is an important policy objective, a large number of operations by small aircraft does not represent an efficient use of limited airport capacity’ (SCJSACSR 2012, p. 220). Melbourne Airport (sub. 33, p. 118) noted the efficiency costs of regional flights, particularly in peak periods, stating that:

The benefits of regional access being provided to aircraft in periods of high demand need to be weighed against the costs of those services being provided at different times, and the alternative services that are displaced.

Passenger numbers provide evidence of passengers' route preferences and the potential efficiency costs to the wider community associated with servicing regional routes. Available data for Qantas Group, Virgin Australia Group and Rex routes show that there was an average of 30 passengers per aircraft movement on NSW regional routes in 2017, compared with 126 on other domestic routes linking Sydney Airport (although some NSW regional routes had greater patronage than some interstate routes) (Commission estimates based on BITRE (unpublished)). The regional ring fence's effects on the efficiency of regional and non-regional airline operations are complex and depends on many factors (described further below).

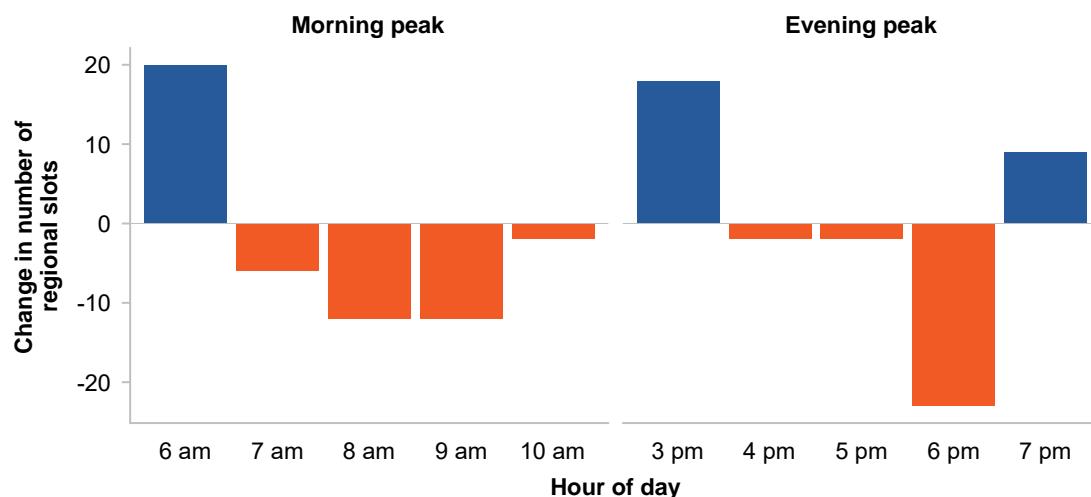
The movement cap at Sydney Airport amplifies the effects of the ring fence on the efficient allocation of slots. This cap is essentially binding in peak periods. There are very few regional and non-regional slots available during the most in-demand peak hours of 7 am to 11 am and 5 pm to 7 pm, but greater availability outside of those times, based on two weeks of data (ACA 2017, 2018). Airlines might be less inclined to fill remaining slots (either regional or non-regional) because they are in undesirable times or because they are not part of a consistent series of slots at the same time across several days of the week (SCJSACSR 2012). This makes it difficult to align flight schedules across multiple airports. Sydney Airport (sub. 53, p. 105) estimated that as many as 17 per cent of regional ring fenced slots are not allocated and not used (based on one week of data).

The current arrangements do offer a small degree of flexibility for airlines to allocate flights within the constraints set by the ring fence. Specifically, there is scope to swap the times of regional slots with non-regional slots within 30 minutes of each other (box 7.3). Swapping a non-regional slot into a more in-demand time can improve efficiency if there are greater benefits to passengers and communities of having non-regional flights during those times.

Airport Coordination Australia and the Australian Government Department of Infrastructure, Regional Development and Cities provided the Commission with sample weeks of data on the number of regional slots in legislated peak hours in 2001 and 2018. Comparisons of the number of regional slots across sample weeks is complicated by the fact that not all weeks are the same, and there is a lack of visibility on regional slot numbers in weeks excluded from the sample. The sample data suggest that slot swaps have occurred over the years, reducing the number of regional slots during the most in-demand peak hours. Between two sample weeks in the northern summer of 2001 and 2018, the total number of regional slots within *legislated* peak periods of 6 am to 11 am and 3 pm to 8 pm fell by about 1.4 per cent (12 individual slots). The number within the prime hours of 7 am to 11 am and 5 pm to 7 pm fell by 9.7 per cent (57 individual slots) over the same period, meaning that 45 regional slots had shifted into other hours within legislated peak periods (figure 7.2). This could have improved the efficiency of slot allocations over time.

Figure 7.2 **Change in NSW regional slots within legislated peak hours^a**

Northern summer scheduling season slots from 2001 to 2018



^a Legislated peak hours are 6 am to 11 am, and 3 pm to 8 pm, on weekdays.

Source: Commission estimates based on DIRDC (unpublished).

... but inflexibility in slot management inhibits development of regional routes

Elements of inflexibility in the slot management system can prevent the expansion of new and existing regional routes, even if it is in the interests of the broader community to develop them. The issue mainly manifests in peak periods, when slots are especially constrained due to excess demand. As described above, regional slots have shifted into less desirable times within legislated peak periods. This could be positive for efficiency but unfavourable for regional access if it is important that passengers travelling between Sydney and NSW regions have access to air transport during in-demand time periods. Virgin Australia Group (sub. 54, p. 25) suggested that slots within the hours of 7 am to 9 am and 5 pm to 7 pm are critical to operating convenient and viable regional air transport because they enable passengers to make day trips to and from Sydney.

SLOTS during these times also allow airlines to operate their aircraft more efficiently. Virgin Australia Group (sub. 54, p. 26) stated that flights during the hours of 7 am to 9 am and 5 pm to 7 pm ‘facilitate schedules that support efficient aircraft utilisation and a competitive level of frequency for regional airlines’.

The current arrangements allow the balance of slot times to be tipped in favour of non-regional routes that may benefit a greater number of passengers, but do not allow them to be tipped back in favour of regional access even if this would have greater social benefits. Airlines can only use permanent regional slots for regional air transport during peak periods (box 7.3). There is no opportunity to use non-regional slots for regional air transport or to convert

non-regional slots into permanent regional slots. This can result in fewer flights and less choice and competition on existing regional routes, and/or fewer regions with air transport (and the associated regional benefits) (box 7.5). This situation is unlikely to improve under the current arrangements.

Box 7.5 **Views on the effects of slot inflexibility on regional routes**

Virgin Australia Group (sub. 54, p. 26) stated that it was not able to gain regional slots in desirable times.

Virgin Australia would like to expand services and/or improve schedules on some of its existing regional routes, as well as commence services to additional airports in NSW. However, the remaining [regional] slots available for allocation fall outside the peak periods and/or do not support the operation of commercially viable services.

Virgin Australia Group (sub. 54, p. 26) went on to comment on the negative effects of slot inflexibility on regional communities.

The unintended consequences of the Slot Management Scheme highlighted above are serving to inhibit the growth of sustainable air services to destinations in regional NSW, restrict scope for growth in competition, and risk the erosion of regional operations at [Sydney Airport] over time. It is therefore reasonable to conclude that the arrangements are not working in the best interests of regional passengers.

The 2012 joint study on aviation capacity in the Sydney region acknowledged that the current slot system restricts the development of new regional routes.

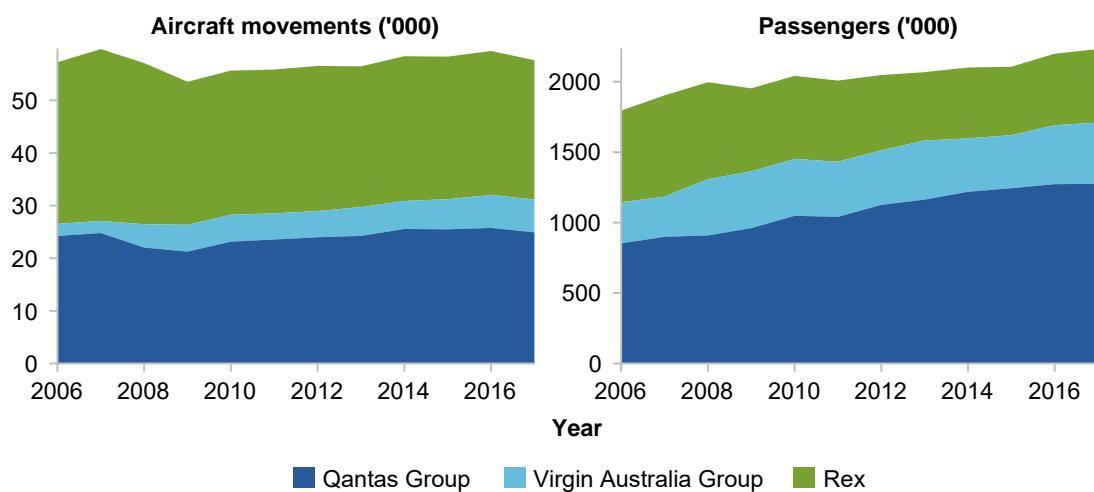
The current lack of unallocated protected regional slots in peak periods means no new intrastate services can be operated to Sydney in these times. For the communities involved, opportunities for improved access to professional services, business opportunities and connections between communities will be lost. As movement slots become less available by 2035, airlines are also likely to give preference to higher-yielding routes they can serve with larger aircraft. These routes may not necessarily correlate to the routes of greatest social benefit. (SCJSACSR 2012, p. 188)

Historical precedence provisions in the slot management system can also affect competition. Airlines are automatically entitled to their slots from a previous season, provided they meet certain criteria (box 7.3). Some regional routes are large enough for multiple airlines to operate on them profitably, but if incumbent airlines retain historical precedence and are unlikely to face competition, they will have less of an incentive to operate their routes efficiently or offer lower prices to passengers (NERA 2004). Historical precedence rules could have negative effects on competition in air transport more generally (section 7.4).

Data show that there has been little change in airline shares across the three major groups (Qantas Group, Virgin Australia Group and Rex) on NSW regional routes over time (figure 7.3), which may be attributable to the inflexibility inherent in the slot management system. Qantas Group and Rex had the largest shares of aircraft movements on NSW regional routes in 2017, at 43 and 46 per cent, respectively. Qantas Group had a larger share of regional passengers as it serves higher volume routes than Rex on average.

Figure 7.3 Airline shares of NSW regional aircraft movements and passengers to and from Sydney Airport^{a,b}

Qantas Group, Virgin Australia Group and Rex, 2006 to 2017



a Data are for city-pair routes, rather than routes as defined by flight numbers, and include diversions.

b Qantas Group includes Qantas, Jetstar, Eastern Australia Airlines and Sunstate Airlines. Virgin Australia Group includes Virgin Australia, Virgin Australia Regional Airlines and Tiger Airways. Rex includes Regional Express and Air Link. Data are not available for other airlines servicing NSW regional routes.

Source: Commission estimates based on BITRE (unpublished).

Reforms to the regional ring fence

Many inquiry participants were supportive of the ring fence's regional access objective (for example, Qantas Group (sub. 48), Virgin Australia Group (sub. 54) and Sydney Airport (sub. 53)), although some identified unintended consequences, discussed above. Some inquiry participants questioned the value of the ring fence in supporting regional air transport. The Australian Chamber of Commerce and Industry — Tourism (sub. 28, p. 4) said that it does little to protect regional air transport and suggested 'removing the ring fence as there is already overwhelming inflexibility imposed on Sydney Airport in relation to the management of movements'.

The Commission considers that the ring fence supports access to Sydney Airport for airlines operating regional flights, particularly in peak periods, as evidenced by the close to full allocation of slots, including regional slots, in peak periods (ACA 2017, 2018). Without the ring fence, market forces could result in a reduction in regional flights in favour of interstate or international flights that are likely to be more profitable in peak times. Therefore, while removing the ring fence entirely might improve the flexibility of slots, it would likely have negative outcomes for regional communities. The flexibility of movements could be improved while maintaining access for regional airlines with changes to other regulatory constraints (section 7.4).

As described above, the slot management scheme already allows regional slots to be swapped with and converted to non-regional slots, in favour of efficiency. However, the cap on regional slots in peak periods and the fact that non-regional slots in peak periods cannot be used for regional flights prevents airlines from testing and growing regional routes. Virgin Australia Group (sub. 54, p. 26) suggested amending the slot management scheme to address this issue.

... Virgin Australia recommends that the Scheme is amended to provide that any available slot may be used to operate a regional service, regardless of the time of day. The operation of regional services utilising such slots would not, however, result in the creation of additional PRSS [permanent regional service series] slots under the Scheme, balancing the interests of regional and non-regional operations, and the productivity of [Sydney Airport]. While the proposed changes would not be expected to result in conversion of slots by airlines on a significant scale, the flexibility to do so would facilitate important competitive benefits for travellers to/from regional NSW.

The Commission considers that changes to the regime to allow airlines to use non-regional slots for regional air transport would enable them to more easily trial regional flights in peak periods (when spare regional slots are scarce), more flexibly respond to changes in market demand on different routes, and more efficiently use their aircraft. Non-regional slots that are used for regional air transport should not become permanent regional ring fenced slots as this would reduce the flexibility of these slots.

Under this proposed reform, airlines are only likely to switch from a non-regional to regional flight if it improves their profitability, taking into account the many factors that affect these decisions. Such switching is unlikely to occur on a large scale as interstate and international flights are likely to be more profitable to airlines. An airline's decision to switch from a non-regional to regional flight is likely to align with the most efficient use of the slot for the airport by that airline, given the slot management scheme does not permit Sydney Airport to give a slot to an airline that would operate a route with more passengers.

In implementing this reform, airlines that use non-regional slots for regional air transport should pay domestic aeronautical charges or negotiate charges with Sydney Airport, rather than pay the price-capped regional aeronautical charges. This would prevent the price cap regime, and any associated costs (described below), from expanding due to a change in the use of slots. Future Declarations relating to the regional price cap and notification regime should only apply to regional flights operated through regional ring fenced slots.

DRAFT RECOMMENDATION 7.1 REGIONAL ACCESS TO AND FROM SYDNEY AIRPORT

The Australian Government should amend the Sydney Airport Slot Management Scheme 2013 (Cwlth) to allow slots that are not part of a permanent regional service series (PRSS) to be used for either regional or non-regional flights. These slots should not become PRSS slots when used for regional flights.

Future Declarations relating to the regional price cap and notification regime should only apply to regional flights operated through PRSS slots, after the current Declaration no. 94 ceases on 30 June 2019.

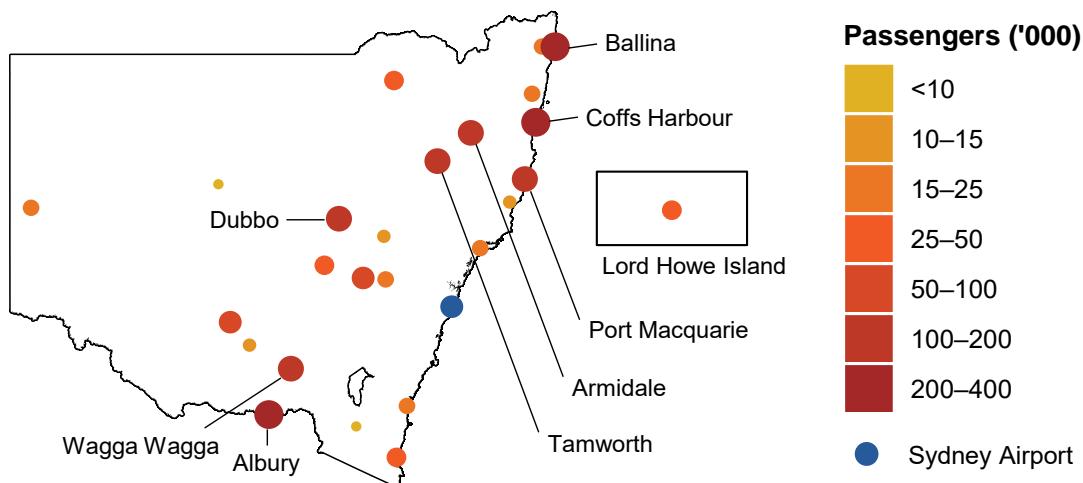
Costs and benefits of the price cap regime

The price cap has limited benefits for regional air transport

Sydney Airport's regional price cap is only one consideration in airlines' decisions to service particular routes. Aeronautical charges affect the relative profitability of routes, but airlines also consider fuel and other operating costs, forecast passenger demand, types of passengers, economies of scale with respect to aircraft size and fleet size, the level of competition on a route and slot availability (Mills 2017). Airlines' decisions often extend to quality and strategic considerations as well (AAA, sub. 50). Airlines may choose to operate flights on new routes that are unprofitable in the short term but that are expected to become profitable over a longer time period (Mills 2017). They may also operate poorly performing routes if no other uses of the aircraft at a specific time are more profitable (Mills 2017). Hub and spoke style route networks bring together passengers with different origins and destinations. This allows regional passengers to transfer to interstate or international flights or for other passengers to transfer to regional flights, and enables airlines to operate more frequent flights with larger passenger numbers on particular routes.

Regional routes with larger passenger numbers may be less reliant on the price cap as they are able to spread their operating costs over a larger passenger base (Mills 2017). Passenger numbers can vary significantly on different regional routes (figure 7.4), with some having passenger numbers greater than interstate routes. For example, the Sydney–Ballina route had about 385 000 passengers in 2016 while the Sydney–Darwin route had about 319 000 passengers (BITRE 2018c). Some routes connecting regional areas are also able to operate without a price cap (for example, flights from Dubbo to Melbourne and Brisbane (Fly Corporate 2018) and regional flights in other states and territories, although some may receive other forms of assistance).

Figure 7.4 Passenger numbers on routes between Sydney and NSW regions, 2016



Source: Commission estimates based on NSW BTS (2018).

Some regional routes serviced by smaller airlines and with low passenger numbers may rely more heavily on the price cap. Rex (sub. 63, p. 5) suggested that a difference of as little as \$3 per passenger in aeronautical charges is significant when considering the thin operating margins of regional air transport. It noted that 30 000 passengers a year is the minimum required to sustain three return flights a day (Rex, sub. 63, p. 6). Of the 25 NSW regional routes in operation in 2016, 13 had less than 30 000 annual passengers (NSW BTS 2018). An increase in aeronautical charges would make these routes less viable.

While the price cap might make marginal routes viable for airlines, it may have little effect on airfares paid by passengers. As noted in chapter 2, Sydney Airport's capacity constraints can mean that airfares reflect a consumer's willingness to pay and may bear little relationship to aeronautical charges.

The efficiency costs associated with the price cap are uncertain

Costs associated with the price-capped regional charges, while not publicly transparent, are borne by Sydney Airport and potentially mean that a larger share of costs for common-user aeronautical services are borne by airlines operating non-regional air transport and non-regional passengers. A price cap could also result in underinvestment in aeronautical services and facilities provided to regional airlines.

As the ACCC (2010, p. 6) noted in its 2010 assessment of Sydney Airport's proposed price increase for regional aeronautical services, 'the higher the growth in demand, and associated revenues, the lower is the price per unit needed to recover the costs for the provision of

services'. At that time, the ACCC considered that whether Sydney Airport was under-recovering on regional aeronautical services depended on assumptions about how shared costs are allocated to regional and other airlines. It questioned Sydney Airport's assumption of allocating costs evenly on a per unit basis. The ACCC (2010) also noted that Sydney Airport was not under-recovering the combined costs of providing aeronautical services to all airport users.

Some cross-subsidisation between regional and non-regional airlines could be occurring if the airport was failing to fully recover costs on regional aeronautical services. However, capacity constraints at Sydney Airport mean that charges may have little effect on non-regional passenger airfares (chapter 2). Overall, Sydney Airport's domestic charges (including discounts) represented an estimated 7 per cent of the average Sydney fare for Australian destinations, while international charges represented an estimated 4 per cent of the average Sydney fare for international destinations (AAA, sub. 50, attachment 3, p. 44). The amount that might be attributable to cross-subsidisation is even smaller.

Regional passenger growth has been more modest since the ACCC's 2010 decision (figure 7.1), but it is still the case that many aeronautical services and facilities are shared between regional and non-regional airlines, including the common-user domestic terminal 2 and the Qantas terminal 3 (Sydney Airport 2018b). The quality of these terminals must meet the standards of non-regional airlines, which may lessen the scope for underinvestment in services and facilities provided to airlines flying regional routes.

There might be greater scope for underinvestment in, or a fall in the quality of, aeronautical services and facilities that are not shared with non-regional airlines. For example, Rex (sub. 63) stated that the regional airline arrivals area or aircraft parking areas could be relocated further away, which comes with an additional cost to airlines and inconvenience to passengers. Rex argued that there are inadequate protections against falling service levels, lost efficiencies and additional airline operating costs.

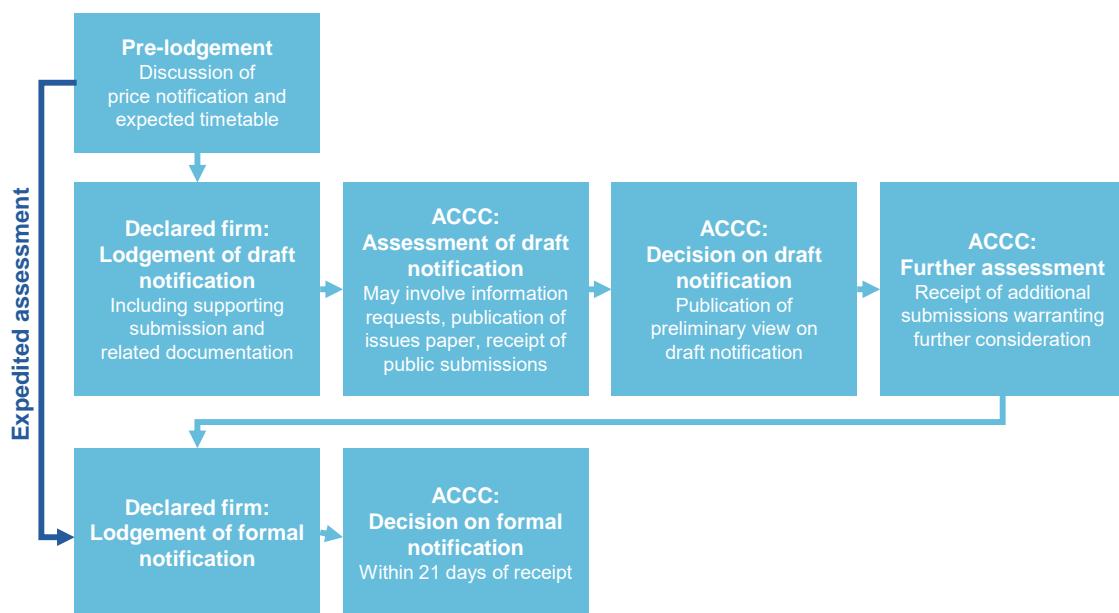
Overall, the benefits of the price cap appear to be limited to marginally profitable routes, and the costs are uncertain. However, there was little desire from inquiry participants to change the price cap regime. Sydney Airport's (sub. 53) submission to the current inquiry supported regional airlines and acknowledged the importance of the existing NSW regional air transport network in its discussion of the price cap. Regional airlines also supported the price cap (RAAA, sub. 66; Rex, sub. 63). Given the potential benefits at the margin, the Commission considers that the price cap should be retained in its current form at this time. Developments such as the opening of Western Sydney Airport (discussed below) give reason to reconsider this in the future.

Price notifications could discourage commercial negotiations

Although inquiry participants did not identify major issues with the price cap, Sydney Airport (sub. 53) raised issues with the price notification regime. The price notification

process can be information-intensive and time-consuming (Sydney Airport, sub. 53; figure 7.5). Of Sydney Airport's three price notifications, the 2010 price notification took the longest, requiring about three months to assess (ACCC 2010). During a notification assessment, the ACCC may request supporting information to justify the price increase, including financial models and cost allocation methodologies. The ACCC can treat some of the material on a confidential basis, but the airport's proposed prices and terms and conditions are made public (ACCC 2017b).

Figure 7.5 Guide to the price notification process



Source: ACCC (2017b).

Sydney Airport (sub. 53) stated that the public nature of price notifications can discourage commercially negotiated outcomes because airlines may not wish for sensitive information to be known by their competitors. Sydney Airport (sub. 53, p. 113) suggested that outcomes reached through negotiations with airlines should not be subject to price notifications.

This could be achieved by amending Declaration 94 to explicitly exclude services provided under a commercial agreement arrived at between Sydney Airport and the provider of regional air services, where that agreement is confidential. Such an approach would ensure regional air service providers are in a better position than currently. They would retain the benefits of the current regime but could also maintain confidentiality over any agreement with Sydney Airport. The proposal would not provide to Sydney Airport an avenue to unilaterally increase charges.

As outlined in chapter 4, commercial negotiations between airports and airlines establish contractual agreements on prices, service types, service quality and future capital investments. Encouraging commercial negotiations between Sydney Airport and airlines

operating regional services could lead to better outcomes, including mutually agreed improvements in aeronautical services and facilities used by those airlines.

The RAAA (sub. 66) was supportive of the existing arrangements and Rex (sub. 63, p. 18) stated that the price notification regime is working as intended.

The value of this ACCC protection was proven back in 2010 when Sydney Airport sought to impose massive and unjustified price increases on Rex. The end result was that Sydney Airport dropped the unjust proposal. Another recent example was when [Sydney Airport] wanted to raise the hangar lease amounts significantly about 3 years ago. After months of haggling, the initiative stopped. Rex understands that the management was reluctant to have the increase scrutinised by the ACCC.

However, Rex (sub. 72) also supported Sydney Airport's proposal to exclude commercially negotiated outcomes from the price notification regime, as long as the safety net for regional airlines that do not have commercial agreements continues to be preserved. There are a number of conditions under which Sydney Airport could breach price restriction laws, including if it were to raise prices above the highest price in the past 12 months for the same regional aeronautical services without submitting a price notification (*Competition and Consumer Act 2010* (Cwlth), s. 95Z). Rex stated that any higher prices that are contained in commercial agreements should not be used as a benchmark for judging whether Sydney Airport has broken price restriction laws for regional airlines that do not have commercial agreements. Rex's support was also conditional on the Australian Government providing an opportunity for stakeholders to comment on the drafting of any new legislative instruments relating to this change.

With these conditions in mind, the price notification regime at Sydney Airport should be updated to apply only to prices for regional aeronautical services that are not covered in commercial agreements between Sydney Airport and airlines operating NSW regional air transport services.

DRAFT RECOMMENDATION 7.2 COMMERCIAL NEGOTIATIONS FOR NSW REGIONAL SERVICES

The Australian Government should ensure that future Declarations relating to the regional price cap and notification regime at Sydney Airport only apply to aeronautical services that are not covered in commercial agreements between Sydney Airport and airlines operating NSW regional air transport services, after the current Declaration no. 94 ceases on 30 June 2019. Future Declarations should also specify that prices in commercial agreements cannot be used to assess whether Sydney Airport has breached section 95Z of the *Competition and Consumer Act 2010* (Cwlth).

Western Sydney Airport may improve regional access in the long term

The opening of Western Sydney Airport may relieve some of the issues relating to regional access and efficiency in the long term (box 7.6). It is expected to ‘provide significant additional aviation capacity to the Sydney basin and support further access options for regional communities’ (DIRDC, sub. 40, p. 23). Western Sydney Airport could provide greater opportunities for regional air transport directly through flights to regional areas and indirectly where it leads to more capacity at Sydney Airport. The Australian Airports Association (sub. 50, p. 70) also said that it would ‘provide significant competition to Sydney Airport for passengers, especially those in the western suburbs’. Efficient transport links would help passengers from further afield access the airport as well.

Box 7.6 Western Sydney Airport

The demand for air transport in the Sydney region is forecast to double over the next 20 years. The cost to the Australian economy of not meeting this demand was estimated to be \$34 billion in forgone GDP by 2060.

The Australian Government committed up to \$5.3 billion over 10 years to develop a new airport at Badgerys Creek — Western Sydney Airport — through a Commonwealth company, WSA Co. The new airport is expected to open in 2026 with curfew-free operations, and a single runway and facilities able to accommodate 10 million passengers. A second runway is planned to be added as demand approaches 37 million annual passengers. The airport is expected to handle about 82 million passengers per year by 2063.

Sources: DIRD (2016); DIRDC (2018e).

The extent to which Western Sydney Airport improves regional access depends on how substitutable it is with Sydney Airport. Virgin Australia Group (sub. 54, p. 26) noted that:

While this will offer opportunities for development of intrastate air services, the primary sources of demand for the foreseeable future will continue to be point-to-point travel between regional NSW and central Sydney and connections to domestic and international services at [Sydney Airport].

The RAAA (sub. 66, p. 23) also said that ‘regional airlines get very strong feedback from regional communities and Councils that they regard access to Sydney Airport as essential and do not want it replaced by services to Western Sydney Airport’. Therefore, demand for regional access arrangements at Sydney Airport is likely to continue.

The next Commission inquiry into airport regulation should consider the continued need for regional access arrangements at Sydney Airport in light of the development of Western Sydney Airport and any other future considerations. This analysis would be supported by the Commission’s proposal to expand the monitoring regime to include data for Sydney Airport on costs and revenues in relation to the provision of aeronautical services for air transport to regional New South Wales (chapter 10). This would allow the costs of the

regional access arrangements to be more easily assessed and then evaluated against their potential benefits.

7.4 Broader regulatory constraints at Sydney Airport

Regulatory constraints at Sydney Airport, including the movement cap, curfew and slot management scheme, restrict the effect of aircraft noise on residents but come at the expense of broader airport efficiency. This is a sentiment that has been echoed by many participants (box 7.7). The Commission has examined whether there is scope to consider reform options that improve efficiency while being cognisant of the objective of limiting the effects of aircraft noise to the affected community.

Box 7.7 Views on Sydney Airport's regulatory constraints

The No Aircraft Noise Party (sub. 11, p. 1) highlighted the importance of regulatory constraints.

The Sydney Airport constraints are absolutely mandatory now and in the future to support a reasonable life in Sydney which is extensively impacted by aircraft noise and aircraft emissions.

However, Sydney Airport (sub. 53, p. 104) questioned whether the constraints effectively met their objectives.

The collective intent of the Slot Scheme, the [regional ring fence] and the Caps was that within fixed constraints that would mitigate noise impacts and ensure regional access, slots would be allocated to maximise the volume and economic value of the services operating to and from Sydney Airport.

It has become increasingly clear over a number of years that the interaction of the Slot Scheme, the Caps, the [regional ring fence] and other operating restrictions actively prevent the fulfilment of any of these objectives. Instead, these operating restrictions produce worse outcomes for passengers, airlines, Sydney Airport and the community, and significant negative impacts on the broader aviation network and overall national productivity.

Many inquiry participants described the widespread effects of Sydney Airport's constraints.

[Sydney Airport's] constraints are limiting the airport's ability to meet soaring demand for travel and air services, upending the plans of travellers, disrupting the flow of freight and frustrating the efforts of airlines to recover their schedules after delays. ... The level of interconnectivity and over flow of disruptions highlights the importance in looking at the network as a whole, and ensuring that capacity improvements are considered for their impact across the domestic network. (TTF, sub. 6, p. 2)

[Sydney Airport's] wings are clipped by outmoded operational strictures that make it one of the most constrained airports in the world. It is these constraints that cause most of the delays at Sydney Airport and not only prevent its on-time operations from recovering after bad weather disruptions but cause delays at airports around Australia because four out of every ten planes in Australia fly through Sydney at least once each day. So even though Sydney Airport is a major competitor to Canberra Airport, we feel the negative effects of its inefficiencies and delays ... (Canberra Airport, sub. 3, p. 3)

The management of movements at Sydney Airport is generally agreed to be the greatest capacity constraint affecting Australian Tourism. This constraint effectively caps, not only the number of visitors to Sydney, but also the number of visitors to many other ports around Australia, by limiting the extent to which any service interruption can recover through routes into Sydney. (Australian Chamber of Commerce and Industry — Tourism, sub. 28, p. 3)

(continued next page)

Box 7.7 (continued)

Some inquiry participants acknowledged the importance of noise management but suggested the arrangements be reviewed in light of new technologies that reduce aircraft noise.

The Property Council understands and is supportive of the overnight curfew on flight operations at Sydney Airport which ensures and protects the liveability of residential areas around the airport. However, we would question the inflexibility with which the restrictions are applied during normal airport operating hours. These restrictions appear to be overly onerous considering the increasing demand placed on air travel, the continuing demonstrated reduction in noise generated by modern aircraft types ... and the importance of an efficient air transport system to the national economy. (Property Council of Australia, sub. 13, p. 2)

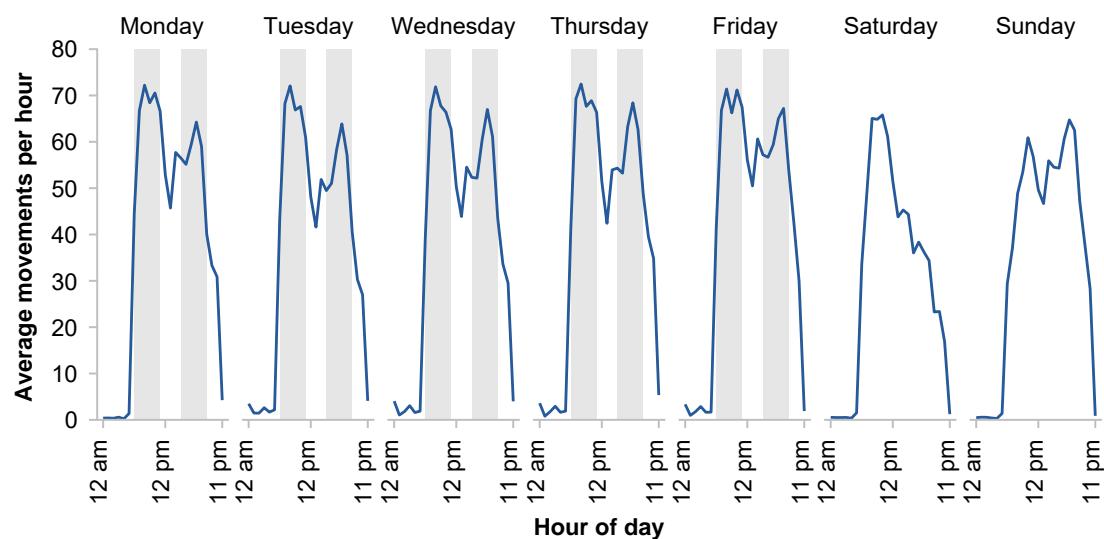
Operational restrictions that apply to Sydney Airport, such as the hourly aircraft movement caps, should be reviewed periodically to ensure they remain appropriate, so as to reflect technological advances that reduce aircraft noise. This would provide policy makers with opportunities to consider whether the operational restrictions are fit-for-purpose in balancing all relevant policy objectives, including operating efficiency and noise management. (ACCC, sub. 59, p. 57)

The movement cap and curfew

The capacity of Sydney Airport is capped at 80 movements per 15-minute rolling hour (in non-curfew periods) but it rarely reaches this cap. Sydney Airport (sub. 53, p. 103) noted that ‘in practice fewer than 80 movements occur in each rolling hour to ensure that the cap is never breached’. Airservices Australia, which manages air traffic at Sydney Airport, aims to process 78 movements per rolling hour in practice, which ensures that it does not exceed the movement cap after allowing for potential counting errors or aircraft speed differences (Airservices Australia, pers. comm., 8 January 2019). Indeed, the average number of movements rarely exceeds 70 per hour, even in peak periods (figure 7.6). Actual breaches of the movement cap are rare, having only occurred once within the past five years (Harfield 2017). Sydney Airport (sub. 53, p. 103) commented that the cap was ‘set arbitrarily’ and the airport’s capacity could be well above 90 movements per hour for particular schedules.

Figure 7.6 Average hourly movements at Sydney Airport by day of the week^{a,b}

October 2017 to September 2018



a Shading indicates legislated peak periods (6 am to 11 am, and 3 pm to 8 pm, on weekdays). **b** Underlying data include all movements at Sydney Airport, including those that are exempt from the movement cap.

Source: Commission estimates based on ASA (2018f).

The inflexibility of regulatory constraints compounds delays

Sydney Airport's movement cap and airport curfew can exacerbate delays when there are unexpected incidents, such as weather events. Delays that lead to congestion, particularly during peak periods, can force some aircraft to wait on the ground or in the air until the next 15-minute rolling hour before they are allowed to take off or land in order to avoid breaching the movement cap. Aircraft movements can be prohibited entirely when delays stretch toward the curfew period. These constraints limit the airport's ability to catch up from delays, and in many cases it may not catch up at all, resulting in significant cancellations. Dispensations may be granted in exceptional circumstances (box 7.1) but these do not extend to technical failures or weather-related delays for the movement cap (*Sydney Airport Slot Management Scheme 2013* (Cwlth)), and only rarely extend to these circumstances for the curfew (DIRDC 2016b).

Sydney Airport (sub. 53) commented that it can absorb some delays and early arrivals, but the inflexibility of the movement cap makes it difficult to absorb significant delays of multiple flights. Sydney Airport cited two major disruptions that occurred in September 2017 — strong westerly winds that reduced operations to a single runway, and an air traffic control software failure that affected the morning peak period (ASA 2017). Some curfew dispensations were granted to a number of affected airlines (DIRDC 2017a) but collectively

these incidents led to about 230 flight cancellations, numerous delays (even on the day after one of the events) and tens of thousands of affected passengers nationwide (Sydney Airport, sub. 53, p. 106). On-time performance fell to 40 and 23 per cent on the days of the incidents, compared with an average of 76 per cent.

Delays can lead to significant costs for both airlines and passengers when combined with the inflexibility of regulatory constraints. Where aircraft have been delayed and curfew dispensations have not been granted, arriving aircraft have been forced to re-route (BCA, sub. 45), or departing passengers have required overnight accommodation (TTF, sub. 6). Delays interfere with passengers' schedules, create costs for airlines and have flow-on effects for Australia's aviation network more broadly due to the high number of aircraft that pass through Sydney Airport.

Difficulty obtaining desirable slots creates issues for Sydney Airport and airlines

Airlines need suitable slots at both origin and destination airports to operate a flight. Yet the curfew and movement cap, in conjunction with slot management rules, can prevent airlines that are looking to operate a new flight from obtaining consistent slots in preferred times. This results in the inefficient use of airport and airline assets and the potential loss of new air transport services. (Virgin Australia Group experienced this in the context of new regional routes (section 7.3).)

Sydney Airport (sub. 53, p. 107) described the difficulty that airlines face in gaining consistent slots during peak times due to the combined effects of the movement cap and slot management scheme.

As airlines are unable to operate arrival and departure flights in quick succession during peak periods, a new service (typically an international service) will schedule its arrival before, and its departure after, the peak period. The result is that aircraft spend more time on the tarmac occupying key infrastructure such as gates.

Protracted use of airport infrastructure has costs. Sydney Airport (sub. 53) said that it can be met only by either increasing capital expenditure (but any new infrastructure may be underutilised outside of peak periods), increasing operating expenditure (because minimum shift times for staff are typically four hours), and/or accepting a lower level of service quality during congested periods.

Airlines also face costs associated with poorer slot times because their aircraft are used less efficiently than they could be. These factors may discourage some airlines (particularly international airlines) from introducing new flights at Sydney Airport, and they may choose to use their aircraft on a different route instead.

Sydney Airport's curfew can also deter international airlines if they are unable to obtain suitable slots during non-curfew periods. Arrivals during curfew periods might suit some international airlines better due to a combination of the slots available at other airports

around the world, international time differences and long flight times. The overall effect of Sydney Airport's curfew on air transport into Australia may be diminished if airlines choose to service other Australian cities instead of Sydney — as noted in chapter 3, international airlines tend to have greater potential to substitute to different airports. The Board of Airline Representatives of Australia (2016) said that Melbourne and Brisbane airports both serve significant international traffic volumes during Sydney Airport's curfew period. However, losses to the Australian community would have occurred if some airlines chose to fly to another country instead.

Regulatory constraints can have unintended noise and environmental outcomes

The movement cap and curfew sometimes result in more noise and emissions, in spite of their noise management objective. Inquiry participants, including Sydney Airport (sub. 53) and the Tourism and Transport Forum (sub. 6), said that aircraft that arrive earlier than scheduled (due to catching a tailwind, for example) may be forced to wait in the air rather than land to avoid breaching the movement cap or curfew, creating additional noise, excess environmental emissions and unnecessary fuel burn.

Further, the legislation permits the use of one type of jet aircraft for freight operations during the curfew, but not newer quieter aircraft. As noted in box 7.1, freight operations during curfew hours are only permitted if they use small propeller-driven aircraft or the British Aerospace 146 (BAe-146) jet aircraft. This has remained the same since the 1990s. The Tourism and Transport Forum (sub. 6) stated that the legislation is outdated and does not permit the operation of dedicated freighter aircraft with lower noise profiles. This could prevent airlines from purchasing and using newer unlisted aircraft that are quieter and more environmentally friendly. These aircraft can also be larger, providing the opportunity to deliver the same volume of freight with fewer aircraft. The BAe-146-300QT has freight capacity of about 12 600 kg and is compliant with the International Civil Aviation Organization's chapter 3 noise standards, while an alternative freight aircraft, the Boeing B737-400SF, has freight capacity of about 19 500 kg and is compliant with the more stringent chapter 4 noise standards (Australia Post, pers. comm., 18 January 2019).

The Commission heard from Australia Post that the BAe-146 restriction creates additional aircraft movements using low capacity aircraft and adds significant costs and disruptions to all freight routes into and out of Sydney, including both metropolitan and key regional areas. The smaller BAe-146 jets are further restricted during periods of inclement weather, which results in additional delays to tens of thousands of time critical customer and consumer consignments. In some cases, this has caused delays in the movement of critical medical products needed to support surgical schedules at major hospitals (Australia Post, pers. comm., 18 January 2019).

The legislation also allows a prescribed list of business jet aircraft to operate during curfew hours (box 7.1). This list was updated more recently to allow newer quieter aircraft to operate (*Sydney Airport Curfew (Curfew Aircraft) Instrument 2015* (Cwlth)).

Improving the efficiency of regulatory constraints and targeting noise outcomes

There are a number of options that could improve the efficiency of the current regulatory constraints, while meeting noise objectives and reducing unintended noise outcomes. Some options are explored below. The NSW Government is also conducting a review of Sydney Airport's capacity constraints (NSW Department of Industry 2018).

Increasing the flexibility of the movement cap

One option that would increase the flexibility of the movement cap and not increase the total number of allowed aircraft movements is to spread the measurement of the movement cap over a longer time period than the current 80 movements per 15-minute rolling hour measure (BCA, sub. 45). For example, the cap could be measured as an average of 80 movements (or even lower) every three or four hours, over all 17 non-curfew hours a day, or over even longer periods such as a week or year.

Another option is to keep a cap on *scheduled* movements but remove the cap on *actual* movements (BCA, sub. 45; TTF, sub. 6). The current arrangements cap the number of actual movements per hour (box 7.1), which intensifies arrival and departure delays and prevents aircraft that arrive early from landing, as described above. Removing the cap on actual movements but retaining a cap on scheduled movements would mean that no more than 80 movements would be planned for any given rolling hour, but the actual number of movements that occur would be allowed to exceed this number. This would allow scheduled aircraft that are delayed, or that arrive early, to take off or land as required (subject to aviation safety standards).

Both of the above options would enable Sydney Airport to more easily recover from delays and reduce unintended noise and environmental outcomes associated with early arrivals. The first option may also make more slots available in peak periods, which would help to address the current difficulty of obtaining slots in desirable times. These options would not lead to an increase in the total number of movements permitted. However, both options could result in a greater number of aircraft movements during particular hours after unexpected events that cause widespread delays. The first option may also result in a greater number of movements during peak hours. The maximum number of movements during these hours would still be limited by airport capacity, which could be upwards of 90 movements per hour (Sydney Airport, sub. 53, p. 103).

A further option that would benefit regional air transport is to create new slots specifically for quieter turboprop aircraft in excess of the 80 movement cap (Forsyth, sub. 15). This could improve the efficient use of airport infrastructure and access for regional communities, while limiting the effect on noise outcomes.

Targeting the movement cap and curfew to noise outcomes

The existing movement cap and curfew are not targeted at noise outcomes directly. Instead, noise is indirectly targeted by restricting aircraft movements. An option could be to more directly target noise to ensure it does not exceed a specified threshold (BARA 2016; PC 2009; BCA, sub. 45). Airservices Australia collects data from noise monitors around Sydney Airport and publishes the average number of daily ‘noise events’ over 70 dBA every quarter (ASA 2018c). A noise level of 70 dBA (equivalent to a vacuum cleaner or alarm clock) or lower is considered safe to listen to for any time period without leading to hearing loss (ASHA nd). It may be possible to replace the movement cap and curfew with targets that ensure that the number of noise events does not exceed acceptable levels. Alternatively, the airport could implement a noise quota system that distinguishes aircraft based on their noise performance, like the quota count regime at Heathrow Airport (box 7.8).

Box 7.8 Heathrow Airport’s night flying regime and noise quota count

Heathrow Airport has a ‘night flying regime’ that operates between 11.30 pm and 6 am, and allows up to 5800 movements per year. There is also a voluntary ban that prevents flights from landing before 4.30 am. About 80 per cent of night flights occur between 4.30 am and 6 am, with an average of 16 arrivals between those hours each day.

Heathrow Airport also has a ‘quota count’ (QC) system that caps the amount of noise the airport can make at night. Under this system, each aircraft type (including different versions of the same model) is assigned a QC number between 0 and 16 according to its noise performance, separately for arrival and departure, as determined by the International Civil Aviation Organization noise certification process. The number of points for each aircraft is added up and must be within the limit for that season. A QC system also applies at Stansted and Gatwick airports.

The UK Government reduced the QC limit for Heathrow Airport in July 2017, following public consultation.

Sources: Butcher (2017); Heathrow Airport (2018).

Allowing quieter aircraft during the curfew

Inquiry participants (including the No Aircraft Noise Party (sub. 11) and Property Council of Australia (sub. 13)) noted that a curfew was important for social policy reasons, to protect the liveability of residential areas around Sydney Airport. However, there could be scope for improvements to its implementation. For example, more regularly revising the list of aircraft that are exempt from the curfew, as occurred with the recent changes to the business jet models list, would allow less noisy and more environmentally efficient aircraft to operate. Alternatively, adopting noise-based criteria, rather than the current prescribed list of aircraft, would be a more flexible approach to determining permitted aircraft. The curfew at Gold Coast Airport is less prescriptive while maintaining noise management objectives — it allows a number of BAe-146 or lighter and quieter freight aircraft to operate, as well as jet

aircraft that meet noise criteria, without specifying a list (Air Navigation (Gold Coast Airport Curfew) Regulations 2018 (Cwlth)).

Balancing noise management objectives and efficiency reforms

The Commission considers that the objective of managing the effect of aircraft noise on local residents should be balanced with reforms that benefit the community at large, including through improvements to the efficiency of Sydney Airport. The current system at Sydney Airport is unnecessarily restrictive and generates costs to airlines, passengers and freight customers. It is important that it is reformed, while preserving the amenity of surrounding suburbs.

Changes that increase the flexibility of the movement cap and that target noise outcomes more directly would most likely improve the operational efficiency of Sydney Airport as well as airlines. This could be done in a way that meets current noise objectives, but that reduces unintended consequences from the existing arrangements, for example, aircraft being forced to wait in the air rather than land. The Commission is seeking further evidence from participants on the abovementioned options with a view to making a recommendation in its final report.

INFORMATION REQUEST 7.1

The Commission invites comments on the potential costs and benefits of reforms to Sydney Airport's regulatory constraints on aircraft movements that can also meet current noise objectives.

Options that could improve the efficiency of the movement cap without leading to a net increase in noise include:

- spreading the measurement of the movement cap over a longer time period than the current measure of 80 movements per 15-minute rolling hour*
- removing the cap on actual movements but retaining a cap on scheduled movements.*

Options that could improve the targeting of noise outcomes include:

- replacing regulatory constraints on aircraft movements with noise caps based on the amount of noise made by each aircraft*
- adopting noise-based criteria for determining which aircraft are permitted to operate during the curfew, rather than the current prescribed list of aircraft types.*

The Australian Government intends for Western Sydney Airport to operate without a curfew. The Commission supports this plan. The nearest built-up suburban areas will be over 10 km from the Western Sydney Airport runway, compared with less than 1 km at Sydney Airport (DIRDC 2018e, p. 2). Government planning and development activities should promote the efficient operation of the airport and ensure that the surrounding land is not developed in a way that ultimately creates pressure to reduce the airport's 24-hour operations.

The slot management system

The legislated slot management scheme at Sydney Airport, which allocates aircraft movement slots to airlines, can limit competition. The Worldwide Slot Guidelines (WSG), which form the basis of Sydney Airport's slot management scheme, have been criticised for hindering competition at slot-coordinated airports, especially as capacity has become more constrained over time (Canberra Airport, sub. 56; IATA 2018a). For example, historical precedence provisions can provide certainty to existing airlines and their customers, but also prevent new entrants from gaining access to an airport (as described in section 7.3) and could be exploited by incumbents (as described below).

Sydney Airport (sub. 53) voiced concerns that airlines may be misusing slots under the current system. It noted that slot hoarding could occur when airlines apply for more slots than they need — as long as they meet the 80 per cent ‘use it or lose it’ test, they will gain historical precedence to those slots and prevent other airlines from using them in subsequent seasons. Sydney Airport acknowledged that this is difficult to prove because legitimate changes in an airline’s plans could be misinterpreted as slot misuse.

Sydney Airport (sub. 53) noted that there has been a shift by domestic airlines to higher frequency, smaller aircraft instead of larger aircraft, which it considered could indicate that domestic airlines are applying for more slots than they need. Sydney Airport stated that this inefficient use of slots has resulted in an increase in the share of slots held by these airlines, entrenched their positions in the market, and made it difficult for new entrants to compete effectively.

More services require more slots and as a result, the proportion of slots held by the dominant airlines has significantly increased. For example, Australian and New Zealand based carriers held 70% of peak slots in 2002. This increased to 87% in 2017.

Since 2002, the average gauge on major routes has reduced. For example, the average gauge on the Sydney-Melbourne route fell by 12% from 201 seats in 2002 to 177 seats in 2017. Similarly, the average gauge on the Sydney-Brisbane route fell by 5% from 171 in 2002 to 162 in 2017. (Sydney Airport, sub. 53, p. 108)

Overall, historical precedence provisions that prevent an increase in competition can have negative effects on broader operational efficiency at Sydney Airport and airfares, to the detriment of passengers in the long run.

Alternative solutions to the WSG that have been proposed to encourage a more efficient use of slots include congestion pricing, monetary slot trading and slot auctions, but they also have disadvantages (for example, Forsyth, sub. 15; IATA 2018a, Sydney Airport, sub. 53).

The International Air Transport Association is currently reviewing the WSG in light of concerns about the current system, and is expected to complete this in 2019 (IATA 2018a). Many of the issues that are being examined are relevant to Sydney Airport, including:

- slot performance monitoring to ensure that slots are being used correctly

-
- encouraging access for new entrants
 - whether historic determination meets the demands of an increasingly dynamic industry while also accounting for an airline's need for certainty.

The Commission considers that the Australian Government should commission a public review of Sydney Airport's slot management scheme to consider possible reforms to the current arrangements in order to improve competition, following the outcomes of the WSG review.

DRAFT RECOMMENDATION 7.3 REVIEWING SYDNEY AIRPORT'S SLOT MANAGEMENT SCHEME

The Australian Government should commission a public review of the Sydney Airport Slot Management Scheme 2013 (Cwlth) following the outcomes of the International Air Transport Association's review into the Worldwide Slot Guidelines, expected to be completed in 2019.

The review of the Scheme should assess how effectively it contributes to the efficient use of scarce airport infrastructure while taking into account regional access and noise management objectives. It should consider reform options in relation to:

- whether slot allocation arrangements generate the greatest benefits to the community or if alternatives that are not based on historical precedence would improve competition
- slot performance monitoring to ensure that slots are being used in accordance with the intent of the Scheme
- the costs and benefits of continued alignment with the latest Worldwide Slot Guidelines, including the effects on competition between airlines.

8 Competition in markets for jet fuel

Key points

- The cost of jet fuel accounts for the largest single source of airline operating costs, at about 20 per cent in 2017-18.
 - A one cent per litre decrease in the price of jet fuel could result in a \$90 million reduction in operating costs for airlines uplifting their fuel in Australia.
 - The price of oil, and refinery and transportation costs, are the principal components of jet fuel prices. Depending on the level of competition through the supply chain, jet fuel prices can also include a margin reflecting monopoly pricing.
- The Commission has received insufficient publishable information to present a full analysis of competition in markets to supply jet fuel. It has relied on analysis of characteristics of those markets, supported by information provided in submissions and public hearings, to reach its draft conclusions and recommendations.
 - Jet fuel infrastructure services are not included in the ACCC monitoring regime, further limiting the information the Commission could draw on for its assessment.
 - The Commission is seeking further evidence to inform the final report, and participants are strongly encouraged to place their information on the public record.
- *Prima facie*, the characteristics of markets to supply jet fuel have enabled incumbent fuel suppliers to restrict competition, which has led to a small number of fuel suppliers at some airports. This has likely led to higher prices to access infrastructure services and higher jet fuel prices.
- The ownership of infrastructure to supply jet fuel is both horizontally and vertically integrated throughout the supply chain. This may lead to efficiency benefits but it could also result in higher jet fuel prices if incumbent fuel suppliers limit competition by denying or constraining third party access to infrastructure services.
- Barriers to third party access to infrastructure services appear to be significant. Access to the supply chain at the monitored airports can be constrained or denied at several points, limiting the ability of a new entrant to supply jet fuel to an airline.
 - Third party access is currently only available for one pipeline and one import terminal.
 - The owners of the Joint User Hydrant Installation (JUHI) infrastructure at most airports restrict or do not allow new members. Very little is publicly known about the terms of third party access for each JUHI.
- The JUHI infrastructure at Western Sydney Airport should operate on an open access basis to allow for more competition in the market to supply jet fuel. This should be a condition of any future privatisation.
- There has been underinvestment in both on- and off-airport infrastructure in Melbourne, which has led to government intervention to coordinate future infrastructure investment to ensure continuity of supply.
- Consultative forums as part of the master planning process at the monitored airports would help with coordinating and planning for future infrastructure investment.
- A small number of airports charge fuel throughput levies. These are only justified if they are part of an efficient pricing structure.

A secure and competitive supply of jet fuel is critical for the functioning of the aviation industry. The cost of jet fuel accounts for the largest single source of airline operating costs, at about 20 per cent in 2017-18. In the same year, the demand for jet fuel in Australia was 9000 megalitres, which cost the airlines between \$7–9 billion (IATA, sub. 27, p. 27). This means a one cent per litre decrease in the jet fuel price could result in a \$90 million reduction in operating costs for airlines uplifting their fuel in Australia.

The consumption of jet fuel has increased over time due to the growth in international and domestic air travel (chapter 1). This growth in consumption has been partially offset by the increasing use of more fuel-efficient aircraft and more efficient flight paths, such as continuous climb and descent operations, which burn less fuel than frequent levelling off. Better weather sensing technology has also cut down on fuel use.

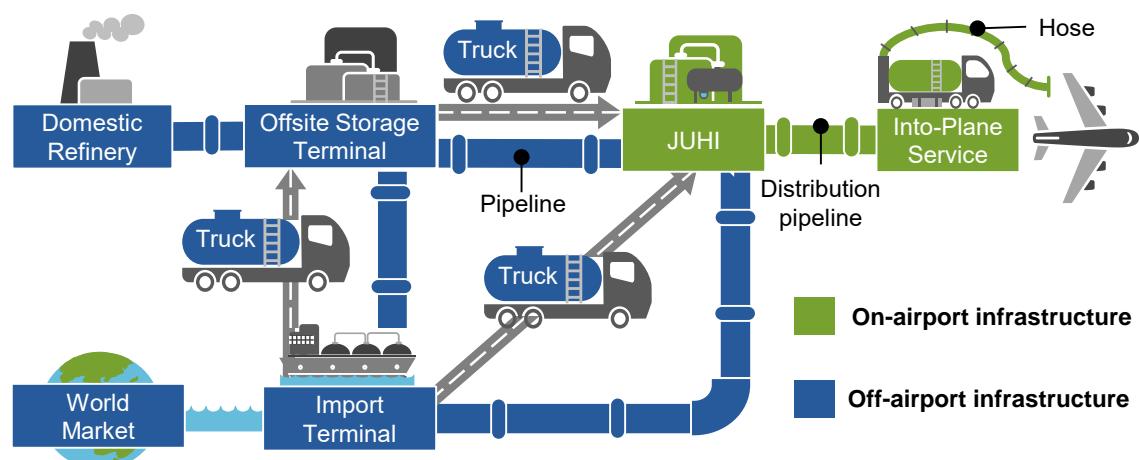
The terms of reference request the Commission to review competition in the markets to supply jet fuel in Australia, including at the monitored airports. This chapter focuses on the jet fuel arrangements at the monitored and capital city airports where the majority of fuel is uplifted by airlines (DOEE 2018). The Commission has drawn on the framework outlined in chapter 3 — such as considering barriers to entry, substitutes and switching constraints — to assess whether fuel suppliers and airports have market power in markets to supply jet fuel in Australia.

8.1 The markets to supply jet fuel

Jet fuel supply chain

The markets to supply jet fuel comprise complex chains of infrastructure services to transport jet fuel from its origin as refined crude oil in international or domestic refineries to the wingtip at Australian airports (figure 8.1).

Figure 8.1 Jet fuel market structure

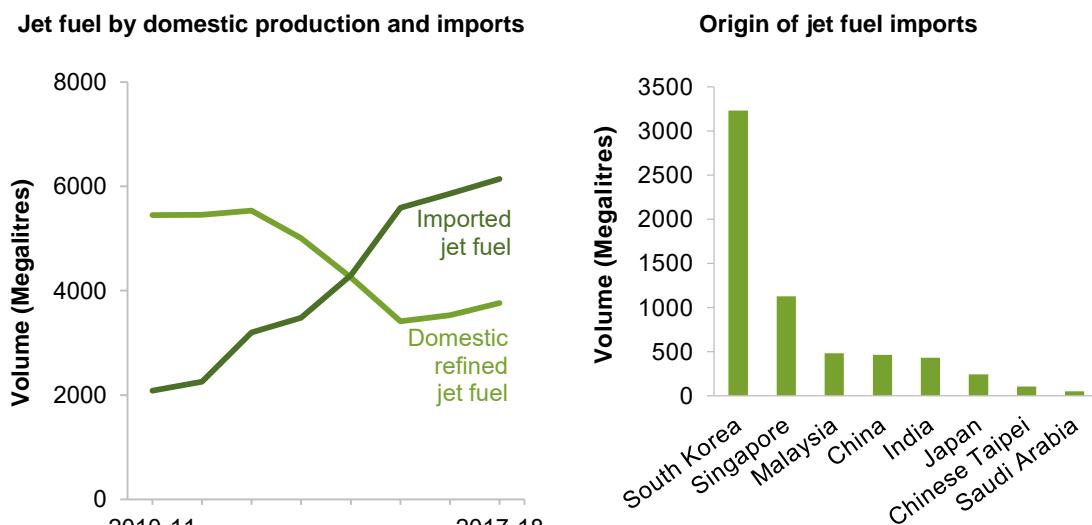


Sources of jet fuel

The jet fuel used in the Australian aviation sector is sourced from a number of domestic and international locations. Four domestic refineries, which source crude oil from world markets or from oil wells in Australia, supply about 40 per cent of jet fuel uplifted in Australia (figure 8.2). These are the Mobil Oil Australia (Mobil) Altona and Viva Energy Australia (Viva) Geelong refineries in Melbourne, the BP Australia (BP) Kwinana refinery in Perth and the Caltex Australia (Caltex) Lytton refinery in Brisbane. Even with recent upgrades to existing refinery capacity, such as additional storage capacity at Mobil Altona, the volume of jet fuel produced domestically has declined in recent years. This has been due to the closure of a number of Australian refineries — the Shell operated Clyde refinery in 2012, the Caltex operated Kurnell refinery in 2014 and the BP operated Bulwer Island refinery in 2015. These refineries faced aging infrastructure, high operating costs and low volumes of production, which meant they were unable to capture the benefits of economies of scale.

The remaining 60 per cent of Australia's jet fuel supply is imported. Of the imported fuel, 53 per cent is sourced from large refineries in South Korea (figure 8.2). The cost of shipping jet fuel to Australia is high compared with the cost of shipping to many other countries (discussed further below). This is due to Australia's relative isolation from fuel sources and the lack of an exported return product, with empty ships incurring charges for return trips. However, even with high shipping costs, the share of imported jet fuel is likely to grow, as fuel produced by larger, more cost-efficient refineries in Asia replaces jet fuel produced by the older and less efficient Australian refineries.

Figure 8.2 Jet fuel imports by supply source and origin



Source: DOEE (2018).

Downstream infrastructure and fuel purchase

A chain of infrastructure services transports locally refined and imported jet fuel to the aircraft wingtip. This infrastructure includes import terminals, off-airport storage tanks, pipelines or trucks, on-airport storage and hydrants and into-plane distribution systems. The arrangements for the ownership and management of the infrastructure vary along the supply chain and from airport to airport. However, usually one or more of Australia's four major fuel companies are involved in most parts of the supply chain, either as sole providers or as partners in a joint venture. The four major fuel companies in Australia are BP, Caltex, Mobil and Viva (Viva Energy was formerly part of the Royal Dutch Shell group, with the Australian business acquired in 2014 by new owners led by the Vitol Group).

Imported jet fuel arrives at the port and is unloaded from the ship to storage facilities at the import terminal. A pipeline or truck then transports the fuel from the terminal to the airport. The vast majority of jet fuel supplied to the four monitored airports is transported from the terminal or refinery by pipeline — 97 per cent at Sydney Airport, 77 per cent at Melbourne and 100 per cent at Brisbane and Perth (BP, sub. 47, p. 19) — with the remaining share transported by road. Often the pipeline directly connects the terminal to the airport but, in some cases, pipelines may connect from the terminal to other off-airport storage facilities.

Infrastructure at the airport consists of large storage facilities for jet fuel, used to test and settle the fuel, and underground distribution pipelines and hydrants. These hydrants and storage facilities are the joint user hydrant installation (JUHI) infrastructure that supply fuel to the hydrant under the airport apron. Most airports have some form of JUHI infrastructure, regardless of airport size, although the ownership arrangements and scale can differ. Joint ventures of some or all of the four major fuel suppliers (and Qantas at Sydney Airport) own the JUHI infrastructure at the monitored airports and a member of the JUHI joint venture manages the infrastructure on a rotational basis. The JUHI joint ventures lease land from the airport and pay a licence fee for underground pipelines, generally for a period of about 20 years.

The final step of the supply chain is refilling the plane in preparation for its departure — a service delivered by into-plane providers. Refuelling trucks connect into the distribution system via hydrants in the runway and pump fuel into the wingtip. The four major fuel companies generally own the into-plane providers, either through a joint venture or individually.

Airlines are able to purchase fuel without involvement in the supply chain, although there are some exceptions to this (discussed below). Airlines normally purchase jet fuel at the wingtip and seek tenders for supply at an airport or region on an into-wing basis. Fuel suppliers bid for contracts by offering a price per unit of fuel delivered into-wing and a percentage supply of the total volume demanded by the airline. A round of negotiation follows the first round of bids between the airline and fuel suppliers to ensure the airline contracts the total volume of fuel required (BP, sub. 47).

Characteristics of the markets to supply jet fuel

The supply chain for jet fuel is characterised by three features that have the potential to influence its efficiency: the infrastructure has natural monopoly characteristics, suppliers are vertically integrated and joint ventures provide some infrastructure services.

Natural monopoly infrastructure

A natural monopoly is a market in which one producer can service existing and foreseeable customer demand at a lower cost than multiple producers (chapter 2). Natural monopoly characteristics are common in infrastructure assets that have high fixed costs relative to operating costs, such that the average cost of production declines with output.

Several parts of the supply chain for jet fuel exhibit these characteristics. Jet fuel pipelines involve large upfront investments, including for planning, land acquisition and construction. The average cost of production declines as the size of the pipeline increases and the quantity of fuel transported increases (termed economies of scale), up to the point where the pipeline reaches capacity. Storage facilities on- and off-airport and import terminals exhibit similar characteristics, including large upfront and sunk investments and economies of scale. In addition, storage tanks have economies of scope, as the cost of providing related services together, such as storing, testing and settling the fuel and connecting to the hydrants, is cheaper than providing them separately.

These characteristics mean that it may be more efficient for one supplier to provide a service. However, natural monopoly infrastructure can also lead to an enduring lack of effective competition and to a firm having market power. A jet fuel supplier that is able to exercise that market power may set prices above efficient long-run average cost — the conceptual benchmark for efficient pricing — underinvest in infrastructure or deny access to new entrants (chapter 2).

Vertical integration

Four large suppliers dominate the supply chain for jet fuel — all four are involved in each part of the supply chain from the importation and refining of crude oil to the delivery of the refined product into the plane. Vertical integration — which involves the same firm engaged in different stages of production — can produce efficiency benefits where it enables a firm to capture economies of scope and scale, as outlined above, and take advantage of enhanced coordination of production activities.

It can also pose a risk to competition in the supply chain. A vertically integrated business seeks to maximise profits across all its services and may have an incentive to behave in a way that restricts competition in the upstream and downstream markets in which it operates. For example, a jet fuel supplier may be able to use its dominance to restrict competition by denying access to, or charging monopoly prices in, one or more parts of the supply chain,

such as the pipeline or JUHI infrastructure. Even the existence of a vertically integrated monopoly may be sufficient to deter entry or limit vigorous competition in a dependent market (Hilmer Committee 1993).

Joint ventures

Joint ventures are a business structure formed by two or more parties entering into an agreement to provide a service together. They are a form of horizontal coordination, involving a consolidation of firms engaging in the same part of the production process.

Joint ventures can have a net benefit to the community when they are used to provide a product or service more efficiently than if it were provided by several separate firms. Having an infrastructure facility operated and shared by members of a joint venture may result in efficiency gains from economies of scope and scale. There could be high duplication costs, and potentially increased coordination costs, if each provider were to operate separate facilities to supply jet fuel.

However, gains in efficiency from a joint venture are tempered by losses in competition. These losses may occur when the providers of a service would otherwise be in strong competition. A joint venture agreement joins the economic interests of the member firms leading to potential anticompetitive behaviour, such as denial of access to infrastructure services so that members can share monopoly profits. Conditions of a joint venture agreement may facilitate anticompetitive behaviour by restricting investments that do not have the approval of all members, rather than enable each member to pursue its own objectives. For example, if a member would like to invest to expand infrastructure and increase supply — which would decrease jet fuel prices — they could be constrained by the requirement to receive approval from all joint venture members. This condition enforces the status quo and limits increased competition between joint venture members. Joint venture members also may have the incentive to collude, for example, through information sharing.

8.2 The current regulatory framework

The supply chain for jet fuel is not subject to specific economic regulation, but rather comes under the general competition and market power protections of the *Competition and Consumer Act 2010* (Cwlth) (CCA), including the National Access Regime under Part IIIA of the CCA (chapter 1).

The objective of the National Access Regime is to promote the efficient use of and investment in infrastructure to promote effective competition in upstream and downstream markets. It provides for regulatory declaration of infrastructure services in cases where a firm has been unable to negotiate access commercially. A party wishing to gain access to infrastructure services under these circumstances can apply to the National Competition Council (NCC) to have services declared by the Minister. The National Access Regime is a backstop for parties to seek third party access to infrastructure services.

In 2011, the Board of Airline Representatives of Australia (BARA) made an application under the National Access Regime to the NCC for declaration of the Sydney JUHI and the Caltex pipeline from Port Botany to the Sydney JUHI. The NCC recommended the Minister reject both applications on the basis that two criterion could not be satisfied.

- Criterion (a) — declaration of either the pipeline or JUHI, or both, would not result in a material increase in competition in the supply of jet fuel at Sydney Airport or into-plane services. The NCC was not satisfied that declaring either asset would increase competition, as capacity constraints would prohibit new suppliers from securing capacity.
- Criterion (f) — the NCC was not satisfied that declaration was not against the public interest. It stated that regulating access through the National Access Regime could delay investment in new capacity.

The Australian Government made a number of changes to the CCA in 2017, including revisions to the National Access Regime declaration criteria, following the Harper Review and the Commission’s 2013 inquiry into the National Access Regime. The NCC is currently considering whether it should recommend to the Minister that the declaration of services at the Port of Newcastle be revoked. The Council released its preliminary views in December 2018 and its final recommendations are expected in March 2019. This will be the NCC’s first decision since the changes to the National Access Regime (NCC, sub. 79, p. 10).

In addition to access regulation, the supply chain for jet fuel is subject to misuse of market power regulation under section 46, part IV of the CCA. Section 46 concerns companies that have substantial market power and act in a way that reduces competition by, for example, eliminating competitors, preventing entry into a market and deterring or preventing competitive conduct in a market.

In addition to this economic regulation, jet fuel suppliers face environmental regulations such as the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) and State and Territory planning and environment legislation. Further, strict industry imposed fuel quality standards are in place to ensure that jet fuel meets the quality required for aviation. Fuel undergoes testing at several points along the supply chain in order to identify instances of contamination that can result in supply disruptions. For example, in November 2016, a jet fuel shipment failed quality control tests, which led to supply disruption and rationing at Melbourne Airport (DIRDC, sub. 40, p. 27).

Access regulation should provide benefits for consumers

As noted above, the objective of access regulation is to improve competition in upstream and downstream markets (Hilmer Committee 1993). The ACCC (2013d, p. 5) also considers that ‘access regulation is intended to promote competition in markets that need access to bottleneck infrastructure’.

Competition in and of itself should not be the goal of economic regulation — the goal should be better outcomes for consumers. As outlined in chapter 2, the focus of this inquiry is on

whether a market is achieving the best outcomes for consumers and delivering a net benefit to the community.

Sometimes a downstream market may lack effective competition, restricting benefits from flowing to the community. This should not, however, prevent policy reform efforts to improve competition in the upstream market. In the short term, improvements in upstream competition may largely result in a transfer of rents to the downstream market, rather than better outcomes for consumers. Over time, new entrants — or the threat of new entrants — in the downstream market may improve conditions for competition leading to better outcomes for consumers in the long term.

8.3 Third party access to infrastructure services

Third party access to jet fuel infrastructure along the supply chain is a critical determinant of the scope for competition. Arrangements differ depending on the airport, the type of infrastructure and its ownership structure. Arrangements can involve:

- open access — any third party can access the infrastructure by paying an access fee
- restricted access — third parties can gain access to the infrastructure by purchasing equity
- closed access — third parties are unable to gain access to the infrastructure.

Import terminals

A number of the Australian markets for jet fuel, including Sydney, Melbourne and Brisbane, have more than one import terminal and storage facility.

- There are currently three import terminals in Sydney: the Viva Clyde import terminal, the Caltex Kurnell import terminal and the Vopak terminal.
- There are three import terminals in Melbourne, one terminal solely owned by Viva, a second owned by Caltex, and the third is a joint venture between Mobil and BP.
- There are two import terminals in Brisbane, one owned by Viva and the other owned by Caltex and located at the Lytton refinery.
- There is one import terminal in Perth, located at the BP Kwinana refinery.

While there may be more than one import terminal in some markets, access for new entrants depends on whether a terminal is open or closed access (the Commission is not aware of any restricted access import terminals). Most of the import terminals outlined above are closed access.

The exception to this is the Vopak terminal in Sydney, which is open access. Access to the Vopak terminal has enabled Kuwait Petroleum Aviation (Australia) (Q8) to gain access to the supply chain for jet fuel at Sydney and supply fuel at Sydney Airport to Qantas (Qantas 2011).

The Commission also understands that the terminal at the BP Kwinana refinery in Perth may be open access, but that locally refined fuel meets the total local demand for jet fuel.

Currently none of the terminals in Melbourne are open access, limiting the ability for a third party entrant to supply jet fuel to the Melbourne JUHI.

An alternative to accessing an existing terminal is for a new entrant to develop its own. However, as noted above, the investment required to build a terminal facility is large and lumpy. This means that, in the short term, and while there is spare capacity in terminal storage, as is currently the case in Melbourne, an entrant would be less likely to recover its costs on a new facility. As noted by BP:

There are potential barriers for prospective new jet fuel import suppliers from establishing their own terminal facilities. A new entrant in product terminaling is faced with the prospect of high capital costs. (sub. 47, p. 43)

The high costs of developing import terminal facilities mean that it is unlikely a new entrant would be able to supply fuel to an airport without obtaining access to a competitor's terminal or by using an open access terminal facility. Further, a new entrant would be unlikely to build a terminal unless it is able to access infrastructure further down the supply chain, discussed below.

Pipelines

The majority of jet fuel used in Australia is transported from the import terminal to the monitored airports by pipeline.

- Two pipelines supply the Sydney JUHI: the Caltex pipeline and the Viva Clyde pipeline.
- The Tullamarine pipeline, owned by a joint venture between BP, Mobil and Viva, supplies fuel to Melbourne Airport.
- Two pipelines supply fuel to Brisbane Airport: one is a joint venture between Caltex and Viva, and BP solely owns the other.
- One pipeline owned by BP supplies fuel from the BP Kwinana refinery to Perth Airport.

As with terminal facilities, gaining access to pipelines can be a barrier to access for fuel suppliers looking to break into a market. The Commission is aware of only one pipeline to the monitored airports — the Caltex pipeline in Sydney — that allows access for third parties.

The Commission understands the Caltex open access pipeline has enabled Qantas to self-supply by purchasing fuel from Q8 at the Vopak terminal and transporting it through the pipeline to Sydney Airport using negotiated access (Caltex 2011). This has provided some competition to the incumbent fuel suppliers. The Commission understands that Caltex seeks tenders for access to its pipeline for five days of supply a month:

Probably now coming up to 15 years, we contracted with other parties for access to our pipeline. They've ... been structured a number of different ways ... over that time. At the moment, we periodically run a tender for access to our pipeline in Sydney ... (Caltex, trans., p. 148).

The sole pipeline supplying jet fuel to Melbourne Airport (Tullamarine pipeline) does not offer access to third parties. The Commission does not have information on the access terms for the pipelines to Brisbane and Perth airports.

An alternative to accessing an existing pipeline would be for a new entrant to build its own. In the past Caltex has commented that:

... it would likely be economically feasible for Vopak, another fuel supplier storing jet fuel in the Vopak terminal or an airline or consortium of airlines to construct a new Vopak–Airport pipeline. (2011, p. 62)

As discussed above, the natural monopoly characteristics of pipelines are likely to deter potential entrants from replicating infrastructure, at least until the current pipelines reach capacity — Tullamarine pipeline in Melbourne is approaching capacity — or until the costs under monopoly pricing or access denial are greater than the costs associated with replicating a pipeline. If duplication of infrastructure leads to a substitute service, this may provide facilities-based competition that could constrain the ability of the incumbent fuel suppliers to charge monopoly prices or deny access to third parties.

Is trucking a substitute for a pipeline?

Although pipelines are the main means for transporting jet fuel to the monitored airports, many other Australian airports are reliant on trucks to transport fuel to on- or off-airport storage. A number of participants have commented that trucking fuel is a viable alternative to transporting small quantities of fuel via pipelines. The availability of a substitute can lower market power, as discussed in chapter 3. Caltex noted:

... trucking is a very efficient way of moving transport fuels, even jet fuel. Smaller airports tend to be exclusively truck fed. So airports at places like that would be Cairns, Townsville, Gold Coast, Canberra. ... Major airports, I think Brisbane, Sydney, Melbourne, Perth, tend to be pipeline fed. Some of those larger airport[s] have both pipeline and truck. Some airports have multiple pipelines. I think the high capital intensity of pipelines tends to mean that you need large volume flows to make that efficient, and to be cost competitive with trucking. (trans., p 149)

Northern Territory Airports noted that large throughput volumes are required for pipelines to be viable — in the order of 700 to 1000 megalitres a year. Currently only the four monitored airports meet this level of demand (Northern Territory Airports, trans., p. 83).

Unlike pipelines, fuel supplied by truck does not have declining average costs — the costs of trucking fuel increase as the quantity of the fuel supplied increases. For example, doubling the number of trucks driving to the airport doubles the labour and fuel costs too. The cost of trucking could actually be more than double with a doubling of the number of trucks driving to the airport if congestion and environmental costs are present. Bioenergy Australia commented to the Commission that a new jet fuel supplier would not be financially viable if it had no choice other than to truck fuel (trans., p. 43). Other participants acknowledged the benefits of pipelines but noted that some suppliers are still able to truck fuel profitably.

In terms of the economics, transporting jet fuel by pipeline is superior to trucking. The costs are higher. Despite that, we've still got suppliers that are more than happy to truck fuel and are able to make a profit. (Melbourne Airport, trans., p. 59)

This may change when a new pipeline is required in Melbourne, as the capacity of the new and existing pipelines would likely cover the demand for fuel at Melbourne Airport.

As noted above, trucking fuel can also produce costs associated with congestion, particularly if the number of trips increases during peak traffic (for example, it takes six B-double fuel tankers to fill an Airbus A380). In 2010, the Sydney Jet Fuel Working Group observed that:

Trucking significantly increases traffic congestion around the immediate JUHI area. It also increases safety risks at JUHI. Trucking is not a total solution to the bottlenecks in transporting fuel from off-airport storage facilities to Sydney Airport but can provide incremental supply in the short to medium term or under special or emergency supply conditions. (2010, p. 25)

Further, the Commission heard that trucking creates environmental and safety hazards. For example Northern Territory Airports suggested that ‘there are some real economic, environmental, and safety advantages of delivering the fuel by pipeline compared to road transport’ (trans., p. 74).

Trucking is clearly viable for small airports and may provide short-term supply for the monitored airports while pipelines approach capacity. However, in the long term, the increasing costs, and the potential for significant costs associated with increased road congestion and environmental and safety concerns, mean that trucking fuel is not efficient at larger airports. Pipelines can provide a significant competitive advantage compared with trucking where there is sufficient demand given they can transport much larger volumes of jet fuel. Therefore trucking is unlikely to be a viable substitute to the long-term provision of jet fuel by pipeline to the monitored airports.

Joint user hydrant facilities

The only way to supply fuel to a plane at monitored or capital city airports is through that airport's JUHI infrastructure. The current ownership of the JUHI infrastructure at the monitored airports is by unincorporated joint venture between some or all of the four major fuel suppliers (and Qantas at Sydney Airport). These agreements were formed about 50 years ago after the Australian Government decided it would be more efficient for one facility to provide storage and hydrant services rather than several duplicated facilities (Sydney JUHI 2011). The Australian JUHI arrangements differ to those at a number of overseas airports (box 8.1).

Box 8.1 JUHIs: international examples

Hong Kong Airport

Fuel supply arrangements (the fuel farm and hydrant system) at Hong Kong International Airport are open access for qualified suppliers. The airport owns the facilities and charges a common transparent throughput fee for users (BARA, sub. 37, p. 26; IATA, sub. 27, p. 29).

Parties in a joint venture comprising US and European oil companies, Hong Kong-based air carriers, mainland Chinese fuel suppliers and aviation organisations developed the facilities. This joint venture designed, financed, built and operated the facilities, before transferring ownership to the Airport Authority Hong Kong (the joint venture still operates the facilities).

Los Angeles Airport

Fuel is supplied at Los Angeles Airport through a consortium of airlines with distribution contracted to a third party operator. This arrangement has been in place since 1985 when a consortium of airlines purchased the facilities on the airport, leased the property from the airport authority, financed improvements, and managed the fuel infrastructure and operations (Smith and Sturtz 2010). Airlines that are not members of the consortia are able to access the facilities, but at a higher price (Sapere Research Group 2011). BP noted these access arrangements in its submission:

Member airlines are charged a fee based on fuel volume and cost of operations. The fee charged to member airlines is adjusted at the end of the year to reflect the actual cost of operations. Non-member airline users are charged a fee based on fuel volume and are also charged for usage of certain off-airport storage and pipeline facilities. (sub. 47, p. 24)

Vancouver Airport

The Vancouver Airport Fuel Facilities Corporation is a not-for-profit company owned by a consortium of 25 commercial airlines representing most of the domestic and international carriers operating at Vancouver International Airport. The Corporation owns and operates fuel storage and distribution facilities at the airport, with the facilities shared among the airlines, allowing them to avoid duplication and minimise costs. Similar fuel facility corporations operate at all of the major international airports across Canada (VAFFC 2018).

EU Airports

A 1996 EU directive opened ground handling services at EU airports to competition. EU Member States may decide to limit the number of suppliers of certain services, such as fuelling and baggage handling. In such cases, the minimum number of suppliers has to be two and at least one of the suppliers has to be independent of the airport or the dominant airline at that airport (Airport Research Centre 2009). The same rules apply if an airline wishes to self-handle ground services. Qantas has advocated for this approach in Australia:

To overcome the problems experienced with the fuel companies in the Australian market, Qantas Group recommends consideration of regulatory models similar to those used in the EU. (sub. 46, p. 36)

Restricted access

The majority of the JUHI joint ventures in Australia, including at Sydney Airport, have restricted access — the only way a new entrant can supply jet fuel is by purchasing equity

in the joint ventures or by arranging fuel supply through a JUHI member. For example, Q8 supplies fuel at Sydney Airport to Qantas who is a member of the JUHI (Caltex 2011, p. 10). As BP commented:

In relation to the Sydney JUHI, under the terms of the joint venture (JV) agreement between the owners, any third party can gain access to the services provided using the JUHI facilities on the same terms and conditions as the existing JV participants so long as they meet certain entry requirements set out in the agreement. (sub. 47, p. 7)

The Commission has received little publicly available information on the nature of the equity access arrangements or other terms for accessing JUHI infrastructure. Caltex stated that the arrangements for each JUHI vary on a case-by-case basis, depending on how the partners wish to structure the joint venture (trans., p. 145).

Several participants, including airlines and airports, have claimed that potential suppliers have not been able to gain access to the JUHI, despite the restricted access arrangements.

The International Air Transport Association (IATA) noted that:

Despite the significantly larger market, there has not been any new suppliers entering since the setup of JUHI (other than the entry of Qantas into the Sydney JUHI membership as a self-supplier) which alludes to the difficulty for a new supplier to enter the market despite its attractiveness. Feedback which IATA and airlines received from speaking with suppliers interested to supply fuel at Australian airports corroborate the difficulty of market entry. (sub. 27, pp. 27–28)

Perth Airport commented:

I think for us, one of the barriers of entry for new operators into the JUHI has been the equity type model that the JUHI has operated under, whereby new operators are required to buy in to the asset ... (trans., p. 121)

BARA highlighted that an equity access arrangement creates risks for new fuel suppliers (trans., p. 14). It noted that the risks could prevent a new entrant from testing and growing a new market, especially when combined with uncertainty around the tenure of the lease between the airport and the JUHI.

Some participants told the Commission that an overpriced equity buy-in for JUHI infrastructure could deter new entrants to a market. An overpriced asset would mean that the expected cash flows received from ownership of the infrastructure would not provide an adequate return for the price of entry. JUHI infrastructure owners are likely to have the incentive and the ability to overprice the JUHI infrastructure to deter entrants from supplying jet fuel.

BP (sub. 47) submitted that equity access is the only way to ensure there are incentives to invest in infrastructure and that it can lower transaction costs for airports and infrastructure providers. The Commission recognises that the access requirements should provide sufficient incentives for owners of jet fuel infrastructure to invest. However, the Commission

notes that equity access is not required for other, somewhat similar, infrastructure services, such as gas pipelines.

In 2012, the NCC was not convinced that equity access provided a reasonable means for obtaining access to the Sydney JUHI:

In the absence of a clearer ability for parties seeking to join the JUHI JV to enforce the ‘right’ to access under the terms of the JV agreement, the Council maintains that it cannot attach much weight to the ability to join the JV as a means of obtaining access. (NCC 2012, p. 28)

Open access

An alternative to the restricted access model is open access to the JUHI infrastructure. Recently, two JUHIs — Melbourne and Darwin — have moved to open access regimes and both airports have indicated they expect this to lead to increased competition. In November 2017, Melbourne Airport signed a new 20-year agreement with the JUHI joint venture that requires the joint venture to provide open access to the JUHI infrastructure (trans., p. 53). Melbourne Airport commented:

An open access regime is included in the new agreement to facilitate additional competition in the Jet-A1 market at Melbourne Airport. To date Melbourne Airport is aware of four parties who have applied for access, and are awaiting a response from JUHI to their application for access. (sub. 33, p. 147)

Northern Territory Airports has negotiated an arrangement for Darwin Airport in which it is purchasing the existing fuel infrastructure from the current owners — Viva and BP — over a period of 12 years. In 2017 Northern Territory Airports purchased 40 per cent of the existing JUHI infrastructure with an additional 20 per cent to be purchased every three years (trans., p. 70). Northern Territory Airports noted it:

... has created an open access market for jet fuel supply in Darwin with companies outside the former joint venture members now bidding on fuel supply contracts. There are indications that on a like for like basis the Darwin jet fuel cost has reduced because the market is now contestable. (sub. 8, p. 6)

In theory, these open access arrangements involve lower barriers to entry than closed and restricted access arrangements and may be more effective in facilitating competition between suppliers. However, this will depend on the exact terms of open access, the procedures for gaining access and any limitations on accessing other necessary infrastructure services such as pipelines.

Into-plane services

Unlike import terminals, pipelines and JUHIs, into-plane services do not have natural monopoly characteristics. Refuelling trucks are mobile assets that can be sold at the depreciated asset value, therefore any investment made by a potential into-plane provider is

unlikely to be a large sunk cost. Relatively low barriers to entry mean that a potential entrant — whether owned by a fuel company or not — could purchase a refuelling truck and, subject to approval by the airport, use it to provide into-plane services.

It is unlikely that a competitor would be willing to enter a market for into-plane services, given the current into-plane services at the monitored airports are provided by the four major (vertically integrated) fuel suppliers. A new entrant may expect that the incumbent fuel suppliers would be unlikely to switch to a new provider and would continue to utilise their own services. This may be different were there open access arrangements at the JUHI — potential competitor fuel suppliers may encourage independent into-plane services to enter the markets at the monitored airports.

8.4 Some markets to supply jet fuel are not competitive

The Commission has assessed the extent to which the characteristics of the supply chain for jet fuel, such as vertical integration, barriers to third party access and availability of substitutes, are impeding competitive outcomes in markets to supply jet fuel.

Few suppliers at some airports

High barriers to accessing infrastructure at multiple points in the supply chain have likely reinforced the small number of jet fuel suppliers at some airports. BARA (sub. 37, p. 5) highlighted to the Commission that only one or two effective suppliers dominate the markets for jet fuel at Sydney, Melbourne and Perth airports (defined as suppliers that can meet the needs of a number of international airlines). As noted by the Australian Airports Association:

The current situation at most major airports is that the off-airport storage facilities are owned by a single supplier, which usually also owns the lease of the fuel hydrant pipeline and on-airport storage facility. (sub. 50, p. 100)

Northern Territory Airports noted there has been a lack of new entrants to the market:

... in the almost 50 years of JUHI experience in Australia, there has been only one new member (Qantas) join at one airport via equity participation. (sub. 8, p. 6)

The small number of suppliers at some airports is likely due to barriers to accessing jet fuel infrastructure through the supply chain. As noted above, some elements of the supply chain provide open or limited access to jet fuel infrastructure, such as the Vopak terminal in Sydney and the Melbourne JUHI. However, there are several other points at which access can be constrained or denied, limiting the ability of a new entrant to supply jet fuel to an airport. The Commission is aware that a number of new entrants would like to enter the market at some airports but have not been able to do so.

The ACCC noted that requiring access at multiple points in the supply chain has led to limited competition:

While it may be possible that a new entrant may be able to overcome the challenges associated with [gaining access to] any one of these elements of the supply chain, the need to have appropriate access at all three [terminals, pipelines and JUHIs] makes it very difficult for a company to enter the market. This provides the existing suppliers of jet fuel with significant market power. (sub. 59, pp. 58–59)

The supply chain servicing Melbourne Airport provides one example of the barriers presented to a new provider. While the Melbourne JUHI is now open access, a new entrant may be unable to access an import terminal or pipeline, or supply through an independent into-plane service. Melbourne Airport raised concerns with this in its submission:

Even with the new open access provision in the agreement between Melbourne Airport and the JUHI participants signed in 2017, accessing the other elements of the supply chain is a challenge and reduces competition for Jet-A1 in Melbourne – access to storage at the port, pipeline infrastructure and into-plane services are critical. (sub. 33, p. 146)

The incumbent fuel suppliers (for example, BP) have noted to the Commission that despite their low number, they compete vigorously on contracts and that there are low switching costs for airlines changing fuel supplier:

Jet fuel suppliers compete vigorously in response to supply tenders from airlines and have strong economic incentives to do so. Winning tenders through supplying more jet fuel is the only way for jet fuel suppliers to minimise their operating and production costs. (sub. 47, p. 40)

However, the Commission understands that, in some cases, international airlines only receive one or two bids on their tenders for fuel supply. Submissions to the NCC during the 2011 BARA application for declaration noted there was a small number of bids for tenders at Sydney Airport. Since that time, there have been no new entrants to the Sydney market and it is unlikely that there has been a material change in the extent to which suppliers compete for tenders. In a market with vigorous competition, it would be expected that the players would bid on all contracts for supply if they have the capacity.

A lack of transparency around access terms

The terms of third party access and guidance on the application process for membership of many of the JUHIs are generally not publicly available, and are provided to an applicant only after satisfying a number of conditions. The Commission has heard that the conditions for supplying fuel at an airport, including the decision-making process of the JUHI joint venture, can leave potential entrants in the dark.

... what was identified through that process was a lack of transparency around decision-making by the JUHI so there wasn't the ability to understand why decisions were made, when they were made [and] when they would be made. (Bioenergy Australia, trans., p. 37)

At most airports in Australia new suppliers can only access on-airport fuel facilities via equity ownership. The process for equity access at a major airport JUHI is complex and time-consuming with little transparency. (Qantas, sub. 46, p. 35)

Virgin Australia Group noted that this uncertainty could be creating barriers for potential new jet fuel suppliers in a market to supply jet fuel:

Potential new jet fuel importers are faced with considerable uncertainty and risk about their ability to gain access to the jet fuel infrastructure supply chain. This uncertainty around obtaining secure and coordinated access to the jet fuel infrastructure supply chains is a clear deterrent to new market entrants and increased competition. (sub. 54, p. 27)

The Commission notes there is limited transparency on the terms of third party access to infrastructure services, which makes it difficult for potential competitor fuel suppliers to decide whether to enter a market or to assess whether these terms are reasonable. In addition, the incumbent firms may be using the decision-making process for granting access to hinder the ability of new entrants to enter a market and delay access opportunities for competitors.

This may not be the case at all airports. Melbourne Airport and Northern Territory Airports noted that transparency of terms of open access were important considerations during the negotiations for new JUHI lease agreements. Melbourne Airport noted:

... there is a requirement on the JUHI to have, on their website, how you actually gain access, so what the conditions under the open access are and how you apply. We believe they're all in place ... (trans., p. 55)

Potential applicants are able to view an outline of the application process on the Melbourne JUHI website and can receive the terms of access once they have signed a confidentiality agreement. In the case of Darwin Airport, Northern Territory Airports commented:

That transparency and the details about what are the arrangements for the open access regime are all embedded in the lease, so there is a requirement by BP and Shell to provide all of that information to any competent fuel marketer, and we know that that has happened because we've talked to fuel marketers who have looked at the arrangements, because they are very interested in being a supplier of jet fuel to Darwin Airport in the future. (trans., p. 73)

Prices for jet fuel are relatively high

The price of oil, and refinery and transportation costs, are the principal components of jet fuel prices. The price paid at the wingtip includes a normal return on investment and, depending on the level of competition through the supply chain, jet fuel prices can also include a margin reflecting monopoly pricing. The price the importer (who is also often the end supplier) pays for fuel from the refinery depends on the contracts between the producers and importers. However, it is likely close to the import parity price of the Mean of Singapore Platts (MOPS) — the jet fuel index for the Asia-Pacific region. Transport costs include the cost of shipping (including wharfage, insurance and product loss) and the cost of access to infrastructure.

Participants have noted that a lack of competition is leading to large differentials for the price of jet fuel — the difference between the MOPS price and the price an airline pays — at Australian airports. IATA stated that the price differentials at Australian airports are much larger than other international airports (figure 8.3):

In the case of the aviation fuel market in Australia, various market characteristics and the experience of airlines point towards a market that is not as effectively competitive as it could be. This has led to airlines paying a higher jet fuel price compared to markets outside Australia where competition appears to be more effective ... (sub. 27, p. 27)

Several airlines also noted high jet fuel prices and the implications for their businesses. In its submission, Virgin Australia Group stated that:

Jet fuel represents around a third of an airline's operating costs and therefore increased jet fuel prices can have a significant effect on airlines' costs. Weak competition for jet fuel supply leads to higher prices being paid by the airlines for this critical input, and ultimately higher ticket prices for our passengers. (sub. 54, p. 28)

BARA noted that prices could be lower if new entrants were able to find efficiencies:

... an alternative supplier may, for argument's sake, be able to achieve economies in, say, shipping, and it may be able to achieve economies in the areas of the supply chain itself. So it depends whether or not you think that evidence put forward actually represents the most efficient supply of fuel versus what a new competitor may be able to provide. (trans., p. 11)

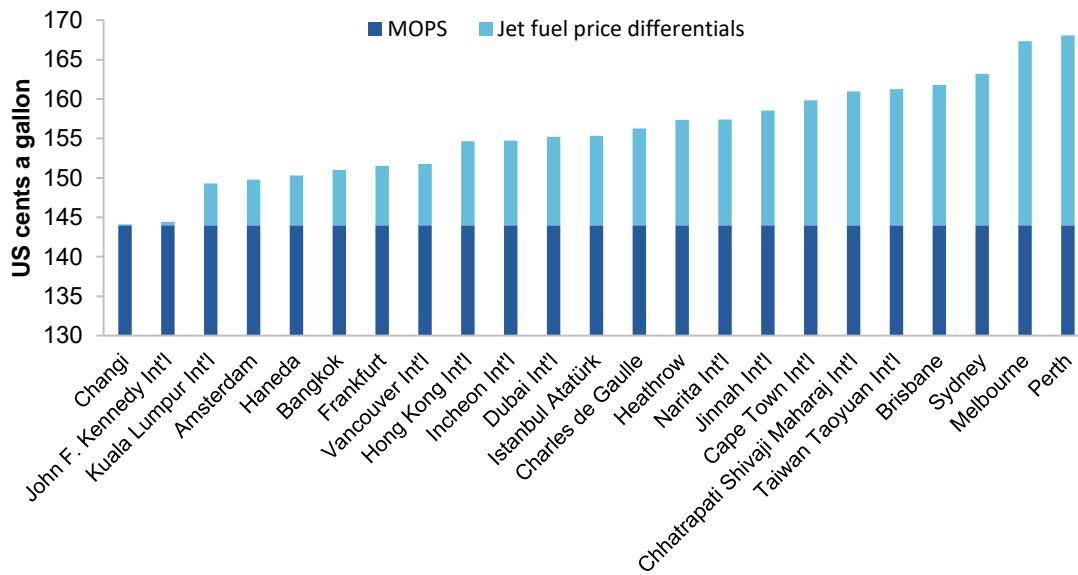
Large price differentials were of concern in the 2011 BARA application under the National Access Regime. At that time, Emirates noted that 'the pricing levels at Sydney, Melbourne and Perth airports remains significantly higher than prices offered at competitive markets globally' (2011, p. 1).

The Commission considers that price differentials by themselves are not sufficient evidence that prices in Australia reflect a lack of effective competition. Further, care should be taken when comparing price differentials across different airports and countries (figure 8.3). For example, comparisons do not take into account different planning and environmental regulations, distance from port to plane or different quantities supplied at each airport.

High transport costs due to the distance between Australia and the world market could explain part of the price differential. BP, for example, notes that prices are high due to a long supply chain:

... the jet fuel transport logistics chain is much longer for Australian airports than it is for Changi Airport that involves much greater handling that in turn adds to costs. (sub. 47, p. 28)

Figure 8.3 Jet fuel price differentials^{a,b,c}



a The figure shows the jet fuel differentials for a sample of airports selected by IATA. **b** Price data are from a sample of airlines. **c** Data are for June 2017.

Source: IATA (sub. 27, p. 28).

It is, however, unlikely that high transport costs explain the entire differential between the price of jet fuel at Australian and other airports. As noted above, there is likely to be a margin on the price charged to airlines — in few, if any, markets would the price paid by a customer only reflect the cost of supply. The size of the margin could vary from a normal rate of return that would be expected in a competitive market through to a margin that reflects monopoly pricing. The fuel suppliers have not presented the Commission with any evidence on the scale of the margin that justifies the price differential. Nor have airlines provided details on the price they pay for fuel at the wingtip and it is not clear to what extent they are able to substitute between airports to take advantage of lower prices (box 8.2).

The absence of information has meant that the Commission has been unable to conduct a full analysis of prices and costs associated with jet fuel supply. However, on balance, the Commission considers that — even after accounting for differences in costs — the structure of the markets to supply jet fuel has likely contributed to relatively high prices for jet fuel in Australia.

The vertical integration of suppliers, in particular, and the concentrated ownership of infrastructure provides significant scope and incentive for providers to charge monopoly prices and to deny third party access to infrastructure services. While it has been presented with little other concrete evidence, the fact that Qantas has an incentive to arrange for self-supply at Sydney Airport suggests that prices charged by the incumbent providers are likely to be higher than what would be expected in a market with effective competition.

That said, it is unclear the extent to which high prices are being passed through in the form of higher ticket prices for air travel, or whether it ultimately only results in a transfer between the airlines and fuel companies.

Box 8.2 Substitution between refuelling locations

There is likely to be less market power in the supply of fuel if an airline is able to choose where it uplifts fuel (chapter 3). There appears to be some variation in jet fuel pricing even within Australia, as shown in figure 8.3.

Some participants have argued that airlines are able to substitute where they refuel their aircraft in order to obtain fuel at a lower price. While domestic airlines may have some discretion as to where they refuel, most international airlines do not. Long-haul international airlines have no choices as to where they refuel, and airlines flying longer domestic routes are unlikely to substitute between fuel sources due to the costs associated with carrying extra fuel between destinations, including reserve fuel to reach another destination in case of an emergency.

Underinvestment may have occurred in some infrastructure services

The natural monopoly characteristics of jet fuel infrastructure, along with the market power from vertical integration and horizontal coordination, may have distorted the incentives for incumbent firms to invest. A number of reasons have been put forward for why there may have been underinvestment in the supply chain for jet fuel.

- The incumbent infrastructure providers have delayed investment in pipelines and JUHI infrastructure in order to benefit from congestion by charging higher prices (Virgin Australia Group, sub. 54).
- Incumbent infrastructure providers have underinvested in order to restrict capacity and therefore the scope for the declaration of infrastructure under the National Access Regime. In 2012, the NCC noted that when further capacity was added to the Sydney jet fuel infrastructure with a new pipeline, it would be more likely to pass criterion (a) of the National Access Regime (NCC 2012).
- Underinvestment has occurred because the infrastructure owners — the JUHI joint ventures and pipeline joint ventures — are concerned that the airport may take over JUHI infrastructure assets at nominal cost. Underinvestment may also occur where infrastructure owners have insufficient security of tenure to provide an adequate return for their investment (BP, sub. 47).

There is a lack of publicly available evidence to assess the extent to which underinvestment is a systemic problem in the jet fuel supply chain. However, the Commission has heard of some instances where infrastructure development has not kept pace with industry demand. For example, Virgin Australia Group (sub. 54) and other participants raised concerns with the level of investment in the Melbourne off-airport storage, pipelines and JUHI infrastructure. While lumpy investment is a feature of large natural monopoly assets,

capacity constraints and the concern for fuel security were severe enough to require government action — the Victorian Government held an aviation fuel roundtable with industry participants to coordinate future investment.

Participants have told the Commission that uncertainty around the lease of the Melbourne JUHI (as noted above, a new lease was signed in early 2017) may have contributed to underinvestment by the fuel suppliers in that market (BP, sub. 47). The new lease incorporates provisions that require the JUHI owners to meet benchmarks for on-airport storage capacity, input capacity into the JUHI, and the supply of hydrant infrastructure (Melbourne Airport, trans., p. 52).

Participants have previously raised concerns with the level of investment in the Sydney jet fuel infrastructure, most recently in 2010. At that time, a newly formed Sydney Jet Fuel Infrastructure Working Group investigated the adequacy of supply infrastructure and barriers to investment. It may be possible that similar coordination will be required prior to the development of a new pipeline, currently forecast for 2023 (see below) (SJFIWG 2010).

Some airports charge fuel throughput levies

Airport operators charge the JUHIs lease and licence fees for use of airport land to provide jet fuel infrastructure. Some airports charge fuel suppliers an additional fuel throughput levy on each litre of fuel supplied. A number of airports — including Sydney, Darwin, Archerfield, Alice Springs and Tennant Creek — charge jet fuel throughput levies (BP, sub. 47).

Throughput levies are the norm at some airports where airport operators own the storage and hydrant infrastructure. For example, Hong Kong Airport owns the JUHI infrastructure and charges a throughput fee (box 8.1). In this case, the throughput fee is a mechanism for the airport operator to recover the cost of providing the infrastructure, and is similar to the JUHI infrastructure owners in Australia recovering the cost of providing infrastructure services through the fees charged to airlines.

Some stakeholders have raised concerns that airport operators who charge a fuel throughput levy (in addition to lease and licencing fees) do not provide a service for this charge. As Qantas noted in its submission:

The FTL [Fuel Throughput Levy] is often not commensurate to the provision of any additional products or services. Airport revenue from the FTL represents a windfall gain, worth millions of dollars to Australian monopoly airports annually. (sub. 46, p. 35)

Caltex considered that throughput levies should be associated with the provision of a service:

... our overarching comment is really that Caltex firmly supports the ICAO [International Civil Aviation Organization] principle there, that charges should be related to the cost of providing airport facilities and services. (trans., p. 151)

Fuel throughput levies may not be inefficient — and they may be efficiency enhancing — if they are part of a two-part tariff pricing structure, and are charged in relation to a service (for

example, a smaller lease fee plus a throughput charge). The Commission noted in its 2002 report:

Of itself, the restructuring of the charge is not evidence of an abuse of market power. A two-part pricing structure may be a more efficient way of pricing the service. It also may indicate a change in attitude to risk by airport operators. (PC 2002a, p. 168)

However, airports charging a throughput levy without providing any service will increase the cost of jet fuel and, if passed through to consumers by airlines, the price of airfares. The Commission requires further evidence as to whether the throughput levy at Sydney, Darwin, Archerfield, Alice Springs and Tennant Creek airports is part of an efficient pricing structure before determining whether their use could be an exercise of market power by those airports.

8.5 Is there a case for reform?

The Commission has received insufficient publishable information to present a full analysis of competition in markets to supply jet fuel in this draft report. Two factors have hampered the Commission's analysis. One, a lack of information and data on jet fuel prices, costs of supply, and the terms for third party access to infrastructure services has limited the Commission's assessment.

Two, participants to the inquiry have generally been unwilling to provide information on the public record. Only one incumbent fuel supplier — Caltex — participated in the public hearings held prior to the release of this draft report while BP, Mobil, Viva and their industry body — the Australian Institute of Petroleum — did not. No fuel suppliers seeking market entry gave evidence. A large proportion of the material in submissions that related to jet fuel was confidential. The rationale for this has been that the information was too commercially sensitive to place on the public record. Such decisions are regrettable (chapter 1).

The Commission's conclusions in this draft report have relied on analysis of the characteristics of markets to supply jet fuel, along with information provided in submissions and public hearings. The Commission has found that markets to supply jet fuel at some airports are characterised by conflicts of interest associated with fuel companies owning the JUHI infrastructure, which means they have an incentive to deny or inhibit access to new entrants. The terms of third party access to infrastructure services are not always transparent, which makes it difficult for potential entrants to decide whether to enter a market or to assess whether these terms are reasonable.

Prima facie, this has enabled incumbent fuel suppliers to restrict competition, which has led to a small number of fuel suppliers at some airports. This has likely led to higher prices to access infrastructure services and higher fuel prices.

The Commission is seeking further publicly available information from participants in order to expand its analysis in its final report. Inquiry participants seeking a change to the status quo should articulate — and substantiate — a strong case for reform, and present policy

options that would likely lead to net benefits to the community. Likewise, participants who favour the current policy arrangements should present the Commission with evidence that clearly demonstrates it has reached the wrong conclusion in draft finding 8.1. Further guidance on making submissions to inform the final report is provided in chapter 1 and on the project page for this inquiry on the Commission's website.

DRAFT FINDING 8.1

The supply of jet fuel at some Australian airports is characterised by conflicts of interest associated with fuel companies owning the Joint User Hydrant Installation infrastructure, and a lack of open access arrangements to infrastructure services needed to supply jet fuel.

There is limited transparency on the terms of third party access to infrastructure services, which makes it difficult for potential competitor fuel suppliers to decide whether to enter a market or to assess whether these terms are reasonable.

Prima facie, this has enabled incumbent fuel suppliers to restrict competition in markets to supply jet fuel, leading to some airports having a small number of fuel suppliers, and has likely led to higher prices to access infrastructure services and higher fuel prices.

INFORMATION REQUEST 8.1

The Commission is seeking information from participants on markets to supply jet fuel at the capital city airports.

Fuel infrastructure owners:

- *fuel companies' return on assets for the terminals, pipelines, Joint User Hydrant Installation (JUHI) infrastructure and into-plane services*
- *terms of third party access, including price, to infrastructure services for the provision of jet fuel*
- *the number of applications for access to JUHI infrastructure that have been successful and unsuccessful over the past 10 years*
- *details of the JUHI access application process, including the information required from access seekers, time taken for a decision on access to be made and reasons as to why access seekers were unsuccessful*
- *the assessment process for granting access to JUHI infrastructure at individual airports.*

(continued next page)

INFORMATION REQUEST 8.1 (continued)

Potential entrants:

- *the reasons why third parties have not sought access to infrastructure services through the National Access Regime (Part IIIA of the Competition and Consumer Act 2010 (Cwlth))*
- *the extent to which the terms and process for granting third party access to infrastructure services reflect an exercise of market power by fuel infrastructure owners, and why.*

Airport operators:

- *justification of the structure and size of the fuel throughput levies charged by airports to the jet fuel suppliers*
- *future plans to change lease arrangements for JUHI infrastructure to improve competition, including moving to open access.*

Airlines (both domestic and international):

- *prices paid per litre of fuel at each capital city airport*
- *the number of fuel suppliers tendering for contracts, and the number of successful tenderers, at each capital city airport*
- *the estimated additional costs (including, for example, the price differential) faced by airlines due to a lack of competition in the jet fuel supply chain*
- *the extent to which airlines substitute the location where they uplift fuel to take advantage of better prices.*

This information should be provided to the Productivity Commission in a form that can be published and scrutinised by others.

Options for improving conditions for competition

The entrenched position of jet fuel suppliers, who have made significant infrastructure investments over time, and the lack of Government levers to facilitate change, means that improving competition in the supply chain for jet fuel is not a straightforward task. The benefits from measures to improve the conditions for competition should be carefully weighed against the potential costs, such as changes to incentives for infrastructure investment. Governments should only introduce policy changes where they would likely lead to net benefits to the community (chapter 2).

Even if the benefits of industry-specific regulation are greater than the costs, there may not be a need for Government action to facilitate access to jet fuel infrastructure. The Commission notes that some airports have acted to improve competition at the JUHI, such as requiring open access in JUHI lease agreements at Melbourne and Darwin airports. These are positive steps, however, they may not be sufficient to address all of the anti-competitive

features in markets for jet fuel supply. The outcomes of these changes should be considered prior to any government action to improve the conditions for competition.

The Commission has identified two options that it could recommend, depending on further evidence from participants, to improve the conditions for competition in markets to supply jet fuel.

The National Access Regime

As discussed above, the National Access Regime acts as backstop regulation to provide third party access to infrastructure services to supply jet fuel. It provides for regulatory declaration of access to infrastructure services in cases where a party has been unable to negotiate access commercially.

The designated Minister, or any other person, may apply to the NCC asking it to recommend that a service, such as those provided by the JUHI, a pipeline or the whole supply chain, at the capital city airports, be declared under the National Access Regime. The Commission could recommend the Australian Government Treasurer or, perhaps, the Minister for Infrastructure apply to the NCC for a recommendation to declare infrastructure services. The NCC would review the application based on the declaration criteria. These criteria are whether access would promote a material increase in competition in at least one market (other than the market for the service), the facility is (or will be) used to meet the total foreseeable demand in the market, the infrastructure is of national significance, and its declaration would promote the public interest.

Using the National Access Regime in this way has two advantages:

- it provides access only where the benefits arising from increased competition in dependent markets are likely to outweigh the costs of regulated third party access
- it provides robust institutional arrangements, including an avenue to limited merits review, which ensure that access regulation is judiciously applied.

The robust processes of the National Access Regime limit the scope for regulatory error, overly high administrative and compliance costs and disincentives for investment under more intrusive access regulation (through an industry-specific access regime, for example).

As noted above, there have not been any applications for declaration of jet fuel infrastructure since the BARA application in 2011. A number of factors may have discouraged interested parties seeking access through the National Access Regime:

- in 2011, the National Access Regime was tested on the Sydney JUHI and the Caltex pipeline but it did not lead to declaration of infrastructure services
- an amendment to criterion (a) in 2017 has not yet been tested in court so any successful applications may result in a merits review and further litigation (noting the NCC is

considering whether declaration of services at the Port of Newcastle should be revoked (discussed above)).

The Commission notes that since 2011, there have been changes in the market, such as open access at Melbourne JUHI, and spare capacity on the Caltex pipeline to Sydney Airport. This changes the context within which an application for the declaration of jet fuel infrastructure would be considered.

Industry-specific access regime

An option for reform could be to introduce an industry-specific regime for jet fuel infrastructure, such as the access regime for gas pipelines (box 8.3). To justify a move to an industry-specific regime, evidence would need to demonstrate that specific access regulation generates the highest net benefits to the community of all the options available, including retaining the status quo. There would also need to be consideration of whether the jet fuel industry exhibits unique features that would justify a different regulatory approach to the National Access Regime (PC 2013b).

An industry-specific regime could have a number of advantages.

- It could be tailored to the individual circumstances of the industry.
- It could provide greater regulatory certainty to infrastructure service providers and access seekers regarding coverage. For example, certain parts of the supply chain, such as pipelines, JUHI infrastructure and import terminals at monitored airports could be covered by access regulation, but trucking, into-plane services and JUHI infrastructure at regional airports may not.
- It could reduce transaction costs if there are likely to be multiple third party access seekers.

However, any regulatory change, including tighter industry-specific regulation that might facilitate greater access, would also come with costs. In particular, there would need to be an assessment of the extent to which industry-specific regulation would affect investment incentives, have administrative and compliance costs and could introduce regulatory error.

Western Sydney Airport

The Western Sydney Airport provides the Australian Government with a unique opportunity to establish strong practices around access to jet fuel infrastructure from its initial development stage.

The Western Sydney Airport Corporation should ensure that the JUHI infrastructure at the airport is open access. This should be a condition of any future privatisation. The Minister for Finance and the Minister for Urban Infrastructure — the Shareholder Ministers on the

Western Sydney Airport Corporation Board — should recommend to the Board that it take this course of action.

Box 8.3 Regulation of gas pipelines

Gas pipelines exhibit natural monopoly characteristics such as economies of scale in their construction and operation and high sunk costs. This means that a single pipeline can be the least cost way of providing gas transport. However, pipeline owners may also exercise their market power, resulting in worse outcomes for consumers. Monopoly pipeline owners may exercise power in two ways, a vertically integrated pipeline owner may deny access to the pipeline, reducing competition in an upstream (gas production) or downstream (gas use) market, or the pipeline provider may charge monopoly prices for access to the pipeline.

In 1997, the Australian, State and Territory Governments introduced the National Third Party Access Regime for Natural Gas Pipelines (the Gas Access Regime) to curb the monopoly power of pipeline providers to reduce competition in upstream and downstream markets, and to reduce inefficiency from monopoly pricing in the gas transportation market. The National Gas Law and Rules set out the regulatory framework for gas pipelines. Economic regulation provisions apply only to covered pipelines. Competition and significance criteria determine whether a pipeline comes under full or light regulation or is uncovered.

Full regulation requires a pipeline owner to periodically submit an access arrangement to the Australian Energy Regulator for approval. An access arrangement sets out the terms under which third parties can use a pipeline. Under light regulation, the pipeline owner determines its own tariffs. The provider must publish relevant access prices and other terms on its website. In the event of a dispute, a party seeking access to the pipeline may ask the Australian Energy Regulator to arbitrate.

An inquiry into the East Coast Gas Market by the ACCC found:

... evidence that a large number of pipeline operators have been engaging in monopoly pricing. This gives rise to higher delivered gas prices and is having an adverse effect on the economic efficiency of the east coast gas market and upstream and downstream markets, the costs of which will ultimately be borne by consumers. There is also evidence that the ability and incentive of existing pipeline operators to engage in this behaviour is not being effectively constrained by competition from other pipelines ... (2016b, p. 18)

Following the ACCC inquiry, another inquiry (by Vertigan) recommended greater transparency with the aim of reducing the imbalance of negotiating power and constraining the exercise of market power, which would encourage lower prices in gas transportation. The inquiry recommended that:

That the disclosure and transparency of pipeline service pricing and contract terms and conditions be enhanced, including requiring the provision of information on the full range of pipeline services which are available or sought. (Vertigan 2016, p. 13)

The Vertigan report observed that a lowering of prices from regulation may not be passed on directly to consumers. However, a transfer of rents from the pipelines to the producers or retailers would attract competition in the upstream or downstream market and over time result in lower prices for consumers.

Sources: AER (nd); Hilmer Committee (1993); PC (2004); Vertigan (2016).

Open access to the JUHI is likely to lay a foundation for competition in the jet fuel market at the airport — early indications are that open access at JUHIs in Australia could lead to

competition benefits, as suggested by Melbourne Airport and Northern Territory Airports (Melbourne Airport, sub. 33; Northern Territory Airports, sub. 8). Open access to JUHI infrastructure is in place at many airports internationally (box 8.1).

The benefits of open access at JUHI infrastructure would be greater if accompanied by access to upstream supply chain infrastructure. As volumes increase, the Western Sydney Airport Corporation should seek to ensure that infrastructure investments facilitate competition, rather than hinder it.

DRAFT RECOMMENDATION 8.1 OPEN ACCESS JUHI AT WESTERN SYDNEY AIRPORT

Through the Shareholder Ministers of the Western Sydney Airport Corporation (the Minister for Finance and the Minister for Urban Infrastructure), the Australian Government should recommend to the Western Sydney Airport Corporation Board that the Joint User Hydrant Installation infrastructure operate on an open access basis and that this should be a condition of any future privatisation.

Greater investment planning and coordination

Planning and coordination in the jet fuel supply chain would be improved through regular consultative processes at each monitored airport involving the fuel suppliers, airports, airlines and government agencies. This may not directly address underinvestment concerns but would reduce instances where there has been uncertainty and a lack of coordination in investment planning. The Commission understands that similar processes in the past have been useful, particularly the Aviation Industry Roundtable established in Melbourne in 2017.

The jet fuel supply chain is critical for commercial aviation operations and requires sufficient capacity to minimise fuel disruptions. This is aided by ensuring industry participants have incentives to invest in capacity and good coordination between fuel companies, airports, airlines and Australian, State and Territory Governments. The Commission notes that greater investment planning would likely lead to better outcomes for fuel security. The Australian Government is currently considering other approaches to fuel security, such as the review into Australia's liquid fuel security.

The Department of Infrastructure, Regional Development and Cities has suggested that a consultative process could be established through the master planning process:

The department also suggests there may be merit in exploring whether investment clarity and competition of jet fuel supply could be supported by requiring jet fuel arrangements to be foreshadowed by airport operators as part of airport master planning processes. (sub. 40, p. 27)

During hearings, the Commission tested this idea and received broad support for a jet fuel supply coordination forum. In particular, Melbourne Airport noted that it was useful to have all stakeholders involved:

... while there was no specific authoritative decision making capability of that forum, simply having the transparency and having all stakeholders involved in the discussion was extremely helpful in flushing out some of the issues we were dealing with and then ensuring that everyone was aligned in terms of how we were going to go about solving them ... (trans., p. 63)

Caltex commented that such forums are not particularly necessary, but noted their usefulness for addressing specific issues and that Caltex would participate:

But perhaps those forums can be useful at times, to address specific issues of concern. But in general, our observation is they wouldn't be necessary, but usually if they exist, we would choose to participate. (trans., p. 151)

The situation at each of the monitored airports varies, and therefore the coordination forum should be tailored to each airport's fuel demand and investment needs. However, generally, the forum could discuss issues such as:

- capacity constraints and any potential pressure points
- linkages between infrastructure
- demand forecasts and security of supply
- future infrastructure requirements and investment planning.

DRAFT RECOMMENDATION 8.2 INTRODUCING A JET FUEL SUPPLY COORDINATION FORUM

The Minister for Infrastructure should recommend a jet fuel supply coordination forum be incorporated into the master planning process at each monitored airport. The forum should be tasked with discussing, among other things:

- capacity constraints and any potential pressure points
- linkages between infrastructure
- demand forecasts and security of supply
- future infrastructure requirements and investment planning.

9 The case for reform

Key points

- The test of a regulatory regime is not whether it has led to active market intervention by the regulator, but whether it delivers positive outcomes for the community as a whole. The regulatory regime for airports passes this test.
- The evidence on the monitored airports' financial performance, operations and negotiating behaviour does not show that they have systematically exercised their market power in aeronautical services or car parking to the detriment of the community.
- Inquiry participants have identified practices that could be consistent with airports exercising their market power in landside access, but there is insufficient information to determine whether this is the case. Additional scrutiny is justified.
- The current regime of economic regulation of airports remains fit for purpose, subject to some improvements to the monitoring regime to enable greater scrutiny of airport performance.
- Airlines that exercise their market power face a credible threat of consequences through several mechanisms, including declaration under the National Access Regime and recommendations from Productivity Commission inquiries.
- Governments have a role in setting the policy framework for commercial negotiations, but this does not extend to ensuring that each side has a balance of bargaining power. As long as airports are not systematically exercising their market power to the detriment of the community as a whole, there is no need for reforms to improve the airlines' bargaining position.
- Reforms to update the monitoring regime would provide the Australian Competition and Consumer Commission and the Productivity Commission with more information to assess airports' performance. More detailed information could also assist in tailoring regulatory responses in the future if airports are found to have systematically exercised their market power to the detriment of the community.
- The community in general, airlines and researchers would also benefit from increased transparency on airports' financial performance.

This chapter summarises the Commission's assessment of airports' negotiating behaviour, and their performance in aeronautical services, car parking and landside access. It also sets out the Commission's analysis of whether the regulatory regime is effective and fit for the needs of the future. The Commission found some areas of airports' operations that warrant closer examination, but no widespread problems.

9.1 Airports' past behaviour

Aeronautical services

Commercial negotiations

Airlines and airports have been critical of each other's behaviour in commercial negotiations (chapter 4). Some airlines and other users of airport services stated that airports adopt a take-it-or-leave-it position during negotiations, and that there is insufficient consultation with airports through the negotiation process. Some airports stated that airlines have refused to agree to new terms for airfield and terminal services after the expiry of an agreement. In December 2018, Perth Airport commenced legal action against Qantas Group for short-payment of aeronautical charges following the expiry of an agreement. The monitored airports have stated that lease conditions mean that they cannot refuse to provide services to airlines, even in the absence of an agreement.

There is no doubt that negotiating agreements for airport services is challenging — it is time consuming, resource intensive and costly, and the argy bargy between airports and airlines sometimes plays out in the media. Each party seeks to take advantage of its bargaining power. This is normal commercial behaviour and, although this can be to the detriment of the other side, government intervention would only be warranted if the negotiating approach of either party were detrimental to the community as a whole.

On balance, the Commission is satisfied that airports have not systematically exercised their market power in commercial negotiations with airlines to the detriment of the community. Airports have strong incentives to reach agreements with airlines. Agreements underpin cash flow and other measures of financial performance that support investor certainty. In many cases, negotiations have proceeded relatively well and some airports have taken steps to improve the flow of timely and relevant information to airlines.

Financial performance

The Commission assessed a suite of indicators of airports' financial and operational performance over the 10-year period 2007-08 to 2016-17 (chapter 5). (This period was chosen because consistent 'line in the sand' asset values were available from 2007-08.) The Commission found that the four monitored airports (Sydney, Melbourne, Brisbane and Perth) use their assets relatively intensively by world standards and have relatively low operating costs. These airports' aeronautical charges for domestic services are relatively low by international standards, although charges for international services at Sydney and Brisbane are relatively high. It is not possible to rule out that high charges for international services are due to those airports exercising their market power in aeronautical services for international flights. These charges and the costs of providing aeronautical services for international flights warrant further investigation, and the Commission has made draft recommendations to require airports to provide more information to the Australian

Competition and Consumer Commission (ACCC) on the revenues and costs associated with aeronautical services (chapter 10).

The monitored airports are profitable businesses and in some years the returns on aeronautical assets at some airports have been high enough to raise concerns about the exercise of market power when considered in isolation. In particular, Sydney Airport had returns in excess of 11 per cent from 2012-13 to 2016-17.

Deeper analysis reduces the concern that Sydney Airport's profits might reflect the systematic exercise of market power. Physical constraints on investment at Sydney Airport, regulatory constraints on the airport's operations and the way the ACCC calculates returns on assets all tend to inflate Sydney Airport's estimated return on assets. Taking a longer term analysis and balancing these issues, the indicators of Sydney Airport's performance do not suggest that it has systematically exercised its market power in aeronautical services.

Overall, the financial and operational performance of the monitored airports does not suggest that they have exercised their market power in a way that has caused significant harm to airlines, passengers or the general community.

Service quality

The ACCC and other bodies publish service quality indicators and aggregated service quality ratings that are based on subjective data and prone to volatility. Acknowledging the shortcomings in the data, the ACCC's overall service quality ratings across the four monitored airports have hovered around the 'good' to 'satisfactory' range since 2004-05. This suggests that there is not a problem with service quality at the monitored airports.

Investment decisions

The Commission originally recommended a light-handed approach to airport regulation to facilitate investment and innovation by airports, while constraining them from exercising their market power (PC 2006). Total additions to aeronautical assets by the monitored airports exceeded \$7 billion in the past 10 years. \$2.4 billion of this was at Sydney Airport, which included the purchase of the Qantas domestic terminal in 2015-16. Both Melbourne and Brisbane airports have invested about \$2 billion and Perth Airport about \$1.1 billion over the past 10 years (ACCC 2018a).

This investment is a significant share of the value of airports' asset bases. After depreciation, the 'line in the sand' estimate of Sydney Airport's asset base increased in real terms by about 15 per cent over the period 2007-08 to 2016-17 (from \$2.9 billion to \$3.3 billion in 2016-17 dollars). Brisbane Airport's assets doubled in value over the same period (\$1 billion to \$2 billion), Melbourne Airport's assets almost tripled in value (\$0.7 billion to \$1.9 billion), and Perth Airport's quadrupled (\$0.25 billion to \$1 billion).

Airports and airlines have disagreed on the cost, timing and necessity of some airport investments. Airports have trumpeted their investment as evidence that they are delivering improved services and meeting the challenge of passenger growth. Airlines have argued that some investments were unnecessary or that the cost was excessive (box 9.1). Assessing these claims is challenging. Airport operators have incentives to argue that they have made good decisions. Incumbent airlines have incentives to oppose investments that would threaten the benefits of their incumbency.

Box 9.1 **Airlines' views on airports' investments**

Airline participants expressed a view that airport investments did not always meet airlines' needs, either because the investment was excessive, inefficiently delivered, or because it was simply not what was required (subs. 42, 44, 48, 54 and 63). Several participants attributed this to poor consultation. For example, Virgin Australia Group stated:

Virgin Australia often finds itself in a situation where it has little choice but to enter into an agreement with the airport to fund an investment, even though we have not been provided with clarity around the necessity, scope or cost of the investment, and notwithstanding that the rate of return may be higher than we consider appropriate. This is because, if we do not agree to fund the investment, we face a risk that we constrain our ability to grow, and potentially face higher operating costs to manage congestion at airports. (sub. 54, p. 8)

The Board of Airline representatives of Australia expressed a similar view, arguing that current practices are not well aligned with delivering the promised responsive and innovative airport services:

Improved engagement based on a clear understanding of airline and passenger needs is necessary. Information sharing remains largely formative at most airports. Airport operators have developed or are implementing a key performance indicator regime. (sub. 42, p. 3)

Qantas Group and Regional Express (Rex) stated that airports have incentives to 'gold plate' — to over-invest to increase the airport's asset base — and then recover costs from airlines:

These examples demonstrate that Australian airports can simply recover costs from airlines. Instead of supporting infrastructure that is fit-for-purpose and efficient, the current regulatory framework incentivises gold plating of airport infrastructure. (Qantas, sub. 48, p. 19)

Rex cited several cases where it considered councils had over-invested in regional airports, either for reasons of 'prestige' or as a result of a 'build it and they will come' approach to airport investment. It identified major 'areas of concern' with regards to regional airports:

Expansion of runways, taxiways and apron to cater for potential larger jet aircraft that exceeds current and future requirements of the airport, again resulting in high depreciation and operational costs. Often this is driven by pie-in-the-sky wishful thinking by the council and the airline is left to pick up the bill when the initiative fails to bear fruit. (sub. 63, p. 5)

Airlines argued that the regulatory regime transferred investment risk to airlines. In particular, Virgin Australia Group stated the capital funding model did not promote efficient airport investment:

To the contrary, this is a model that gives airports the opportunity to make inefficient investments particularly where airports earn high rates of return on any capital expenditure, regardless of its prudence, by absolving the airport of any risks associated with the investment. (sub. 54, p.8)

Sources: BARA (sub. 42); Qantas Group (sub. 48); Regional Express (sub. 63); Virgin Australia Group (sub. 54).

On the question of whether investments have been necessary, the ACCC stated that investment was required to deal with congestion. In its 2012-13 monitoring report the ACCC (2014a, p. 33) stated:

Strong growth in airport traffic volumes in recent years continue to produce signs of emerging congestion at monitored airports, both in aeronautical and landside infrastructure.

In its 2017 report the ACCC (2018a, p. 5) reflected positively on airports' ability to manage congestion challenges.

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.

Even in cases where investments were necessary, under some circumstances infrastructure owners could have incentives to gold plate — to build to a higher standard than necessary. Some monopoly infrastructure operators that are subject to rate of return regulation, such as some electricity network operators, have had incentives to gold plate because governments have permitted them to earn a regulated return on their entire asset base, even if the assets were built to a higher standard than necessary. Airports' charges (and hence returns) are determined through commercial negotiation and airports are ultimately constrained by what airport users are prepared to pay, which might not cover the cost of gold-plated infrastructure. Under these circumstances airports do not have incentives to gold plate their investments.

Overall, the Commission considers that it is unlikely that the monitored airports have significantly under-invested in new infrastructure in the past decade. Some investment might have been undertaken before it was required, and there could have been some scope for more cost-effective investment, but in general, airports have adequate incentives to invest efficiently. Further, their performance on cost (noted above) does not suggest the prevalence of inefficient investment decisions.

The monitored airports' past behaviour does not justify tighter regulation

The four monitored airports have not exercised their market power in aeronautical services in ways that have had significant adverse effects on airport users (including consumers, airlines, air freight operators and other businesses) and the community as a whole. Individual airports in various years have reported financial and service quality outcomes that might raise an eyebrow, but particularly high (or low) results have not persisted. The current regulatory regime remains fit for purpose, subject to some improvements (chapter 10).

Car parking

There is little evidence that the monitored airports have exercised their market power in at-terminal car parking. The price of airport car parking reflects the desirability of the service — convenience and proximity to airport terminals — and the value of land as a scarce resource.

The price of parking also plays a role in rationing access to the limited number of parking spots — if the prices were lower there would be increased congestion and queuing, especially around the ramps to departure gates. Further, investment has occurred which suggests that airports are not artificially constraining the availability of parking to drive up the price.

Passengers have a variety of alternatives to at-terminal car parks, including off-airport car parking, taxis, public transport and drop-off and pick-up zones. Technology has also played a role by giving consumers more timely information. Consumers can access price comparisons through the web and apps, and online bookings can provide substantial savings. The substitutes and consumer access to information put some constraint on the ability of airports to increase the price of at-terminal car parking.

Opinions on the value of the car parking monitoring regime were mixed. Airport operators argued that monitoring is ineffective and should be abolished. The ACCC argued that monitoring should continue for the purpose of informing customers of the range of alternatives for getting to and from the airport.

The Commission's view is that the monitoring regime remains the best approach to achieving good outcomes for consumers and should be retained. Tighter forms of regulation are not justified.

Landside access

Access to terminal areas for taxis, shuttle buses and other transport options on reasonable terms is a constraint on airports exercising their market power in at-terminal car parking. Airport operators at the four monitored airports have the ability and incentive to exercise their market power in landside access and face fewer constraints on their behaviour than they do for other services.

The data collected by the ACCC under the monitoring regime are not adequate to determine whether airport operators have exercised their market power in landside access. Inquiry participants (airports and users of landside access services) provided additional evidence with varying perspectives on whether there is a significant concern, but not enough to enable the Commission to make a judgment on whether airports have or have not significantly exercised market power in landside access. The Commission is requesting additional information on landside access (chapter 6) and is making draft recommendations for changes to the monitoring regime (chapter 10).

9.2 Regulation to meet the needs of the future

The light-handed approach to regulation has performed well — Sydney, Melbourne, Brisbane and Perth airports have not systematically exercised their market power to the detriment of the community. This does not mean that the regime is fine just the way it is.

The regulatory regime needs to be updated to enhance accountability and transparency, and provide a credible threat of further action in the event that airports begin to exercise their market power. The price of light-handed regulation is ongoing vigilance and the improved monitoring of airport behaviour and financial performance.

Participants' views on the future of airport regulation

Airport participants in the inquiry argued for the retention of the current regulatory regime, which they say has achieved good outcomes (box 9.2). The airlines (individually and collectively through A4ANZ) submitted that the current regime does not provide an effective constraint on airports exercising their market power. They stated that:

- aeronautical charges are excessive
- airports' returns on assets are higher than is justified by the cost of capital and airports' risk profile
- airports' investments are not always necessary and, where an investment is necessary, the costs are higher than they should be
- reducing aeronautical charges would lead to lower ticket prices and increased investment in new routes
- airlines are not able to determine whether airports' charges and conditions are reasonable.

Some of these complaints are not borne out by the evidence on airports' financial performance (section 9.1, chapter 5). Others are considered below.

The ACCC argued that the threat of consequences for airports that exercise their market power has diminished with each Productivity Commission inquiry.

Periodic inquiries into airport regulation by the Productivity Commission is a key part of the current monitoring regime. They are intended to provide some checks on the effectiveness of the regime and in turn some constraint on misuse of market power by the monitored airports.

While this arrangement might have provided some constraint in the past, it is much diminished today. The credibility of threat from a Productivity Commission inquiry has diminished each time an inquiry recommended no action. (ACCC, sub. 59, p. 31)

The test of a regulatory regime is not whether it has led to active market intervention by the regulator in the process of negotiations to set prices and other terms of access, but whether it delivers positive outcomes for the community as a whole.

Box 9.2 Airports support the existing regulatory regime

Regarding the current round of aeronautical service agreements, Melbourne Airport stated:

These new features are adapted from, and build upon, the best elements of deals struck elsewhere by participating airlines. This approach is resulting in the continual evolution of the negotiation process, without the need for further regulatory intervention. An increase in regulation or the threat of it (such as the proposal for deemed declaration) could retard the progress being made within the existing framework. (sub. 33, p. 9)

Regional airports generally supported the retention of the existing regulatory regime. For example:

As a mature business the airport provides mutually beneficial commercial arrangements, which have been negotiated between the Airport, the airlines and other operators. This is coupled with major infrastructure investments being made to improve facilities. Given these outcomes and the underlying legal environment in which regional airports operate it is our view that the Government should continue with the current airport specific economic regulation especially for regional airports. (Karratha Airport, sub. 12, p. 2)

The Airports Council International also supported the existing regime.

Consequently, the light-handed regulatory regime in Australia has enabled efficient investments in and efficient operations of Australian airports which do not abuse any significant residual market power they might have as regards capital and operating expenditures. Considering such success, the light-handed regulatory approach should be preserved. (sub. 16, p. 6)

Further, the Commission does not support the contention of the ACCC that a sequence of reviews that have broadly supported the light-handed regulatory regime has reduced the credibility of the threat to any airport that exercises its market power. The evidence that airports have not exercised their market power to the detriment of the community suggests that the current regime is consistent with achieving good outcomes.

The Commission would not hesitate to recommend regulatory changes, including price regulation, for any airport that was found to have systematically exercised its market power. However, the Commission would only recommend changes if it found evidence that an airport had exercised its market power to the detriment of the community — there should be no punishment without evidence of punishable behaviour.

The Commission is making draft recommendations to increase the credibility of the threat of consequences for airports that exercise their market power. As well as the light-handed regime, airport users also have the option, under some circumstances, of applying for access to infrastructure services under the National Access Regime. The credibility of the threat of declaration under the National Access Regime is discussed below.

The ACCC also observed that other infrastructure services are subject to tighter regulation than airports.

The ACCC and the Australian Energy Regulator (AER) regulate a number of infrastructure services including electricity, gas, telecommunications, rail, bulk water and wheat ports. Airports do not face the same level of regulatory oversight, despite this important sector exhibiting strong natural monopoly characteristics. Indeed, monitoring is the most light-handed of the suite of regulatory tools available. (ACCC, sub. 59, p. 11)

Qantas Group made a similar argument.

Australian airport charges, levies and fees are an anomaly in a competitive economy. Other monopolies such as telecommunications, utilities, transmission networks and rail networks have been far more scrutinised than airports in recent years. (Qantas Group, sub. 48, p. 7)

The regulation of other infrastructure services cited by the ACCC and Qantas Group has had positive and negative effects. For example, in its 2013 report into *Electricity Network Regulatory Frameworks* the Commission found that flaws in regulation contributed to ‘spiralling network costs’ and increasing electricity prices (PC 2013a, p. 2). The potential for negative outcomes from regulation is an important consideration in assessing whether regulation would increase community wellbeing.

More generally, regulation should be tailored to address specific problems in the regulated industry. Tighter regulation would be justified if there was clear evidence of a problem, not because another sector is regulated more tightly.

The effects of aeronautical charges on airfares

Advocates of increased regulation of airports suggested that regulation to reduce aeronautical charges would lead to benefits for consumers, including lower ticket prices and additional services. In its previous inquiry the Commission concluded that aeronautical charges have a ‘minor influence’ on airfares and that ‘concerns about aeronautical charges mainly reflect a distributional tussle between airports and airlines, rather than inefficient impacts on the demand for air travel by consumers’ (PC 2012, p. 182).

Airline and airport participants in the inquiry have tendered new analysis of the potential effects of changes in aeronautical charges on ticket prices and investment in new routes. These effects are important in the assessment of the benefits and costs of reform options, and as such it is reasonable to revisit the matter.

The airlines’ modelling

A4ANZ commissioned Frontier Economics to evaluate the potential effects of introducing a negotiate-arbitrate framework and increased information disclosure requirements for the four monitored airports plus Adelaide, Hobart, Canberra, Gold Coast and Cairns airports. In its initial report (sub. 44, appendix B), Frontier Economics assumed that:

- airports that have market power have exercised that power and earned excess returns
- increased regulation would remove the airports’ ability to set charges above competitive levels, leading to zero excess profits
- lower aeronautical charges would be passed through in full to lower ticket prices.

Frontier Economics estimated four types of benefits arising from the increased regulation (all figures are the estimated net present value of the changes over 15 years).

- The threat of arbitration would lead to more efficient negotiations, delivering cost savings of \$23 million.
- Airlines facing lower aeronautical charges would introduce new routes or additional services on existing routes. Some services that currently require stopovers would be replaced by direct flights, leading to time savings valued at \$820 million.
- Airlines would pass through, in full, the reductions in aeronautical charges to consumers leading to welfare gains of \$5.9 billion, the ‘vast majority’ of which would be generated on domestic flights (A4ANZ, sub. 44, appendix B, p. 32).
- With lower ticket prices, business travellers would make more flights and have more face-to-face meetings with potential business partners. These meetings would lead to increased trade and foreign investment with a value of \$10.9 billion (A4ANZ, sub. 44, appendix B, p. 6).

Frontier Economics made several assumptions and drew implications that are not credible. Some of these were discussed in a report prepared by HoustonKemp for the Australian Airports Association (AAA) (sub. 73, attachment 2). The Commission has identified a number of deficiencies in the report.

- The level of airports’ excess profits — A4ANZ insisted that its estimates of airports excess profits remain confidential. This confidentiality denied other inquiry participants the opportunity to critique the analysis. The Commission asked A4ANZ to publish the information in full — A4ANZ chose not to do this but it did provide a truncated version of the analysis (sub. 83). The truncated version did not include the estimates of each airport’s excess profits, only an aggregate figure. As such, participants were not able to critique the estimates.
- Whole-of-airport profit analysis — Frontier Economics assumed that changes to regulation would remove excess profits from aeronautical and non-aeronautical activities (such as car parking), and that the excess would be fully allocated to reducing aeronautical charges. Effectively, Frontier Economics assumed that the regulatory regime would lead to airports being forced to cross-subsidise aeronautical charges with profits from car parking and other non-aeronautical activities.
- The reduction in aeronautical charges — Frontier Economics assumed that domestic aeronautical charges at Sydney Airport would fall from \$15.09 to \$2.69; and at Melbourne Airport from \$10.43 to \$2.03. This is simply not credible. Aeronautical charges at this level would not cover the airports’ operating costs.
- The pass through of reductions in aeronautical charges — Frontier Economics assumed that any reduction in aeronautical charges would be passed on, in full, to all passengers. This is also not credible given the market for domestic air travel is concentrated and the airlines’ practice of price discrimination (box 9.3).

A4ANZ provided a supplementary submission with a revised analysis by Frontier Economics — analysis that A4ANZ stated was more conservative than the initial one (A4ANZ, sub. 83, attachment D). In its revised analysis, Frontier Economics withdrew the estimates of increased trade and acknowledged that ‘there is no economic theory that supports an a priori assumption about the extent of cost pass-through’ (sub. 83, appendix D, p. 1). It also reduced the estimated value of time saved by 50 per cent. The bottom line was that Frontier Economics estimated that increasing the regulation of airports would achieve net benefits of \$445 million (2.5 per cent of the original estimate of \$17.6 billion).

Box 9.3 **Price discrimination and cost pass-through**

Airlines have the ability to price discriminate (charging different passengers different prices for essentially the same service). Price discrimination leads to ticket prices that are closer to the value that consumers place on them. Consumers with a higher willingness to pay can select themselves into higher price services (such as business class tickets or the flexibility to change flights at the last minute). People who have a lower willingness to pay can select cheaper tickets (such as economy class tickets and waiting for promotional prices). Airlines can match their services to consumers' demands and can increase their profits at the same time.

The ability to price discriminate reduces airlines' incentives to pass through any reduction in aeronautical charges. Airlines only benefit from reducing their ticket prices if it leads to people changing their behaviour in ways that increase profits. If an airline already has high rates of capacity utilisation at current ticket prices it has little incentive to reduce airfares.

Inquiry participants stated that the airlines' practice of price discrimination has implications for which parties bear the costs of increased aeronautical charges and gain the benefits of reductions.

The consequence of price discrimination is that the airlines have been able to sort airline passengers into groups for whom price is only a secondary factor in the travel decision, versus those for whom price is of primary importance in the travel decision. Because of their use of price discrimination, when faced with a cost increase, an airline will be able to raise the fare more on the least price elastic customers and thus lose little of the traffic of these customers. This mitigates price increases on the more fare elastic customers. The resulting reduced or minimal pass through of higher airport charges does not entail an efficiency loss. (AAA, sub. 50, attachment 3, p. 59)

As airlines price discriminate between consumers in setting airfares, any rising costs are borne primarily by airlines in the form of reduced profits, rather than by consumers through higher airfares. This gives airlines a strong incentive in commercial negotiations to minimise aeronautical prices. This incentive would be stronger than in other regulated industries where increased costs are passed on to the end consumer, particularly in the case where the price elasticity of demand for those goods is low. (Melbourne Airport, sub. 33, p. 33)

The Commission's view

The analysis provided by A4ANZ is flawed and has not convinced the Commission to change its assessment of the potential benefits for consumers of increased regulation to reduce aeronautical charges. The analysis is built on unreasonable assumptions that led to implausible conclusions. In particular, the Commission considers that Frontier Economics made fundamental errors in:

- its estimates of airports' 'excess profits' — the Commission has found that the monitored airports have not exercised their market power in setting aeronautical charges and as such there are no relevant excess profits to target through regulation
- its assumption about the pass-through to passengers of reductions in aeronautical charges, which failed to take into account price discrimination and the concentration in the market for domestic air travel.

The effect of these two errors was to significantly overstate the benefit to consumers of imposing additional regulation on airports. Even the revised estimate of the benefits in the supplementary submission from A4ANZ lacks credibility.

A fit-for-purpose monitoring regime

The objective of the monitoring regime is to provide evidence on airports' operations, pricing and investment outcomes. The Commission uses that evidence to determine if the monitored airports are exercising their market power to the detriment of the community. There is scope to improve the monitoring regime to enable greater scrutiny of airport performance by the Commission and other parties and to contribute to more effective commercial negotiation.

Indicators and data

The *Airports Act 1996* (Cwlth) and Airports Regulations 1997 (Cwlth) require the monitored airports to provide information to the ACCC. The airports must provide information in a way that is aligned with the reporting standards in the *Corporations Act 2001* (Cwlth) with the additional requirement that costs and revenues must be disaggregated for aeronautical and non-aeronautical services.

The Commission's original intention in recommending that airports be subject to monitoring was that the ACCC would publish annual monitoring reports and another agency would conduct five-yearly reviews to determine whether airports should be subject to more intrusive regulation. (The Australian Government ultimately chose the Productivity Commission to fulfil the second role.) The combination of the monitoring report and Commission reviews allows a regular assessment of the performance of airports, whether an airport should be added to the list of monitored airports (or removed from it), and whether a monitored airport should be subject to more onerous regulation.

The ACCC stated that the data that it collects are not fit for purpose.

Data collected by the ACCC under the current monitoring regime is insufficient to enable the ACCC to make any conclusive judgement about whether the price levels observed for the monitored airports are reasonable or reflect monopoly profits. (sub. 59, p. 31)

It identified the inherent limitations of using accounting data to analyse economic behaviour.

The limitation of the monitoring regime is primarily because it is based on accounting data. For example, to measure profitability, the ACCC is limited to using ‘operating profit margin’ and ‘return on assets’. These are accounting measures which are not well suited to analysing monopoly profits. (sub. 59, p. 31)

Chapters 5 and 6 identified shortcomings in the financial data that the ACCC collects for its airport monitoring reports, including:

- no breakdown of aeronautical revenue from international and domestic services
- no information on the aeronautical charges that the airlines are actually paying
- quality of service indicators that are of little relevance to passengers and airlines
- an opaque approach to aggregating quality of service indicators
- very limited data on the price, conditions and quality of landside access.

The Australian Government could make the monitoring regime more effective by requiring airports to provide more information on their charges, costs and quality of service to the ACCC. In this inquiry, the Commission has augmented the monitoring data with other information on airports’ behaviour, but questions remain that cannot be answered with the available evidence. In particular, whether aeronautical charges for international services at Sydney and Brisbane airports are consistent with the cost of providing the services and whether airports are exercising their market power in landside access services.

A credible threat of consequences

Declaration under the National Access Regime

Aeronautical services infrastructure may be subject to applications for access under the National Access Regime set out in Part IIIA of the *Competition and Consumer Act 2010* (Cwlth) (CCA). There have been three applications for declaration of airport services since the airports were privatised, although only one was successful.

Airports stated that the prospect of an application for access is a real threat that constrains their behaviour (box 9.4). The National Competition Council, which is responsible for making recommendations on whether a service should be declared under the National Access Regime, agreed that the regime is a constraint on airports.

The Council considers that Part IIIA operates as a constraint on the extent to which airport operators can increase their aeronautical charges where such conduct affects competition and

efficiency/output in a dependent market. In line with its objectives to pursue economic efficiency however, if there is no demonstrable improvement to competition or efficiency in any dependent markets, Part IIIA offers no remedy for any distributional concerns; indeed it does not, and is not intended to operate as a mechanism to redistribute economic rents between airports and airlines (or any other third parties). (NCC, sub. 79, p. 15)

Airline participants argued that ‘declaration under Part IIIA of the CCA has not been effective in constraining airports abuse of market power’ (Virgin Australia Group, sub. 54, p. 15). They stated that seeking declaration is costly, time consuming and uncertain (A4ANZ, sub. 44; Virgin Australia Group, sub. 54) and that since changes to the declaration criteria in 2017 there is effectively no prospect of declaration (box 9.5). The revised declaration criteria are as yet untested in Court — any opinion on the likely outcome of an application for declaration is just that, an opinion.

Box 9.4 The threat of Part IIIA declaration — participants’ views

Airports stated that the threat of declaration is a real constraint.

The threat of declaration under the National Access Regime, provides airports with increased pressure when negotiating agreements with airlines or land transport providers to negotiate on terms acceptable to its counterparty. An application for declaration carries attendant costs, distraction and business uncertainty. (Sydney Airport, sub. 53, p. 35)

The potential for Sydney Airport’s services to be declared under the National Access Regime is a significant constraint on Sydney Airport’s commercial conduct. In commercial negotiations, airlines threaten to seek declaration of Sydney Airport services. Such threats are not idle, nor are they without teeth — Sydney Airport has been subject to a number of applications for declaration under the Regime, two of which were successful, and one of which was withdrawn a month after being filed, after the applicant airline reached commercial agreement with Sydney Airport. (Sydney Airport, sub. 53, p. 47)

Airlines argued that the revised declaration criteria have made declaration under the National Access Regime impossible.

Putting aside the costly and time-consuming nature of Part IIIA, recent amendments to declaration criterion (a) will affect an airline’s ability to obtain declaration, and ultimately arbitration of terms, under Part IIIA. This is because airlines will have to demonstrate to decision-makers that airports are imposing terms and conditions that disrupt or threaten airline competition. (A4ANZ, sub. 44, p. 33)

Part IIIA of the CCA in its current form is an ineffective constraint on airports’ abuse of their market power. This is principally because the current declaration criteria are directed at addressing circumstances where a vertically integrated monopoly service provider has the ability and incentive to act in a way that is damaging to competition in upstream or downstream markets. As a result, Part IIIA is not well equipped to address circumstances where a non-vertically integrated monopoly service provider is acting in a way that is detrimental to economic welfare, but not materially impacting competition in any upstream or downstream market. (Virgin Australia Group, sub. 54, p. 15).

The ACCC agreed with airlines that the National Access Regime is not an effective tool to address their concerns.

The ACCC also considers that Part IIIA is ineffective in facilitating airlines’ negotiation with the major airports. In particular, its onerous declaration requirements and costly processes likely present a significant barrier for small airlines. (ACCC, sub. 59, p. 33)

The Commission agrees that some access applications have taken a long time to proceed to a final decision, including the various appeal processes. The longest example in aeronautical services is an application by Virgin Blue in October 2002. The Australian Competition Tribunal issued a decision to declare certain aeronautical services in December 2005. That decision was appealed to the Federal Court and the appeal was dismissed in March 2007, meaning that the services were declared almost four and a half years after the original application (Arblaster 2016). Other applications for declaration of airport services have been concluded within months (Virgin Blue's application for terminal access at Melbourne Airport, 2001) or withdrawn (Tiger Airways Australia's application for access to domestic terminal services at Sydney Airport, 2014).

Box 9.5 Changes to declaration criterion (a)

The National Competition Council can recommend to the Minister that a service be declared if it satisfies four criteria. The declaration criteria were amended in 2017 following the recommendations of the Commission's inquiry into the National Access Regime (PC 2013b). Several inquiry participants commented on the effects of changes to declaration criterion (a), which states:

- (a) that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least one market (whether or not in Australia), other than the market for the service.

Previously the criterion was:

- (a) that access (or increased access) to the service would promote a material increase in competition in at least one market (whether or not in Australia), other than the market for the service

That is, previously the test was whether access to the service would promote competition; since the 2017 amendments the test is whether *declaration* would promote competition.

Airline participants argued that this criterion effectively rules out a declaration of access in cases where the airline already has some access to an airport because declaration under such circumstances would be unlikely to increase competition.

The ACCC stated that the National Access Regime was established to deal with circumstances that do not apply to airports.

Part IIIA is not best suited to addressing airport monopoly pricing as the regime is originally intended for addressing access issues in vertically integrated industries. (ACCC, sub. 59, p. 33)

Because operators of the airports are typically not vertically integrated into the provision of airlines services, they are unlikely to have an incentive to block access to airlines. Therefore the issue concerning airports is primarily an issue of monopoly pricing rather than access. (ACCC, sub. 59, p. 34)

The Commission is not convinced by this argument. Non vertically integrated infrastructure services have been declared under the National Access Regime. For example, landing services for domestic passenger aircraft at Sydney Airport were declared in 2007 under an interpretation of criterion (a) that is similar to the current wording.

The Commission has previously stated that the sole purpose of access regulation should be to address ‘an enduring lack of effective competition, due to natural monopoly, in markets for infrastructure services where access is required for third parties to compete effectively in dependent markets’ (PC 2013b, p. 71). The National Access Regime is intended to be a consequence for behaviours that restrict competition, and in the Commission’s view it remains an effective approach to addressing such circumstances.

Contract clauses that restrict access to the National Access Regime

Several inquiry participants stated that agreements between airports and airlines include clauses that would penalise airlines that participate in an application for declaration under the National Access Regime. Such clauses might affect airlines’ willingness to exercise their rights under the regime and as such could reduce the effectiveness of the regulatory regime by reducing the threat of declaration. They have no place in agreements between airports and airlines — or any other user of airport services.

Part VIIA price inquiries

The ACCC has never recommended to the Minister that it be tasked with undertaking a price inquiry into airport services under Part VIIA of the CCA. Participants’ views on whether Part VIIA amounts to a credible threat were — not unexpectedly — split (box 9.6).

The ACCC stated that it does not see much benefit in recommending a price inquiry.

There are a number of reasons why the ACCC has not chosen to recommend a pricing inquiry, despite holding concerns about airport market power. The ACCC considers that a Part VIIA price inquiry is unlikely to be more effective in constraining the airports’ market power than price monitoring and Productivity Commission inquiries. Because price inquiries also operate under Part VIIA of the CCA, they do not provide much improved information gathering power than current monitoring. Indeed, the ACCC is likely to run into the same type of data challenges in conducting a price inquiry as it does in its airport monitoring.

Without any obvious benefits, the significant cost burdens associated with a price inquiry on the industry and the ACCC is unlikely to be justified. Furthermore, the ACCC cannot initiate a price inquiry. It can only recommend that to the Minister, who can decide whether a price inquiry will be conducted. Even if an inquiry is conducted, the government may or may not accept its recommendations. (ACCC, sub. 59, p. 32)

In its submission to this inquiry and in public statements around the monitoring reports, the ACCC has identified concerns about airports’ behaviour, but it has not sought to use (or test) an additional tool that it has at its disposal to further investigate those concerns. Instead it seeks a paradigm shift in the regulatory regime. The ACCC’s statements about the effectiveness of Part VIIA price inquiries undermine the credibility of the threat of this part of the regulatory regime.

Box 9.6 Part VIIA price inquiries — participants' views

Airports stated that they perceive a real prospect that they could be subject to a price inquiry.

One feature of the current regulatory regime is that airports operate under the constant threat of further regulatory scrutiny in the form of a pricing inquiry under Part VIIA of the CCA. Sydney Airport is acutely aware that this threat is genuine — the ACCC has demonstrated its willingness to investigate various industries if it perceives a need. (Sydney Airport, sub. 53, p. 33)

Sydney Airport identified the potential effects of such an inquiry.

The threat of these kinds of public pricing inquiries being conducted in relation to airports provides a significant measure of constraint on airport market behaviour. Not only is the cost of complying with such inquiries something which airports would want to avoid, the risk of further regulation being recommended by these inquiries, and ultimately imposed, serves to discipline airport market behaviour. (Sydney Airport, sub. 53, p. 33)

Margaret Arblaster identified potential benefits associated with increased information disclosure, significant administrative costs and limitations arising from legislation.

Price inquiries under Part VIIA of the CCA are a possible mechanism to assess the level of airport prices and to ascertain whether airports have used their market power. If the ACCC were asked to undertake price inquiries under Part VIIA of the CCA to assess whether an airport was using its monopoly power, the level of prices would need to be considered on an individual airport basis, and the task would be akin to a regulatory price determination, very resource intensive, intrusive and complex.

If a price inquiry established that the level and structure of prices reflected the use of monopoly power, the applicable legislative provisions available in the CCA (Part VIIA) would be price restrictions. As price restrictions under Part VIIA are voluntary, they are not likely to be effective for privatised firms and they could only apply to price increases going forward. An example of this is a price determination by the ACCC that proposed price increases were not justified which was wilfully ignored by the harbour towage company, Adsteam Marine Ltd in 2002, with no apparent penalty. (Margaret Arblaster, A4ANZ, sub. 44, attachment C, p. 3)

Airport lease conditions

Airports stated that conditions in their leases constrain their ability to restrict access or increase charges.

Unlike most other businesses, leased airports in Australia must continue to supply access services to aircraft operators even where those customers indicate they are not prepared to pay for those services or have not paid for them in the past. Whilst drafting can vary slightly, leased airports must at all times (save for force majeure events) provide access to the airport by intrastate, interstate and international air transport. If access is denied other than in accordance with the lease (as described below) the Australian Government is entitled to terminate the lease and the lessee must vacate the airport site. (AAA, sub. 50, p. 75)

As far as being a ‘credible threat’, the prospect of lease termination is well down the pecking order. It is unthinkable that the Australian Government would revoke an airport operator’s lease because of a pricing dispute. Nevertheless, these lease conditions are a reminder that the Australian Government, as lessor, has substantial powers over airports that it does not have over some other monopoly infrastructure services.

Productivity Commission reviews

In each inquiry it has undertaken the Commission has taken a ground-up approach to the evaluation of airports, considering both whether the regulatory regime should change and whether airports should be added to or removed from the monitoring list. In previous inquiries it has concluded that the light-handed regulatory regime remains appropriate but recommended that Darwin, Canberra and Adelaide be removed from the list of monitored airports. In this draft report, the Commission has found that the four monitored airports have a degree of market power that justifies continued monitoring. A future inquiry may recommend that monitoring be introduced for other airports if there was evidence that led to concerns about the exercise of market power.

As noted in section 9.1, the ACCC stated that it considered the threat posed by the Commission's reviews to have diminished over time. Other participants regarded the Commission's role as more significant. For example, Air New Zealand stated:

For any regulatory regime to be effective, there must exist a regulatory threat. From Air New Zealand's vantage point, it seems that the review of the Productivity Commission represents that regulatory threat in Australia's price monitoring environment. While the ACCC price monitoring reports summarise outcomes at airports subject to the price monitoring regime, these reports do not consider whether the price monitoring regime represents effective regulation. This is the question asked of the Productivity Commission, as set out in detail in the scope of inquiry. (Air New Zealand, sub. 43, p. 7)

The Productivity Commission has a history of identifying impediments to competition and efficiency in a range of industries and recommending changes to policies that have delivered benefits to the community as a whole. It seeks to use the best available evidence and the most rigorous analytical techniques to reach its conclusions. The process of a Productivity Commission inquiry is public and interested parties have the opportunity to participate at several points, including responding to the draft recommendations in this draft report. The Commission is an independent agency and is not required to reflect the preferences of any government. It has no stake in the outcome of its inquiries, other than to seek to improve living standards for all Australians.

Summary of the threats

Any airport that exercises its market power in a way that is detrimental to the community as a whole faces a range of consequences. Some of the potential remedies would apply to specific services at individual airports; others could apply to all four monitored airports or could involve bringing other airports into the monitoring regime. This enables targeted responses to isolated problems and more general responses to systemic problems.

The potential for declaration under the National Access Regime is limited to a specific set of circumstances, but the potential consequences for an airport that exercises its market power by limiting access to aeronautical assets are significant.

The credibility of the threat of Part VIIA price inquiries is reduced by limitations in the data that the airports are required to provide to the ACCC, and by the ACCC's public statements about Part VIIA inquiries. Improvements to the data base would increase that threat to airports.

The Productivity Commission would not hesitate to recommend regulatory consequences for any airport that exercises its market power in a way that causes harm to the community.

Giving airlines a stronger hand in commercial negotiations

Airlines and the ACCC argued that the current regulatory regime does not address the imbalance of bargaining power between the airports and the airlines. Airlines sought changes to regulation that would require airports to provide information:

- to allow airlines to determine whether aeronautical charges are 'reasonable'
- on airports' investment plans and the need for investments.

Determining whether aeronautical charges are 'reasonable'

Governments have a role in setting the framework for commercial negotiations, mainly through the general provisions of company and competition law. Airline participants in the inquiry argued that regulation should go further to help airlines to discover whether airports' proposals are reasonable.

Not only is the current monitoring regime ineffective in constraining airports' market power, but it fails to assist airport users in determining whether the offers they receive from airports are reasonable. (A4ANZ, sub. 44, p. 26)

In this context 'reasonable' seems to be related to the airports' returns on assets.

Their negotiating approach is based on an entitlement to earn high rates of return through charges, levies and fees they deem appropriate. Australian airports do not shy away from pointing to the apparent flaws in the current regulatory arrangement as justification for their behaviour. The lack of transparency creates significant information asymmetry between airport operators and airlines. (Qantas Group, sub. 48, p. 22)

The evidence does not support the argument that airports have exploited their bargaining power in a way that has had significant efficiency effects. Information asymmetries are a normal part of bargaining. Having the government intervene to reduce the information asymmetry for one side but not the other in a commercial negotiation would, at best, represent bias and, potentially, lead to the gaming of information and distortion of business decisions (including investment decisions) by the party that is 'forced' to provide information. Governments should only intervene if firms are acting in a way that causes wider harm to the community.

Assessing airports' investment plans

Airlines have suggested that airports do not always provide adequate information on their investment plans. Some airlines have raised concerns that airports have undertaken investments before they are necessary or before they have exhausted alternative approaches to use existing assets more efficiently (Qantas Group sub. 48, p. 19; A4ANZ, sub. 44, p. 20).

While airports frequently provide a significant volume of information to support capital investment underpinning price negotiations, generally speaking the information is not of the nature necessary to enable the airline to assess the efficiency or prudence of the investment having regard to the need for investment, the scope of the investment or the estimated capital costs. (A4ANZ, sub. 44, p. 23)

The Board of Airline Representatives of Australia raised concerns on behalf of its members that investment proposals were not justified in improving service outcomes.

Yet the problem is the airport operators largely engage with airlines from the viewpoint of capital projects rather than starting with service outcomes. Member airlines want to understand the benefits and service outcomes while the airport operator wants to deliver capacity increases based on pre-determined demand profiles, which implicitly embody some level of service outcome. Unfortunately, many of the planning measurements put forward to justify capital projects convey little in the way of solid information about service outcomes or demonstrate net value. (sub. 42, p. 20)

This was not the case for all airports. Information sharing by Perth Airport is one example of greater transparency.

PAPL's approach to the commercial negotiations was to conduct an 'open and transparent' process where high quality, comprehensive and non-sensitive information would be provided to all airlines (and indeed any interested party) through Perth Airport's publicly accessible website. This would ensure the negotiations were conducted on a 'level playing field' with all airlines, regardless of size or operational footprint at Perth Airport, having access to relevant and non-sensitive data. (Perth Airport, sub. 51, pp. 54–55)

Airports argue that airlines and airports have different incentives when it comes to investment decisions.

Individual airlines must focus on their own customers' interests, and those interests will be a reasonable but imperfect proxy for the needs of other airlines' passengers or the overall passenger mix. Airlines will advocate for specific product requirements that they believe will deliver them a competitive advantage and best meet the needs of their own passengers rather than passengers generally. (Sydney Airport, sub. 53, p. 25)

Further, there is some evidence that airlines sometimes get their way on investment decisions.

It is interesting to note in this context of market power that in late 2016 there was a vigorous debate when Qantas proposed a new non-stop air service (a monopoly direct route) between Perth and London predicated on the establishment of new facilities for servicing international flights as an adjunct to its domestic terminal facilities at Perth Airport (T3/T4). This called for a major

reorganisation of operations, potentially at not insignificant cost, which the airport was reluctant to undertake and pay for. Nevertheless, pressures were brought to bear by the airline and other interested parties producing a satisfactory outcome for the airline; thus illustrating a degree of countervailing power airlines can draw upon as well as the benefits of negotiated solutions. (David Starkie, sub. 22, p. 1)

It is beyond the scope of this inquiry to assess the projects that have contributed to the \$7 billion of airport investment over the past decade. The question of whether a project was undertaken too early or too late, or to a higher or lower standard than necessary is difficult to answer in retrospect and stakeholders are likely to have different views on the same investment.

Investment plans are just that — plans to invest based on expectations of an uncertain future. Such plans will sometimes go awry. Requiring airports to provide airport users with specific information about investment plans could be justified if there was evidence that airports have systematically and deliberately either under or overinvested, and if increasing the regulatory burden would lead to better outcomes for the community. The Commission’s assessment is that the evidence does not show systematically inefficient investment. Nor is the Commission convinced that additional regulation would achieve better outcomes than commercial negotiation.

Airports already have incentives to consider the needs and preferences of airport users when making investment plans. Through the master planning process airports are required to consider a range of stakeholder views regarding their development plans. There is no clear ‘gap’ for government policy to address. Airlines might not always have access to all the information they would like, but it is not the role of government to oversee commercial negotiations to make sure that the parties are meeting some standard of information disclosure at every step.

10 Reform options

Key points

- The current regulatory regime including annual monitoring of four major airports (Sydney, Melbourne, Brisbane and Perth) and periodic reviews by the Productivity Commission remains fit for purpose, subject to some improvements.
 - Monitored airports should be required to provide the Australian Competition and Consumer Commission (ACCC) with more detailed information on their operations and financial performance, including separate reporting of revenues and costs of providing domestic and international aeronautical services.
 - Quality of service monitoring should be updated to emphasise indicators that reflect outcomes that are valued by airport users (airlines and passengers), drawing on the indicators that airports and airlines use in service level agreements.
 - Airports should be required to provide the ACCC with information on the costs and revenues associated with landside access.
- Airports and airport users have agreed to clauses in some agreements that limit the actions of one of the parties. These clauses are anticompetitive and should be removed from all agreements.
- The self-administered monitoring regime for second-tier airports is redundant and should be discontinued. It is not required to determine whether the second-tier airports have market power.
- Airlines and the ACCC have proposed regulatory changes that would more directly lead to arbitration on terms of access to infrastructure services, compared with what is currently available under the National Access Regime. These proposals would impose costs and risks greater than the benefits and should not be pursued.
 - Airlines would have incentives to use the arbitration process to hold up investments that could increase airport capacity and competition between airlines.
 - An arbitrated outcome for one airport user might reduce the efficiency of airport operations for other airport users.
- Government support for infrastructure investments at regional airports should be subject to an independent assessment, consultation and transparent decision-making processes. There is also scope to improve the financial management of airport assets at some regional airports.
- The operators of the monitored airports are working with governments to improve land transport links to the airports. These arrangements appear to be working well.

The monitored airports — Sydney, Melbourne, Brisbane and Perth — have not systematically exercised their market power in aeronautical services or at-terminal car parking to the detriment of the community. There is a need for closer examination of some areas of airports' operations, specifically landside access at the four monitored airports and aeronautical charges for international services at Sydney and Brisbane airports.

The light-handed regulatory regime that has been in place since 2002 remains fit for purpose, subject to some improvements. In particular, there is a need for increased scrutiny of airports' operational and financial performance through an updated monitoring regime administered by the Australian Competition and Consumer Commission (ACCC).

Airport operators should not interpret the Commission's conclusions as a reason to be complacent. The Commission will continue to examine whether airports have systematically exercised market power and will not shy away from recommending increased regulation where it considers it warranted.

Inquiry participants raised several suggestions for changes to the regulatory regime, including intervention in commercial negotiations and increased oversight of regional airports. The terms of reference also required the Commission to consider whether arrangements for the planning and operation of land transport linkages to the airports are effective. These matters are discussed in sections 10.2–10.4.

10.1 Improving the regulatory regime

Continue with annual monitoring and periodic PC inquiries

The evidence that the ACCC collects for its annual monitoring reports is used by the Commission (and others) to assess the performance of the monitored airports. The annual ACCC reports and periodic Productivity Commission reviews exert credible threats of consequences for airports that exercise their market power to the detriment of the community. Both elements of the monitoring regime should continue.

As noted in chapter 1, some airlines have leased domestic terminals at the monitored airports. The terminals that operate under these leases are not subject to ACCC monitoring. The absence of information on revenues and costs at leased terminals is a barrier to assessing some aspects of the performance of the monitored airport. The Commission understands that the last of the leases will expire in 2019 and will not be renewed. As such, there is no need to adjust the monitoring regime to include information from leased terminals.

As discussed in chapter 7, regional access arrangements at Sydney Airport help to facilitate access for airlines operating regional flights into Sydney Airport, but they can be improved. In the longer term, the planned opening of Western Sydney Airport in 2026 may provide greater opportunities for regional air transport into the Sydney region: directly through flights to regional areas, and indirectly where it leads to more capacity at Sydney Airport.

The next Commission inquiry into airport regulation should consider the continued need for regional access arrangements in light of the development of Western Sydney Airport.

Continue to monitor Sydney, Melbourne, Brisbane and Perth airports

The monitored airports have market power in domestic and international aeronautical services at a level that create a *prima facie* case for regulatory intervention. Other capital city airports and airports in regional centres have less (or no) market power and should not be subject to increased monitoring at this stage.

Adelaide and Canberra airports were previously included in the monitoring regime. The Commission has considered whether they should be subject to annual monitoring. It has concluded that neither Adelaide nor Canberra airport has the ability to exercise market power in international services. Both cities are discretionary destinations for international airlines and the airlines could reduce or withdraw their services if the airports sought to increase aeronautical charges excessively.

Adelaide and Canberra airports are constrained from exercising market power in the market for domestic aeronautical services by the significant countervailing power from Qantas Group and Virgin Australia Group airlines. Adelaide Airport serves a relatively higher proportion of leisure passengers than the monitored airports. Leisure passengers are more responsive than non-leisure travellers to increases in charges (which reduces the airport's market power).

Canberra Airport has a high proportion of non-leisure passengers, which tend to be relatively insensitive to price changes. However, there is good availability of road transport alternatives for the Canberra–Sydney route, a route that accounts for one third of passenger movements at Canberra Airport.

On balance, the Commission is satisfied that neither Adelaide nor Canberra airports have a level of market power that warrants regulatory intervention, although this could change over time. Of these airports, Canberra is closer to the threshold for concern.

Continue with dual till monitoring

Currently the ACCC reports aeronautical and non-aeronautical revenues, costs and assets separately. This is referred to as ‘dual till’ monitoring. Some inquiry participants argued for ‘single till’ monitoring, where all revenues, costs and assets are reported together.

The single till approach is used in some countries where aeronautical charges are set by a regulator. Some participants argued that if aeronautical charges were regulated, a single till approach could lead to lower aeronautical charges than a dual till approach.

Aeronautical charges will be lower than in a dual till model as non-aeronautical revenue is used to cross-subsidise charges, reducing any inequitable outcome that results from non-aeronautical revenue being excluded. (Qantas Group, sub. 48, p. 18)

This is not correct in the Australian context. Single till monitoring would reduce the level of detail in the monitoring reports, but would have no effect on aeronautical charges (which are set through commercial negotiations). The dual-till approach to monitoring should continue.

Evidence on anticompetitive clauses in aeronautical services agreements

On balance, commercial negotiations between airports and airlines give little cause for concern. Some agreements contain clauses that constrain an airline's access to regulatory remedies for the exercise of market power and clauses that restrict an airport's ability to offer incentives to airlines other than the signatory airline. These clauses are anticompetitive and should be removed from all agreements.

There may be other anticompetitive clauses in aeronautical services agreements, and in agreements to provide non-aeronautical services, to which the Commission is not privy. The Commission is seeking further evidence from participants about anticompetitive clauses in commercial agreements between airports, airlines, landside operators or other airport users.

INFORMATION REQUEST 10.1

The Commission invites evidence about anticompetitive clauses in commercial agreements between airports, airlines, landside operators and other airport users.

Section 45 of the *Competition and Consumer Act 2010* (Cwlth) (CCA) prohibits contracts, arrangements, understandings or concerted practices that have the purpose, effect or likely effect of substantially lessening competition in a market, even if that conduct does not meet the stricter definitions of other anticompetitive conduct, such as cartels. The ACCC is responsible for investigating and enforcing this provision (and other competition provisions of the CCA). It is now aware of the contract clauses that impose penalties for taking part in an application for declaration of a service (they are referenced in public submissions to this inquiry and were discussed in meetings between the ACCC and the Productivity Commission).

The Australian Government has additional tools to address the problem of anticompetitive clauses in airport contracts. It could:

- amend the *Aeronautical Pricing Principles* (chapter 2) to require airports to not include any clause in their agreements with airport users that would constrain their access to

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- regulatory remedies for the exercise of market power or restrict competition in any market
- instruct airport operators to provide their agreements to the Productivity Commission, on request, when it next undertakes an inquiry into airport regulation.

An amendment to the *Aeronautical Pricing Principles* would be a very low-cost measure that would codify an important expectation of an airport's practices when setting its prices.

DRAFT RECOMMENDATION 10.1 PREVENTING ANTICOMPETITIVE CONTRACT PROVISIONS

The Australian Government should amend the *Aeronautical Pricing Principles* to specify that any agreement between an airport and an airport user must not contain anticompetitive clauses. This includes clauses that would constrain that user's access to regulatory remedies for the exercise of market power or that directly or indirectly reference the terms being offered to users' competitive rivals.

A requirement to provide commercially negotiated agreements to the Productivity Commission could lead to some changes in airports' and airlines' contracting behaviour. These could include beneficial changes (such as removing anticompetitive clauses) and undesirable changes (such as preferring contract terms that are less flexible and therefore less able to accommodate mutually agreed changes in interpretation). The Commission currently has the ability to request information from participants under the *Productivity Commission Act 1998* (Cwlth), but has not used this power in this inquiry to access agreements. It did not need to use these powers because airports agreed to the Commission's request for confidential access to a number of agreements. The most desirable approach for future inquiries is that the Australian Government makes a statement that it regards anticompetitive clauses in commercial agreements as untenable and that airports should, on request, make their agreements with airport users available to the Productivity Commission on a commercial-in-confidence basis.

DRAFT RECOMMENDATION 10.2 FUTURE PRODUCTIVITY COMMISSION REVIEWS

The Australian Government should request the Productivity Commission to inquire into the regulation of airports in 2024, to determine the effectiveness of the regulatory regime in achieving the following objectives:

- promoting the economically efficient operation of, and timely investment in, airports and related industries
- minimising unnecessary compliance costs
- facilitating commercially negotiated outcomes in airport operations.

In requesting the inquiry, the Australian Government should also ask the Commission to consider whether:

- any airports should be added to, or removed from, the list of monitored airports
- there is a continued need for arrangements to help facilitate access for airlines that provide flights to regional New South Wales.

The Australian Government should stipulate in the terms of reference for that inquiry that, on request, the monitored airports should make their agreements with airport users available to the Productivity Commission on a commercial-in-confidence basis.

The second-tier monitoring regime should be discontinued

None of the airports that participate in the second-tier monitoring regime (Adelaide, Cairns, Canberra, Darwin, Gold Coast and Hobart) currently have a level of market power that is of concern. It has also become clear in consultations that government agencies, industry bodies and other stakeholders have little use for this information. The second-tier monitoring regime serves no policy purpose — it should be discontinued. The information that these airports publish is not necessary to make an assessment of whether an airport has market power or whether it should be added to the monitoring regime. There is sufficient public information available for the Commission to make these assessments based on the characteristics of the market in which an airport operates. This includes information on barriers to entry and exit, whether there is a nearby airport and the costs of an airline switching to it, and the countervailing power of airlines. None of this information is collected under the second-tier regime.

The second-tier monitoring regime was established through a policy statement. There is no legislation or regulation that underpins the regime. The Department of Infrastructure, Regional Development and Cities (DIRDC) monitors the airports' compliance with the voluntary system but there are no consequences for non-compliance or inaccuracy.

DRAFT RECOMMENDATION 10.3 DISCONTINUE SECOND-TIER AIRPORT MONITORING

The Australian Government should issue a statement that the voluntary self-reporting system for second-tier airports is discontinued.

Airports should provide more detailed information

The monitoring regime should be improved to enable greater scrutiny of airport performance, especially in two areas the Commission has particular concerns: relatively high aeronautical charges for international services at Sydney and Brisbane airports and the terms of access to landside services at all four monitored airports.

More detailed reporting on airports' operations and financial performance

Information from the annual monitoring reports contributed to the Commission's judgment that the monitored airports have not exercised their market power to the detriment of the community. The monitoring regime could be made more useful to the Commission for its inquiries into airports (and to others), and for airport users in their commercial negotiations, if it included more detailed information on airports' operations and financial performance. The annual monitoring reports should be expanded to include separate reporting of costs and revenues in relation to:

- aeronautical services for domestic flights and for international flights
- the provision and use of at-terminal and at-distance car parking
- the provision and use of landside access services.

Disaggregated information on aeronautical revenues and costs

The Commission was not able to reject the possibility that the relatively high aeronautical charges for international services at Sydney and Brisbane airports are caused by these airports exercising market power. The high charges could be consistent with the airport exercising its market power, but could also be explained by the costs of providing international services.

The Commission (and others) would be able to develop a better understanding of the relationship between aeronautical charges and airports' costs if airports provided a breakdown of revenues and costs for international and domestic aeronautical services. Sydney Airport has different aeronautical charges for services to regional New South Wales and other domestic destinations. The monitoring report should include separate information for regional and other domestic services from Sydney Airport.

The way aeronautical charges are collected (per-passenger and per-aircraft) means that airports should have (or be able to extract at relatively low cost) separate information on the revenues from international and domestic services.

Reporting on the costs of aeronautical services for domestic and international services would pose some challenges. A portion of the costs would be specific to international or domestic services. Service-specific costs could include operational costs, such as the costs of providing an aerobridge to a domestic or international flight. They could also include capital costs, such as terminal costs where there are separate terminals for international and domestic services.

Some operating and capital costs relate to common services. Common costs apply to common-use infrastructure, including runways and other airside infrastructure, as well as some landside infrastructure. These costs should be reported as common costs.

Separate reporting of service-specific and common costs would enable costs and revenues to be attributed to either domestic or international services. This information would assist in more detailed assessments of whether airports are exercising their market power in either of these services.

To augment this information the airports should disclose any methods they use to allocate common costs between domestic and international services, and should report allocated costs for aeronautical, car parking and landside access services. The monitored airports are best placed to document such methodologies and provide them to the ACCC. For transparency the models that airports use to allocate costs should be published with the annual monitoring reports. The Commission is not proposing that the ACCC have a role in formally approving airports' methodologies for allocating costs to international or domestic services. Instead, the methodologies would be subject to scrutiny through publication in the monitoring reports.

Car parking and landside access data

Separate reporting of customer numbers, utilisation rates and revenues for at-terminal and at-distance car parking would enable a more detailed analysis of whether airports have exercised their market power in car parking. (As discussed in chapter 6, airports' market power in at-terminal parking is greater than their market power in at-distance parking.)

The evidence base is inadequate to determine whether airports have exercised their market power in landside access and additional scrutiny is justified. Currently the airports provide information to the ACCC on landside access on a voluntary basis — there is no regulatory requirement for them to do so. The monitoring regime would be more effective if airports were required to provide consistent information on the:

- different modes of landside access, such as taxis, rideshare services (like Uber) and car park shuttle buses
- number of services that use airport facilities (for example, the number of shuttle buses)
- charges and other terms of access for each type of service

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- revenue and costs associated with landside access services.

The Productivity Commission recommended in its 2011 inquiry into the *Economic Regulation of Airport Services* that the monitored airports provide information relating to price and other terms of access for transport operators to the ACCC (PC 2012). The Australian Government stated that it agreed with the recommendation in principle but did not make legislative changes to require the monitored airports to provide this information to the ACCC. The Government stated:

... under the CCA, the ACCC is only required to monitor the prices, costs and profits relating to the supply of car parking by a specified person. As an independent statutory authority, any decision to monitor other aspects, such as ground transport access charges and associated revenues, is a matter for the ACCC. (Australian Government 2012, p. 6)

The Commission is still of the view that airports should be required to provide information on prices and other terms of access for landside services and that the most effective way to achieve compliance and consistent reporting is through changes to the Airports Regulations 1997 (Cwlth).

Collecting more detailed information is justified

The monitored airports would face increased compliance costs from expanded reporting requirements. Brisbane Airport stated:

The cost to BAC of complying with the price and quality of service monitoring regime is around \$200,000 per annum. This estimate covers the cost of undertaking surveys, auditing of the ACCC accounts and staff and overhead costs. (Brisbane Airport Corporation, sub. 38, p. 46)

Perth Airport stated:

PAPL estimated in 2011 that its annual compliance cost was around \$250,000. We now estimate it to be \$300,000. It does need to be kept in mind that the bulk of the financial information provided to the ACCC would in a similar form be required to meet PAPL's reporting obligations under its aviation agreements or to support negotiations. (Perth Airport Pty Ltd, sub. 51, p. 62)

If the current costs of complying with the monitoring regime are of the order of \$200 000 – \$300 000 per airport per year, increasing the information requirements would be expected to increase airports' compliance costs by less than \$200 000 per airport per year. This is material, but not unreasonable given the potential effects on the community of airports exercising their market power. The ACCC would also face increased costs to manage the enhanced monitoring regime.

The Commission's proposed reforms would increase the credibility of the threat against airports that exercise their market power to the detriment of the community in the future. They are necessary and justified — the benefits of increasing the credibility of the threat would outweigh the costs to airports of complying with the enhanced reporting requirements and the costs to the ACCC of administering the regime.

Improving the ACCC monitoring reports

The transparency and user-friendliness of the ACCC annual airport monitoring publications could be improved. For example, a useful addition to the monitoring regime would be for the ACCC to publish a database containing the information it receives from airports for use by any interested party.

Several participants have raised concerns about the emphasis that the ACCC gives to particular indicators in its monitoring report, media releases and other public statements. For example:

The Investor Group agrees that the annual price and service quality monitoring by the ACCC of aeronautical activity has been for the most part effective and should be retained, notwithstanding that the emphasis of the ACCC is not necessarily placed on the most relevant metrics. While the reporting is factual, we note that the ACCC's public commentary and focus on revenue growth per passenger and profit margins without reference to an appropriate return on capital measure, can be misleading as it places these measures out of context and ignores the significant amount of capital investment made by airports. (Australian Airport Investor Group, sub. 20, p. 4)

The Commission agrees that some of the indicators that the ACCC highlights are not particularly informative as indicators of airports' market power. One persistent feature of the ACCC commentary that is unhelpful is the discussion of operating profit margins measured by earnings before interest, tax and amortisation (EBITA). This accounting measure is not consistent with an economic analysis of profits and does not contribute to understanding the operations of a capital-intensive business. The ACCC also provides commentary on the relationship between aeronautical charges and the quality of service indicators. For instance:

Despite these significant increases in charges, only Perth Airport has materially improved its overall quality of service. The ratings for the other airports have been settled over this period, typically between the high end of 'satisfactory' and 'good'. (ACCC, sub. 59, p. 3)

There is no reason to expect that aeronautical charges (which are not bounded) should be correlated with a bounded (1–5) quality scale. Further, given the qualitative nature of much of the evidence that contributes to overall quality scores, a static score might represent increasing quality (as airport users' expectations increase). For example, ten years ago free Wi-Fi at an airport might have been cause for a high score. Today many airport users expect it as standard.

Some matters that the ACCC does not currently emphasise in its monitoring that are likely to be more important indicators of inefficiency in airport operations are:

- significant real increases in airports' operating costs
- increasing congestion (in general and at peak times).

Identifying these issues would require more detailed analysis than is currently presented in the ACCC's monitoring report, including analysis of qualitative evidence.

DRAFT RECOMMENDATION 10.4 MORE DETAILED INFORMATION ON AIRPORT PERFORMANCE

The Australian Government should amend part 7 of the Airports Regulations 1997 such that, in addition to current requirements, monitored airports are required to provide to the Australian Competition and Consumer Commission (ACCC), for each financial year, statements that:

- show the number of passengers that depart from and arrive at each terminal
- separately show the costs and revenues in relation to the provision and use of aeronautical services for domestic flights and for international flights
- for Sydney Airport, also show the costs and revenues in relation to the provision and use of aeronautical services for flights to regional New South Wales
- separately show the number of users, costs and revenues in relation to the provision and use of at-terminal and at-distance car parking and the utilisation rates for each type of parking
- separately show the number of vehicles that use landside access services, charges and other terms of access for each landside service, and the operating costs and revenues in relation to the provision and use of the various landside access services, such as services for shuttle buses, taxis and hire cars
- report all costs on the basis that they are specific to a service or common across more than one service (stating the relevant services). In addition, airports should report costs on an allocated basis and should clearly set out the methodologies used for allocating the costs to international and domestic aeronautical services; at-terminal and at-distance parking; and landside access services.

The ACCC should continue to publish annual monitoring reports. It should audit and publish a database of the information the airports provide. The ACCC should publish the methodologies the monitored airports use to allocate costs across different services.

More relevant quality of service monitoring

Methodological issues and biases limit the robustness of quality of service ratings under the monitoring regime. Airport quality of service monitoring should be updated to emphasise indicators that reflect outcomes that are valued by airport users (airlines and passengers). The information that is currently collected does not adequately meet the needs of any party.

The Australian Government could, through a relatively straightforward change to schedule 2 of the Airports Regulations, amend the list of indicators that the airports are required to provide to the ACCC. The current list of indicators was determined by the ACCC in 2013 in consultation with airports and airport users. They are overdue for revision.

The monitored airports are increasingly entering service level agreements (SLAs) with airlines. These agreements stipulate quality measures that are relevant to the airlines as well as performance indicators and penalties if airports fail to achieve agreed service levels. Airports and airport investors were generally positive about the potential for SLAs to be used

as a basis for assessing the quality of airports' services (AAA, sub. 50; AAIG, sub. 20; Brisbane Airport, sub. 38; Melbourne Airport, sub. 33; Perth Airport, sub. 51; Sydney Airport, sub. 53).

Airlines identified some shortcomings of SLAs and suggested that, to date, they have not led to significant changes in airports' quality of service (BARA, sub. 42; Qantas Group, sub. 48). The ACCC (sub. 59, p. 30) stated that 'there is still some way to go for [SLAs] to provide sufficient accountability on the airports to ensure their service level is fit for purpose'.

These criticisms of SLAs relate to their effectiveness as a contracting tool — there is undoubtedly scope for improvement. Nevertheless, SLAs are increasingly common and codify matters of quality that are important to airlines. They are a useful starting point for identifying relevant quality of service indicators.

Using service level indicators in the quality of service monitoring reporting might be relatively cost-effective. Sydney Airport (sub. 53, p. 99) stated that 'the compliance costs [of ACCC monitoring] could be moderated if the quality of service reporting aligns with objective measures negotiated with airlines as part of commercial agreements'.

DRAFT RECOMMENDATION 10.5 IMPROVING QUALITY OF SERVICE MONITORING

The Australian Competition and Consumer Commission (ACCC) should, within 12 months, provide advice to the Australian Government on an updated set of quality of service indicators, in consultation with airports, airlines and other airport users.

Once the ACCC has developed its recommended list the Australian Government should amend schedule 2 of the Airports Regulations 1997 to codify the updated list of indicators.

Effective regulation of airports does not require strict benchmarks

Some participants have suggested that the Productivity Commission or the ACCC should specify benchmarks or 'guidance' (A4ANZ, sub. 44, p. 26) on financial or other outcomes that would lead to increased regulation of airports. The Commission does not agree that benchmarks are necessary to reach a judgment on whether an airport has exercised its market power.

Individual benchmarks are not informative

Airports are complex, multi-product businesses that have lumpy capital investment programs and earn revenues and returns on their assets that vary over time in line with economic and investment cycles. There is no single indicator or benchmark that can demonstrate that an airport is exercising its market power. Airports' exercise of market power could be manifested in a variety of ways over many years.

Individual indicators of airport performance may be of concern for a period, but this can be consistent with measurement issues (particularly related to the airports' asset base), the investment or economic cycle or luck (such as better than expected growth in passenger numbers). Any regulator that based its decisions on these indicators would run the risk of making incorrect judgments about airports' behaviour. Analysing a range of qualitative and quantitative indicators can inform better judgments than using individual indicators.

Setting benchmarks is complex and imprecise

A regulator that sets a benchmark needs to have some basis for the level it chooses. This typically involves extensive data collection and assumptions about important variables. This can be a costly and contested process.

For example, the preferred reference point for efficient pricing of infrastructure services — efficient long-run average cost — is a conceptual benchmark that is unable to be calculated in practice (chapter 2). One problem with estimating the long-run average cost of aeronautical services is that the regulator would need to put a value on the asset base. Currently the ACCC uses a 'line in the sand' methodology to assign a value to aeronautical assets for monitoring purposes. This is a reasonable starting point, but as noted in chapter 5, Sydney Airport argued that the line in the sand asset base estimate, and the asset base that the airport uses in its negotiations, have diverged significantly since 2006. If the value of the asset base were to feed into triggers for further regulatory action the matter would be contested by the airports. This could lead to legal action, policy and investment uncertainty and high administrative costs.

Setting benchmarks can have unintended consequences

Rigid benchmarks could be exploited by airports operating up to or gaming those constraints. For example, setting a benchmark weighted average cost of capital (WACC) in other industries, such as electricity networks, has had the undesirable effect of incentivising 'gold plating' — making unnecessary investments because the regulator will permit a specified return regardless of whether the investment was needed. Setting a benchmark WACC for airports would create similar incentives for airports to make inefficient expansions in their asset bases.

Other ways to monitor airport performance

Inquiry participants identified two alternative approaches to airport monitoring: the use of record-keeping rules and the New Zealand information disclosure regime.

ACCC record-keeping rules

The ACCC proposed that the Australian Government grant it the power to make record-keeping rules.

One option for addressing the issue of information asymmetry is to provide the ACCC with the ability to make rules about what type of information the airports must keep and disclose. This can be implemented by giving the ACCC the power to make record-keeping rules (RKR)s for the monitored airports similar to the arrangement in telecommunications. This could be applied by amending the Airports Act. (ACCC, sub. 59, p. 35).

The ACCC has the authority to make record-keeping rules in telecommunications (under section 151BU of the CCA) (box 10.1) and for Australia Post (under the *Australian Postal Corporation Act 1989* (Cwlth)).

Using record-keeping rules to update the monitoring regime would have positive features.

- This mechanism would provide the ACCC with discretion to determine the information that it needs to effectively monitor the airports and to adjust the rules if new requirements emerge.
- Record-keeping rules can be established through a transparent public process. In the telecommunications sector the ACCC has conducted public inquiries when it has proposed changes to record-keeping rules and has received submissions from interested parties.
- The ACCC stated that ‘once established, the ongoing administration costs of an enhanced disclosure regime are unlikely to be over-burdensome’ (sub. 59, p. 35)

There are also potential downsides. The ACCC stated that the process of making a record-keeping rule ‘is likely to take some time and may initially be costly’ (sub. 59, p. 35).

The Commission might consider recommending record-keeping rules in the future. At this stage the proportionate response to the airports’ behaviour is to enhance the annual financial and quality of service monitoring. This can be achieved through straightforward amendments to the Airports Regulations. Periodic reviews by the Productivity Commission provide an opportunity for the ACCC and other parties to propose changes to the monitoring regime through a transparent public process.

Box 10.1 ACCC record-keeping rules — an example from telecommunications

Section 151BU of the *Competition and Consumer Act 2010* (Cwlth) gives the Australian Competition and Consumer Commission (ACCC) the power to make rules that require telecommunications carriers to keep and retain records. There are currently several record-keeping rules for the telecommunications industry, including a requirement for Telstra to keep records that the ACCC uses in its building block model approach to determining prices for certain fixed-line telecommunications services.

The Telstra building block model record keeping rule

Telstra is required to keep and provide the ACCC with information on:

- the usage of various service types
- the historical cost of certain services
- forecasts of operating expenditure, capital expenditure, demand for various service types and asset lives.

Source: ACCC (2013c).

The New Zealand model — information disclosure and standardised methodology

Three New Zealand airports (Auckland, Wellington and Christchurch) are specified in the *Airport Authorities Act 1966* (NZ) as having market power. These airports are subject to information disclosure (ID) requirements. The purpose of the current ID regulation is to provide airport operators with incentives to act in a way that benefits consumers over the long term, and to ensure that sufficient information is available to the regulator (the New Zealand Commerce Commission (NZCC)) to assess whether an abuse of market power has occurred. Participants' views of the ID regime are presented in box 10.2.

The New Zealand airports set aeronautical charges that apply to all airlines — unlike Australian airports they do not make commercial agreements with each airline. The New Zealand ID regime involves several steps.

- Regulated airports disclose each year their financial performance, quality of services and facilities, capacity utilisation indicators and capital investment.
- At least every five years, regulated airports are required to disclose information on the methodology for pricing and targeted returns.
- The NZCC sets methodological requirements around the information collected and disclosed. Methodological requirements set out how airports must calculate aspects of their annual disclosures (for example, how assets are valued for regulatory disclosures) and other aspects of the regulatory regime (for example, how the regulator estimates the industry-wide cost of capital for monitoring purposes).
- The NZCC assesses the disclosed information and the effectiveness of ID regulation for each regulated airport.

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- Legislation sets out a mechanism for further action if assessment reveals an adverse performance outcome.

The New Zealand ID regime is a light-handed approach to airport regulation, as is the regulatory regime for airports in Australia. Some of the elements of draft recommendation 10.4 would bring the Australian monitoring regime closer to the New Zealand regime. In particular, the draft recommendation to require airports to disclose their methodologies for allocating revenues and costs to various activities would give the ACCC a role in assessing (but not approving) these methodologies.

Box 10.2 **The New Zealand information disclosure system — participants views**

The Australian Competition and Consumer Commission identified benefits and costs

One of the key limitations of the current monitoring regime is that, despite the major Australian airports being highly profitable compared with other airports and sectors, the ACCC cannot be conclusive about whether the airports are making excessive profits. In contrast, the New Zealand Commerce Commission is able to conduct more conclusive reviews of prices charged by the major airports because it has been able to implement an extensive set of rules regarding matters such as how the major airports value their assets, calculate depreciation, and allocate costs. (ACCC, sub. 59, p. 4)

An approach similar to the New Zealand regime is likely to be quite intrusive and costly to set up. It initially took the NZCC two years to set up its input methodologies, and three years for associated court appeals. The complexity of the process is evident by the length of documents: over 1000 pages for the NZCC reasons document, court records of 50,000 pages, and 657 pages for the merits appeal decision. Therefore it is important to balance the potential benefit of this approach with its associated costs when assessing its merits. (ACCC, sub. 59, pp. 41–42)

A4ANZ described the New Zealand system as ineffective

There have previously been calls for a shift from Australia's regime to the information disclosure regime in New Zealand. However, one needs only to look at Auckland airport (AIAL)'s performance under this regime to see it is similarly ineffective at curtailing market power. AIAL's extreme profitability against its inefficient, poor quality performance are a case study in market power exploitation, all of which is able to occur under New Zealand's regulatory regime. Highly regarded by market analysts, AIAL has one of the highest profit margins of any airport in the world, yet has ailing aeronautical infrastructure, desperate for investment and upgrade. (A4ANZ, sub. 44, p. 27)

Air New Zealand said the New Zealand system is similar to the Australian system

Air New Zealand observes that Australian and New Zealand airports make some of the highest returns for their shareholders globally, as light handed regulatory settings allow for monopoly profits to be extracted. (Air New Zealand, sub. 43, p. 6)

A significant aspect of the New Zealand regime that the Commission is not recommending is the NZCC's role in assessing whether charges and targeted returns at the regulated airports' are reasonable. This is not required in Australia for several reasons. First, the Commission has not found evidence that airports have systematically exercised their market power to the detriment of the community, so there is no need for heavier-handed regulation. Second, as noted above, setting benchmark returns is complex and contested, and the costs

of doing so are not justified in the Australian context. Third, the approach would impose significant additional compliance and administration costs on the monitored airports and the ACCC. Finally, the appropriate forum to assess whether airports have systematically exercised their market power is in the periodic reviews by the Productivity Commission, where a range of qualitative and quantitative indicators can be used in the assessment.

10.2 Intervention in commercial negotiations

Commercial negotiation between airports and airport users is the most flexible and efficient approach to setting aeronautical charges and other terms. Commercial negotiations between airports and airlines are challenging, and both the airports and airlines use their bargaining power to their advantage where they are able to. The Commission has considered proposals for intervention in negotiations, either by government or a commercial arbitrator, which could be justified if it contributed to outcomes that increase overall community welfare compared with the status quo.

A negotiate-arbitrate framework

Airlines and the ACCC suggested replacing the existing regime with a much more interventionist approach — making airport services subject to a negotiate-arbitrate framework. Airports and airlines would engage in commercial negotiations on the terms of access to airport infrastructure. If either party considers that the negotiations are not going to lead to a satisfactory commercial outcome, it could request that an arbitrator be appointed to resolve the dispute.

The elements of participants' models varied slightly (table 10.1), but an important common feature is that each of these models skips a step that is contained in the National Access Regime — specified services are in essence deemed declared.

- A4ANZ suggested an airport-specific regulatory framework implemented through amendments to the *Airports Act 1996* (Cwlth) and Airports Regulations. (A4ANZ had previously suggested that the Australian Government amend the Airports Act so that airports would be deemed to be declared under the National Access Regime. It altered its proposal in a supplementary submission (sub. 83)).
- The ACCC (sub. 59) identified the negotiate-arbitrate framework that applies to certain gas pipelines as a potential model for airport services (box 10.3).

With deemed declaration there would be no need for the Minister to declare the airport before the parties could access a legislated arbitration process, which removes the case-by-case analysis that declaration involves. In fact, there would be no need to demonstrate that airports had actually exercised any market power at all. The negotiate-arbitrate frameworks proposed by A4ANZ and REX would apply to airports that do not have market power, let alone use it (chapter 3).

Table 10.1 Elements of proposals for negotiate-arbitrate frameworks

<i>Proposed by</i>	<i>Legal mechanism</i>	<i>Which airports?</i>	<i>Which services?</i>	<i>Arbitrator</i>
A4ANZ (proposal supported by Qantas Group and Virgin Australia Group)	Airports-specific regulatory framework introduced through amendments to the Airports Act and the Airports Regulations	Airports defined under the Airports Act as 'core regulated airports'. Possible inclusion of other airports	Services provided by monopoly airports	Commercial arbitrator
ACCC	Airports-specific regime, similar to the National Gas Rules	'Monopoly airports'	Aeronautical services	Commercial arbitrator
Rex	No legal mechanism specified	All airports	Aeronautical services	ACCC
AFIA	Code of Conduct prescribed under Part IVB of the Competition and Consumer Act and enforceable if signed by the airports	All airports perceived to have significant market power	Car rental	Not applicable

Sources: A4ANZ (sub. 83); Qantas Group (sub. 48); ACCC (sub. 59); Virgin Australia Group (sub. 54); Rex (sub. 63); AFIA (sub. 67).

Proponents argued that a negotiate-arbitrate framework would reduce the imbalance in bargaining power between airlines and airports and that this would lead to commercial outcomes that would be closer to what would prevail in a competitive market.

In such a framework, imbalances in market power are reduced through both parties being put on a more even footing. (Margaret Arblaster, A4ANZ sub. 44, attachment C, p. 28)

The National Competition Council (NCC), which is responsible for making recommendations on whether services should be declared under the National Access Regime stated that a deemed declaration approach would tend to favour one party, rather than putting the parties on an even footing.

Deemed declaration side-steps the checks and balances of the declaration process envisaged by the Hilmer Committee and enacted by Parliament. As the Council previously stated in its submissions to the earlier airport inquiries by the PC, if a service would not satisfy the declaration criteria, then it is difficult to see how imposing regulation by other means would not amount to the promotion of particular private interests rather than the promotion of effective competition in the public interest. (NCC, sub. 79, p. 20)

Box 10.3 The negotiate-arbitrate framework for east coast gas pipelines

Natural gas pipelines have natural monopoly characteristics that can confer market power. The National Gas Law has provisions to regulate access to pipelines if abuses of market power by pipeline operators have an effect on competition in an upstream (gas production) or downstream (gas use) market.

In 2016 the ACCC published a report in which it stated that east coast gas pipeline operators had the ability to charge monopoly prices for infrastructure access, and that this could have negative effects on gas users and producers (ACCC 2016b). Further, it stated that the coverage criteria for the National Gas Law did not capture these pipelines and that there was little barrier to pipeline operators charging monopoly prices. The ACCC recommended that the coverage criteria be changed.

After a lengthy process, the Council of Australian Governments opted not to change the coverage criteria and instead implemented a negotiate-arbitrate model for access to gas pipelines. The purpose of the framework is stated in the National Gas Rules.

The objective of this Part is to facilitate access to pipeline services on non-scheme pipelines on reasonable terms, which, for the purposes of this Part, is taken to mean at prices and on other terms and conditions that, so far as practical, reflect the outcomes of a workably competitive market. (AEMC 2017, p. 450)

The negotiate-arbitrate process

A party seeking access to a pipeline can make a formal ‘access request’ under National Gas Rule 559. The pipeline operator is obliged to respond within a statutory time period with an ‘access offer’ (Rule 560). The parties are then required to negotiate in good faith, and the pipeline operator is required to provide, on request, information about the cost of providing pipeline services and the methods that the pipeline operator has used to determine the access offer price.

During the negotiation period the prospective user can bring negotiations to an end by informing the pipeline operator that it is seeking arbitration and lodging an Access Dispute Notice with the Australian Energy Regulator (AER). A commercial arbitrator is appointed to resolve the dispute. The arbitrator can be appointed by agreement from the parties, or by the AER if the parties cannot reach agreement. Use of a commercial arbitrator is intended to reduce the potential delay for review or appeal of the arbitrator’s decision, compared with arbitration by a regulator.

The *Arbitration Guide* sets out a number of principles that the arbitrator is required to follow in making a determination, including that:

Access to pipeline services on a non-scheme pipeline should be at prices, and on other terms and conditions that, so far as practical, reflect the outcomes of a workably competitive market.

The price for access to a pipeline service on a non-scheme pipeline should reflect the cost of providing the service, including a commercial rate of return that is commensurate with prevailing conditions in the market for funds and reflects the risks the service provider faces in providing the service. (AER 2017, pp. 27–28)

The National Gas Rules also set out how assets are to be valued when setting access prices. If the access seeker wishes to gain access to the pipeline under the terms in the determination it must notify the other parties to the dispute (and the AER) within 10 days of the determination. The pipeline operator is required to provide access under the terms of the determination.

Sources: ACCC (2016b); AER (2017).

Conventional and final offer arbitration

Different approaches to arbitration can create different incentives for the regulated parties. Two possible models of arbitration that could be considered for regulated infrastructure services are conventional arbitration and final offer arbitration (FOA). In its initial submission A4ANZ proposed ‘that the PC give thorough consideration to the ability of parties negotiating provision of airport service to access “final offer arbitration”’ (sub. 44, p. 44). In its supplementary submission it suggested that FOA could be considered for inclusion in any arbitration framework as an option that would apply in some circumstances (sub. 83, pp. 21–22).

Conventional arbitration is widely used in commercial disputes and as an alternative to trials in civil litigation (Fluet and Gabuthy 2014) and is the approach that the ACCC uses in its arbitration of disputes over declared infrastructure services. The arbitrator accepts submissions from the access seeker and the access provider, and can seek additional expert evidence and advice. The arbitrator considers the evidence and may be required to take into account a set of principles that are defined in arbitration guidelines. (This is the case in the gas pipeline framework.) There is no requirement to compromise or ‘split the difference’ between the parties’ offers.

FOA — also known as pendulum and last offer arbitration, or as the ‘baseball rule’ — was developed to deal with salary disputes involving US Major League Baseball players. Under FOA the role of the arbitrator is not to determine an optimal outcome drawing on all the available evidence. Instead, the arbitrator chooses between two final offers presented by the disputing sides, and the chosen offer becomes binding on both parties (Lok 2008).

The two types of arbitration create different incentives for the parties and can lead to different outcomes. A potential downside of conventional arbitration is that if parties expect that the arbitrator will ‘split the difference’ they may have incentives to take extreme positions in order to move the middle ground closer to their desired outcome. This can result in rigid negotiating behaviour, increasing the probability of settlement decided through arbitration (Tijmes 2015).

Final offer arbitration can create incentives for each party to make an offer which the arbitrator will deem to be the most reasonable. The process can push the parties toward a negotiated settlement since each party has incentives to try to move its position toward what the arbitrator is likely to consider the most reasonable offer (Spiller and Cardilli 1997).

An arbitrator would have to consider other airport users

Airports are complex operations that make long-lasting investments in costly, and often common-use, infrastructure. Airport operators manage the requirements and preferences of many airlines (47 at Sydney Airport) and recover the costs of investments from those airlines over decades. Each agreement for airfield and terminal services is a package of conditions that is intertwined with the conditions of agreements with other airport users.

The ACCC and airline participants suggested that arbitration could apply to the full range of aeronautical services, and proposed arbitration models that would permit a single airline to seek arbitration over the full range of aeronautical services. This would lead to arbitration over a complex bundle of matters with the potential for effects on other airport users.

An individual airline has little incentive to take into account the needs of other airport users in its negotiations with an airport, or in its submissions to an arbitrator. In fact, to the extent that they are competitors, each airline has incentives to make life difficult for the others. For arbitration to be compatible with efficient airport operations, the arbitrator would need to give some consideration to airport users that are not part of the arbitration.

The proposal for FOA collapses at this hurdle. Airlines do not have the information or incentives that would be required to make an offer that is consistent with efficient airport operations. The interests of an individual airline might align with efficient airport operations, but this would be entirely coincidental and could not be relied upon as a feature of FOA. A more likely outcome is that airlines would make offers that are consistent with their own interests and — either coincidentally or deliberately — not consistent with efficient operations for other airport users or the airport itself.

Sydney Airport identified these shortcomings of the FOA model.

Further, the inflexibility of final offer arbitration is not suitable for the complex and long-term nature of decisions relating to access and pricing of airport services. For instance, in pricing decisions airports consider service levels, other stakeholder interests and the varying need for infrastructure investment to accommodate increasing demand at a given point in time. Final offer arbitration has a high risk of resulting in inefficient outcomes and consequential under-investment in airport infrastructure. (Sydney Airport, sub. 53, p. 39)

If arbitration were to apply to aeronautical services the arbitrator would need to take into account a range of evidence, consider the effects on parties that were not directly participating in the arbitration and be prepared to make decisions over a complex bundle of services. The breadth and interaction of the matters that airports and airlines contract over rule out FOA as a realistic option.

An arbitrator would have to resolve differences of opinion over investments

Airlines have complained that in the commercial negotiation process they are not able to assess whether proposed investments are necessary and being constructed in a cost-effective way. It is likely that investment plans would feature in any arbitration over aeronautical services. Airport investments often affect (and benefit) multiple users. This is clear when investments involve capital that is shared by multiple airlines such as common user terminals or runways. Airlines could use the arbitration process constructively, or, as the ACCC noted, in a more cynical way.

Further as noted above, an incumbent airline may try to avoid capital projects being undertaken to expand capacity, which may lead to new entrants and increased competition. In that event,

there may be a need for arbitrators to consider the needs of other airlines and passengers in addition to the parties in dispute. (ACCC, sub. 59, p. 40)

Airport participants stated similar concerns.

A ‘negotiate-arbitrate’ model could potentially foster gaming and result in suboptimal, inefficient and delayed economic outcomes. A fundamental change to the framework for the regulation of airports, including the introduction of a prescribed arbitration regime, could result in a delay to ongoing airport investment or see a subsequent capital reallocation away from airports. (AAIG, sub. 20, p. 4)

In its analysis for A4ANZ of the effects of FOA, Frontier Economics did not agree that the negotiate-arbitrate model would lead to less desirable investment outcomes.

A negotiate-arbitrate model has few good comparators to draw on, so it is difficult to be definitive about how optimal investment would be. That said, there is no basis for believing it will be a material cost from a move to this system in comparison to the existing system of monopoly with no regulation. (A4ANZ, sub. 44, appendix B, p. 20)

The potential for a negotiate-arbitrate framework to influence airports’ investment decisions is significant enough to warrant consideration. The ACCC proposed a feature to address these concerns.

One way to potentially address these types of issues (in the context of commercial arbitration) is by incorporating some guidelines on how arbitrations should be conducted and what matters arbitrators should consider. As an example, the guidelines can include a requirement that consideration should be given to overall efficiency in operation of an airport. (ACCC, sub. 59, p. 40)

To put such principles into practice an arbitrator would need to determine:

- the efficient cost and timing of any investment proposed by the airport operator
- how the airport should be permitted to recover the costs of the investment from airport users, including users that were not party to the arbitration.

The arbitrator would need to evaluate the benefits and costs of any proposed investment, taking into account the interests of all airport users and the community as a whole. If the arbitrator determined that the proposal was likely to deliver net benefits, he or she would need to develop a model to allocate the costs of the investment over its economic life. This allocation may include users who benefit from the investment but are not party to the arbitration. However, it is unclear how a negotiate-arbitrate approach would enforce such allocations on third parties.

Imposing an arbitration framework that is capable of dealing with disagreements over investment would have benefits and costs. On the benefit side, the process might discover useful information about airports that could contribute to broader policy objectives, including preventing the exercise of market power. (The utility of the information would depend on whether it was public or confidential.)

The compliance and administration costs could be significant if airports were required to provide a cost–benefit analysis to the arbitrator as well as information on their allocation of capital costs across users of airport services. The arbitrator would require specialist advice to interpret the analysis and develop a cost allocation model. Even with the best advice in the world, decisions about investment and cost allocation would come down to judgment and could be fodder for appeals, which would increase the costs of arbitration.

The most significant cost is the potential for a negotiate-arbitrate framework to exert a ‘chilling’ effect on airport investment. Passenger numbers are increasing every year and the monitored airports have undertaken — and continue to undertake — substantial investment to manage the challenge of growth. Airlines that disagree with investment proposals (including proposals that might threaten their incumbency) would have incentives to use the arbitration process to hold up investments that could increase airport capacity and competition between airlines. If arbitration increased the costs of investment (such as by increasing the time taken to commence work) airports might be less able to provide the services that passengers require in the future.

Arbitration could lead to shadow price regulation

An arbitrator would be required to make decisions about airports’ charges and conditions for aeronautical services and those decisions would be imposed with the force of law. This would be the case with a private, commercial arbitrator (as suggested by A4ANZ and the ACCC) or a government arbitrator. The ACCC (sub. 59) suggested that the arbitration framework would have to incorporate guidelines setting out the matters that an arbitrator would be required to consider. This would likely include:

- the cost of providing the service(s)
- the value of airport assets
- a risk-reflective commercial rate of return
- the contribution of an asset user to joint and common costs.

In effect, the arbitrator would need to do most of the work that would be necessary for a price determination for a regulated infrastructure asset — verifying the regulatory asset base and calculating a weighted average cost of capital for the industry. The arbitration process would become time-consuming, costly and contested. In industries that are subject to price regulation (such as some energy businesses) the process of valuing asset bases and setting the cost of capital involve expert evidence that is provided and disputed by stakeholders on all sides, in-depth analysis and difficult judgments. These processes can drag on for years, accruing hefty costs for all parties.

An arbitration regime would run the risk of collapsing to shadow price regulation — a situation where each side would base its negotiating position on its best guess of the information and models the arbitrator would use to determine the asset base, returns and cost and revenue allocations. Price regulated services are prone to under- or over-investment

(gold plating) and create incentives for gaming, such as inefficiently increasing charges that fall outside the arbitrator's remit. Shadow price regulation could have similar negative consequences.

Few benefits, many risks

The negotiate/arbitrate framework would have few benefits for airports compared with the current approach of commercial negotiation with financial and quality of service monitoring. It would be unlikely to be an effective mechanism for dealing with airlines that refuse to pay airports' charges or negotiate a new agreement upon the expiry of the previous agreement. An arbitrator would not have any legal mechanism to make the outcomes of arbitration binding on an airline, and any airline that disagreed with an arbitrated outcome would be free to move its aircraft to other routes.

Incumbent airlines could benefit if a negotiate-arbitrate framework led to lower aeronautical charges. However, this would not necessarily be a 'benefit' in an economic sense. A material proportion of any reduction in aeronautical charges would be a transfer — a reallocation of profits from airports to airlines.

The effects on consumers would depend on the level of competition between airlines. The Commission's assessment is that the market for domestic air travel is highly concentrated and that airlines would have little incentive to pass through cost savings to consumers. This could change over time if new competitors entered (or threatened to enter) the market. The effects of a negotiate-arbitrate framework on future entry into the airline market could be positive or negative. Airlines might seek arbitration to stymie investments in airport infrastructure that would benefit competitors (or future competitors), thereby weakening competition and harming consumers.

Introducing a negotiate-arbitrate framework would come with risks, many of them significant. The most concerning is that arbitration could collapse to shadow price regulation, with all the attendant weaknesses of such systems. The arbitration process would be time-consuming, financially costly and would distract airlines and airports from their core business.

The proponents have also failed to demonstrate why a negotiate-arbitrate framework specific to airports is needed when the National Access Regime enables airport users to seek declaration of airport services and subsequently to seek access to arbitration by the ACCC if negotiations fail.

There is no doubt that some commercial negotiations between airports and airlines have been challenging but, on balance, the process and the outcomes reached give little cause for concern. A negotiate-arbitrate framework would have substantial perverse effects that would harm the efficiency of the sector and negatively affect passengers. The benefits would need to be very large for the costs and risks of such a framework to be tolerable. They are not.

10.3 Regional airports

Airports in regional areas provide important services to communities and are relevant to the inquiry terms of reference. Some inquiry participants have raised concerns relating to regional airports including infrastructure upgrades, consultation with airlines, transparency in financial reporting and asset management practices. (The costs of meeting airport security requirements are discussed in chapter 2.)

Regional airports have a variety of ownership and management structures. Some large regional airports that have regular public transport services, such as Cairns and Mackay, are leased by State Governments to private companies; others are corporatised, for example, Mildura and Gladstone; and the vast majority are owned and operated by local councils.

It is unlikely that the issues raised by participants reflect the exercise of market power by regional airports. Passenger demand is insufficient to cover the fixed costs of operation at many regional airports, meaning the efficient price is higher than passengers are willing to pay (chapter 3). Regional airports that face these circumstances do not (and cannot) possess market power. Nevertheless, the concerns raised by some participants could affect the efficient operation of regional airports and warrant consideration.

A build-it-and-they-will-come approach to infrastructure upgrades

Some participants argued that infrastructure upgrades at some regional airports have been unnecessary and have resulted in increased aeronautical charges (A4ANZ, sub. 44; RAAA, sub. 66; Rex, sub. 63). The Regional Airport Users' Action Group and Geoff J Breust stated that some regional airport infrastructure upgrades are driven by politics and regional development objectives. These objectives include, for example, facilitating international tourism by upgrading runway and terminal capacity to cater for larger aircraft than any airline is proposing to fly at that destination.

Airport passenger terminal upgrades and critical infrastructure upgrades for larger capacity and jet aircraft on a “...build it and they will come basis...” without effective consultation with users and proper business case development reflect the authoritarian approach. Upgrades at Dubbo, Orange, Kingscote and Mildura are examples. Proposed upgrades at Mount Gambier, Merimbula, Port Lincoln and Kingscote (the latter two for direct interstate operations) are also examples. One suggests such upgrade decisions are the result of local politics or empire building on the part of the local bureaucracy rather than effective investment decisions. The engagement of consultants to prepare improbable Master Plans has not assisted the process. (sub. 9, p. 6)

Rex argued that the build-it-and-they-will-come approach to infrastructure upgrades can put existing air services at risk due to the subsequent burden of the cost of depreciation.

The ‘build it and they will come’ approach in particular comes with extremely high risk. Infrastructural developments of regional airports should be undertaken with a phased and rational approach. Questions do need to be asked when some regional airports embark on plans to accommodate A320 and 737 jets when the regional airport’s current and forecast demand can be

readily accommodated with turbo-prop aircraft that don't require any upgrades. When the grand plans fail to come to fruition, the existing service may be jeopardised as it has to carry the burden of the unnecessary but substantial depreciation. (sub. 63, p. 5)

The Australian Airports Association (AAA) refuted claims that regional airports are undertaking unwarranted infrastructure upgrades. The AAA argued that terminals (at many regional airports) are old and require replacing and should have a basic level of amenity, for example, air conditioning and adequate seating for passengers. The AAA further argued that runway expansions to accommodate larger aircraft can be prudent given the uncertainty as to the type of aircraft that airlines might operate in the future.

Regional Express operates relatively small and old aircraft. It has given no indications as to what aircraft it will operate once its current fleet is retired, if indeed it will continue to operate in Australia at all. It is prudent therefore for council airports to consider upgrading their runways to handle larger aircraft in the event that Rex was to withdraw for whatever reason – such upgrades would of course provide potential for greater competition. The prudence of such actions is reinforced at times when councils are considering the need to undertake runway works for compliance or maintenance reasons. (sub. 50, p. 66)

Infrastructure expansions that lead to overcapacity may not be inefficient investments — airport infrastructure is lumpy and new capacity might not be fully utilised from day one but could be justified over the longer term. Further, airports make investment plans based on expectations of an uncertain future. Investments that appear excessive in hindsight might have been based on reasonable assumptions at the time that did not come to fruition (chapter 5 and chapter 9).

However, the argument that it is prudent for regional councils to consider upgrading their runways to handle larger aircraft *because* there is uncertainty about what (in this case) Rex will do, is flawed as it does not take into account the benefits of an airport delaying investments until at least some of the uncertainty is resolved.

Australian, State and Territory Government funding for regional airport infrastructure

The Australian, State and Territory Governments provide funding to regional airports to support various projects, often infrastructure upgrades, to promote regional development objectives. Some of the programs require regional airport operators to contribute at least 50 per cent of the project cost. Government programs aimed at supporting regional airport infrastructure outline criteria against which applications are assessed. Participants submitted that the assessment criteria used to assess the eligible projects can lack rigour and can also lead to infrastructure investments that are unwarranted.

... it is understood neither the Commonwealth nor State Governments undertake independent audits of projects undertaken with grant funding. While grant receivers are required to provide a final report, there is no independent validation of the project scope, completion and funding acquittal. Such action would be a further efficiency driver for airport infrastructure relevance and actual facilitation. (Regional Airport Users' Action Group and Geoff J Breust, sub. 9, p. 9).

Participants outlined several examples of questionable government-funded infrastructure upgrades at regional airports (A4ANZ, sub. 44; Regional Airport Users' Action Group and Geoff J Breust, sub. 9; RAAA, sub. 66; Rex, sub. 63). One example is outlined below.

The justification for the major redevelopment was based on a council produced report published in 2013 where council projected significant increased passenger throughput directly from the east coast of Australia ... What was most concerning to Rex in relation to the council developed business case for the multi-million dollar, taxpayer funded airport redevelopment project (May-2013) was that just 1 year earlier (May-2012), a previously commissioned report for Kangaroo Island Futures Authority Advisory Board, cited that "there is certainly no evident business case for an upgrade of the airport" ... The approach undertaken by Kangaroo Island Council and supported by both State and Federal Government, demonstrates a completely economically irresponsible and misguided approach to infrastructure spending. Some \$21 million has now been spent on Kangaroo Island Airport with no guarantee of any airline commencing new services. (Rex, sub. 63, p. 10)

The Commission shares these concerns — unnecessary or unjustified infrastructure upgrades could lead to the perverse outcome of a loss of air services to communities if they result in increased aeronautical charges that airlines (and by extension, passengers) are not willing to pay. However, air services have important community benefits and the Commission notes that many regional airports, particularly the smaller ones, are unable to cover operational expenses, much less fund essential infrastructure upgrades (chapter 3). In these cases, Australian, State and Territory Government support for essential infrastructure works at regional airports may be warranted, but the proposed investment should be subject to independent assessment, before funding is committed, to ensure it generates benefits to the community.

Concerns about when and where governments provide support for infrastructure investments were also raised in the Commission's *Transitioning Regional Economies* study (PC 2017b) and *National Water Reform* inquiry (PC 2017a). The Commission stands by the principles of the recommendations made in its previous work including assessing government support for infrastructure improvements using the functional economic region approach, recognising the interdependence of neighbouring communities (box 10.4).

Box 10.4 Functional economic regions

Researchers and governments have developed definitions of regions based on functional economic regions (FER), including in Australia (for example, Stimson et al. 2015). The Commission drew on this approach in its *Transitioning Regional Economies* study. The FER method reflects that geographic areas are linked by the interactions between people across neighbouring areas, including that:

- people travel between geographic areas for work and to access goods and services
- businesses hire workers, purchase services and sell their products across geographic areas
- governments and people interact economically, socially and culturally.

FERs are usually based around a centre, such as a town or city, with which the region is strongly economically interdependent.

FERs provide a suitable approach for thinking about development and planning because they consider the similarities and linkages between geographic areas, acknowledging that they operate in an integrated way. Decision making solely based on administrative boundaries, such as local government areas can lead to inadequate consideration of the geographic systems they operate within.

Source: PC (2017b).

DRAFT RECOMMENDATION 10.6 FUNDING FOR REGIONAL AIRPORT INFRASTRUCTURE

The Australian, State and Territory Governments should ensure that:

- an independent analysis of proposed government funding of regional airport infrastructure is completed, and made available for public comment, before funding is committed. The analysis should:
 - assess the economic and financial viability of proposed infrastructure investment
 - assess whether the project is consistent with the long-term strategy of the region and the airport's master plan
 - quantify the economic benefits delivered and the recipients of those benefits
 - assess users' (airlines and communities) willingness to pay for the infrastructure
- government-funded investments in airport infrastructure are undertaken using the relevant functional economic region as the basis for decisions, not individual local councils
- any project funded by government is monitored, and an independent evaluation is conducted and published that assesses whether the project outcomes have been achieved.

The Australian, State and Territory Governments should publish the justification for funding an infrastructure project that was not supported by independent analysis.

Consultation with airport users and communities

Airlines argued that many regional airport operators do not adequately consult airport users when undertaking infrastructure investments that lead to increased aeronautical charges, and that airports increase charges at short notice (Regional Airport Users' Action Group and Geoff J Breust, sub. 9; RAAA, sub. 66). A4ANZ (sub. 44, p. 13) stated:

For example, a recent survey by the Australian Airports Association confirmed that fewer than half of regional airports (~ 45%) consult with airlines prior to “major capital works entailing increased airport charges”, with the concept of genuine, open consultation and co-design representing exceptional, rather than usual behaviour in Australia’s airports. Further illustrating the lack of transparency and consultation, the same survey notes that increased charges are often levied with little forewarning, with an overwhelming majority (86%) of regional airports admitting that they only give airlines three to six months’ notice of changes to airport charges, often after tickets have already been sold.

The AAA (sub. 50, p. 36) provided a different explanation.

Overall, communications with the airlines appear to be robust with 47% of airports discussing charges periodically with airlines (without detailed modelling) while 32% provide more detailed modelling and cost and revenue data. Only 22% set charges without detailed discussion. The AAA believes that the lack of discussion largely reflects no pricing activity by the airport concerned or disinterest on the part of airport users.

Regional Airport Users' Action Group and Geoff J Breust (sub. 9) argued that infrastructure upgrades driven by political interests and supported by government grants would be less likely to occur if regional airports were required to establish advisory or consultative committees.

Consultation with airport users is likely to assist airport operators to identify necessary investments in regional airports and help to avoid unnecessary or unjustified expenditure. For that reason, the Commission has recommended that all Australian, State and Territory Government funding for airports' investment should include an assessment of airport users' willingness to pay for the investment (draft recommendation 10.6).

Asset management at regional airports

Airlines and associated representative bodies raised concerns relating to lack of transparency in financial reporting by council-operated airports. Virgin Australia Group (sub. 54) argued that it was not possible to evaluate whether aeronautical charges were justified at some council-operated airports. The Regional Aviation Association of Australia (sub. 66) argued that regional airports should be required to provide information on their assets and the methodology used to allocate assets to aeronautical and non-aeronautical services.

Airlines also questioned the financial asset management practices at some council-operated regional airports. Concerns raised included lack of in house knowledge and experience in managing airport infrastructure and arbitrary revaluations of airport assets that result in increases in aeronautical charges.

Virgin Australia acknowledges that some smaller airports may have limited resources available for cost modelling and engagement with airlines around key inputs, such [as] asset valuation and the rate of return. Where smaller airports do face these skills / resource constraints, we would support resources being made available to the airport, perhaps through an airport industry association, to enable the airport to more effectively engage with airlines. (Virgin Australia Group, sub. 54, p. 7)

Pricing models can be distorted by the arbitrary revaluation of assets, particularly land. A trend is emerging amongst regional airports to have their assets revalued on a piecemeal basis, often resulting in a figure several times the original valuation, and then on-charging the resulting hefty increases in depreciation. (RAAA, sub. 66, p. 18)

Airline participants also questioned the treatment of government-funded assets in financial reporting.

In one case, a regional airport sought to include assets funded by a government grant into the aeronautical asset base (which would enable a return on an investment it had effectively never made) so that the Council could recover the grant money from airlines and reinvest that money in other community projects. (A4ANZ, sub. 44, p. 28)

... Rex believes that KIC [King Island Council] and other similar councils are completely misguided in how it should be accounting for assets that are gifted by the Federal or State governments. (Rex, sub. 63, p. 13)

In a 2016 review of reporting and compliance burdens on local government in New South Wales, the NSW Independent Pricing and Regulatory Tribunal found that State Government support was needed to assist local councils in undertaking their assigned functions and to build capacity (IPART 2016). Previous Commission work, including the *Transitioning Regional Economies* study, also found that capacity and capability of local councils varies significantly and there is a role for State and Territory Governments to aid and build capacity and capability within functional economic regions (PC 2017b).

More could be done to assist local councils in the financial management of airport assets. The WA Department of Transport is developing a Strategic Airport Asset and Financial Management Framework (Framework) for regional airports (WA DoT 2017) (box 10.5). The aim of the Framework is to provide a standardised template for asset management at council-operated regional airports including the determination of charges required to maintain and replace assets. The WA Department of Transport stated that, from July 2019, the Framework would be a requirement when seeking WA Government support and will aid in assessing an airport's asset base and financial circumstances (WA DoT 2018). The Commission considers that the Framework would help build capability of local councils in managing airport infrastructure and address issues of user engagement, unwarranted infrastructure investment, transparency and asset management practices, as raised by participants. The Framework should be reviewed and pending the findings of that review, be adapted and rolled out by governments in other jurisdictions.

DRAFT RECOMMENDATION 10.7 ASSET MANAGEMENT AT REGIONAL AIRPORTS

The Australian Government should review the efficacy of the Western Australian Strategic Airport Asset and Financial Management Framework in 2022, in consultation with State, Territory and Local Governments. Pending the findings of that review, the Framework should be adapted and rolled out by governments in other jurisdictions with the objective of providing a template for sound asset management practices and greater transparency when determining airport charges at regional airports.

Box 10.5 Strategic Airport Asset and Financial Management Framework

The WA Department of Transport, in consultation with the Australian Airports Association, airlines and Local Governments, has developed the Strategic Airport Asset and Financial Management Framework (the Framework) for regular public transport regional airports in Western Australia. The Framework consists of a template that can be applied by regional airports to engage with stakeholders, independently determine future air service demand, understand and manage their asset base, and determine operating costs and appropriate pricing strategies. The key components of the Framework are outlined below.

- The *airport user engagement plan* outlines how airport operators engage with airlines and other stakeholders when considering future infrastructure investment and airport charges.
- The *air services demand model* determines future aeronautical demand such as passenger numbers, aircraft movements and aircraft type. The model includes low, medium and high estimates of demand.
- The *aeronautical asset management plan* provides a long-term approach to the efficient management of airport assets to meet current and future demand for airport services. The asset management plan outlines:
 - non-asset options for dealing with demand pressures
 - methods of depreciating aeronautical assets, such as runways and terminals
 - how aeronautical assets partially or fully funded using government grants should be treated in financial reports.
- The *scenario testing module* gives airport operators the ability to test proposed airport investment to determine the effect the investment will have on the financial sustainability of the airport and on future airport charges.
- The *aeronautical funding management plan* justifies the funding strategy required by regional airport operators to support current and future operations and asset management. The airport funding strategy varies according to whether the airport is a subsidised-community, full-cost-recovery or commercial airport.

As part of the initial stage, the Framework was rolled out to five regional airports in Western Australia — Geraldton, Kununurra, Newman, Carnarvon and Albany airports.

Sources: WA Department of Transport (2017, 2018).

10.4 Land transport links

The terms of reference direct the Commission to examine whether existing arrangements for the planning and operation of land transport linkages to the airports are effective.

Each level of government has an important role in the planning and provision of transport infrastructure and services that link an airport to population centres and the surrounding areas. Some of the services and infrastructure are owned or operated by private companies, under agreements or conditions often specified by State Governments. For example, in both Sydney and Brisbane, private companies operate the passenger rail service, and/or key aspects of the road network, that connect the airport with the city.

Participants argued that current land transport planning arrangements are effective, but some expressed concerns about the adequacy of land transport links, and the efficiency of land transport outcomes in some cities.

Effectiveness of land transport planning arrangements

In 2010, the Australian Government amended parts of the Airports Act relating to master plan requirements. (Master plans are discussed in chapter 1.) Legislative changes to master plan requirements aimed to better align airport planning with State, Territory and Local Government planning, with particular attention given to improving transport planning (Airports Amendment Bill 2010 (Cwlth) Explanatory Memorandum). Since 2011, Planning Coordination Forums (PCFs) and Community Aviation Consultation Groups (CACGs) have been established for the federally leased airports. The aim of PCFs and CACGs is to bring together the three levels of government and community representatives on issues associated with master plans (DIRDC 2018a). Prior to 2011, there was no requirement for airports to consult with State, Territory and Local Governments on planning issues.

In the PC's 2011 inquiry into the *Economic Regulation of Airport Services*, the Commission recommended that the 2010 legislative changes to master plan requirements should be allowed to take their course before further policy change is considered, and should be reviewed in 2015. Following the Commission's recommendation, in 2015, DIRDC commissioned an independent review of the CACGs and PCFs established by federally leased airports. The review is not publicly available, but DIRDC provided a copy to the Commission.

The review, conducted by Orima Research, found the CACGs and PCFs are generally well supported by participants and the groups are considered effective in meeting their objectives. The review also found that a one-size-fits-all approach to consultation does not work for all arrangements and recommended more flexibility in airports' approaches to community consultation, particularly at smaller airports. In late 2016, DIRDC broadened expectations relating to federally leased airports' consultative arrangements — airports are now expected to tailor their consultation activities to suit the specific needs of their stakeholders (DIRDC 2018a).

Participants highlighted that land transport planning requires consistent and effective coordination between all levels of government and were generally satisfied with current arrangements (Adelaide Airport, sub. 32; Brisbane Airport, sub. 38; Melbourne Airport, sub. 33; Perth Airport, sub. 51; Sydney Airport, sub. 53). For example, the AAA stated:

The AAA understands that these reforms [consultative arrangements with state and local government authorities to improve the planning and development of ground transport linkages to airports] have led to better information exchange, improved planning outcomes and more efficient project delivery.

The benefits of these reforms can be seen from the delivery of the Gateway WA project at Perth Airport and the T4 Transport Hub at Melbourne Airport, as well as current projects underway at a range of airports, including around the domestic terminal precinct at Sydney Airport and the development of the Perth-Forrestfield rail link. (sub. 50, p. 101)

Similarly, DIRDC stated:

While the varying interests and legislative frameworks in which each party operates make for complex negotiations, there are numerous examples of effective outcomes being achieved. Airports have demonstrated they are willing to collaborate with federal, state, territory and local governments to address ground transport issues, in and around airports, as they recognise the mutual benefits. (sub. 40, p. 23)

Adequacy of land transport links

Some participants raised issues in regards to the adequacy of land transport links in Sydney (SBC, sub. 17; Sydney Airport, sub. 53).

Sydney Airport is located near key arterial roads used by a large share of the commuter and long-distance road traffic and road freighters transporting containers to and from Port Botany, south-east of Sydney Airport. Use of ground transport modes shows that about 59 per cent of passengers use a car when accessing Sydney Airport (chapter 6). Congestion issues around Sydney Airport are not new. In 2011, the Commission found that of all Australian airports, congestion issues were most severe in and around Sydney Airport.

The NSW Government and Sydney Airport have worked together to improve capacity of the roads within and outside the airport precinct (Sydney Airport, sub. 53). Furthermore, the Sydney Business Chamber and Sydney Airport stated that they have continuously advocated for increased public transport services to Sydney Airport (SBC, sub. 17; Sydney Airport, sub. 53). Since 2011, the NSW Government has increased the number of train services that run to and from Sydney Airport and has since proposed further increases to the number of services (NSW Government, sub. 62; Sydney Airport, sub. 53).

In June 2018, the NSW Government announced \$880 million in technology improvements for the Sydney train network (NSW Government 2018b). The proposed technology improvements will benefit Sydney Airport because trains will run at a higher frequency (every four minutes, instead of every six). The NSW Government (sub. 62) has stated that it

is currently progressing planning for new suburban bus routes to the airport, new road linkages between the motorways and airport terminals, updating roads and improving cycling and walking paths that connect to the Sydney Airport precinct.

Participants have not raised significant issues relating to adequacy of land transport links at the other monitored airports. Airport BUG (sub. 88), a group that represents bicycle users at Brisbane Airport, argued that there is inadequate access to some areas of Brisbane Airport, such as the General Aviation Precinct, for employees that cycle or walk to work. Brisbane Airport has a 15 km cycle network that connects the domestic and international terminals, Skygate (retail precinct) and other areas such as, General Aviation Maintenance to the city of Brisbane (Brisbane Airport 2017; Minister for Infrastructure and Transport 2017).

In Melbourne, Brisbane and Perth, several projects aimed at improving public transport access to airports have commenced, are proposed or are being explored (box 10.6).

Box 10.6 Projects to improve public transport to airports in Melbourne, Brisbane and Perth

The Australian and Western Australian Governments have jointly funded the Forrestfield-Airport Rail Project that will connect Perth Airport to the CBD and to the eastern suburbs of Perth. Currently under construction, the rail line is expected to open in 2021 and will have a central train station adjacent to Terminal 1 (Western Australian Government 2018; Perth Airport, sub. 51). Perth Airport stated that congestion issues have improved since 2011.

Congestion issues on arterial roads in the vicinity of Perth Airport have decreased significantly since the Commission's last Inquiry thanks to the \$1 billion Gateway road project and the Great Eastern Highway widening project. Congestion during the traditional morning and afternoon commuter peaks is not unique to the roads in the vicinity of the airport, nor to Perth. There is no material congestion on the roads near Perth Airport at times other than the morning and afternoon metropolitan peaks, which are not the peak operating periods of Perth Airport. (sub. 51, p. 7)

In 2018, the Australian and Victorian Governments announced that a train service to Melbourne Airport would be built, with construction planned to start by 2022. The construction of the Melbourne Airport rail line is supported by inquiry participants (Melbourne Airport, sub. 33; Qantas Group, sub. 48).

In late 2017, Brisbane Airport, Brisbane City Council and the Queensland Department of Transport and Main Roads, jointly funded the Brisbane Airport Access Study. The aim of the study was to identify opportunities to increase public transport offerings at Brisbane Airport. Brisbane Airport (sub. 38) stated that several initiatives were identified and that the parties would continue to work on opportunities to extend public transport offerings to Brisbane Airport. Brisbane Airport also stated that it is currently working with the Queensland Government and Queensland Rail to include a third railway station at Brisbane Airport.

Land transport outcomes

Inquiry participants argued that land transport links that facilitate the transportation of passengers and air freight to airports should be efficient (AAA, sub. 50; BCA, sub. 45; DIRDC, sub. 40; Infrastructure Australia, sub. 58; Qantas Group, sub. 48).

In Sydney and Brisbane, mass transit services to and from airports are constrained due to arrangements in public–private partnership contracts that restrict competition. Contracts between State Governments and private companies that operate rail services in the two cities contain:

- restrictions on rival services, such as the ability to operate public buses to airport terminals (Sydney and Brisbane)
- high station usage fees (Sydney) (box 10.7).

The Sydney Business Chamber (sub. 17) and Sydney Airport (sub. 53) stated that they have publicly advocated for a decrease in the station access fee for stations at Sydney Airport to encourage airport users to use the train. In 2017, 24 per cent of passengers used the train service at Sydney Airport (chapter 6). In 2013, the NSW General Purpose Standing Committee conducted an inquiry into removing or reducing station access fees at Sydney Airport. The Committee found that the access fee at Sydney Airport stations was a disincentive to the use of the service and made a number of recommendations, including investigating:

- the removal of anticompetitive clauses in the contract with Airport Link relating to the provision of rival public transport services (such as, buses) from the city of Sydney to Sydney Airport
- new bus routes to Sydney Airport
- the feasibility of removing or providing a discount on the station usage fee for some groups of airport users (for example, workers and families travelling together) (NSW Legislative Council 2014).

In 2014, the NSW Government responded to these recommendations and stated that it had no intention to negotiate with Airport Link to remove clauses from the contract relating to the provision of rival public transport services, and that reducing or abolishing the station usage fee was not part of NSW Government policy at the time (NSW Government 2014). The NSW Government did, however, enter into an agreement with Airport Link in 2014 to place a weekly cap on the station access fee and has stated in its submission to this inquiry that it is currently progressing planning for new suburban bus routes to the airport (NSW Government 2014, sub. 62).

Box 10.7 Airport rail links at Sydney and Brisbane

Sydney Airport rail link

The Airport Link line consists of four underground stations — Green Square, Mascot, Domestic and International Terminal — connecting to the CBD along the East Hills Line. The four stations are owned and operated under a 30-year contract between the NSW Government and a private operator, Airport Link Company (Airport Link) which expires in 2030. The NSW Government owns the tunnels, tracks and signalling systems for the Airport Link line.

Since Airport Link commenced, a station usage fee has been charged for entry and exit from the airport line stations. The station usage fee is a flat fee, set by Airport Link, and is charged in addition to the Sydney train fare component. As of January 2019, the station usage fee was \$14.30 for an adult, one way.

According to revenue sharing arrangements in the contract between the NSW Government and Airport Link, the NSW Government has received approximately 50 per cent of the revenue generated from the station usage fee since early 2013 and 85 per cent since late 2014. Any government policy or decision to alter the terms of the station usage fee, such as its reduction or removal, requires the NSW Government to enter into commercial negotiations with Airport Link.

Airport Link removed the station usage fees at Mascot and Green Square in 2011. The NSW Government has been compensating Airport Link for the removal of the usage fees at these stations. The station usage fee at the two airport stations is still in place.

Public bus services to Sydney Airport are currently very limited. The bus from Burwood to Bondi Junction is the only public bus route that services the terminals. There is a ‘no compete’ clause in the contract between the NSW Government and Airport Link that enables Airport Link to seek compensation from the NSW Government if public bus services between Sydney CBD and the airport are introduced.

Brisbane Airport rail link

The Brisbane Airport Rail Link is an 8.5 km, elevated railway between Eagle Junction and domestic and international airport stations. It operates under a contract between the Queensland Government and Airtrain Citylink Limited (Airtrain) that expires in 2036. Airtrain owns the spur lines to the airport stations.

The contract between the Queensland Government and Airtrain includes restrictions on the introduction of other public transport services to Brisbane Airport that would compete with Airtrain. In a submission to the PC’s 2011 inquiry into airport services, Brisbane City Council stated that it was not permitted to operate a bus service within 1 km of Airtrain stations until 2014 — the domestic and international terminals fall within 1 km of an Airtrain station. Brisbane City Council currently operates one bus route to Brisbane Airport’s Skygate centre, a retail complex located about 5 km from the airport terminals. Brisbane Airport provides a free bus between Skygate and the terminals. In 2018, there was no direct public bus service between Brisbane city and Brisbane Airport terminals.

Sources: Aroozoo (2017); Brisbane Airport (2014); NSW Legislative Council (2014); PC (2012); TTF (2013, 2016).

Brisbane Airport (sub. 38) has stated that it has worked with the Queensland Government to improve public transport services to Brisbane Airport. In 2013, about 8 per cent of airport users at Brisbane Airport used the train (Brisbane Airport 2014, p. 239). The Commission is

not aware of any changes to arrangements that relate to public transport services to Brisbane Airport, such as the introduction of bus routes to the terminals at Brisbane Airport. Several new mass transit projects have been proposed in Sydney and other cities with some well underway.

- The Forrestfield-Airport Link at Perth Airport is expected to open in 2021 (Western Australian Government 2018).
- Planning is underway for the Melbourne Airport and Western Sydney Airport rail links (DIRDC 2018d; Melbourne Airport, sub. 33).
- Gold Coast, Canberra and Adelaide airports have preserved on-airport land for potential future rail or tram services (Adelaide Airport, sub. 32; Canberra Airport, sub. 56; QAL, sub. 23).

Public-private arrangements in land transport services that contain restrictions on rival services or other provisions to support profitability objectives of the private provider result in poor outcomes for passengers and the wider community

A Public Consultation

The Commission has actively encouraged public participation in this inquiry. This appendix outlines the consultation process.

- An advertisement was placed in *The Australian* newspaper and a circular was sent to identified interested parties following receipt of the terms of reference on 22 June 2018.
- An issues paper was released on 9 July 2018 to assist those wishing to make a written submission to the inquiry. The Commission received 88 submissions prior to the release of this draft report (table A.1). These submissions are available online at www.pc.gov.au/inquiries/current/airports-2019/submissions.
- As detailed in table A.2, consultations were held with representatives from the major airports, as well as some capital city and regional airports, airlines, airport and airline peak bodies, Australian, State and Territory government agencies, fuel suppliers, the financial sector and researchers.
- Public hearings focused on the market to supply jet fuel were also held in Sydney and Melbourne (table A.3).

The Commission welcomes further submissions to discuss the content of this draft report, including responses to the information requests and draft recommendations. Submissions are due by **25 March 2019**. A further round of public hearings will be held in late March.

Table A.1 Submissions^a

<i>Participant</i>	<i>Submission number</i>
Adelaide Airport Limited (AAL) (Adelaide Airport)	32 *
Air New Zealand	43
Airlines for Australia & New Zealand (A4ANZ)	44, 83, 85 *#
Airport BUG Incorporated	88 *
Airports Council International (ACI) World	16
Andrew's Airport Parking Group	30
Archerfield Airport Chamber of Commerce Incorporated (AACCI)	81 *#
Archerfield Airport Corporation (AAC)	84
Austrade	61
Australia Pacific Airports Corporation Limited (APAC) (Melbourne Airport)	33, 46 *#
Australian Airports Association (AAA)	50, 73 #
Australian Airports Investors Group (AAIG)	20
Australian Chamber of Commerce and Industry — Tourism	28
Australian Competition and Consumer Commission (ACCC)	59 #
Australian Finance Industry Association (AFIA)	67, 80 *
Australian Government Department of Home Affairs	41
Australian Institute of Petroleum (AIP)	76
Australian Mayoral Aviation Council (AMAC)	10
Australian Rail Track Corporation (ARTC)	39
Avdata	24
Bailey, Graham	69
Bioenergy Australia	21
Bland Shire Council	5
Board of Airline Representatives of Australia (BARA)	37, 42, 71
BP Australia	47 *
Brisbane Airport Corporation (BAC) (Brisbane Airport)	38 #
Business Council of Australia (BCA)	45
Caltex Australia Limited	34 *
Canberra Airport	3, 36, 56, 68 *
Department of Infrastructure, Regional Development and Cities (DIRDC)	40 #
Emirates Airlines	87 *
Essential Services Commission (ESC)	7
Forsyth, Prof. Peter	15
Hassell, William	55
Hobart International Airport Pty Ltd (HIAPL) (Hobart Airport)	31 *
IFM Investors	25
Infrastructure Partnerships Australia (IPA)	58, 77
International Air Transport Association (IATA)	27

(continued next page)

Table A.1 (continued)

<i>Participant</i>	<i>Submission number</i>
Jones, Andrew	4
Karratha Airport	12
King Island Council	26 #
Kingston, Doug	57
Kuwait Petroleum Aviation (Australia) Limited (KPAAL)	35 *
Mobil Oil Australia Pty Limited	74
Name withheld	2 *
National Competition Council (NCC)	79 #
No Aircraft Noise Party	11
North Queensland Airports	49 *
Northern Territory Airports (NTA)	8
NSW Government	62
NT Government	29
Perth Airport Pty Ltd (Perth Airport)	51, 52, 75 *#
Peterson, Julian	1
Property Council of Australia	13
Prosper Australia	19
Qantas Group	48, 86 *
Queensland Airports Limited (QAL)	23, 65 *
Regional Airport Users' Action Group; and Breust, Geoff J	9
Regional Aviation Association of Australia (RAAA)	66 *#
Regional Express (Rex)	63, 72, 82 *#
South Australian Freight Council (SAFC)	14
Starkie, David	22
Sydney Airport	53, 78 *#
Sydney Business Chamber (SBC)	17
The Committee for Sydney (CFS)	18
Tourism and Transport Forum (TTF)	6 #
Transport Workers' Union of Australia (TWU)	60
Tulpule, Ashok	64
Virgin Australia Group	54 *
World Fuel Services (Australia) Pty Ltd	70 *

a An asterisk (*) indicates that the submission contains confidential material NOT available to the public.
A hash (#) indicates that the submission includes attachments.

Table A.2 Consultations

Participant

Adelaide Airport Limited (AAL)
Air New Zealand
Airlines for Australian & New Zealand (A4ANZ)
Airport Coordination Australia (ACA)
Airports Council International (ACI) World
Airservices Australia (ASA)
AMP Capital
Auckland Airport
Australia Post
Australian Airports Association (AAA)
Australian Competition and Consumer Commission (ACCC)
Australian Finance Industry Association (AFIA)
Australian Government Treasury
Australian Institute of Petroleum (AIP)
Australian Logistics Council (ALC)
Australian Taxi Industry Association (ATIA)
AustralianSuper
Avis Budget Group
Board of Airline Representatives of Australia (BARA)
Brisbane Airport Corporation (BAC)
Bureau of Infrastructure, Transport and Regional Economics (BITRE)
Caltex Australia Limited
Canberra Airport
CAPA - Centre for Aviation
Christchurch Airport
Civil Aviation Authority of Singapore (CAAS)
Cobham Aviation
Colonial First State
Department of Infrastructure, Regional Development and Cities (DIRDC)
Emirates Airlines
Essendon Fields
Forsyth, Prof. Peter
Fu, Dr. Xiaowen
IFM Investors
Jetstar
King Island Council
Kuwait Petroleum Aviation (Australia) Limited (KPAA)

(continued next page)

Table A.2 (continued)

Participant

Macquarie Group
Melbourne Airport
Mobil Oil Australia Pty Ltd
Morrison & Co
National Competition Council (NCC)
New Zealand Airports Association
New Zealand Board of Airline Representatives of New Zealand Inc. (BARNZ)
New Zealand Commerce Commission (NZCC)
New Zealand Ministry of Business, Innovation and Employment (MBIE)
New Zealand Ministry of Transport
New Zealand Treasury
NSW Department of Industry (NSW DOI)
NSW Department of Premier and Cabinet (NSW DPC)
Orange City Council
Park 'N Fly
Parkes Shire Council
Perth Airport Pty Ltd
Qantas Group
Queensland Airports Limited (QAL)
Queensland Investment Corporation (QIC)
Regional Aviation Association of Australia (RAAA)
Regional Express (Rex)
SA Department of Planning, Transport and Infrastructure (SA DPTI)
South Australian Freight Council (SAFC)
Skippers Aviation
Sydney Airport
Toll Group
Virgin Australia Group
Viva Energy Australia
WA Department of Transport (WA DoT)
Wellington Airport

Table A.3 Public Hearings

Participant

28 November 2018 - Sydney

Board of Airline Representatives Australia (BARA)
Australian Airports Association (AAA)
Bioenergy Australia

30 November 2018 - Melbourne

Melbourne Airport
Northern Territory Airports
Brisbane Airport Corporation (BAC)
Department of Infrastructure, Regional Development and Cities (DIRDC)
Perth Airport Pty Ltd
Caltex Australia Limited

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