



Northern Territory

Airports Pty Ltd

**INQUIRY INTO PRICE
REGULATION OF AIRPORT
SERVICES**

**SECOND SUBMISSION TO THE
PRODUCTIVITY COMMISSION**

AUGUST 2001

[I]f there are, say, two airlines that only compete for marginal customers, there is a high degree of customer lock-in with each airline, and the relevant airport is not significant in terms of either total airline profitability or airline network configuration, then it is likely that each airline could have significant countervailing power. Each airline has a credible threat to stop using the airport. This power may be increased if the airport itself cannot credibly reduce its output; for example, if the airport is credit constrained and potentially faces cash-flow problems.

Professor Steven King, Consultant to the ACCC

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Executive Summary

Northern Territory Airports (NTA) offers this supplementary submission in response to developments in the inquiry since the first round of hearings. In particular it responds to a range of comments offered by the Australian Competition and Consumer Commission (ACCC) in its June 1 submission.

We note firstly that the ACCC's non-participation in the hearings, the lateness of its submission and its failure to engage with our own written and oral participation has placed us in a difficult position. As we understood it, the inquiry process was designed to produce a forum in which the cases put by various stakeholders could be tested.

Our central objective in submitting this second submission is to have our unique circumstances taken into account. Whether this is the role of the PC we are not sure. However we request that, if the PC does not do this work in its draft or final report, that it recommend that regulation not continue *at Darwin International Airport*, without an independent and expert review concluding that such regulation is likely to generate public net benefits.

In the absence of direct response to our submission this supplementary submission follows the framework for the analysis of market power set out in Professor Stephen King's report to the ACCC – a framework that the ACCC itself has recommended.

We argue that:

- Darwin has a higher proportion of price responsive air travellers – tourists – than any other airport. This is markedly so when examining the ratio of tourists to passengers of recognised price *inelasticity* – business and those visiting relatives and friends.
- However we would argue that the essential discipline on Darwin International Airport is not the price elasticity of travellers.
- In fact the price inelasticity of the final demand for air travel to Darwin is a critical reason for believing that, at the margin the gains of price regulation are very small.
- The preponderance of tourist and transit passengers gives airlines the ability to impose their commercial will on us. In exercising countervailing market power, they tightly constrain any market power that we might otherwise have.
- Airlines can relatively easily either include or exclude our access to transit passengers on the 'Kangaroo Route' from the Australian East Coast to and from Europe via Asia.
- Consolidation of the hub and spoke structure of the airline industry is reducing the number of direct flights to Darwin. This increases the airlines' bargaining power against spoke airports, by providing a credible threat of bypass.
- The lack of competition in domestic cabotage is crippling DIA's capacity to participate in the hub and spoke consolidation of the industry on terms which allow it to contribute its central strategic asset to the airline industry and to Australia – its proximity to Asia and its location on the 'Kangaroo Route'.
- On any reasonable assumptions, an illustrative partial equilibrium calculation of the allocative efficiency benefits to which regulation can in principle give rise is dwarfed by the productive inefficiencies of regulatory compliance.

- Section 5 outlines our frustrations with the ACCC's administration of the Necessary New Investment (NNI) arrangements. We regret that the ACCC has not responded to – and indeed appears unaware of – the concerns we raised in our initial submission.
- Section 6 argues that the demand characteristics facing Darwin International Airport suggest that growth could remain flat. Given this the CPI-X regime currently in place is draconian.

1. Introduction

In its submission to the Productivity Commission, dated 1 June 2001, the Australian Competition and Consumer Commission (ACCC) argues that the pricing of aeronautical services continue to be regulated at Darwin airport.

It is worth pointing out at the outset that in our view the ACCC's participation in this inquiry has placed other participants, particularly those with different views to the ACCC at a substantial disadvantage.

One of the most essential features of the Productivity Commission (PC) inquiry process is its openness, transparency and contestability. An implicit requirement of this process is that the parties each have a fair chance to know what the arguments of other players are and have a chance to scrutinise and critique them. Our own submission was sent to the Commission a couple of weeks after the due date, and in time for the first round of hearings in which we also participated.

By contrast the ACCC did not participate in the first round of hearings and its submission was not available to us until June. With the PC report due in August, the timing of the ACCC's submission made it extremely difficult for us to respond, and for the PC to consider our input in time for the publication of the draft report. Further, as we discuss below, the ACCC's discussion of new investment, and particularly its comments on new investment at Northern Territory Airports show no sign of any awareness of our own input to the inquiry.

We look forward to the ACCC's participation in the draft report hearings, and would hope that the PC might consider inviting them to participate in one of its more interactive formats in which there are a number of participants with varying views such as a round table.

The remainder of this submission considers the economic issues involved in the price regulation on their merits. It presents a range of considerations in the context of an elaboration of Professor Steven King's framework that have received either no consideration or in our view very inadequate consideration from the ACCC. It then proceeds to discuss issues relating to the Necessary New Investment (NNI) arrangements and the economics of price regulating a slow growing market.

2. Competitive issues

This submission challenges the ACCC's view that Darwin should continue to be price regulated. We argue firstly that it appears that the ACCC has not done or had done on its behalf any serious economic analysis of the competitive circumstances of Darwin Airport along the lines of the analysis the ACCC itself proposes – based on its consultancy study by Professor Steven King. In order to make our point we sketch an analysis along the lines of the framework proposed by King. It shows at the very least that there is a variety of ways in which Darwin Airport's market circumstances differ from those of the other major capital city airports. Yet from what we can glean from the ACCC submission, it appears to have lumped us in with those airports, with very little careful consideration of our particular circumstances.

The ACCC appears to believe that the PC will do some of this work for them (see p. 68 of the ACCC submission). We consider this an unfortunate state of affairs. Regulation costs Darwin airport of the order of \$50,000 per annum in salaries and associated costs, and rises to something like \$80,000 taking into account the various consultants' reports that we must undertake to conform with the regulation's scrutiny of new investment for instance. This is with a staff of 15 people. The cost of inordinate delays and the administrative cost to government are not counted in this estimate. We believe it is appropriate in these circumstances for the economic case for regulation to be carefully scrutinised, on an ongoing basis.

We are not sure whether the PC will conduct a specific analysis of the case for regulation for Darwin or whether it is their role. But it does seem to us that it is critical that an expert and independent review of our circumstances be an integral part of any decision to continue the heavy-handed regulation of our *particular* business. This is a separate issue from the systemic issues which we take it the PC will principally address. We would request that, if the Commission does not perform an independent analysis of the costs and benefits of regulating Darwin Airport that that it recommend at the very least that regulation not continue here without such scrutiny.

Working through Professor King's Framework

In what follows we sketch out our arguments and their place in the King framework used by the ACCC:

(a) Define the problem

There is no dispute on this point.

(b) Determine potential market participants

There is no dispute on this point.

(c) Determine the potential time frames and functional levels for analysis.

There is no dispute on the time frames involved. We are comfortable with Professor King's definition that market power would exist if participants could sustain supra-competitive prices for one to five years (King, 2001, p. 19).

The ACCC's submission lacks any real functional analysis of Darwin Airport – or evidence that such functional analysis has been performed though it does come to a conclusion which one would have thought would presuppose such analysis.

(d) Consider the potential substitution possibilities on the demand and supply sides

The ACCC sets the following question to determine whether airports may exercise market power:

[D]o some or all of these . . . airports have the ability to raise prices to a supra-competitive level over a relevant time frame? (p. 60).

In determining the demand side substitution possibilities of airport users, the ACCC considered two features of airports, – airports' dependence on tourist travellers and the geographical remoteness of airports from other potentially competing airports. Before exploring each to these issues, it is worth noting that the issue of countervailing market power can be handled in

this section or in the last stage of King's framework. We choose to examine it in the last stage of the framework.

Dependence on tourism

In an attempt to define the potential market participants, the ACCC make a crucial distinction between airport users. Tourists are placed in one category, while business travellers and those visiting friends and relatives (VFR) are placed in the other. The key difference is that tourism demand is very often not location specific, whereas business and VFR travel is. Thus, the demand from tourists is substantially more price elastic than demand by business and VFR travellers. An airport with a strong dependence on tourism has a severely limited capacity to exercise market power. This is due to the elastic demand of the end-users and the ability of the intermediate supplier – the airline – to substitute one tourist destination for another.

Consider the following table, which has been produced from data on international visitor data provided by the ACCC in their submission (p. 63):

Table 1: Characteristics of international passengers using Australia's airports

Airport	% of international passengers who are tourists	Ratio of international passengers who are tourists to those who are business & VFR
Adelaide	42	0.8 : 1
Coolangatta	66	2.1 : 1
Darwin	68	3.4 : 1
Hobart	44	1.6 : 1
Melbourne	42	0.8 : 1
Perth	53	1.3 : 1
Sydney	51	1.2 : 1
Townsville	43	2.9 : 1

Source, ACCC, 2001, p. 63

Of all these airports Darwin is more dependent on tourism than any of the other airports mentioned. Secondly, notice that the ratio of tourists to business and VFR travellers is far higher at Darwin than at any of these other airports. In fact Darwin airport is substantially more reliant on tourism than Coolangatta, Hobart and Townsville, all of which the ACCC concedes do not require regulation (ACCC, 2001, p. 63).

Nearly 70% of all Darwin airport's international passengers are tourists. This substantially diminishes our ability to 'raise prices to a supra-competitive level over a relevant time frame? (p. 60).'

As the ACCC notes, domestic traveller data is not available. However we believe that, in Darwin's case the ratios reported above would not change substantially.¹ Thus the ACCC's analysis identifies Darwin as having the greatest proportion of tourists amongst its international passengers and by far the largest ratio of tourists to less price sensitive customers. These factors suggest that Darwin Airport faces the most price elastic end market of any airport considered by the ACCC.

¹1999/2000 statistics show 65% of all visitors to the Northern Territory (domestic and international) came for holiday or pleasure (down from 68% the previous year). VFR was 13% with business at 10% balance with 'other' at 12%. No breakdown is provided in these statistics for Darwin (NTTC, 2001, p. 16).

'Remoteness' and competition

The ACCC's second criterion of the demand side competitiveness is remoteness from potentially competitive airports. We accept that Darwin is geographically remote from other airports, and sufficiently remote to undermine the viability of non-airborne transport for many uses for which air transport is used.² However Darwin's *greater* distance from a comparable airport than South Eastern seaboard capital city airports is of little qualitative significance. They are all sufficiently remote from each other that they do not effectively compete for passengers who must have access to the territory they serve. However they can effectively compete with each other – and with airports in other countries for transit passengers.

We are unsure how great a role any perception that Darwin was *especially* remote, may have played in the ACCC's thinking, but we suggest that it is of little significance with regard to supply side substitution – in particular the capacity of airports to compete with one another. On the other hand Darwin's remoteness does very strongly constrain our pricing power – because airlines have already priced hefty monopoly rents into their own airfares. As the theory of 'double marginalisation' of monopoly rents demonstrates, two monopolies in a supply chain together extract more rent than a single monopoly would, but the higher prices one charges, the less the other is able to extract. The effect is exacerbated by the fact that in restricting the number of passengers who enter and leave Australia through Darwin, Australia's airlines also impose heavy time burdens on them if they are to fly to Darwin as part of an international trip. As will be demonstrated below, the market for flights to Darwin – both international and domestic – is extremely uncompetitive. Along with a wide variety of other factors, this constrains any market power Darwin Airport might otherwise have.

Hubs, spokes and kangaroos

Geographical 'remoteness' – distance as the crow flies – can be a quite misleading measure of remoteness within a hub and spoke aviation market and with regard to sites on routes with heavy traffic. In this context competing for transit passengers – both keeping those we have and acquiring more over time – is critical to Darwin Airport's future.

Nearly half - around 47% - of international visitors to the NT arrived in Australia at Sydney airport whereas only 16% of international visitors to the NT entered the country at Darwin Airport. This suggests two things: That the carriers bringing international passengers to the Northern Territory may well have substantial discretion as to whether they bring them to Darwin. To the extent that they have that discretion airlines can 'punish' us by diverting traffic if they feel we are not meeting their price and service expectations. Secondly alongside the threat is the opportunity of getting some of those 47% of international visitors who visit Darwin from Sydney to enter Australia through Darwin.

The reality of the consolidation of the hub and spoke structure of the airline industry is that, as demand for airport services at spoke airports falls, these airports become increasingly dependent upon the goodwill of their airline customers for survival. Regional airports are losing influence and the countervailing market power of airlines, at these airports, is increasing. This in turn reduces the capacity of Darwin airport to abuse whatever market power it has. Indeed, as we will show when countervailing power is discussed at greater length, the monopolistic pricing of airlines swamps our own capacity. If we charged zero, it would make almost no

² This observation is subject to the comments below which argue that, by the same token there are many services – particularly transit services for which Darwin does face substantial supply side competition.

difference to what are clearly uncompetitive prices into and out of Darwin on the 'Kangaroo Route'.

Further because of its location along the 'Kangaroo Route' from Australia to Asia to Europe, it is relatively easy for airlines to bypass Darwin if they feel unhappy with our prices or our service. This has been shown recently in Qantas' decision to do just that by withdrawing four inbound and four outbound flights per week in effect flying over Darwin (see below). This imposes costs on some passengers who either forego a visit to Darwin and the top end that they would have liked to have made, or who must expend more of their own money and/or time to access Darwin and the top end from the domestic airline network.

By the same token Darwin's location provides us with some important opportunities for the future which ensures that we work hard at providing our clients with highly competitive prices and service. In particular planes on the 'Kangaroo Route' must refuel somewhere between the East coast of Australia and Europe. Currently this occurs most frequently in South East Asia in Singapore or Bangkok however there are also Middle Eastern destinations such as Dubai. With current airline fleets, Darwin may be able to substitute for either of these destinations where the destination (origin) of the European leg is sufficiently Eastern – for instance east of Rome.

However in the middle of this decade, with the introduction of the A380 double decked and extra-wide bodied jet carrying between 6-800 passengers, range will be extended so that Darwin may compete as a single transit point for the 'Kangaroo Route' right through to destinations in Western Europe. Currently because of its being built for B-52 bombers, Darwin is the only runway in Australia wide enough to take the A380 without major re-investment.³

It would be imprudent for us to overemphasise our opportunity in this regard, but it is sufficient for us not just to be focusing on the threats implicit in price elasticity – but also on its opportunities. There is every reason for Darwin airport to strive to meet its customers' service and price needs. We can be sorely punished if we do not meet them (and even if we do as recent events illustrate). We hope one day to be rewarded for meeting them.

(e) Re-examine the underlying assumptions;

The ACCC made no attempt to undertake this, but suggested that this was the role of the Productivity Commission (p. 68). It strikes us as irresponsible that the ACCC does not appear to consider it necessary to fulfil its own charter to discharge this responsibility itself or to somehow ensure that the responsibility is discharged.

(f) Examine the airport's market power.

This ultimate re-check stage proposed by King asks the question, 'how would market power be abused?' and are there factors which would militate against such exercise. This raises a range of issues most particularly in this instance the issue of **countervailing market power**.⁴

The ACCC has argued that airlines exercise negligible countervailing market power against Darwin Airport essentially by reference to the ACCC's views on major capital city airports. It is worth dwelling briefly on the ACCC's presentation of other sources on this score.

The ACCC has this to say on airlines countervailing power.

³ Some taxiway and terminal modification would be required.

⁴ Countervailing power could arguable also be considered in the forth head of this test (d) substitution possibilities. For convenience we consider it under the sixth head here.

A number of airport operators argue that they are not in a position to take advantage of market power because airlines have countervailing power. The argument seems to be that airlines may be in a position to withdraw or curtail services in response to price increases, or to change their existing or planned use of non-aeronautical services at the airport.

The Commission rejects this argument. Professor Forsyth describes countervailing power as a "mirage"⁵. He states that "airlines cannot credibly threaten to leave airports because they do not have substitute sources of supply". Professor King also rejects the argument, at least in relation to larger airports (ACCC, 2001, p. 8).

The ACCC's reporting of Professor Forsyth's views seems to us accurate. By contrast its claim that Professor King's report "concludes that larger Australian Airports have significant market power in relation to a range of services" (ACCC, 2001, p. 8) overstates its case. In Professor King's words, his report provided "a preliminary analysis of the market power of some of these leased airports. This study is not meant to be definitive but rather represents a 'first pass' in order to highlight the key issues" (King, 2001, p. 17). It also focused on one large and one smaller airport. Its conclusion was that price regulation was warranted for Melbourne but not for Coolangatta. Professor King's 'first pass' conclusion that Melbourne Airport has market power appears to be treated by the ACCC as in some way 'representative' of other large Australian airports. On the other hand, the conclusion that Coolangatta does not have a large degree of market power and/or may be exposed to the countervailing market power of airlines has not been treated as representative of smaller airports.

The ACCC quoted King approvingly when he argued with respect to Melbourne Airport that any countervailing power would be based on a credible threat "to cease services . . . or even to substantially curtail these services. If Qantas were to carry out such a threat, then this would undermine its own profitability and probably lead to significant gains to Qantas' rival carriers (p. 8)".

In fact this is exactly what Qantas has just done – though there were no threats – indeed no consultation. Currently Qantas operate a daily Singapore-Darwin B767/747 service at approximately 90% load factor and plan to reduce this to a thrice weekly B767 service (we believe international load factors are generally around 75%). This will have massive impacts on Darwin Airport. We will lose approximately \$750,000 per annum in aeronautical income and another \$350,000 in lost retail and other trading income representing 32% of Darwin Airport's international aeronautical services revenue, 16% of total aeronautical revenue and together with the lost trading revenue 10% of total Darwin airport revenue. In the short to medium term there are negligible variable costs that can be saved as a result of the lower throughput.

There might be some justice or economic sense in this if the 90,000 passengers who are to be excluded from direct international access to Darwin had previously been simply transiting through Darwin. If this were the case the changes would more closely reflect their own preferences. In fact the opposite is the case. Approximately 50% of passengers are transit therefore if they are to visit Darwin, 45,000 passengers will have to come via an indirect route in future. The changes partly reflect Qantas' convenience (which can at least in some sense be regarded as an economy of sorts). But they also reflect Qantas' power in the market. They can sell a proportion of the passengers who miss out on direct international access to Darwin, access to Darwin through their domestic networks. This would see those passengers spending an extra day travelling and parting with an additional \$800-\$1,600 (see below). Qantas is

⁵ Peter Forsyth, *Airport Price Regulation: Rationales, Issues and Directions for Reform*, Submission to the Productivity Commission Inquiry into Price Regulation of Airport Services, March 2001, page 4.

protected from any competitive pressure on this strategy by the Australian Government's cabotage prohibition on other international carriers.

The negligible market power that we have over Qantas is illustrated by the fact that Qantas' move in fact had little to do with exercising any countervailing power against Darwin Airport. It was a matter of Qantas convenience. Before announcing the change it engaged in no consultation with us, the Northern Territory Government or our Chamber of Commerce and Industry or Tourist Commission. This does not look like the behaviour of a company that considers itself subject to our market power.

The ACCC claims that

Airlines providing international services to and from Australia generally operate in a competitive environment. New airline entry has increased competitive pressures in the domestic market. In both cases the impact of increased airport charges is likely to be passed through to the travelling public in the form of higher airfares (p. 6).

Such comments may or may not be an accurate reflection of the situation elsewhere in Australia. It is quite clearly not the case with respect to Darwin. Although the changes proposed by Qantas divert flights that currently enjoy exceptionally high load factors and bring passengers to Darwin who want to come here, Qantas says that its new arrangements will improve their profitability. Interestingly, Qantas' rivals are not clamouring to take its place. Effectively Qantas' monopoly of domestic cabotage means that it can please itself on its hubbing operation and profit from those who fly back to Darwin because they have overflowed it in coming to Australia.

We note Melbourne Airport's suggestion that the countervailing power of airlines is driven in substantial part by their disproportionate financial size and diversification compared with the airports (Submission 37). Melbourne Airport estimated that, at the margin, every 1% reduction in Qantas' services to Melbourne resulted in approximately 1% reduction in Melbourne airport's EBITDA whilst it reduced Qantas' EBITDA by .05%. This disparity is of course much greater between Qantas and Darwin. The changes Qantas have announced will improve their own profitability at the same time as striking a massive blow to Darwin Airports' profitability.

Competition to service Darwin

Partly because of the size of the market, and partly because of its relatively slow growth, the Northern Territory has not been an attractive location to which the new entrants Virgin Blue and (previously) Impulse and Compass have sought to fly. As a consequence, competition to service Darwin remains exceptionally weak. Flights to Darwin from Australian capital cities are surprisingly expensive. The cheapest available return fare Sydney-Darwin (which is over 3,000 kilometres) is nearly half the price of the cheapest fare Sydney-London.

The lack of competition is even more dramatically illustrated by domestic fare equalisation policies. The normal discount price of a Qantas Sydney-Singapore return is the same as the normal discount Darwin-Singapore return illustrating graphically the failure of what competition there is to make inroads into prices charged. The Sydney-Darwin leg of a flight Sydney-Singapore takes one nearly half the way to one's destination – yet the fare is the same. Indeed, for all destinations more than a few hours out of Australia, Qantas' domestic fare equalisation acts to prevent Darwin from gaining any fare advantage from its location. This lack of competition is facilitated not just by the lack of interest in our market from other domestic players, but also by Qantas' officially sanctioned monopoly over cabotage. Where passengers enter Australia via Darwin only Qantas is permitted to use a connecting domestic leg of a

journey to carry international passengers. Of course this operates to limit the competitive pressure on Qantas to release Darwin from the straightjacket of its domestic price equalisation.

Table 2: Comparative prices to Darwin and other destinations

Qantas fares as at 31/7/01	Full economy	Discount
Sydney to Darwin return	\$1605	\$839 (14 day advance)
Sydney to Singapore return	\$3984	\$1254 low season
Darwin to Singapore return	\$2879	\$1254 low season
Sydney to London return	\$8237	\$2699 \$2400 high season till 30/9 \$1800 low season from 1/10
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Source: Qantas [via NTA]

Further, even in the international market the competition that exists is well segmented with no competing services to the Asian cities of Singapore, Kuala Lumpur, Bandar Seri Begawan (Brunei). Only Denpasar in Bali is serviced by more than one airline - Qantas, Ansett and Garuda.

Table 3: International flights from Darwin

Airline	Aircraft Type	Frequency Per Week	Terminate Darwin	Nett Seats per wk.
Royal Brunei (BWN)	B763 (209 seats)	2	No	209
Qantas (SIN)	B74L (296 seats)	2	No	296
Qantas (SIN)	B763 (228 seats)	5	No	570
Qantas (DPS)	B733 (116 seats)	1	Yes	116
Qantas (DPS)	B734 (129 seats)	1	Yes	129
Ansett (DPS)	B733 (113 seats)	1	Yes	113
Malaysian (KUL)	A330 (294 seats)	2	No	294
Garuda (DPS)	B737-400 (122 seats)	2	Yes	244
Airnorth (DIL)	SMW (19 seats)	2	Yes	38
Airnorth (DIL)	Brasilia 500/2(28 seats)	16	Yes	448
		34		2457

Source: Darwin International Airport

(1) 100% of seats included, if flight terminates in DRW

(2) 50% of seats included, if flight transits through DRW. If the flight is transiting through Darwin, only 50 % of the seats are available.

In summary we feel that the ACCC's consultant sums up our own circumstances admirably on p. 13 of his report.

[I]f there are, say, two airlines that only compete for marginal customers, there is a high degree of customer lock-in with each airline, and the relevant airport is not significant in terms of either total airline profitability or airline network configuration, then it is likely that each airline could have significant countervailing power. Each airline has a credible threat to stop using the airport. This power may be increased if the airport itself cannot credibly reduce its output; for example, if the airport is credit constrained and potentially faces cash-flow problems (p. 13).

Other aspects of the ACCC's analysis of competition

More generally the ACCC's approach does not appear to have been applied in a rigorous or even a systematic fashion. It proposes that some of the smaller airports be removed from price regulation, but the reasoning it provides has the flavour of *post hoc* rationalisation, as it is not applied to other airports in a systematic manner. Thus for instance, it uses the proportion of tourism as an important indicator of the price sensitivity of final customers without then explaining the extent to which this constrains the airport with the largest proportion of tourist customers - Darwin.

The ACCC also argues that price regulation for Townsville airport is unwarranted for two reasons. Those reasons are that – "given its size, the barriers to entry by potential competitors are likely to be relatively low" (p.69). We are not sure this is a wise statement. However if it is it applies to a substantial extent to Darwin Airport. The ACCC goes on to observe that "in this particular case the costs of [administering and complying with] regulation may outweigh the benefits" (p.69). In this instance we wholeheartedly endorse the ACCC's conclusion, but are mystified as to the absence of the same consideration concerning Darwin's position.

As the following table demonstrates, Darwin sits squarely amongst the larger of Australia's small airports. It is much smaller (about a quarter of the size of the smallest major mainland city airport – Adelaide. It is smaller than some of the small airports such as Coolangatta and is a little less than twice the size of Townsville in terms of revenue, resources and passengers handled. Townsville's status as an international airport will soon be extended with the announcement by Qantas of services to Singapore in October.

Table 4: Comparative Airport Sizes

Airport	Adelaide	Darwin	Coolangatta	Townsville
Total Revenue	\$49,309,000	\$11,674,896	\$12,393,000	\$5,799,000
Total Expenses	\$23,556,000	\$11,093,861	\$9,150,000	\$4,256,000
Operating Profit	\$25,753,000	\$581,035	\$3,243,000	\$1,543,000
Profit after tax	-\$7,131,000	-\$10,130,380	-\$2,009,000	\$117,000
Staff	75	30.5	26	17
Landed Tonnes	1,693,913	720,333	777,174	371,607
Movements	102,166	84,620	86,276	59,312
Passengers	4,284,920	1,200,000*	1,953,171	781,689

3. A simple economic analysis of price regulation for a small airport

In this section we try to weigh up the costs and benefits of regulation. The essence of the ACCC's and the airlines' case for regulation is that airports are a natural monopoly and that passengers are very inelastic to airport prices – generating substantial scope for monopoly pricing. We argue, with worked numerical examples, that if these assumptions are right, and if it is reasonable to suppose that there are strong constraints on airports capacity to monopoly price other than regulation, then regulation is likely to involve substantially greater costs than benefits.

An alternative is that elasticities are much greater. If this is so, it is not because airport prices make much difference to passengers (they are a very small fraction of the total ticket price even for a short journey and a minuscule fraction of the price of tickets from any major capital city to Darwin). It is because airlines decide to impose disciplines on airports – they can exercise 'countervailing power' over them to keep their pricing in check. Whatever the situation for other Australian airports, our own experience leads us to believe that this is the case for Darwin.

The indicative modelling set out below supports the following proposition: Providing prices are kept below (say) 20% or so of the competitive optimum price the productive cost of regulation is likely to outweigh any efficiency gains which regulation could conceivably bring. To ensure the robustness of the worked example, throughout the exercise we make the following conservative assumptions.

- Regulation is 'perfect'. It brings about perfect pricing without any associated costs (for instance to entrepreneurial risk and the cost of capital)
- Passenger demand for travel to Darwin Airport is extremely elastic – not falling below 4.
- The ACCC's and other government costs of administering the regulation are zero
- Delays and adversarial relations generated by regulation are costless.

The current regulation imposes clear costs on Darwin Airport and on government to administer it. As indicated above, regulation costs Darwin airport of the order of \$50,000 per annum in salaries and associated costs, and rises to something like \$80,000 if one takes into account the costs involved in engaging consultants to handle unusual – or at least non-recurrent – matters such as new investment. This is an impost on the productive efficiency of the airport.

Our own aeronautical revenue is around \$5 million. Thus, complying with the regulation imposes a productive inefficiency of the order of 1.5% of turnover. This is without taking any account of the inordinate delays that the regulation imposes on new investment, and the extent to which the regulation appears to encourage adversarialism between parties who should be sorting out their own problems in a reasonably co-operative fashion.

This might seem to be a small price to pay, until one weighs it up against the benefits of regulation. Recall that the main reason regulation is regarded as necessary is the alleged price inelasticity of demand for airport services.

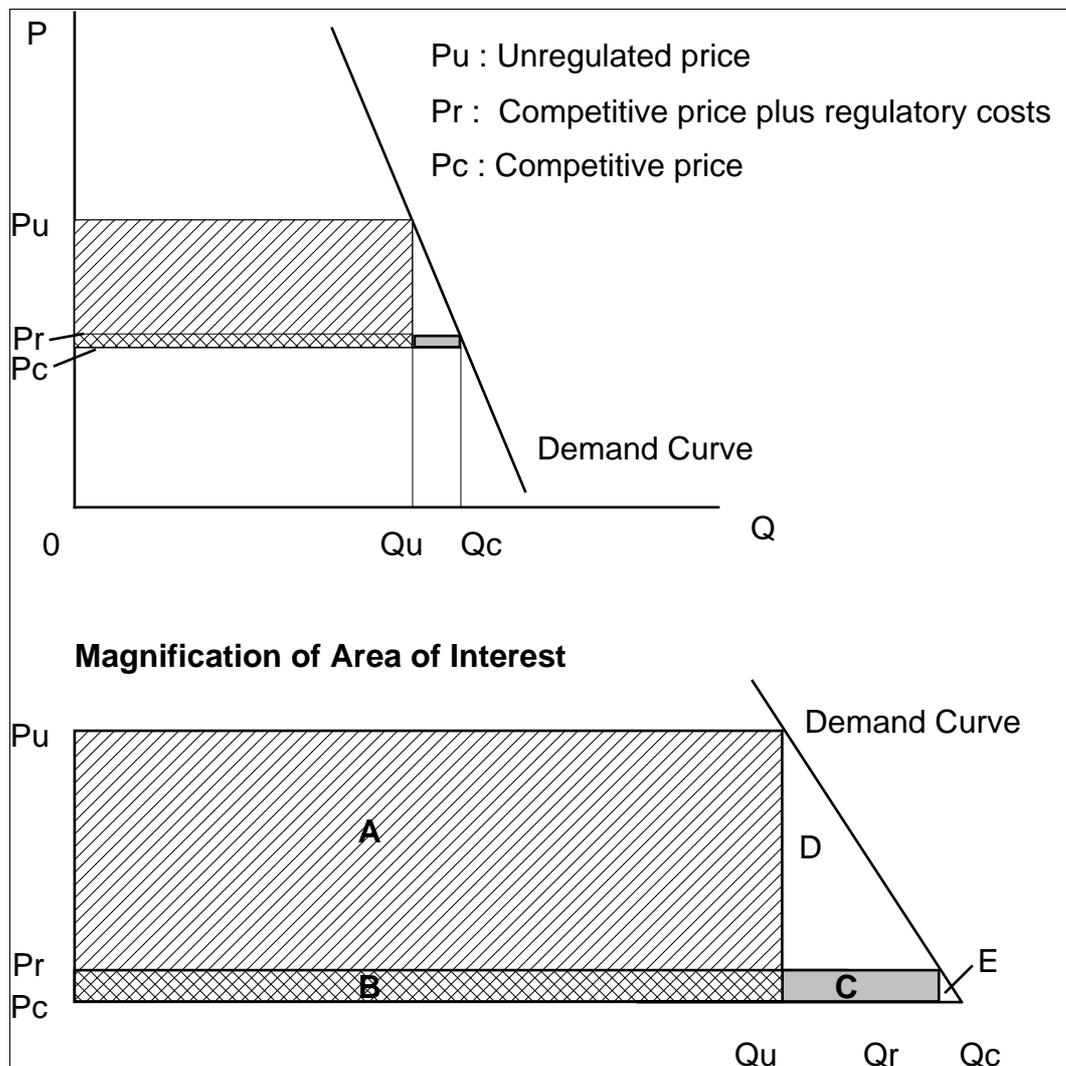
In fact as we have argued in this submission given the current industry structure, airlines' countervailing power imposes a much greater elasticity than a competitive market would. But let us for a moment assume that the market for airline services is very competitive, and that no countervailing power is exercised against us. In this case, even given tourists sensitivity to prices, demand for our services would be very inelastic to price. This is because the \$3 per passenger we currently charge is so small a fraction of the total price of an air ticket to Darwin. For instance, it is .36% of a return discount fare from Sydney. Thus at the margin the elasticity

of passenger demand with respect to our prices is .36% of the elasticity of passenger demand for flights to Darwin from Sydney. Even if the elasticity were a very high 4, the elasticity of passenger demand with respect to Darwin aeronautical prices would be .36x4 or 1.44%.

Of course if the alternative to regulation was full monopoly pricing with these elasticities, regulation would be called for. In fact there are two reasons prices would not rise dramatically under de-regulation. Firstly the actual elasticities are very different to those suggested above simply because of the demonstrated countervailing power of airlines. Airlines would make it their business to ensure that passengers were very responsive to airport price rises – they would take them away from us. Secondly airports know that even in with complete deregulation the threat of re-regulation would be ever present. As a result they would not increase their prices many fold as has been suggested by some.

The diagram below accordingly examines the kind of welfare losses that could be generated by Darwin Airport increasing its price 10% above the competitive optimum price. (For the purposes of the illustration we assume we are currently at the competitive equilibrium even though it is clear that we are substantially below it).

Diagram 1: Comparing the productive costs of regulation and the allocative benefits of regulation – An illustrative diagram.



In the above diagram the area AB is the monopoly rent, accruing to the airport as a result of any price it can achieve over the competitive optimum - P_c . The area CDE is the corresponding dead weight loss.

The area BC is the airport's direct cost of complying with the regulator. The area E is the dead weight loss associated with the cost of regulation. Suppose now that the airport is deregulated. Firstly, an immediate productivity gain of amount B accrues to the airport as a result of the regulatory compliance costs being eliminated. Free to set prices the airport raises prices (from a position somewhere below the competitive optimum (ie the price being imposed at present) to the unregulated price P_u .

The critical issue is thus to compare the size of the productive efficiency gain – represented by the long thin rectangle B – with the size of the triangle. Where price elasticities are low, it is necessary to have huge increases in price, before the efficiency gains from avoiding the productive cost of complying with the regulation are outweighed by the allocative efficiency losses from airport price rises.

If we make the ACCC's assumption that airlines are strong competitors, the price elasticity of demand for Darwin's airport services could not be above something of the order of 1.5% - though it is more likely less than half this. Assume further that unregulated airports charged 10% above the optimum price and the benefits of regulation are less than \$400 per annum or less than 1% of the clear costs. This is true even given the heroic assumption that regulation delivered the optimum competitive price.

Further, let us continue to assume that the airlines and the ACCC are right about how fiercely the airlines compete, and how passive they must be up against airport monopoly power. In such a case, on the very conservative assumptions made here (namely that airline passengers are very price sensitive) airport prices would have to rise to substantially over 250% of the competitive price before the costs of monopoly pricing would begin to justify the efficiency losses involved in the regulation.

Now assume that the airlines impose a much higher degree of elasticity on airports to exercise countervailing power over them – in which case there is a much weaker case for regulation. Even in this case there must be substantial price increases and high elasticities before the benefits of regulation begin to outweigh the costs. These trade-offs between costs and benefits, elasticities and degrees of monopoly pricing are set out in the accompanying table. Only those (highly implausible) scenarios that are shaded in the table involve the benefits of regulation outweighing a clear underestimate of the direct costs in productive efficiency to one party in the regulation – the airport.

Table 5: An indicative estimation of the allocative costs of monopoly pricing above the competitive optimum

Price Increase	Elasticity of demand for airport services						
	1.43%	5.00%	10.00%	20.00%	30.00%	40.00%	50.00%
1.0%	\$4	\$13	\$25	\$50	\$75	\$100	\$125
2.5%	\$22	\$78	\$156	\$313	\$469	\$625	\$781
5.0%	\$89	\$313	\$625	\$1,250	\$1,875	\$2,500	\$3,125
10.0%	\$358	\$1,250	\$2,500	\$5,000	\$7,500	\$10,000	\$12,500
20.0%	\$1,430	\$5,000	\$10,000	\$20,000	\$30,000	\$40,000	\$50,000
30.0%	\$3,218	\$11,250	\$22,500	\$45,000	\$67,500	\$90,000	\$112,500
40.0%	\$5,721	\$20,000	\$40,000	\$80,000	\$120,000	\$160,000	\$200,000
50.0%	\$8,939	\$31,250	\$62,500	\$125,000	\$187,500	\$250,000	\$312,500
75.0%	\$20,113	\$70,313	\$140,625	\$281,250	\$421,875	\$562,500	\$703,125
100.0%	\$35,757	\$125,000	\$250,000	\$500,000	\$750,000	\$1,000,000	\$1,250,000
125.0%	\$55,870	\$195,313	\$390,625	\$781,250	\$1,171,875	\$1,562,500	\$1,953,125
150.0%	\$80,453	\$281,250	\$562,500	\$1,125,000	\$1,687,500	\$2,250,000	\$2,812,500

Assumptions:

- Revenue is \$5 million per annum
- Airport's cost of complying with the regulation is \$80,000
- Cost of average ticket to airport is \$419.50 (Half the cost of a normal discount one way fare)
- Current typical aero charge per passenger at airport is \$3 and this is only for landing i.e there is no departure charge of \$3. \$3 dollar charge derived from B737 landing @ 61.235 tonnes x \$5.51 per tonne = \$337.40 / 128 pax = \$2.64 per passenger

4. The NNI arrangements

DR BYRON: Is 1.8 cents a significant figure?

MR KEW: I wouldn't have thought it was worth writing the submission for 1.8 cents per landed tonne.

DR BYRON: That's exactly my point. . . .

PROF SNAPE: Why did you bother? MR KEW: It was put up as a package of necessary new investment for both airports, and that was the outcome of it.

DR BYRON: I wanted to make sure that it wasn't a typo. . . [w]ith the decimal point in the wrong place.

IAN KEW: Indeed 17 cents per landed tonne is not a great deal either.

DR BYRON: No, true.

PROF SNAPE: That would hardly justify the effort, on your part, of going through the whole process, would it?

From the transcript, p. 333ff.

We find the ACCC's comments about its own supervision of new investment at Australia's airports at odds with the reality we have had to go through. The ACCC comments "[t]he outcomes are encouraging" (p. 27) and that "[t]he investments undertaken by airport operators to date to suggest that the Commission's pricing decisions have not deterred investment in airports (p. 29)".

It is concerning that one of the examples offered by the ACCC reads as follows.

New investment at Darwin and Alice Springs Airports. . . . Northern Territory Airports proposed increased charges for new investment projects at Darwin and Alice Springs airports covering a range of facilities. In September 2000 the Commission released a decision which did not object to new charges associated with over \$1.0 million in new investments (p. 29).

Whilst there is nothing factually incorrect in these words, our own experience – as illustrated in our two previous contributions to the inquiry – is almost unrecognisable from this description:

On 9th August 1999 we commenced consultations with airlines about proposed investment. After a great deal of effort taking substantial management time at the highest level and consultants financial analysis we lodged our proposal with the ACCC on 25th May 2000. The ACCC sought preliminary responses from interested parties a month later on 26th June. They released a draft decision just three weeks later on 19th July 2000 and a final decision on 2 October 2000.

The approval of \$1 million in September 2000 mentioned by the ACCC in the passage quoted above was in response to a proposal to invest \$2.8 million and so was also an implicit refusal to approve the other \$1,800,000 of intended expenditure. Accordingly we had already expended considerable amounts in respect of the cost of the projects the ACCC approved on our own external costs of meeting the regulatory regime. However by the time we got the approval, the costs that the ACCC had approved had increased substantially. We do not intend to go through the process again, and so the bulk of the projects approved by the ACCC have been deferred indefinitely.

We understand that if price regulation is necessary, it is necessary to have some regulatory oversight of price passthrough of the costs of new investment. As we have argued, we believe price regulation is not necessary for Darwin, but if governments wish to impose it, there must be some commonsense applied to smaller airports and small projects. We understand that Canberra airport has gone through a similarly frustrating experience (See submission 47).

5. The economics of a slower growing market

It appears to us that the regulatory regime is being driven by the perceived regulatory requirements of the larger capital city airports. The aeronautical services markets of all the major capital city airports are growing strongly as a result of natural economic growth and also lower airfares produced by heightened competition between airlines.

Darwin is a smaller and slower growing aviation market. This creates a number of mutually reinforcing problems. It has yet to attract a new airline and so competition between incumbent airlines servicing Darwin remains much as it was over a decade ago under the two airline agreement. As indicated above, this has had a profound effect not just on airport growth, but on the competition between airlines which service Darwin. This further constrains growth by strangling our ability to exploit our strategic strengths – in particular our proximity to Asia.

Demand for Darwin's aeronautical services has been flat for some years, masked in recent times by the unexpected increase resulting from the crisis in East Timor. The withdrawal of Qantas services from Singapore will depress growth once again. In the previous section we have drawn attention to some of the ways in which the regulation disadvantages smaller airports disproportionately.

In these circumstances CPI-X price regulation is very draconian. We must generate price reductions without volume gains, and this simply leads to a stripping of whatever services we

can economise on without compromising safety. This does not help our revenue or volume growth.

In the same year that we must manage a 16% reduction in total aeronautical revenue from the reduction of Qantas flights from Singapore, we must nevertheless continue to reduce our unit aeronautical charges by 0.2% during the second half of 2001 in line with the CPI-X pricing regime. CPI-X regulation is best suited to an environment in which there is a reasonable expectation of steady growth. It is clearly operating for Darwin not just to depress returns inexorably over time, but to dramatically ratchet up the risk which Darwin's investors must face. Both phenomena place new investment at the airport at serious risk.

The consolidation of the hub and spoke structure of the airline industry has had a strong negative impact on the revenues of the airport and reduced end-user demand by making the costs of travel to Darwin comparatively expensive. The airport is struggling to survive. It is in no position to exercise monopoly power. Rather, the airport seeks the removal of regulatory intervention so that it may undertake the investment it sees as vital to its operations.

6. References

ACCC, 2001, Submission to the Productivity Commission Inquiry into Price Regulation for Airports.

Northern Territory Tourist Commission (NTTC), 2000, Selected Statistics.