



The privatisation of Australia's airports

Paul Hooper ^{a,*}, Robert Cain ^b, Sandy White ^c

^a *Department of Economics, National University of Singapore, 10 Kent Ridge Crescent, 119260 Singapore, Singapore*

^b *Tourism Futures International, Sydney, Australia*

^c *Newcastle Airport, Newcastle, Australia*

Abstract

When the Federal Airports Corporation (FAC) was formed in 1988, administration of Australia's major airports passed from a Government department to a corporatised entity. The FAC improved the performance of the airports sector and it broadened the revenue base through commercial and property development. By 1994, however, policy thinking shifted in favour of privatisation. So far, the Government has sold 17 of the FAC's 22 airports and it has received US\$2.6 billion (1998/99 values). Four of the remaining airports are in the Sydney region where there are on-going debates about an appropriate site for a second major airport.

The paper describes the sales processes and presents details about the new owners, the commitments they have entered into, and the regulatory system that has been established for the post-privatisation era. Price-capping arrangements have been put into place for the major airports, but Australia also introduced legislation to ensure there is competitive access to essential infrastructure. It is too early to assess the performance of the new owners and to see how the interaction between access regulation and price capping is managed, but this paper documents the pre-privatisation situation to assist future researchers. © 2000 Elsevier Science Ltd. All rights reserved.

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1. Introduction

Prior to the 1980s, all of the major airports in Australia were owned and operated by the Federal Government. The Government also bore most of the financial responsibility for smaller aerodromes serving regular air passenger services, although it had been attempting to hand these

* Corresponding author. Tel.: +65-874-6012; fax: +65-775-2646.

E-mail address: ecspgh@nus.edu.sg (P. Hooper).

airports over to local authorities. The Government's main policy objective was to improve the degree of cost recovery from users, but the need for this became more pressing by the mid-1980s. As a consequence, the local ownership programme was accelerated and the major airports were placed under the control of the Federal Airports Corporation (FAC), a government business enterprise.

In part, the establishment of the FAC in 1988 reflected national policies designed to reform the public sector and to increase the scope for competition. By 1994, however, policy thinking shifted in favour of privatisation and, subsequently, the FAC was disbanded and 17 of its 22 airports were sold to the private sector. The remaining five airports were set up as airport companies wholly owned by the Government in preparation for sale. However, four of these are in the Sydney region where further progress on privatisation cannot be achieved until continuing issues about the siting of a second major airport have been settled. Starting from a position where it budgeted to receive US\$1.4 billion for the sale of all of the FAC's airports, including Sydney, the Government so far has collected US\$2.6 billion¹ in gross proceeds. Taking the FAC's estimates of earnings before depreciation, interest and taxes (EBDIT) together with the sale prices, the average price–earnings ratio was 17.1. This is much higher than price–earnings ratios of privatised airports in Europe. Should Sydney's airports be sold on similar terms, the Government would receive another US\$1.8 billion after deducting sale expenses.²

In this paper, we describe the background to privatisation and how the process was conducted in Australia. In addition, we present details about the new owners. One of the aims of the Government was to maximise the proceeds from the sales, and on this measure it has scored well. But the privatisation initiative also had other objectives. These are set out in the paper and we examine the mechanisms that were put into place during the sale process to regulate the airports post-privatisation.

A key concern in Australia is that airports have a significant degree of monopoly power, particularly in relation to aeronautical services. Previously, the FAC's charges were subject to surveillance and monitoring by the Prices Surveillance Authority (PSA). In the lead-up to privatisation, the PSA made it clear that it favoured a move to price-capping, a recommendation adopted by the Government. However, the price caps apply in the first instance for a period of 5 years, before which time there will be a major review to decide on future directions. The literature about price-cap regulation raises issues that will be relevant to such a review.

The Australian regulatory system has an additional feature that requires further analysis. When the airports were being privatised Australia also was implementing a "National Competition Policy". Among other measures, this policy introduced a "legislative access regime" to be administered by the newly formed Australian Competition and Consumer Commission (ACCC).³ That is, legislation was introduced that "seeks conditions of access" or "specifies processes for determining conditions of access for relevant infrastructure" (National Competition Council,

¹ All dollar values in this paper have been expressed first in constant (1998/99) dollar values using the Australian Consumer Price Index and then have been converted at the rate of one AUD is equal to US\$0.63.

² No allowance has been made in this estimate for assets held by the Government at Badgerys Creek. At the time of final preparation of this paper, the Australian Cabinet was considering whether to go ahead with the development of a second major airport for Sydney at the Badgerys Creek site.

³ The ACCC absorbed both the PSA and the Trade Practices Commission (TPC) in 1995.

1998). Provisions for competitive access apply to the privatised airports although it is not clear at this stage how they will be implemented.

In privatising its airports, the Australian Government had options ranging from management contracts to outright sale (Juan, 1995; Kapur, 1995; Humphreys, 1999). The path chosen was to sell long-term leases for the airports as going concerns and it did this through a competitive tendering process. The paper illustrates the complexity of this exercise and it discusses challenges in establishing an appropriate regulatory framework. The account commences with information about the size and growth performance of the Australian airports, and then describes how Government policies towards airports moved gradually to privatisation. Remaining sections document the sales processes and their outcomes together with an analysis of the new regulatory framework. Although it is too early to pass judgements on the success or otherwise of privatisation other than in terms of the amounts received by the Government, we conclude with observations about the initial actions of the new airport lessee companies.

2. Airports offered for sale

Table 1 shows the relative sizes of the airports in the last year when the FAC owned and operated its full set of 22 airports.⁴ Australia's major cities are located around the periphery of a large land mass and there has been little potential for the development of hub-and-spoke airline networks in the domestic market. As Australia's most populous city, Sydney is the major domestic airport, followed by Melbourne. However, Sydney is the dominant international gateway while Brisbane vies with Melbourne as the second busiest international airport.

It is clear from Table 1 that the air transport traffic is concentrated at a small number of airports. Approximately two-thirds of all domestic airline trips in Australia occur within the triangle formed by connecting the eastern capital cities of Sydney, Melbourne and Brisbane. The national capital, Canberra, and the country's premier resort area, the Gold Coast (Coolangatta Airport), are the major centres within this area. Adelaide (South Australia) and Perth (Western Australia) are not included in this group. Each of these airports has three million passenger movements a year, but Perth's international traffic is more than seven times the size of Adelaide's. Of the remaining capital cities, Darwin is advantageously located to serve as an important regional gateway in the far north of Australia, while Hobart is situated in the south in an island State with a small resident population. The busiest general aviation airports are located in or near the major cities.

An impressive record of growth and profitability largely influenced the marketability of Australia's airports. Table 2 shows that the total passenger throughput for the FAC's airports between 1987/88 and 1996/97 grew at an average annual rate of growth (AARG) of 7.8%. Airports with above-average growth, Brisbane and Perth, were becoming important gateways as Australia's popularity as a long-haul tourist destination increased. As a group, the airports serving domestic traffic grew at the slowest rates, though these were still buoyant markets over the long-term.

⁴ In a sense, the privatisation process commenced on 31 March 1993 when the small general aviation airport, Cambridge, located close to Hobart Airport was sold to a local investor, Aerotechnology. This reduced the number of FAC airports from 23 to 22.

Table 1
Relative size of the FAC's airports – 1996/97^a

Airport	Type of airport	Passengers (millions) ^b	Aircraft (thousands) ^b	Revenue (1998/99 US\$ millions)	Tonnes landed (millions)	Share of FAC revenue (%)
Sydney	International	20.76	275.6	12.32	158.52	39.6
Melbourne	International	13.48	152.3	7.03	81.27	20.3
Brisbane	International	10.26	157.1	5.32	68.10	17.0
Perth	International	4.59	95.2	2.42	33.87	8.5
Adelaide	International	3.69	103.1	1.60	17.99	4.5
Coolangatta (Gold Coast) ^c	Domestic	1.94	86.0	0.74	6.52	1.6
Darwin	International	1.01	81.1	0.69	5.49	1.4
Canberra	Domestic	1.76	107.2	0.78	5.10	1.3
Bankstown (Sydney) ^d	General aviation	0.00	621.0	0.00	4.69	1.2
Hobart ^c	Domestic	0.85	15.0	0.32	3.49	0.9
Townsville ^c	Domestic	0.68	59.9	0.32	2.85	0.7
Alice Springs ^e	Domestic	0.80	44.3	0.37	2.84	0.7
Launceston	Domestic	0.59	45.5	0.26	2.71	0.7
Essendon (Melbourne)	General aviation	n.a.	68.9	0.08	2.33	0.6
Parafield (Adelaide)	General aviation	n.a.	292.1	n.a.	1.30	0.3
Moorabbin (Melbourne)	General aviation	0.03	342.1	n.a.	1.17	0.3
Jandakot (Perth)	General aviation	n.a.	378.0	n.a.	0.75	0.2
Archerfield (Brisbane)	General aviation	n.a.	254.5	n.a.	0.73	0.2
Mount Isa	Domestic	0.10	6.7	0.05	0.45	0.1
Total		60.55	3185.8	32.29	400.16	100.0

^a Source: FAC, Annual Report 1996/97.

^b Passenger and aircraft numbers are totals for arriving and departing movements.

^c Limited international services operate from time to time to Coolangatta, Hobart and Townsville airports.

^d Camden and Hoxton Park general aviation airports included with Bankstown.

^e Tennant Creek included with Alice Springs.

Aircraft movements grew less strongly as larger aircraft assumed greater importance so that landed tonnes improved almost in line with the number of passengers. Indeed, for Sydney, Brisbane and Perth, landed tonnes increased at a faster rate than the number of passengers. When the FAC was formed, one of the goals was for it to keep aeronautical charges as low as possible by increasing its income from other sources. The FAC's successes in this regard, achieved largely through retailing and property sources, shows up in the growth rate for revenue. As a result, the FAC's airports collectively earned a surplus before depreciation, interest and taxes of US\$261 million in 1996/97 on an asset base of US\$1.99 billion.⁵ However, Tables 2 and 3 also show that

⁵ This does not include Head Office activities.

Table 2
Average annual rates of growth of FAC airports – 1988/89–1996/97^{a,b}

Airport	Type of airport	Passengers (%)	Aircraft (%)	Tonnes landed (%)	Revenue (%)
Sydney	International	5.7	3.3	6.0	11.9
Melbourne	International	7.0	4.4	4.6	9.1
Brisbane	International	8.5	4.7	8.9	14.4
Perth	International	8.3	5.3	9.7	14.1
Adelaide	International	6.1	2.9	5.4	10.6
Coolangatta (Gold Coast) ^c	Domestic	6.8	1.0	4.7	8.2
Darwin ^d	International	7.5	–1.0	6.3	11.0
Canberra ^d	Domestic	4.1	0.5	2.6	4.8
Bankstown (Sydney) ^e	General aviation	n.a.	0.6	n.a.	21.7
Hobart ^c	Domestic	6.8	–10.6	3.6	9.3
Townsville ^{d,c}	Domestic	4.2	–5.8	–3.1	1.7
Alice Springs ^{d,f}	Domestic	2.3	0.9	–1.7	5.2
Launceston	Domestic	5.1	2.3	–3.6	3.3
Essendon (Melbourne)	General aviation	n.a.	0.4	–5.9	4.5
Parafield (Adelaide)	General aviation	n.a.	2.5	n.a.	17.4
Moorabbin (Melbourne)	General aviation	n.a.	–0.9	n.a.	16.8
Jandakot (Perth)	General aviation	n.a.	4.5	n.a.	15.0
Archerfield (Brisbane)	General aviation	n.a.	–0.3	n.a.	11.8
Mount Isa ^d	Domestic	5.9	–17.9	0.2	5.7
Total		7.8	3.0	7.0	12.5

^a Sources: Federal Airports Corporation, Annual Reports 1987/88–1996/97.

^b Alice Springs, Canberra, Darwin, Mount Isa and Townsville airports were transferred to the FAC during 1989/90, the year of a lengthy pilots' dispute. The AARG for these airports is for the shorter period 1990/91–1996/97.

^c Limited international services operate from time to time to Coolangatta, Hobart and Townsville airports.

^d AARG for period 1990/91–1996/97.

^e Camden and Hoxton Park general aviation airports included with Bankstown.

^f Tennant Creek included with Alice Springs.

some of the smaller domestic and general aviation airports did not share in the growth and profits (as calculated in the FAC's accounts).

3. The path from government department to private ownership

Local communities had to bear the financial burden of developing their own aerodromes until 1941 when the Federal Government introduced maintenance grants for all aerodromes with regular passenger transport (RPT) services. However, the demand for financial support increased significantly after World War II when a large number of aerodromes became available for civil aviation operations. As air traffic volumes grew, most of the Federal Government's funds were directed towards the busiest airports serving larger aircraft.

An Aerodrome Local Ownership Plan (ALOP) was introduced in 1958 under which all aerodromes that served a local rather than a national need were to be owned, developed, operated

Table 3
 Profitability of FAC airports – 1996/97 (US\$000 at 1998/99 values)^a

Airport	Total revenue	Operating expenses	EBDIT ^b	Depreciation	EBIT ^c	Assets
Sydney	158 521	51 063	107 458	40 034	67 424	786 564
Melbourne	81 266	26 555	54 711	17 023	37 687	307 222
Brisbane	68 104	18 911	49 192	21 864	27 328	343 123
Perth	33 871	11 629	22 242	4905	17 337	140 797
Adelaide	17 988	7376	10 612	2898	7714	94 935
Coolangatta (Gold Coast)	6516	2600	3916	720	3196	26 560
Darwin	5492	3003	2489	3188	–698	45 211
Canberra	5099	2277	2822	510	2312	32 541
Bankstown (Sydney)	4692	2619	2073	1398	675	80 143
Hobart	3492	1787	1704	623	1082	8746
Townsville	2847	2013	834	1359	–525	18 776
Alice Springs	2840	1812	1028	1430	–402	17 036
Launceston	2711	1376	1335	562	773	10 791
Essendon (Melbourne)	2329	1748	581	677	–95	19 126
Parafield (Adelaide)	1296	770	527	355	172	15 361
Moorabbin (Melbourne)	1166	885	281	263	17	13 068
Jandakot (Perth)	745	1060	–315	281	–596	8752
Archerfield (Brisbane)	731	801	–70	161	–231	9424
Mount Isa	454	388	66	379	–313	7186
Total	400 160	138 673	261 487	98 629	162 858	1 985 362

^a Source: Federal Airports Corporation, Annual Report 1996/97.

^b Earnings before depreciation, interest, taxes.

^c Earnings before interest, taxes.

and maintained by the communities they served (Bureau of Transport Economics, 1985). The Government offered to transfer its aerodromes to local authorities – free of charge, but with an agreement to pay half of future approved maintenance and development for a period of time. The intent of this policy was that the Government would support a local aerodrome wherever an RPT service could be sustained.

Over the next two decades, the financial burden on the Government increased as responsibilities were broadened to include general aviation and aerodromes on mission stations. By 1981, there were 436 aerodromes eligible for assistance, the Government itself continuing to own 81 civil airports, including 12 operated by the Department of Defence. Successive governments in Australia set themselves the objective of achieving full cost-recovery from the civil aviation sector, but an inquiry calculated that only 55% of costs were being covered through charges on the industry in 1982–1983. Moreover, the inquiry found that there were significant problems with the system of administering civil aviation in Australia (Bosch et al., 1984).

As a result, the local ownership programme was accelerated so that, by 1994, the Government had divested itself of all but the 23 airports ceded to the newly formed FAC. The most significant transfer of ownership during this period was Cairns Airport, which, under the ownership of the Cairns Port Authority, became Australia's fastest growing international gateway.

The FAC commenced with 17 airports and an asset base of US\$0.8 billion on 1 January 1988, but another six airports were added in April 1989.⁶ The formation of the FAC occurred against the background of a wide-ranging programme of microeconomic reform sweeping the Australian economy. The corporatisation model was intended to give the management of the airports greater commercial freedom and to emulate governance, management, and incentive systems employed in the private sector. The FAC was responsible for the operation of the airports, including terminal facilities⁷ and other commercial services, but did not include air traffic control. It became liable for payroll taxes in 1998/99 and for income tax in 1991/92, and it had to earn a reasonable rate of return and pay dividends to the Government.⁸ Residual powers lay with the Minister of Transport to direct the FAC to perform certain functions in the public interest.⁹

It was intended that the FAC would operate the airports along commercial lines. Table 4 presents selected performance measures for 1991/92 and 1996/97 to document the situation during the early 1990s. The results for 1997/98 for Melbourne, Brisbane and Perth were taken from annual reports produced by their new owners and cover the first year of operation as privatised airports. The remaining results for 1997/98 in Table 4 were achieved by the FAC in its final year of operation.

Of course, the use of revenue as a measure of output is problematic when the airport possesses a degree of monopoly power. It is true, though, the FAC had limited discretion to raise its aeronautical charges. It was given a clear directive to reduce charges to airlines and the major sources of growth in income were commercial rents and property development. In these areas, the FAC faced off-airport competition, and where it did possess market power the FAC was subject to prices surveillance and prices monitoring. While these observations might engender greater confidence in revenue as a proxy for output, it is necessary to ask whether the various sources of non-aeronautical revenue have much to do with the productivity of the airport infrastructure. With these limitations in mind, the data presented in Table 4 provide insights into the commercial performance of the FAC.

For the group of airports, revenue per employee increased by more than 54% over 5 years up to 1996/97, reflecting the combined effect of a 16% reduction in the number of employees and a 43% increase in real revenue. Despite the onset of the Asian economic crisis in the middle of 1997, there was a further improvement of 11.3% in revenue per employee across all of the airports in 1997/98. This was assisted by the strong improvement between 1996/97 and 1997/98 at Melbourne, Brisbane and Perth airports under their new owners – 37%, 35% and 30%, respectively. Over the same period, Sydney Airport's revenue per employee increased by 21%. Much of this improvement is correlated with increases in the number of passengers and landed tonnes. However, Table 4 also shows that revenue-earning performance generally improved in real terms throughout the 1990s.

Despite these achievements within a corporatised structure, there were continuing debates about the merits of fully privatising the airports (Mills, 1995). One of the events that influenced

⁶ The additions in 1989 included airports shared with the Department of Defence – Canberra, Darwin and Townsville. The total of 23 airports was reduced in 1993 when Cambridge Airport was sold.

⁷ Prior to the FAC taking control of its airports, the Government negotiated long-term leases for terminals with the domestic airlines, Ansett and Australian (later merged into Qantas).

⁸ The target rate of return was 7.5% on assets before taxes.

⁹ For example, the FAC was directed to waive its landing charges for domestic airlines during the extended pilots' dispute in 1989. Compensation was paid to the FAC for this Ministerial direction.

Table 4

Performance measures for selected years (expressed in 1998/99 US\$ values)^{a,b}

Airport	Revenue per employee			Revenue per passenger			Revenue per landed tonne		
	1991/92	1996/97	1997/98	1991/92	1996/97	1997/98	1991/92	1996/97	1997/98
Sydney	280 784	417 012	502 328	7.26	7.64	8.23	12.23	12.87	14.17
Melbourne	222 129	365 832	502 663	6.01	6.03	6.55	11.04	11.56	12.96
Brisbane	326 555	475 039	641 588	6.37	6.64	7.09	12.55	12.80	14.62
Perth	161 328	283 900	368 282	6.80	7.38	7.25	12.94	13.99	13.57
Adelaide	161 198	240 174	246 460	4.56	4.87	n.a.	10.08	11.26	n.a.
Coolangatta (Gold Coast)	193 284	199 141	232 265	3.65	3.35	3.99	9.06	8.80	10.19
Darwin	106 049	198 000	187 168	5.74	5.43	5.50	8.34	8.00	8.27
Canberra	124 682	208 599	219 755	2.87	2.89	3.28	6.20	6.55	7.74
Bankstown (Sydney)	105 058	180 005	210 993	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Hobart	98 863	132 320	121 797	5.86	4.10	3.96	15.24	10.95	11.13
Townsville	89 229	147 603	132 610	3.90	4.17	4.72	7.07	8.86	9.80
Alice Springs	88 367	156 812	145 664	3.23	3.54	3.53	6.38	7.62	8.30
Launceston	96 629	110 799	114 242	6.02	4.62	4.20	13.18	10.37	9.34
Essendon (Melbourne)	70 262	103 980	116 829	n.a.	n.a.	n.a.	25.29	29.71	29.89
Parafield (Adelaide)	39 873	114 628	109 147	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Moorabbin (Melbourne)	69 065	111 495	97 792	29.51	35.34	n.a.	n.a.	n.a.	n.a.
Jandakot (Perth)	30 174	71 068	57 911	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Archerfield (Brisbane)	66 711	85 944	102 465	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mount Isa	75 076	127 728	150 186	4.40	4.76	4.73	6.10	9.00	8.33
Total ^c	201 043	310 120	345 132	6.39	6.72	n.a.	11.82	12.61	n.a.

^a Sources: Federal Airports Corporation, *Annual Reports 1991/92, 1996/97 and 1997/98*, Australia Pacific Airports Corporation, *Annual Report 1997/98*, Westralia Airport Corporation, *Annual Report 1997/98*, and Brisbane Airport Corporation Limited, *Annual Report 1997/98*.

^b Melbourne, Brisbane and Perth airports were operated by their new owners throughout the 1997/98 financial year. The Phase 2 sales were effected at varying stages during 1997/98, but the data in the table were reported by the FAC in its *Annual Report* on a full-year basis.

^c Total results for 1997/98 do not include Melbourne, Brisbane and Perth airports.

attitudes was a public inquiry into the FAC's charges. The FAC's practice was to set uniform, weight-based prices for aeronautical services for all of its airports, with one exception – congestion charges were permissible at Sydney Airport as a management device. When the FAC announced its intention to increase its prices in September 1992, it precipitated a public inquiry by the Prices Surveillance Authority (PSA, 1993).¹⁰

¹⁰ The PSA was absorbed into the Australian Competition and Consumer Commission in 1995.

An important recommendation to emerge from this was that each airport should set its own fees and that cross-subsidisation between airports should cease, begging the question “what advantages flow from operating the airports as a system”. In addition, the PSA concluded that the FAC and the PSA should work jointly on a price-capping methodology as a way to improve regulatory mechanisms. The inquiry process, though, provided a public forum for various parties, including the airlines, to criticise the FAC. The PSA’s final report set out an agenda for the reform of management, including the adoption of more efficient pricing structures, improved management information systems, revaluation of the Corporation’s assets to reflect their earning potential, and improved internal economic and financial appraisal of investment proposals.

The completion of the inquiry coincided with a shift in Government policy towards privatisation of government business enterprises, using the proceeds to reduce government debt. After wide-ranging public debate, the ruling Australian Labor Party resolved its objections to privatisation of the airports and the stage was set for a new era in airport management and regulation (White, 1996). In April 1994, the Government announced that it intended to sell its airports and a scoping study was commenced to guide the Government’s thinking on how best to proceed. Even with the election of a new Coalition Government in February 1996, the commitment to privatise did not wane – a measure of the strong bipartisan support for this change in policy.

4. The privatisation process

4.1. Preparing for the sales

The Government made an allowance of US\$1.4 billion (1998/99 values) in its budget estimates for the sale of the FAC but its advisers, ANZ McCaughan and Salomon Brothers, proposed a higher net value in 1994 of US\$1.8 billion (1998/99 values).¹¹ In proceeding with the sale, it was clear that an important objective was the maximisation of the proceeds from the sale, but the Government announced that it had set a number of sales and ongoing objectives to be met by the winning bidder. Apart from net proceeds on a risk-adjusted basis to the Commonwealth, financial strength and management capabilities to operate and develop airports, extent of local participation, airport development plans and commitment to the effective development of airport services, environmental credentials and equitable treatment of FAC employees were to be included in the selection criteria.

The Government also set a limit of 49% foreign ownership and a requirement that the majority of directors of an airport lessee be Australian citizens or Australian residents. Restrictions were placed on cross-ownership of major airports and airlines were limited to a maximum share of 5% of the airport operators.

¹¹ Haririan and Vasigh (1994) cite a study that valued the 87 largest commercial airports in the USA at US\$29 billion (1991 values). Were it reasonable to base the estimate simply on a pro rata of emplanements, the Australian airports would have been valued at US\$1.8 billion (1998/99 values). This is almost the same as the valuation provided to the Australian Government by ANZ McCaughan and Salomon Brothers. However, the authors are not able to provide details about the methodology used in either the US or the Australian valuations.

Privatisation of a single airport, let alone a system of airports, is a complex exercise. Four years were to pass between the announcement of a policy decision to privatise Australia's airports and the conclusion of two phases of the sale process. Even then the most valuable airport, Sydney, was put to one side pending resolution of uncertainties about the development of a second major airport in the Sydney region. Table 5 summarises the key milestones leading to the sale of the first set of airports.

Preliminary work took 16 months to complete, but key issues had to be addressed. A scoping study evaluated sale options and led to decisions to sell the FAC as a set of individual airports rather than as a system. This was to be achieved through trade sales in a public tender process rather than through a set of public floats. The initial intention was to retain the FAC Corporate Office as a government business enterprise providing airport management and technical services on a commercial consultancy basis, but later developments linked to the problems of Sydney Airport resulted in the Government's decision to exclude the FAC from the privatisation process (White, 1996).

The structure of the FAC did not facilitate the sale as proposed since each airport had been operated as a cost centre with the Head Office providing a range of services that needed to be devolved to the airports. The FAC facilitated the sales process by undertaking the necessary reorganisation. This included a revision of the structure of the FAC's aeronautical charges. The previous practice of setting network-wide aeronautical charges was abandoned in favour of location and service specific charges. A new pricing system was introduced for Sydney, Melbourne, Brisbane, Perth and Adelaide airports on 1 January 1997.

Landing fees had been held constant since April 1991 and the new charges resulted in an increase of 10.8% in total aeronautical and property revenue. In introducing the charges, the FAC claimed that its landing fees remained low by international standards. Further changes in tariffs for Sydney Airport were introduced in October 1998 with the effect that costs of landing smaller, domestic jet aircraft and freighter aircraft fell while charges rose for international passenger aircraft by up to 30%. Charges at the remaining airports were held constant up until when they were sold in mid-1998, after which time the new owners could vary prices within the prices monitoring and surveillance arrangements.

In addition, the assets vested in the FAC had to be transferred back to the Government and appropriate legislation was drawn up in the *Airports (Transitional) Act*. This also enabled the Government to grant long-term leases in airport land to "airport lessee companies". At the same time, it was necessary for the Government to pay off the FAC's debts of US\$441 million. An additional piece of legislation, the *Airports Act* established the regulatory framework that would apply to airports after the sales were completed, including provisions dealing with foreign ownership. In particular, the Act nominated the ACCC as the body responsible for administering price-cap regulation, price surveillance and quality of service monitoring. The ACCC also was empowered to publish information that the airport operators were obliged to provide. The Minister for Transport also retained discretionary powers to introduce traffic management measures.

The passage of the Bills was delayed as a result of an election that resulted in the removal of the Australian Labor Party from power and its replacement by a Liberal/National Party Coalition. Although the new Government opposed certain aspects of the airport Bills while in opposition, it moved ahead with privatisation. Despite its having an estimated worth equal to half of the total value of the other 21 airports combined, the decision was made to defer the sale of Sydney

Table 5
Milestones – Phase 1 of airport sales

Date	Event
April 1994	Government publishes a White Paper on Employment and Growth in which it announces an intention, in principle, to sell the FAC's airports.
May 1994	Scoping study initiated to investigate feasibility of selling the FAC network and to report on post-sale regulatory requirements
June 1994	BZW engaged to provide business advice to the scoping study task force to advise on sale options and strategies and the actions required to achieve the Government's timetable.
March 1995	Scoping study completed.
April 1995	Decision to sell all 22 FAC airports in two phases in individual trade sales. First tranche to be Sydney (including Sydney West), Melbourne, Brisbane and Perth. Adelaide Airport was added later.
August 1995	BZW appointed as Business Adviser to assist with marketing, due diligence, tendering and bid evaluation and bidder contract negotiations.
September 1995	Bills introduced into Parliament. The <i>Airports Bill</i> established the regulatory framework for post-privatisation and the <i>Airports (Transitional) Bill 1995</i> facilitated the sale of the leases.
December 1995	Appointment of legal advisers (AGS and Clayton Utz.).
March 1996	New Government elected with commitment to complete the first phase of sales (Melbourne, Brisbane and Perth) by 30 June 1997. Sydney was excluded from the Phase 1 sales pending the resolution of noise issues over Sydney and the completion of an environmental impact study for the proposed second Sydney Airport at Badgerys Creek (Sydney West Airport). Adelaide also was removed from Phase 1 sales in order to resolve issues in relation to a proposal to extend the international terminal. Airport Sales Task Force within Department of Finance formed to manage and complete the sales. The Department of Transport was reorganised as the Department of Transport and Regional Development.
September 1996	Amended Bills passed in Parliament and effective from 9 October 1996.
12 September 1996	Call for expressions of interest in Phase 1 airports. The requirements for participating in the bid process and basis for shortlisting of consortia were issued.
October 1996	Office of Asset Sales takes over the task of managing and completing the sales. The Department of Transport and Communications' role was to develop legislation and regulations, prepare leases, and evaluate bids from a transport policy perspective.
10 October 1996	Invitation for expressions of interest closed. 170 parties registered an interest and 60 of these participated in the bidding process. 30 lodged expressions of interest by the due date.
18 October 1996	12 consortia were short-listed and were issued with a Request for Proposal.
30 October 1996	Tender documents were issued after the signing of confidentiality agreements.
November 1996	Government's paper on Pricing Policy for airports released (developed by the Department of Transport and Regional Development in consultation with the Australian Competition and Consumer Commission and other stakeholders).
30 January 1997	9 consortia submitted a total of 18 offers (5 for Melbourne, 6 for Brisbane and 7 for Perth).
February 1997	The Office of Asset Sales and its Business Adviser evaluated the offers and concluded that a further round of bids was necessary to improve the offers in terms of their conditionality and conformity with tender requirements. Six of the consortia were invited to participate in this third stage.
10 April 1997	13 revised bids were submitted by the 6 consortia (3 for Melbourne, 5 for Brisbane, 5 for Perth).
3 May 1997	Decisions made about successful bids.
7 May 1997	Sale Agreements were signed for the airports for a total of US\$2.1 billion.
1 July 1997	New airport operators take over control at Melbourne, Brisbane and Perth Airports and Phase 1 of the airport sales process completed.

International Airport. The sales of the general aviation airports in the Sydney region, Bankstown, Camden and Hoxton Park, were also deferred. The remaining 17 airport leases were to be sold in two tranches. The first was to include Melbourne, Brisbane, Perth and Adelaide, but Adelaide's sale was delayed so that negotiations could continue with the State Government about a proposal to extend the runway.¹²

4.2. Phase 1 sales

The Government initially managed the sales process through the Department of Finance, but later passed this to a new body, the Office of Asset Sales and IT Outsourcing (OASITO). Input on transport policy and regulatory matters was provided by the Department of Transport and Regional Development. Expressions of interest were invited from interested parties in September 1996 as a demanding schedule of information gathering, evaluation, proposal and assessment commenced. A total of 170 parties expressed initial interest, but only 60 of these participated in the first stage, and only 30 submissions were received by the due date of 10 October 1996. Twelve of these were selected for further consideration and their backers were invited to tender.

To assist the bidders undertake their due diligence investigations, the Government's task force had prepared relevant documentation indicating the potential value of the assets and presenting relevant data.¹³ Since this involved confidential information, the Government only provided its Information Memoranda to the shortlisted consortia and then went to considerable length to ensure that the sales were conducted on a level playing field. Shortlisted consortia were given access to airport sites, to the FAC's managers, and to other key stakeholders. A data room was established and contained financial information and relevant documents, plans and drawings. The adequacy of these measures was criticised by the bidders and the ANAO later judged that the costs of the sale process had been increased for both the Government and the bidders (Australian National Audit Office, 1998a).

Other ground rules governing the sales were that the consortia were not permitted to use the media in a way that would influence valuations, and no negotiations were entered into about the tender documents themselves. The bidders had until the end of January to formalise their bids. At that stage, nine consortia submitted 18 bids for Melbourne, Brisbane and Perth Airports. However, there were certain aspects of these bids that did not conform to the tender specifications and all parties were invited to re-submit. The Government selected the three winning bids from the 13 revised bids and announced its decisions in May 1997.

The Government allowed for net proceeds of US\$1.4 billion in its budget estimates, but the first tranche of sales netted US\$2.0 billion.¹⁴ On an average, the amounts paid implied an earnings multiple¹⁵ of 16.8 compared to multiples of 5–10 times earnings in sales of international airports

¹² In July 1997, the Government injected US\$16 million into the FAC to fund the runway extension. Another US\$2 million was provided at a later date.

¹³ The preparation of the Information Memoranda occurred over a period of 12 months.

¹⁴ The gross proceeds were US\$2022 million, against which direct sale costs of US\$98 million (including a payment to State governments in lieu of stamp duty) were incurred.

¹⁵ Defined here as the sale price divided by earnings before depreciation, interest and taxes (EBDIT) as revealed in the FAC's Annual Report for 1996/97.

Table 6
First round of airport sales^a

Airport	Airport leasing company	Amount (1998/99 \$US millions)	Price–earnings ratio	X-factor (%)	Share by category of investor		
					Operator/ Manager (%)	Local (%)	Finance (%)
Melbourne	Australia Pacific Airports Corporation	827.1	15.1	4.0	15	0	85
Brisbane	Brisbane Airport Corporation Limited	883.3	18.0	4.5	16	47	37
Perth	Airstralia Development Group	409.4	18.4	5.5	16	0	84
Total Phase 1		2119.8	16.8				

^a Sources: ANAO (1998a), FAC *Annual Report 1996/97*, Australia Pacific Airports Corporation *Annual Report 1997/98*, Brisbane Airport Corporation Limited *Annual Report 1997/98*, Westralia Airport Corporation *Annual Report 1997/98*, and various Press Releases issued by the Minister of Transport.

in Europe (Australian National Audit Office, 1998a). Details about the winning bids are provided in Table 6.

- *Melbourne/Tullamarine*: Australia Pacific Airports Corporation (APAC) with its bid of US\$0.8 billion (price–earnings ratio = 15.1).
- *Brisbane*: Brisbane Airport Corporation Limited (BACL) for US\$0.9 billion (price–earnings ratio = 18.0).
- *Perth*: Airstralia Development Group (ADG) for US\$0.4 billion (price–earnings ratio = 18.4).

The Australian National Audit Office subsequently released a report that was critical of certain aspects of the sales process – notably the failure of the Commonwealth to indicate how it would weight assessment criteria and its contracting procedures for advisers during the sales process (ANAO, 1998a). One of the most contentious issues with the sale process was the way in which infrastructure bonds were taken into account in assessing the after-tax value of the bids to the Government¹⁶. The Government's financial adviser developed a specific model to evaluate the impact of infrastructure bonds, employing a different methodology embodied in the Department of Treasury's own model. The practical result of this was that the second-highest bid was awarded the lease for Melbourne Airport.

4.3. Phase 2 sales

The Government announced on 12 June 1997 that it would sell the remaining FAC airports with the exception of those in the Sydney region. A preliminary Information Brochure released by

¹⁶ The financial structures established by the various consortia all had tax implications. The ANAO reported that the Government should have earned US\$1.0 billion in company tax from the airports over a period of 20 years. However, very high gearing levels and asset revaluations would ensure that the new airport owners would avoid paying any of this tax, even though the owners expected to earn a return of 13–14% before tax.

the Ministers for Finance and Transport and Regional Services on 12 August revealed that eight core airports would be sold by long-term leasehold. The airports in this group were Adelaide, Alice Springs, Canberra, Coolangatta, Darwin, Hobart, Launceston and Townsville. The remaining seven regional airports were to be sold on a freehold basis subject to agreement with State and Territory Governments.

On 10 October 1997, interested parties were invited to begin preparing their expressions of interest. Thirty consortia lodged more than 80 separate bids before the closing date on 27 October. Most of the interest was in the core airports, but even the general aviation airports each attracted at least two bids. Following a review by the Office of Asset Sales and the Government's Business Adviser, BZW, 26 groups were advised on 6 November that they had been placed on a shortlist and that they should prepare detailed bids. The Government indicated that all 15 of the airports were to be sold on a leasehold basis, although it reserved the right to offer some of the smaller airports on a freehold basis provided the relevant State Governments introduced appropriate regulations.¹⁷

All of the bidders were provided with relevant information on a CD-ROM package, eliminating the need for the data room used in the Phase 1 sales. Although the "Phase 2" airports were, in the main, much smaller than those sold previously, the task was nonetheless another demanding one. There was greater scope for local participation in the bidding and it was expected that there would be more inexperienced groups involved. The larger number of airports ranging from capital city international gateways (Adelaide and Darwin¹⁸) to airports that served only general aviation added to the dimensions of the task.

Winning bids for 11 of the airports were announced in March 1998 while continuing negotiations were occurring for the three airports in the Northern Territory, Darwin, Alice Springs and Tennant Creek. Only Essendon Airport in Melbourne failed to attract an acceptable offer. This airport was withdrawn from sale and subsequently was set up as a stand-alone airport company, Essendon Airport Limited, with all of the shares vested in the Australian Government. In the case of Darwin and Townsville airports, the runways and taxiways remained under the ownership of the Department of Defence. However, defence functions carried out at Canberra's Fairbairn Base will be relocated over time. Accordingly, the lease agreement with the new owner includes the runways, the taxiways and the major part of the Fairbairn Base.

When the negotiations for the three airports in the Northern Territory were completed, the Government had received an additional US\$467.8 million from nine different consortia, against which costs of US\$22.7 million were incurred. Even though these sales occurred after the onset of the Asian economic crisis in July 1997, the prices were still relatively high in terms of an average price-earnings multiple of 18.5. Details about the winning consortia are summarised in Table 7.

Cross-ownership of airports was permitted in the Phase 2 sales and several combinations emerged. Infratil Australia became the majority shareholder in Perth International Airport in July 1997, and it took a 51% share of the Airport Development Group in its winning bid for Darwin, Alice Springs and Tennant Creek (Northern Territory) airports. Airport Group International also owned shares in these same airports – 16.5% of Perth International Airport and 49% of the Northern Territory airports, and 30% of Hobart Airport.

¹⁷ The outcome, though, was that none of the airports was sold on a freehold basis.

¹⁸ Hobart, the capital of the State of Tasmania, has international services on an irregular basis.

Table 7
Second round of airport sales^a

Airport	Airport leasing company	Amount (1998/99 \$US millions)	Price-earnings ratio	X-factor (%)
Adelaide and Parafield	MSUM	232.9	20.9	4.0 ^b
Darwin, Alice Springs and Tennant Creek	Airport Development Group	69.5	19.7	3.0 ^c
Coolangatta	Queensland Airports Ltd	66.3	16.9	4.5
Canberra	Capital Airports Group	42.2	15.0	1.0
Hobart	Hobart International Airports Corporation	22.8	13.4	3.0
Launceston	Australia Pacific Airports (Launceston) Pty Ltd	10.9	8.2	2.5
Townsville and Mount Isa	Australian Airports Pty Ltd	10.4	11.6	1.0 ^d
Moorabbin	Moorabbin Airport Corporation Pty Ltd	5.1	18.2	n.a.
Jandakot	Jandakot Airport Holdings	4.5	-14.3	n.a.
Archerfield	Archerfield Airport Corporation Pty Ltd	1.9	-26.9	n.a.
Total Phase 2		466.7 ^e	18.5	16.0

^a Source: ANAO (1999).

^b X-factor applies only to Adelaide.

^c X-factor applies only to Darwin and Alice Springs.

^d X-factor applies only to Townsville.

^e An additional \$US1.1 million was raised through payments to appoint environment and building controllers, interest on deposits and marketing materials.

Australia Pacific Airports Corporation, the owner of Melbourne Airport, purchased 90% of Launceston Airport as Pacific Airports (Launceston). The winning consortium for Adelaide Airport also was successful in acquiring Coolangatta. Manchester Airport was involved in this consortium through a contractual agreement to provide management services.¹⁹

5. The regulatory framework

5.1. On-going objectives and regulatory provisions

The privatisation programme made it possible for the Australian Government to reduce its debt servicing obligations without raising taxes, thereby establishing an immediate conflict of objectives. On the one hand, the Government had a duty to get the highest price for the public's assets. One option would have been to give purchasers liberal rights to set prices, quality and output levels after the sales. The Government might also have chosen to sell the airports as

¹⁹ This common members of the consortia for Adelaide and Coolangatta airports were financial institutions, Serco Investments Australia, the Macquarie Bank, and Unisuper.

a system.²⁰ Clearly there is a trade-off between entrenching market power and reducing public debt, but the Government's actions reveal a concern about allocative and productive efficiency in the long-term.

Aeronautical charges were increased by 10.8% prior to the sale, but this has to be seen in context. No increases in nominal prices were introduced between April 1991 and January 1997, implying a 12% reduction in real terms, and the FAC's charges were not high by international standards.²¹ The Government's sales team certainly did emphasise to prospective buyers that there was potential to increase earnings outside the price cap from commercial and trading initiatives, car parking and property development (ANAO, 1998b). It also is true that the Government's initial expectations about proceeds from the sales were greatly exceeded.

Nevertheless, the weight of evidence is that the Government sought to maximise the sale price within the framework of its policy to ensure varied ownership across the airports. The airports were sold as individual entities and restrictions were placed on cross-ownership arrangements.²² In addition, a series of information papers and memoranda were issued during the sales process outlining the way the Government was applying competition policy to the airports sector (PSA, 1995). This included price-capping arrangements specific to the airports, but it also included a range of other measures intended to promote greater competition. The regulatory system put into place allows for a transition period of 5 yr, during which time the prospects for market forces and general competition law to replace industry-specific regulation under the *Airports Act 1996* were to be explored.²³

It is fair to say that the details about how these regulations will be applied are still being worked out and that a degree of uncertainty exists (Forsyth, 1999). Before we examine price capping and associated issues, it is notable that the Government's intentions were clarified prior to the bidding in a set of explicit objectives. These were to:

- establish sufficient diversity of ownership of the airports "in the interests of innovation and competitive benchmarking";
- ensure that air service operators enjoy competitive access to airports on reasonable commercial terms;
- maintain a commitment by airport leasing companies to the provision of quality airport services;
- sustain investments required for development of the region through appropriate pricing policies;
- promotion of economic development of the region consistent with sound environmental management and the interests of users.

In general, airports are not considered to be activities subject to rapid technological change and the prospects for long-term reductions in costs are relatively low (Beesley and Littlechild, 1989).

²⁰ For example, in UK it was claimed that the Government could have earned more from the sale of the British Airports Authority if it had sold BAA's seven airports as a single entity (Monopolies and Mergers Commission, 1996).

²¹ Federal Airports Corporation, *Annual Report for the year ended 30 June 1997*. FAC, Sydney.

²² The major airports were sold to independent groups, but some cross-ownership arrangements were permitted for smaller airports. The ACCC has the necessary powers to prevent mergers and acquisitions.

²³ Mostly, the responsibility for economic regulation of the airports both under the *Airports Act 1996* and general competition regulations falls on the ACCC. Details about the ACCC's interpretation of its responsibilities and its determinations in relation to privatised airports are available on its web site at <http://www.accc.gov.au>.

But the situation in the short-run could well be different, particularly with the transfer of ownership to the private sector. Even though the FAC improved the performance of Australia's airports, there was a belief that the private sector would apply new management ideas and methods. Within the new regulatory framework, the Government put itself in the position where it would be able to observe differences in performance under diverse ownership arrangements. This ability to undertake "competitive benchmarking" will be an influential factor in the review of the effectiveness of the regulations.

The second objective has direct implications for airline competition. So far, attempts to start a serious rival to the two incumbent airlines have failed and one of the significant barriers to entry is access to passenger terminals at the main airports.²⁴ In the privatisation process, airlines were permitted to invest in the airports, but strict limits on this prevent airlines gaining control over the airports. Further comments are made below about regulation of access to terminals and other airport facilities, but it is important to note that these arrangements have wider implications. They ensure that the terms of access are reasonable for non-airline operators as well, but in addition they raise the prospect of competition to the new owners in the provision of services on the airport.

One of the known shortcomings of price-cap regulation is that it can be profitable for the operator to reduce quality below the socially optimal level (Forsyth, 1997). Consequently, measures to monitor the quality of service are being introduced to complement the price caps and price monitoring. The ACCC is developing performance indicators for aircraft delay, availability of aircraft gates and aerobridges, waiting times and crowding associated with passenger processing facilities, equipment availability and the standard of facilities. It will publish the results of its work at least on a biennial basis and any significant deterioration in standards over time will be used as a trigger to carry out more detailed investigations.

Under the terms of the leases, the airport owners are obliged to continue operating their facilities at standards expected of major international airports and, collectively, the new owners committed themselves to spend US\$425 million on continuing maintenance and development works over the next decade. Airport owners also are permitted, under certain circumstances, to recover costs of infrastructure development outside the price cap. The support of major airport users for such investments, the link between the infrastructure and productivity improvements, and the relationship between the proposed charges and the cost of providing the new infrastructure are among the key criteria that will be used to decide whether particular price increases are justified (ACCC, 1998a).

The early experience with the Phase 1 airports is that each of the new operators brought new ideas to airport management. Their annual reports, for example, reflect a strong marketing orientation, particularly in relation to non-aeronautical and property services. Emphasis also is given to organisational structures, cost control and management teams with strong links to the local community. The Australian approach to privatisation requires disclosure of financial and operating information to assist the ACCC in its on-going monitoring, and the first annual reports

²⁴ At the main airports, the incumbent airlines, Qantas Airways and Ansett Airlines, operate their own domestic terminals under long-term leases negotiated prior to the commencement of the FAC. When Compass Airlines tried to enter the market, it claimed it was seriously disadvantaged by these arrangements. The subsequent failure of Compass and the role of terminal access are discussed in Nyathi et al. (1993).

issued by the new owners of Melbourne, Brisbane and Perth airports reveal detailed information about plans and performance levels. This type of information is important in the Beesley and Littlechild (1989) prescription in which they recommend breaking the airports sector up into individual units and then using the information gained from comparative analyses to promote greater efficiency. Though there might well be limited scope for direct competition between major airports, competitive benchmarking offers the regulator a way to link future rate increases and efforts to reduce costs.

5.2. Price-cap regulation for the Australian airports

Prior to privatisation, the FAC's charges were subject to the *Prices Surveillance Act 1983* under which the FAC was required to notify the PSA of proposed changes in its charges for designated services. Specifically, these were in aircraft movement and passenger processing areas where it was deemed there was a significant degree of monopoly control (ACCC, 1997). This legislation remains in force and now is administered by the ACCC, but with the difference that the operator has greater certainty about future price determinations under a price-cap system. The new airport owners are permitted to vary designated charges provided they notify the ACCC of their intentions and that the ACCC then decides these plans are within the price cap.

In addition to these price surveillance arrangements, the Act also provides for price monitoring in cases where a significant degree of market power remains. For services subject to monitoring there are no requirements for operators to notify the ACCC of price changes, but a test of the Government's resolve emerged within the first year of privatisation. The background to this was that the FAC laid the legal foundation to introduce a fuel throughput levy and, though it was not implemented by the FAC, it was an area nominated for price monitoring for the privatised airports.

The new owners at Brisbane and Perth airports attempted to introduce such a charge from June 1999. The ACCC estimated that this would increase the airport operators' profits significantly and that at least some of this would place additional burdens on the airlines. Moreover, it did not consider that these charges were based on justifiable cost increases and that the airports appeared to be taking advantage of their market power (ACCC, 1998b). Having considered the options for stronger forms of price control, the ACCC recommended to the Government that fuel throughput levies should be included within the price-capped group of services. In issuing its determination, the ACCC emphasised that it would not allow the airport operators to offset price reductions achieved under the price cap with increases in other charges subject to surveillance and monitoring.

Tables 6 and 7 specified the price-cap commitments entered into by the new airport operators within a $CPI - X$ formula approach. That is, an airport operator is not permitted to increase declared aeronautical charges by more than the Consumer Price Index less a factor decided in advance by the Minister for Transport and Regional Services. Though details about the method used to decide particular values of X for each airport were not made public, the general principle was that they were based on the Government's assessment of feasible cost reductions taking account of factors such as productivity changes and traffic growth.

Given that the airports are multi-product enterprises, the Government was faced with the broad options of calculating price increases according to a tariff-basket or a revenue-yield formula. The tariff-basket method has the advantage that it can be interpreted as a price change and

that it is based on known quantities, whereas the revenue-yield depends to some extent on forecasts (Monopolies and Mergers Commission, 1991). The tariff basket approach embodies an incentive to concentrate price increases on those outputs that are growing most quickly or for which the demand response is weakest. The revenue yield method encourages the operator to expand the measure of output used to calculate average revenue.

The Australian Government opted for a “modified revenue-weighted average price” approach (ACCC, 1997). Total revenue is divided into several pricing categories, each linked to a particular charge such as landed tonnes for aircraft movements. The change in the average revenue for each category is calculated first. A measure of aggregate price is arrived at then by weighting each percentage change in unit revenue by that category’s share of revenue in the previous period. The problem of not knowing with certainty what the outcome will be in a particular year remains, but allowance is made for operators to over- or under-recover in each year provided they satisfy the price cap within a two-year period.

One of the problems in regulating airports is that they supply some services in competitive markets while other services are subject to regulation. This issue was addressed in part by the PSA during its inquiry into the FAC’s charges (PSA, 1993). The PSA was not opposed “in principle” to a “single till” approach in which aeronautical charges are combined with revenue from non-aeronautical sources. The qualifications were, though, that the airport operator should focus all of its charges on specific services as far as is possible and that these charges should at least recover directly attributable incremental costs. Nevertheless, there is scope for operators to pursue strategic behaviour. One concern is that the airport operator would structure its aeronautical charges in such a way as to maximise passenger throughput in order to earn more from its commercial activities outside the price cap. However, the scope to influence passenger volumes via aeronautical charges is limited because of the small demand elasticities (Monopolies and Mergers Commission, 1991).

A potential problem is the scope an operator might have to leverage market power from the regulated services into the unregulated, competitive markets, say, through price bundling strategies (Adams and Yellen, 1976; Forsyth, 1999). Provided the regulated prices are based on costs and reasonable profits, there should be little concern on this score. Another possibility is that the operator decides to unbundle some services, shifting at least some parts outside the price cap. This, of course, would result in a rebalancing of the revenue weights within the price-cap formula, albeit with a one-period lag. The success of the strategy also depends on how much competition the airport operator faces in selling the unbundled services and how the regulator responds. The Government can always add its unbundled services back into the price cap and it can apply competitive access arrangements discussed below.

The ability of the airport operator to alter the structure of its charges under a price cap raises the question whether this will promote allocative efficiency. Vogelsang and Finsinger (1979) showed that, under certain conditions, the multi-product firm subject to successive applications of price caps will move towards Ramsey prices. However, this result depends upon the assumption of unchanging demand, a condition that clearly is violated in the Australian airports sector. Demand can grow exogenously, but convergence to Ramsey pricing occurs only if forecasts turn out to be accurate (Neu, 1993).

Braeutigam and Panzar (1992) reached the conclusion that price-cap regulation is a case of “the practice being way out ahead of the theory”. The fact is that price-cap regulation usually is not

applied in a pure form and the success of any particular set of arrangements depends very much on the setting. In general, the case for price capping is considered to be strongest in the transition to a more competitive regime. Much depends upon what happens at the end of the price cap. One option is to reapply the regulation for another period, but care has to be taken not to reduce the effectiveness of the incentives implicit in this form of regulation. In particular, price caps encourage the regulated firm to pursue cost reductions and innovations precisely because it is permitted to keep the gains. If the future value of X depends on past profits, the advantages of price-cap regulation may be eroded²⁵ and price capping might be best viewed as a special case of rate of return regulation with “regulatory lag”.²⁶

The ACCC has been directed to undertake a review of the effectiveness of the regulations in the fifth year of the price cap with an emphasis on competitive conduct and on protection of the aviation industry. If airport operators have shown a consistent tendency to exert their market power the ACCC will consider the need for stronger forms of regulation. Having said that, the guidelines issued by the Government to the ACCC for this review (Department of Transport and Regional Development, 1996) and its more general statements made under National Competition Policy (National Competition Council, 1998) favour a reduction in regulation. This could induce the airport operators to engage in strategic behaviour to influence the outcome of the review, but it is important to consider this possibility in the light of the arrangements made for competitive access.

5.3. Regulation of access arrangements

In 1995, Australia’s Federal Government and its State and Territory Governments jointly committed themselves to a new “National Competition Policy”, a major programme of reform of essential service industries, government business enterprises and anti-competitive legislation (National Competition Council, 1998). An important element of the package deals with “competitive access”. This is founded on the proposition that, while infrastructure facilities might be natural monopolies, the provision of services using that infrastructure potentially can be organised on a competitive basis.

A business now has the option of making an application to the National Competition Council (NCC) to “declare” an infrastructure service and, if this step is taken, that business is able to negotiate the terms of access to “essential facilities”. An emphasis is placed on negotiated outcomes between the parties, but failure to reach an agreement can lead to legally binding arbitration by the ACCC. An alternative arrangement is that the operator of the infrastructure can submit a voluntary access undertaking to the ACCC. If accepted, the terms and conditions of access then become enforceable. The advantage to the operator in taking this path is that the

²⁵ Sappinger and Sibley (1992) argue that a small amount of linkage between profits and future price caps can increase total surplus.

²⁶ Viewed as a way of implementing rate of return regulation, the price-cap arrangement allows the enterprise to reduce its costs without facing an immediate rate review. If the relationship between investment and productivity were known, the regulator could optimise the period for reviews. However, it is precisely this lack of knowledge that makes price capping attractive – the regulator prefers to set an incentive for enterprises to seek out improvements (Brennan, 1991).

terms of access become more predictable than if the operator is faced with a case-by-case approach.

In 1996, Australian Cargo Terminal Operators applied to the NCC to have particular cargo terminal services declared at Sydney and Melbourne Airports. The service required the use of freight aprons and hard stands for the loading and unloading of aircraft. The NCC assesses such applications using two criteria – whether the facilities are essential to the performance of the service and whether they can be duplicated economically. In this case, the NCC ruled in the applicant's favour and the Federal Treasurer accepted this recommendation. As a result, the applicant could re-enter negotiations with the airports knowing that it had the legal right to apply to the ACCC to arbitrate and to determine access prices if not satisfied with the bargaining process.

This case occurred prior to privatisation of the airports, but subsequently these access arrangements were spelt out in the *Airports Act 1996*. The new owners were given a period of twelve months to develop undertakings on the terms and conditions that would govern access at their airports. Failure to have these general undertakings accepted, as was the case for Melbourne and Perth airports, or a decision not to submit such an undertaking, as was the case for Brisbane airport, resulted in the automatic declaration of services. In making its determinations on these undertakings by Melbourne and Perth Airports, the ACCC considered that the undertakings were too vague, dispute resolution procedures were inadequate and that the pricing arrangements were not sufficiently competitive.

As a result, the ACCC can, for the major airports, determine whether a particular service at that airport is “an airport service pursuant to s.192 of the *Airports Act 1996*” according to the test:

Is necessary for the purposes of operating and/or maintaining civil aviation services at the airport and provided by means of significant facilities at the airport, being facilities that cannot be economically duplicated.

For example, airside facilities are directly related to the provision of aviation services. The ACCC argues that economies of scale and scope are likely to exist so that duplication of the facilities is uneconomic (ACCC, 1998c). Hence the ACCC regards airside facilities as a declared service. Similar arguments apply to international passenger terminals, but the situation is more complex for domestic airport terminals. There is no argument that they are not necessary for the conduct of aviation services, but whether they can be duplicated economically is debatable. The ACCC notes that the two incumbent airlines each has its own terminal at the major airports, but does not believe this means the services can be duplicated economically in all cases. A forward-looking interpretation is taken by the ACCC by asking whether it would be economic for a new operator to duplicate a terminal. In practice, it depends on airline's requirements and the characteristics of the airport. Accordingly, the ACCC will consider the need to declare this service on a case-by-case basis when necessitated by the emergence of new airlines.

In 1998, Delta Car Rentals provided a test case to demonstrate how businesses could approach the ACCC to declare an airport service. The operator of Melbourne Airport wished to restrict Delta to a designated meeting point and to car park roads whereas Delta wanted access to the landside drive area of the airport for picking up and dropping off passengers. The ACCC believed there were wider issues at stake and adopted a broader view of the service than initially requested.

Specifically, the ACCC considered the relevant service was “use of the specified facilities to pick up and drop off passengers”. Moreover, the ACCC found in favour of Delta and considered the service to be declared according to the *Airports Act 1996*. Notably, the decision could have implications for taxis and other commercial passenger vehicles subject to new levies at Brisbane and Perth Airports.

This does not mean that Delta became entitled to access at an uneconomic price; it simply ensures that failure for the parties to reach a negotiated agreement can result in the ACCC deciding access prices as the arbitrator. While the access regulations could expand the scope for competition in airport services and allow the Government to reduce its reliance on price caps, it is not clear how the two forms of price regulation will co-exist. Situations could arise, for example, where the price-cap arrangements render the access price controls ineffective. Forsyth (1999) has begun exploring this and related issues about how the two forms of regulation could work in tandem, but much will depend on how events unfold. The Australian approach to regulation of its privatised airports adds a dimension not found elsewhere and outcomes under this system will have intrinsic interest to researchers.

6. Concluding comments

The new airport owners for Melbourne, Brisbane and Perth airports purchased just prior to the onset of the Asian economic crisis. Although the impact of the economic downturn in Asia was moderated by strong growth in the Australian economy and by an expansion of the Australian outbound travel market, all of the new airport owners were affected. In particular, the high growth rates experienced previously at Brisbane and Perth airports depended to a far greater degree on Asian tourism markets. Brisbane Airport Corporation Limited, for example, reported that its passenger movements declined by 10 000 in its first year. Nevertheless, the price-earnings ratios involved in the second phase of airport sales were equally high even though the downturn in Asia had become apparent.

There are various reasons why the winning bids for Australia’s airports had high price-earnings ratios relative to the sales of airports in Europe. One explanation for this is that there have, to now, been limited opportunities to purchase international airports. This is especially the case in the Asia Pacific region where there was very strong growth in the aviation market until the middle of 1997.

Another factor is that most of the airports enjoy a significant degree of local monopoly power. All of the major airports are located at some distance from each other. For example, the distance between Sydney and Melbourne is 707 km,²⁷ and Perth is 2120 km from its closest state capital city, Adelaide. Although there is some scope for the airports to vie for a share of the international traffic, generally it is true that the major Australian airports do not compete with each other. Also, the nature of the airline networks does not lend itself to the type of competition seen at some airports in North America and Europe for hub transfer business. The price-capping arrangements do place restrictions on changes to nominated aeronautical charges, but the new owners of the

²⁷ Measured as a Great Circle distance (Department of Transport and Communications, *Australian Air Distances*).

phase 1 airports already have demonstrated their zeal in marketing retail and property services and in seeking new sources of revenue. Even at this early stage, the ACCC has been active in reviewing proposed charges.

The difficulties in privatising airports are demonstrated in several ways. That it took between 3 and 4 years to sell the airports after first making a policy decision in favour of privatisation illustrates the complexity of the task. Even after 5 years have passed, though, Australia's major airport remains on the Government's books despite a very strong financial incentive to sell. Major airports are more than commercial undertakings and, in Sydney's case, on-going regional planning and environmental issues are difficult enough to resolve while the Government owns the airport. Furthermore, the details of the regulatory system are being worked out within a system where the Government is, in effect, searching out the scope for competition and efficiency incentives in the airports sector. Of particular interest is how the price-cap regulation will interact with competitive access regulation.

In conclusion, the Government achieved higher than expected prices for its assets and it used the funds to retire public debt. It is too early yet to decide whether the Government also has been successful in achieving its post-privatisation objectives. The regulatory framework aims at delivering relevant information to the regulators, airport users and the public and it emphasises competitive benchmarking. Researchers assessing the merits of airport privatisation will be able to draw useful lessons from the Australian case in the years to come.

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