

**National Competition Council**

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**Economic regulation  
of intrastate aviation  
and the  
National Competition Policy**

**Staff discussion paper**

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# Economic regulation of intrastate aviation and the National Competition Policy

## 1 Introduction

The scope of this discussion paper is confined to an exploration of principles for the effective regulation of ‘thin’ regional aviation routes in a manner consistent with governments’ National Competition Policy (NCP) obligations. It therefore focuses on the practice of conferring exclusive operating licences to service providers on regulated routes. (The paper does not cover general aviation assistance programs, aeronautical charges and safety regulation.) The paper aims to provide guidance to state and territory governments on appropriate policy responses where intervention in the market for low density aviation services is contemplated.

To illustrate the potential costs and benefits of different policy approaches, the paper draws on the varying regulatory frameworks used by the four governments that continue to intervene in intrastate aviation. It does not, however, assess governments’ compliance with their NCP obligations — that is the role of the National Competition Council’s Assessment reports (see for example, NCC 2004a). Whereas the paper primarily is focussed on the economic benefits and costs of restricting competition to meet regional aviation objectives, the NCC’s assessments can, on a case by case basis, take account of a far broader range of non-economic public interest considerations that may be proffered to support particular interventions.

The relevance of the NCP obligations to intrastate aviation is discussed, followed by a summary of recent development in states’ regulatory regimes. Indeed, a motivation for this paper is that some governments have embarked on a renewed phase of intrastate aviation regulation, ostensibly based on events that occurred in 2001-02. The paper contends that the events of 2001-02 no longer, of themselves, appear to provide a basis for *continued* intervention in regional airline services and that the case for intervention needs to be made on more enduring grounds. The paper therefore explores the more long standing rationales for intervention.

The key interventions of interest essentially can be grouped into policies:

- to ensure that certain non-viable regional routes are serviced by regular passenger transport (RPT) aircraft services
- to stabilise the provision of RPT services on viable, but low density, routes.

The costs and benefits of using regulation to meet these objectives are discussed. Where policymakers consider that regulation will provide a net public benefit, the paper outlines the costs and benefits that attach to different policy approaches — such as price control *in* the market or competitive tendering *for* the market.

The paper proposes a framework to assist policymakers to navigate through the myriad influences on the cost-benefit calculus of whether to intervene and if so, how. The framework uses a flow chart approach to help assess the case for conferring an operator with an exclusive right to a particular RPT route. The considerations include:

- the basis for the policy objective to ensure regular RPT services on a particular route
- whether the route is economically unviable for even one operator
- whether the route is economically viable for one or more operators
- the likelihood that competition on the route could lead to the failure of the incumbent and new entrant(s) so that the service is no longer available
- the benefits of ‘stability’ of service relative to the costs of eliminating the prospect for competition.

The paper concludes with a discussion of state and territory regulatory regimes. It draws on the framework and the assessment of the rationales for intrastate aviation regulation.

## 2 The NCP obligations

The key NCP obligation that impinges on the regulation of intrastate aviation services is subclause 5(1) of the Competition Principles Agreement (CPA). It states that:

*The guiding principle is that legislation (including Acts, enactments, Ordinances or regulations) should not restrict competition unless it can be demonstrated that:*

- (a) the benefits of the restriction to the community as a whole outweigh the costs; and*
- (b) the objectives of the legislation can only be achieved by restricting competition.*

CPA subclause 5(5) extends the reach of the guiding principle beyond extant regulation. New legislation that restricts competition must be accompanied by evidence that the legislation is consistent with subclause 5(1).

The influence of the NCP on other aspects of government intervention in regional aviation is not defined, except in situations where regional aviation services are provided by government businesses, in which case CPA subclause 3 competitive neutrality obligations apply.

In November 2000, the Council of Australian Governments (CoAG) made certain changes to the NCP agreements, including guidance on how government businesses should deliver community service obligations (CSOs). CoAG made explicit that, to comply with their competitive neutrality obligations, governments:

- are not obliged to use a competitive tender process to deliver the services of their businesses
- are free “to determine who should receive a CSO payment or subsidy, which should be transparent, appropriately costed and directly funded by government” (CoAG 2000, attachment B).

CoAG’s guidance that CSOs should be transparent and directly funded by governments has widespread application. It recognises that delivering subsidised services through non-transparent cross-subsidies is unlikely to be in the public interest where this penalises one group of users to advantage another thereby distorting consumption and production decisions. These concerns are evident in many areas of the NCP. For example, the CoAG Energy Market Review (2002) noted that if consumers do not face cost-reflective electricity prices, this will impact adversely on the development of competition in retail and generation and deter new retailers from competing for franchise customers.

In sum, the NCP does not challenge governments' objectives to ensure that regular air transport services are available to their citizens. The NCP does require, however, that this objective be delivered without restricting competition, unless this is both in the public interest and the objective cannot be otherwise achieved. To the extent that this objective requires subsidisation of a service, the subsidy should be transparent and direct, not hidden and indirect.

### 3 States' aviation regulation

Prior to the commencement of the NCP, the Industry Commission conducted an extensive inquiry into intrastate aviation (IC 1992). At that time, New South Wales restricted entry on many regional routes operating to and from Sydney airport and Tasmania's intrastate services were provided by a licensed monopolist. In addition, Western Australia regulated parts of its non-jet network and Queensland had some residual regulation. Victoria, South Australia, the ACT and the Northern Territory had open skies.

For jurisdictions that maintained economic regulation of intrastate aviation, the Industry Commission recommended that:

- *all economic regulation of intrastate aviation activity ... be abolished; [and]*
- *if governments deem that some services are 'essential' and, in the absence of regulation would not be adequately provided, such services be supported by direct government subsidies.* (IC 1992, p. 87)

With the advent of the NCP in 1995, the four states that regulated intrastate aviation listed their relevant legislation for review. As a result of these reviews, Queensland retained some residual regulation, Tasmania effectively deregulated in 1997 when the government chose not to exercise its regulatory power over air route licensing<sup>1</sup>, New South Wales deregulated routes with passenger volumes over 20 000 people per year in 2000 and Western Australia commenced liberalisation of its thin aviation routes after an NCP review in 1999.

Events in 2001 and 2002, however, had a profound effect on governments' attitudes to interstate aviation. In particular:

- New South Wales (re)regulated routes with passenger volumes of up to 50 000 passengers per year (late 2002)
- Queensland established new air service contracts for certain regional routes (mid 2001)
- Western Australia abandoned its intention to remove licensing on a number of routes and, instead, extended licences on offer (late 2002)
- South Australia, for the first time, passed legislation to enable regulation of certain regional routes (late 2002).

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<sup>1</sup> Repeal of part 3 of the *Traffic Act 1925* in July 2000 removed the need for operators to be licensed as a pre-requisite to deliver air services in Tasmania (DIER 2005).

### 3.1 New South Wales

In 1997, New South Wales' Independent Pricing and Regulatory Tribunal (IPART) completed a *Review of Regulation and Licensing of Air Services Operators in New South Wales* conducted according to NCP principles. IPART found that the costs of regulation substantially outweighed any benefits and recommended that all intrastate air services be deregulated. The government generally concurred. Its second reading speech introducing legislative reforms noted:

*... the existing regulation works against the interests of consumers, particularly those in rural New South Wales. New South Wales remains virtually the only State that economically regulates the industry. Where licensing regimes have been removed in other jurisdictions, there has been a marked improvement in services and better outcomes for both industry and consumers alike. ... The current regulatory framework does not provide surety of service to rural communities nor does it ensure that unprofitable routes remain open. Rather it supports monopolies on existing routes which can mean higher prices and reduced quality of services for commuters.*

*In other States and Territories and the Commonwealth where regulation has been eliminated there has been no quantifiable loss of service, nor has the industry been destabilised. In fact, there has been a marked improvement in services and better outcomes for both industry and consumers alike. (Egan 1998, p. 4029)*

In announcing the reforms, the government declared that:

*The Carr Government's improved regional air transport policy will herald a new era of growth for regional air services in NSW, and give a welcome boost to tourism. From March 2000, the current restriction on the number of airlines that operate to and from Sydney airport with annual patronage exceeding 20,000 will be lifted to allow new carriers on to the route. (Scully 1999, p. 1)*

The government, however, opted not to deregulate all routes as recommended by IPART and continued to prohibit competition on 31 regional air routes with less than 20 000 passengers per year.

On 29 October 2002, the government retracted its reforms and announced a new package to "boost the NSW rural and regional airline industry". The measures included that "rural and regional air routes with an annual capacity of less than 50,000 passengers be protected from multiple operator competition" (affecting six centres — Orange, Lismore, Griffith, Lord Howe Island, Moree and Taree) and that the current three-year licence term for all regional air operators be increased to five years (Scully 2002, p. 1).

The rationale for this policy about-face is unclear. In its 2003 NCP Annual Report to the National Competition Council (NCC), the government asserted that:

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*In October 2002, in response to the continuing severe downturn in the NSW intrastate air market, the threshold for restrictions on routes to and from Sydney airport was raised from 20,000 to 50,000 passengers annually. These decisions were a considered response to instability in the intrastate aviation sector. (Government of New South Wales 2003, p. 3)*

A report on regional aviation by the House of Representatives Standing Committee on Transport and Regional Services determined that New South Wales “does not use competitive tenders to select exclusive operators” (HoR 2003, p. 252).<sup>2</sup> The material in the public domain supports the Committee’s view — the pro-forma applications for regulated route licences to be submitted to the Ministry of Transport make no reference to competitive processes. There is no doubt that many current exclusive licences were granted without being subject to a competitive process.

### 3.2 Queensland

Queensland undertook an NCP review of the *Transport Operations (Passenger Transport) Act 1994* in 2000 that recommended the retention of the system of air service contracts under which contracts are open to public tender. In response to follow-up questions for the 2003 NCP assessment, Queensland reported to the NCC that:

*Following the aviation upheavals of 2001, including the collapse of Flight West Airlines (the provider of subsidised air services to western Queensland), Queensland Transport put in place interim air service contracts while a Regulated Air Service Review was undertaken. The review concluded that the continuous provision of passenger air services was a key factor in the prosperity of rural and remote communities. Transport-disadvantaged communities in Queensland continue to regard the government regulated air services as essential to their quality of life. (Government of Queensland 2003, pers. comm., 4 July)*

In May 2002, the government endorsed routes for the next generation of air service contracts allocated via tender for five years. It committed around \$7 million each year in funding to ensure continuity of the services. Hence, to ensure the long-term sustainability of air services, the Queensland Government regulates certain routes by means of exclusive licences, and/or subsidises air services to regional areas where there is a shortfall between operating costs for the service (to a prescribed standard) and fare revenues.

### 3.3 Western Australia

The Western Australian Government aims to assist routes with fewer than 60 000 passengers per year via exclusive licences or subsidies. A 1999 NCP

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<sup>2</sup> New South Wales opted not to participate in the preparation of this paper, making it difficult to confirm how licences are conferred.

review recommended that the provisions be amended so that licences would be required only where there is a public benefit. The recommendations were endorsed by Cabinet and all intrastate air services were provided under a deregulated system until September 2001 (Department for Planning and Infrastructure (WA) 2005, pers. comm, 6 March).

The events of 2001 led the government to re-consider its position:

*... the effects of 11 September 2001 and the Ansett collapse of 14 September 2001 have had a significant impact on the intrastate air transport market ... especially [in] regional Western Australia. This prompted the Government's intrastate air services review in 2002, which found limited regulation of intrastate turbo-prop regular passenger transport (RPT) routes to be in the public interest. The independent assessment ... has clarified that routes of fewer than 60,000 passengers annually would be unviable if serviced by more than one operator. (Government of Western Australia 2003, p. 23)*

Following the second (non-NCP) review, the government extended exclusive licences for several non-jet routes to April 2005. It subsequently extended the arrangements to December 2005 after another (non-NCP) review was completed in May 2004. That most recent review recommended that the government continue to regulate the routes, but adopt a tendering approach. In addition, the review proposed that 'groups of routes' — a coastal network and a northern goldfields network — should be tendered so that airlines can achieve 'network benefits'.

### **3.4 South Australia**

South Australian aviation was unregulated until 2002. The government considered that deregulation had served the community well.

*While there has been a large number of regional airline failures and significant shrinkage in the State's regional route structure, generally the failure of one airline created opportunities for another. Routes lost were a result of either close proximity to a larger community with better air services or of improved road access to Adelaide itself. While average aircraft size decreased, the frequency of services generally increased. .... Additionally, our regional air fare structure has remained generally below that of regulated routes. (Wright 2002)*

The Ansett collapse and the September 11 terrorist attacks (and later SARS), however, exacerbated some instability in the regional airline business in South Australia — for example, these factors reduced international tourism on routes such as Adelaide to Coober Pedy. Thus in 2002 the government passed the Air Transport (Route Licensing — Passenger Services) Act.

The legislation provides for exclusive licences by competitive tender or other means on declared routes where the provision of scheduled air services is in

the public interest. The Minister can only declare a route (for up to three years) when satisfied that this would encourage an air service operator or operators to establish, maintain, increase or improve scheduled air services on the route. This legislation was predicated on a view that there was no justification for a network (ie route clusters) licensing regime. The government also considered that assistance should only be afforded reactively as a last resort for very thin routes. In particular:

*It is not intended that routes will be declared which are large enough to support competing services, or even those that are large enough that the State Government can be reasonably sure, in the absence of a declaration, that another operator will implement services if the existing operator withdraws.* (Government of South Australia 2002, p. 11)

The government applies strict criteria to assess whether a route should be declared — there must for example, be a risk that an operator will withdraw, and no other airline will fill the void. There have been three applications for different routes, but only the Adelaide–Coober Pedy route has been declared. The sole operator on this route is licensed for two years, after which time the criteria must be re-addressed.

The government considers that licensing arrangements on such routes will provide sufficient certainty to airlines to foster investment. South Australia does not subsidise air routes.

### **3.5 Implications of the 2001-02 'shocks'**

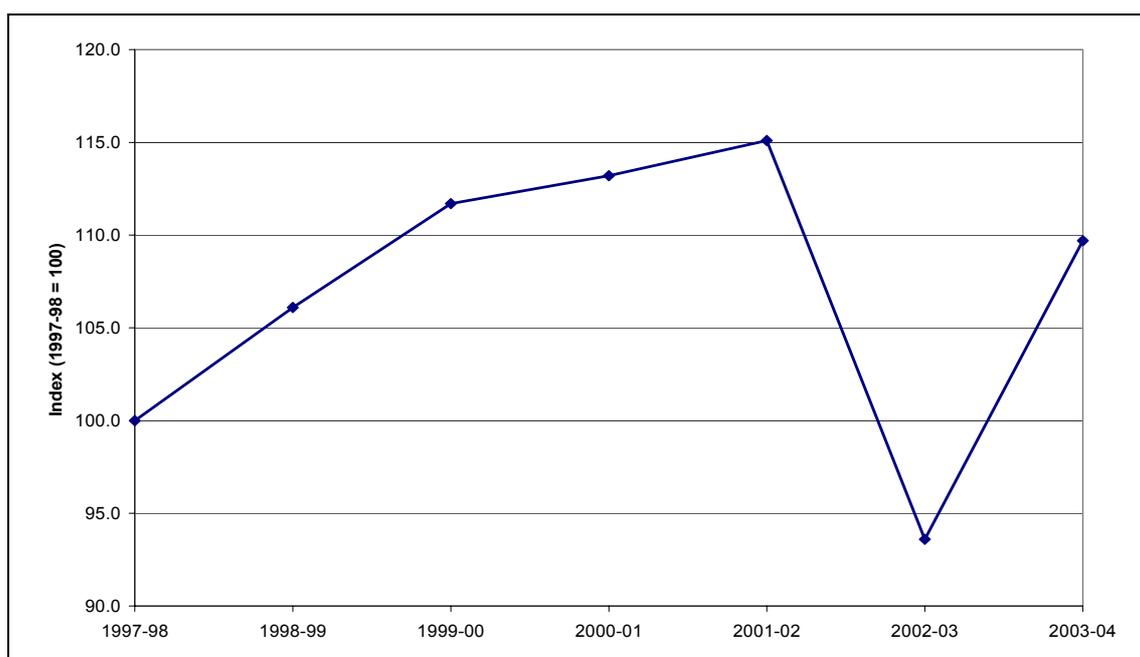
The strong pro-regulatory stances adopted by several governments in 2001 and 2002 were a response to difficulties being experienced by regional airlines. Some of these difficulties appear to stem from medium to longer term trends (see for example, Regional Airlines Summit 2001) whereas other factors had a sharp impact from late 2001. The sources of these difficulties have variously been attributed to:

- the collapse of Ansett and the liquidation of some of its regional affiliates
- the terrorist attacks in the United States resulting in a temporary suspension of services to that port and fewer flights to Australia
- the impact of drought on farm incomes and regional travel
- rising costs of insurance, aviation fuel and replacement parts (in some cases from exchange rate movements)
- more stringent airline and airport security measures
- the lingering effects of the GST (introduced in 2000) on the demand for air travel
- declining regional populations in non-coastal rural and remote areas

- the removal of airport charges price caps
- more stringent safety regulations, particularly affecting 9-seat piston engined aircraft
- substitution of RPT services by charter operations, particularly in mining-related areas
- improved motor vehicle reliability and better roads
- negative perceptions about non-jet aircraft
- customers' unrealistic expectations about regional airfares given the observed impact on air fares of competition on trunk routes
- discounted interstate airfares diverting traffic from intrastate destinations.

Disentangling the relative contributions and duration of these many claimed influences is difficult. Certainly, the September 2001 Ansett collapse was a sudden shock of short duration but lingering effect. The impact of the drought on rural production in the 2001-02 to 2002-03 period is evident, as is the subsequent recovery (figure 1). The \$AUD/\$US exchange rate deteriorated during the same period impacting on the cost of imported components and fuel (figure 2). This deterioration occurred shortly after the price of aviation fuel had climbed substantially in 2000 (figure 3). Since that time, however, the Australian dollar has appreciated against the US dollar, mitigating the cost of imports and helping to ameliorate the rising price of fuel.

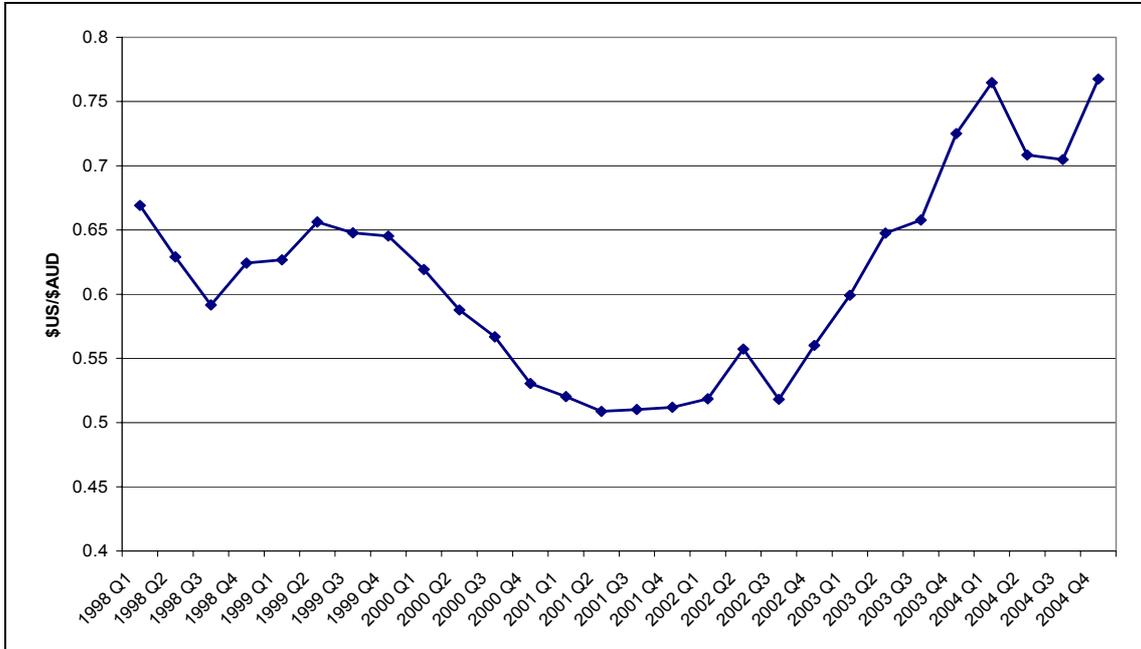
**Figure 1:** Australian rural production<sup>a</sup> 1997-98 to 2003-04



<sup>a</sup> Volume of rural production for broadacre, horticulture, dairy and livestock industries.  
 Source: RBA 2005

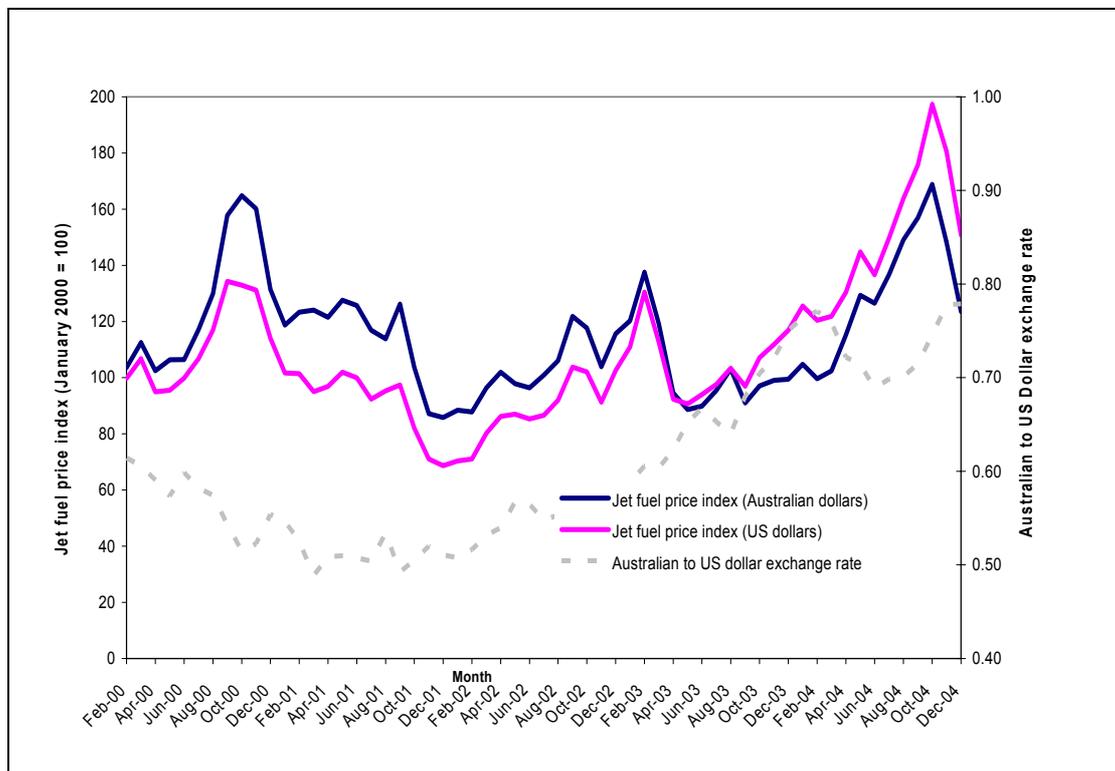
Many of the other identified sources of pressure, such as better cars and roads and coastal drift, are ongoing influences whereas others, such as the impact of the GST, were of a more transient nature.

**Figure 2:** Exchange rate movements 1998 to 2004



Source: RBA 2005

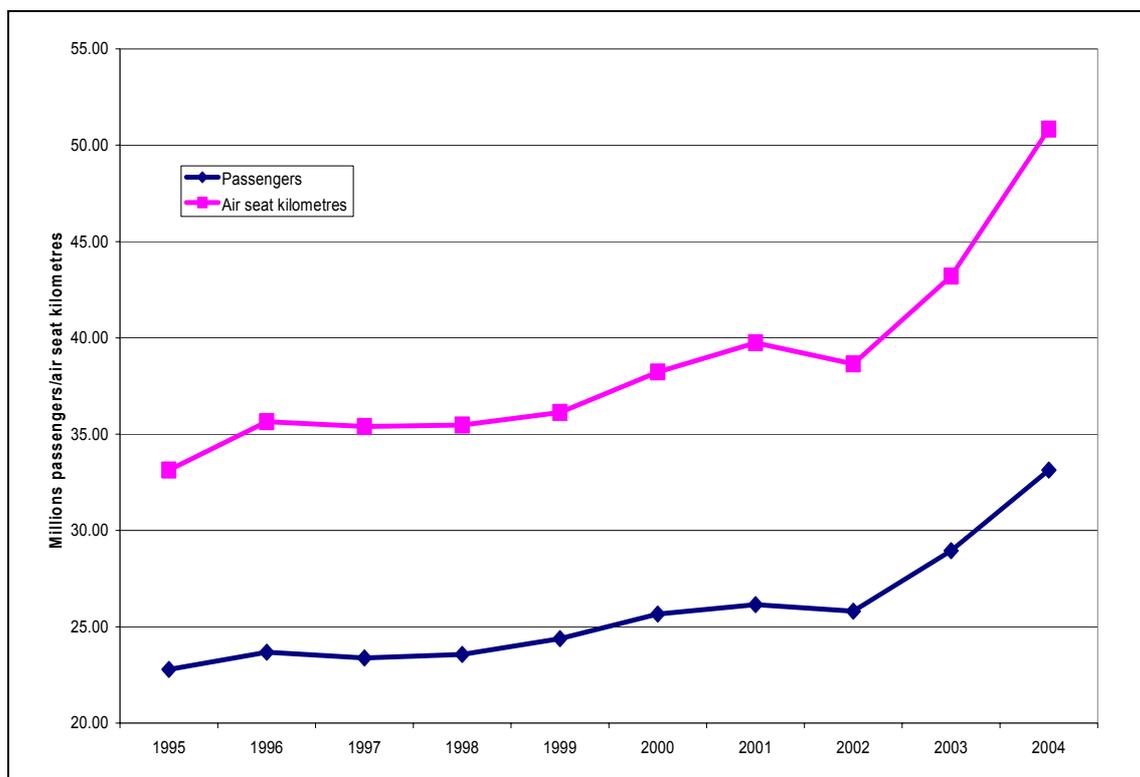
**Figure 3:** World average jet fuel prices



Source: data supplied by BTRE

Whatever the contributions of the various claimed sources of pressure on regional airlines, it now appears that, Australia-wide, 2001-02 was an aberration. This is demonstrated by two key variables — millions of passenger embarkations (a demand measure) and millions of air seat kilometres (a network utilisation measure). For each variable, trend growth appears relatively stable for the period 1995 to 2001, followed by an appreciable decline from 2001 to 2002 — the low point following the collapse of Ansett (figure 4). However, since that shock, both variables appear to have taken a new, more rapid, growth trajectory. This suggests a strong recovery in the domestic aviation sector as a whole.

**Figure 4:** Australian domestic airline passenger embarkations and air seat kilometres, 1995 to 2004



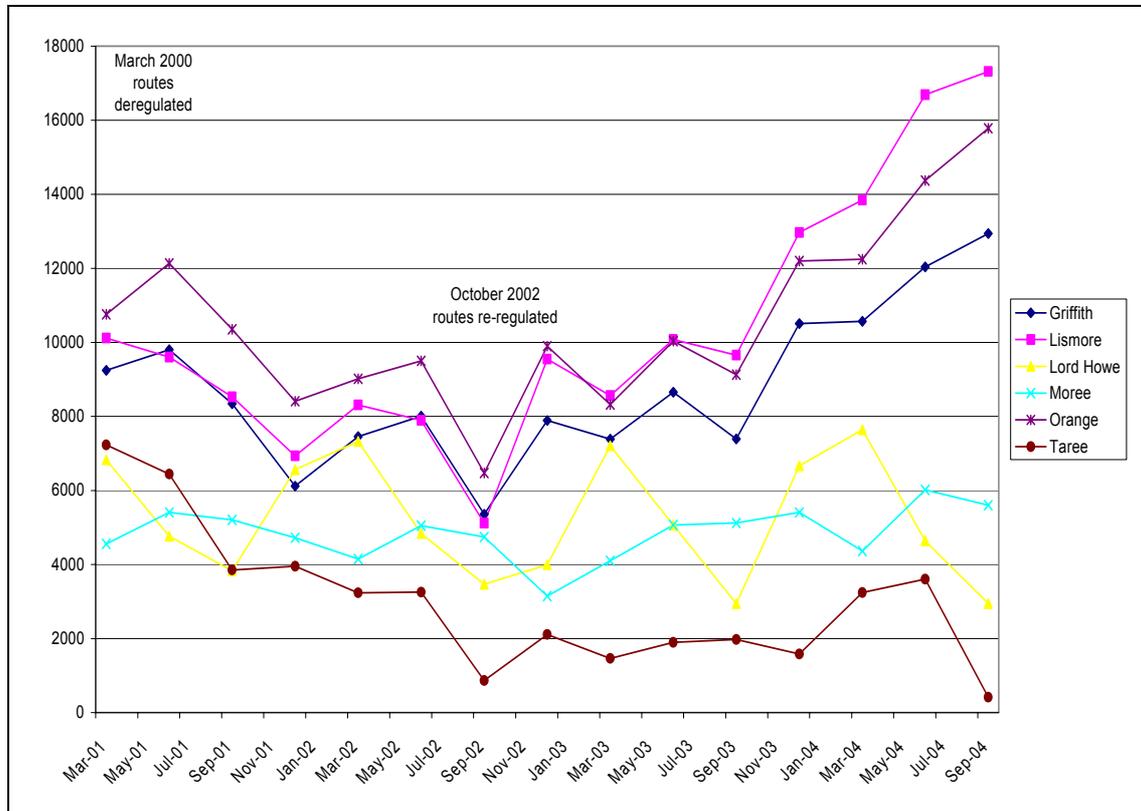
Source: BTRE 2005

However, the impact of events in 2001-02 was more pronounced for regional aviation. Figure 5, for example, shows passenger volumes on the six regional air routes that the New South Wales Government deemed needed to be re-regulated in October 2002. Some decline in passenger numbers is evident *prior* to the Ansett collapse which appears to have significantly exacerbated a downward trend. This suggests that some underlying cost or demand based factors, such as the impact of drought, were influencing travel decisions at that time.

Mirroring the national data, there has been a recovery since 2002. For three out of the six routes, recovery was quite pronounced exceeding the levels in 2001. For two routes, passenger numbers fluctuated around the trend. Only one route (Sydney to Taree) showed a continuing overall decline in passenger

numbers. For the year to 30 September 2004, half of the regulated routes were around or exceeded New South Wales' 50 000 passenger per year threshold for justifying regulation of the routes.

**Figure 5:** Passenger statistics for air routes (to and from Sydney airport) that were re-regulated in October 2002, March 2001 to September 2004



Source: Ministry of Transport (NSW), viewed 21 April 2005, <http://www.transport.nsw.gov.au/aboutus/atc/passenger-stats.html>

The recovery in most of the regulated routes in New South Wales is not atypical. For example, notwithstanding concerns about unpredictable movements in jet fuel prices and exchange rates, a report commissioned by the Western Australian Government on the intrastate aviation sector observed in April 2004 that:

*The regional industry generally has progressed towards a more stable and sustainable structure in the intervening period since the WA Government introduced its strategy for intrastate aviation early in 2003. (TFI & CAPA 2004, p. 2)*

Reinforcing the evident recovery in Australian domestic aviation as a whole and the apparent, albeit less pronounced, recovery in regional aviation services, is the overarching assessment of developments since 2001 and the outlook for the future by the Bureau of Transport and Regional Economics. It reported that:

*From the low point following the collapse of Ansett, the Australian domestic airline industry has been in a continued period of expansion, to*

*the point where traffic levels now significantly exceed those of the pre-Ansett environment...*

*Although overall the domestic aviation industry is carrying more passengers than ever, the recovery has not been consistent across all routes. For the year to June 2004, the number of passengers on all non-trunk routes was 6.3 million, a decrease of 6.9 per cent from the 6.8 million for the year to June 2001. Recovery has been slower than for trunk routes, but the 2004 figure represents a growth of 14.6 per cent ... on these routes in the year to June 2003. ...*

*The improving passenger levels ... together with the decrease in seats operated, have led to significantly improved load factors on non-trunk routes over the last year. This is a fundamental productivity indicator for any airline, and offers encouragement for sustained growth in this sector of the market....*

*The regional airline sector is still operating with lower passenger volumes than in 2001, though growth signs over the past twelve months have been encouraging with non-trunk routes now experiencing similar levels of growth to the high-volume trunk routes. (BTRE 2004, pp. 1–3)*

The events of around 3 years ago no longer, of themselves, appear to provide a basis for *continued* intervention in regional airline services. While there was a confluence of significant transient shocks, perhaps exacerbating ongoing socio-economic and structural changes in rural and regional economies, the foundations on which some governments chose to override the recommendations of their independent NCP reviews appears to have largely dissipated. The case for intervention needs to be made on more enduring grounds (see section 4).

## 4 The objectives of regulation

Historically, state and territory government interventions in the provision of regional aviation services have espoused the following objectives:

1. Ensuring that ‘essential’ air services are provided to transport disadvantaged communities.
2. Promoting stable and consistent aviation services by reducing competition faced by operators and hence one source of pressure for firm exit — that is, eliminating the prospects for so-called ‘destructive competition’.
3. Ensuring that competitive pressures do not lead to operators reducing safety related expenditures such as maintenance and training.
4. Encouraging lower airfares by shielding operators from competition so that they can reduce costs.
5. Facilitating access by regional airlines to congested facilities — an argument essentially confined to Kingsford Smith Airport (KSA).

The first two objectives are discussed below. This paper does not assess directly objectives 3 to 5 for the following reasons.

- The thrust of the ‘safety argument’ is that price competition may be so vigorous that airlines begin to make losses and continue trading by using capital and borrowing until prices return to sustainable levels. In turn, airlines are forced to make expenditure cuts which could include reductions in maintenance staff, downtime for scheduled inspections and increased cycles before parts are replaced. A Bureau of Transport Economics (BTE 2000) report identified several studies of the impact of cost and competitive pressures on aviation service providers. For example, increased risk factors for United States’ airlines following industry deregulation were identified by Dempsey (1990). Similarly, the Bureau of Air Safety Investigation (BASI 1999) contended that, while the Australian industry was safe overall, flight crew and maintenance staff fatigue was an issue in regional aviation. However, the appropriate instrument to address such concerns is safety, rather than economic, regulation. There are no NCP issues attached to ensuring that safety regulation is of an appropriate standard to protect the public interest.
- The view that regulation encourages lower airfares is premised on the notion that eliminating competition will enable the sole incumbent operator to achieve economies of scale and scope and thereby reduce costs. A fundamental flaw with this argument is that, in the absence of any countervailing competitive pressure, the shielded entity has an incentive to exploit its conferred market power, rather than pass on any cost savings

to consumers. More generally, this objective is often posited as an outcome from the second objective and is discussed further below in that context.

- Facilitating access to the congested KSA was a New South Wales specific objective for many years. While congestion problems should be addressed by means other than conferring sole operator rights on particular routes, the solution was not entirely within the state's control. However, with the construction of the third runway at KSA, the problem appears to have been addressed. It did not pose a constraint to deregulation in New South Wales in the period 2000 to 2002.

A focus on the first two objectives leads inevitably to the two key forms of intervention in regional air transport services. These are:

1. subsidies to ensure that non-viable air routes/networks are serviced
2. conferring exclusive licences for operators of viable routes/networks.

## **4.1 Ensuring non-viable services**

Governments may determine that certain non-viable air routes are 'essential'. Ensuring regular access to these air services may be for social justice reasons, such as providing access to and from transport disadvantaged communities, or for regional development. Indeed, a tenet of Australian society is that people living in remote regions are entitled to basic services: this is manifested, for example, through fiscal equalisation.

Typically, the characteristic that leads governments to consider interventions in these cases is that routes are so thin — that is, very low density and/or irregular demand — that no airline operator could profitably provide a regular passenger service. Alternatively, a government may take the view that, while the market may provide a service on a thin route, it is at a price that makes air travel unaffordable for most consumers. In these situations the only feasible means of providing the services is through subsidisation.

## **4.2 Promoting stable and consistent services**

Some state governments intervene in the provision of regional air services on routes where traffic volumes are sufficient to enable a single operator to make a viable return on the service, but insufficient to support more than one operator. Indeed, the Bureau of Transport Economics (BTE 2000, p. 70) contends that:

*... the small size of the Australian regional aviation market and the existence of many single-operator routes with potential for surface transport to offer a substitute product can be regarded as indicating that many regional air routes are natural monopolies.*

In simple terms a natural monopoly arises in a market that is unable to support more than one supplier because of increasing returns to scale/scope (or decreasing costs) such that more than one supplier would lead to diminished cost economies. In addition, natural monopolies are characterised by high barriers to entry arising from large sunk costs.

High entry barriers are not a feature of regional aviation where there appear to be low sunk costs associated with operating a regional airline. Indeed, the perceived problem of instability on thin aviation routes reflects that they are, in fact, contestable. Definitional issues aside, however, there is no debate that a particular regional air route may only be capable of sustaining one carrier, and that competition will make the market unviable for all operators until losses drive out competing firms leaving one incumbent. Regulation may therefore be premised on the need to identify and protect those routes in which the minimum efficient scale of operation dictates only one service provider.

Estimates of the minimum efficient scale of operation (the output range that minimises average cost relative to demand) necessary to sustain more than one operator vary. The BTCE (1988) nominated 25 000 passengers per year as a threshold for sustainable competition. The Industry Commission (1992) argued that that estimate was too high after it identified many competitive routes with passenger numbers under 15 000 per year, but did not identify a threshold. The BTE (2000) identified routes of less than 5 000 passengers a year that support more than one airline and many unregulated single-operator routes of 50 000 passengers a year.

These findings suggest that the usefulness of arbitrary thresholds based on passenger numbers is questionable given the importance of other considerations such as service frequency, aircraft used, load factors and demand elasticities. Nevertheless, governments' regulatory frameworks have tended to identify 'rule of thumb' thresholds. For example, in New South Wales the threshold appears to shift between 20 000 and 50 000 passengers a year and, in Western Australia, fewer than around 60 000 passengers a year is considered to make a service unviable for more than one operator.

In setting such arbitrary thresholds, the objective is to eliminate the prospects for 'destructive competition'.<sup>3</sup> The contention is that competition for the route might lead to a war of attrition in which only one player can

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<sup>3</sup> The term 'destructive competition' often arises in the context of competition on or for thin aviation routes to describe a situation in which competition leads to prices below costs thereby generating market instability and firm exits. Certainly, on thin aviation routes, 'wars of attrition' can indeed lead to unsustainable prices (see box 1 below). That said, the literature on 'destructive competition' is quite sophisticated encompassing game theory and the concept of an empty market core. These issues are explored in some detail by the Productivity Commission in the context of stability and competition in the market for liner shipping (see PC 2004). In this paper, however, the term 'destructive competition' reflects the common parlance of the aviation sector and transport officials.

survive. Continual attempts by new entrants to fight for a small contestable market could lead to route instability and in the extreme case of both competitor and incumbent failing financially, no service.

Adherents of this 'destructive competition' view are inclined to respond to the collapse of a regional air service by seeking to 'manage' competition to protect the continuity of services. Indeed, in examining the case for continuing regulation of certain 'vulnerable' regional routes in Western Australia, the review report cautioned that:

*An open market without economic regulation would encourage new entry on a number of routes. However this competition would not be sustained and a shake-out would occur leaving the strongest (most efficient or cashed up) participant. (TFI & CAPA 2004, p. 3)*

Given that the report recommended continued regulation, it can be inferred that the competitive pressures described in the quote were perceived as undesirable.

The implications of regulating thin aviation routes to protect incumbent operators from competition for the market are discussed below.

# 5 Benefit and cost considerations of restricting competition

For policymakers, the key considerations are:

1. The potential benefits of avoiding the possibility of short term disruption to air services on thin routes, conditioned by the probability of such outcomes actually arising persistently.
2. The potential costs of usurping the market to institute managed competition.
3. Where the benefits exceed the costs — that is, there is a public benefit from intervention — what is the most efficient regulatory response?

## 5.1 The benefits of regulating thin routes

Certain regional aviation routes have characteristics such that the potential for competitive entry could have a destabilising effect possibly leading to the demise of the incumbent, its competitors or both, and hence the withdrawal of the service. While it is difficult to envisage that the withdrawal of the service would be other than temporary, it is possible that instability could re-emerge if potential competitors continue to target the market after services have recommenced. Hence, a case might be made for governments to intervene in order to eliminate the threat of competitive entry, thereby facilitating continuity of scheduled air services on such routes. (Of course, continued predation of the market would be somewhat irrational if prospective new entrants were not confident that they could win a protracted price war.)

The failure of one airline (from head to head competition or takeover) leading to another operator providing the service does not constitute a *prima facie* case for intervention. There should, for example, be some history or reasonable probability of continued and protracted destabilisation of the route and that competition will leave ‘no man standing’. Simply ascribing an artificial threshold number of passengers per year as the benchmark for which competition is unsustainable is not an appropriate test.

The benefits of intervention reflect the costs of service disruption. Even where an air route is economically viable, a new service provider may take some time to recommence services — a particular concern for communities without alternative transport options such as driving to another aerodrome with services, or access to coach and train travel. (As noted in section 4.1, where the market cannot viably provide an RPT service, a government may choose to directly fund that service.)

## 5.2 The costs of regulating thin routes

Competition is an irresistible force for meeting the needs of consumers in a way that it is difficult for officials to mimic when seeking to manage competition. The potential for regulation to impose costs must be considered carefully. This is the fundamental premise behind the NCP legislation review process — to place the onus of proof with proponents of restrictive regulation to establish that there is a *net public benefit* from restricting competition.

### 5.2.1 Potential efficiency costs

Although many air routes are too thin to support competing operators, it does not follow that market outcomes are not affected by restricting competition. A regulated market shields the incumbent from normal competitive pressures and dampens incentives to offer more attractive prices and/or to better accommodate the demands of users through service innovations. Without the threat of competition, a focus on containing cost pressures becomes less acute and increased costs are more readily passed onto consumers.

#### Pricing

It would appear self-evident that the extent of competition has an impact on air fares. However, not all studies have found this to be the case. The BTE's modelling of the variables important for fare setting concluded that:

*This model indicated the importance of distance (a proxy for direct operating costs) in fare determination. The model, however, demonstrated the presence of competition to be insignificant in determining price. As a result, the model provided no evidence to support an argument that monopoly segments of the Australian regional aviation market are pricing their services at a higher level than the multi-operator segments.* (BTE 2000, p. 113)<sup>4</sup>

The BTE modelling is in stark contrast to earlier quantitative analysis and survey data reported by the Industry Commission (IC 1992). The Commission also determined that distance was the most significant explanator of changes in air fares. However, it noted that regulation has a positive and significant effect on air fares, with intrastate air fares on regulated routes around 10 per cent higher than fares on unregulated routes. The Commission contended that its analysis was supported by other studies that found that air fares are likely to be lower on routes that are competitive. (For Australia, see Duldig et. al. (1990); Crowley and Findlay (1990); PSA (1992ab). For Canada and the United States, see Oum et. al. (1991) and Kahn (1988)).

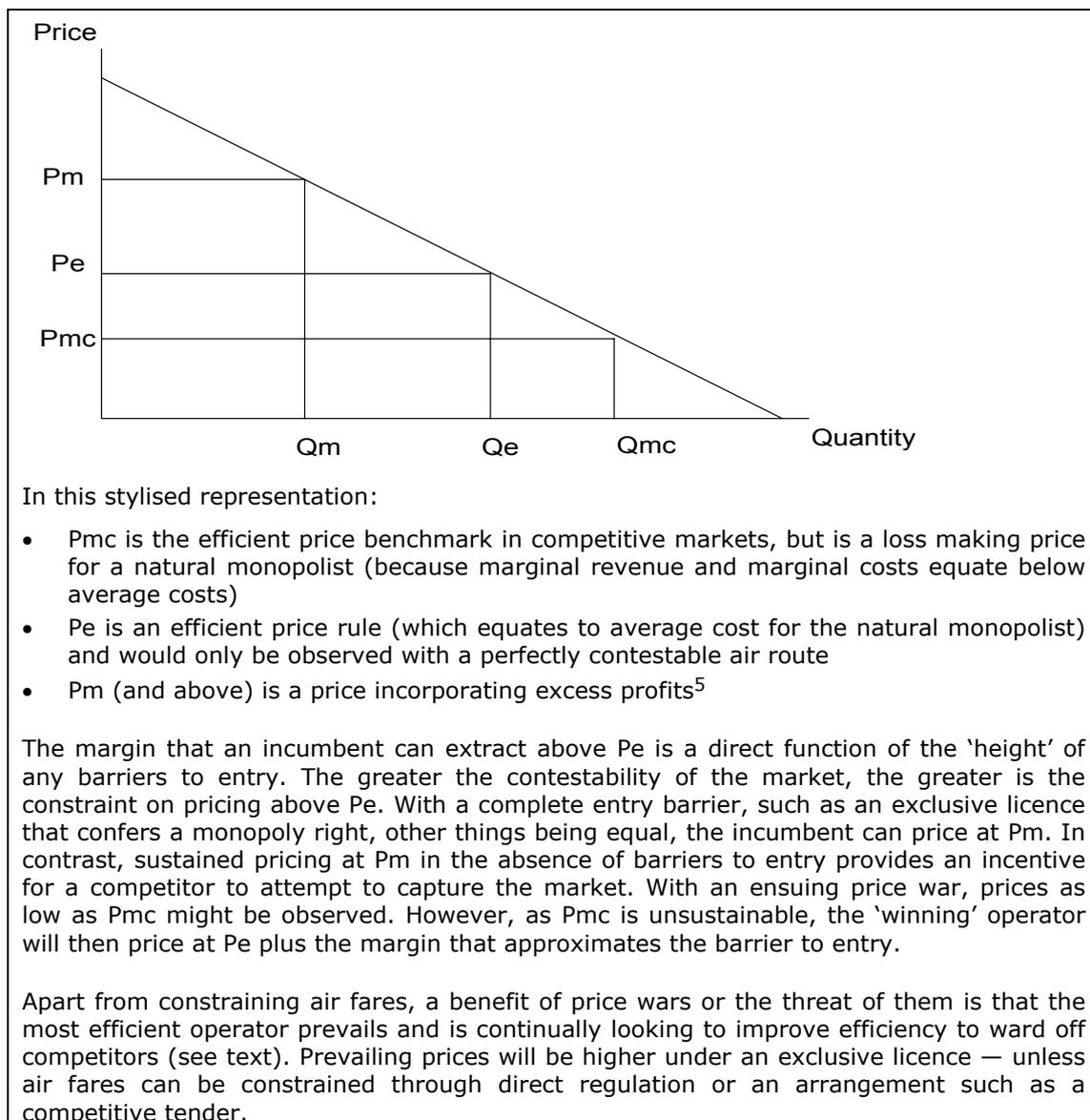
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<sup>4</sup> The BTE did, however, consider that there was some evidence of regional airlines price gouging on routes dominated by business travellers, particularly those serving remote mining areas that cannot readily be incorporated into networks.

Similarly, IPART undertook regression analysis that indicated that in a regulated environment, airfares are around \$30 higher than otherwise. It posited that “direct competition, or the threat of competition in a deregulated market, acts to constrain airfare levels” (IPART 1997, pp. 19–20).

The balance of evidence and practical experience indicates that the threat of competition provides an incentive for the incumbent to operate efficiently and to avoid excessive pricing. As King Island Airlines submitted to the Industry Commission inquiry “even if you have got the route on your own, if you don’t keep the standards up, there’s always the threat that somebody can come in”. This is explored in box 1.

**Box 1:** Pricing outcomes on thin aviation routes



<sup>5</sup> It is possible that a degree of any ‘excess profits’ might be appropriated by local councils’ aerodrome-related charges such as landing fees.

## Innovation and dynamic efficiency

Overseas experience and evidence from Australia indicate that deregulation of air services is accompanied by increases in passenger use. One dimension of this growth is that the more competitive air fares lead to operators (and destination regions) promoting particular tourism attractions. The Industry Commission tested this proposition by comparing traffic growth in Australian regional towns which had a history of both regulated and unregulated air services (an extract of the data set is provided in table 1). There is a need for caution in interpreting the data, given that it is impossible to find identical routes that are both regulated and unregulated. Demand for air travel on some of the routes may have been differentially influenced by factors such as the availability of substitute transport modes. Nevertheless, based on these data and other information, the Commission contended that “traffic growth has generally been greater — or the decline in market size smaller — on unregulated routes” (IC 1992, p. 203).

**Table 1:** Change in passenger densities on selected routes, 1980-81 to 1990-91

<i>Route</i>	<i>Route status</i>	<i>Percentage change 1980-81 to 1990-91</i>
Broken Hill – Adelaide	Unregulated	-13.5
Broken Hill – Sydney	Regulated	-23.4
Cooma – Melbourne	Unregulated	-30.9
Cooma – Sydney	Regulated	-42.9
Merimbula – Melbourne	Unregulated	72.5
Merimbula – Sydney	Regulated	-5.0
Wagga – Melbourne	Unregulated	7.9
Wagga – Sydney	Regulated	-11.5

Source: Extracted from IC 1992, p. 204

Apart from the scope for regulation to reduce incentives for airlines to seek greater operating efficiencies and lower air fares, there may be reduced incentives for service providers to meet the needs of users or to engage in tourism promotion. This underscores that ‘stability’ is not costless.

The flip side of stability is attenuating positive adjustment pressure. For example, Australia’s two-airline policy provided stability in service levels and industry participants, but stifled innovation and price competition. The Independent Review of Economic Regulation of Domestic Aviation (May Review 1986) found that the two airline policy had worked against the interests of consumers by:

- discouraging airlines from seeking new, and developing existing, markets
- encouraging airlines to use too many aircraft for the size of the market
- promoting a focus on business travel to the detriment of discount fares
- creating administrative problems from cumbersome and inconsistent regulation

After the policy was abandoned, entry and the threat of entry encouraged service providers to offer deep fare discounts, aviation services at the times when customers wanted them and innovation in service levels (see box 2).

**Box 2:** Managed competition: lessons from the two airline policy

Shipping companies started the Australian National Airways (ANA) in 1936. The Curtin and Chifley governments of the 1940s sought unsuccessfully (due to constitutional reasons) to nationalise ANA. A government owned airline, Trans Australia Airlines (TAA), was established to compete against ANA. The Menzies government established the two-airline policy in the early 1950s. The regulated duopoly, involving Ansett-ANA (later Ansett) and TAA (later Australian Airlines) was characterised by 'parallel scheduling' and high regulated fares. In October 1990, the Hawke government ended the two-airline policy, enabling competition between domestic carriers.

Qantas purchased Australian Airlines in 1992, and Qantas and Ansett were the largest providers of domestic aviation services during the 1990s. Deregulation provided scope for new entrants and several new players have sought market share over the past 14 years. New entrants included Compass Mark I (in 1990) and II (in 1992), both of which injected competition into the market but which were ultimately unable to withstand the price discounts and superior terminal facilities offered by Qantas and Ansett. Impulse, another new entrant, was taken over by Qantas in 2001.

The deregulated market has been characterised by new entrants replacing failed companies. Virgin Blue commenced in 2000 with a strategy to target particular routes with aggressive fares and 'no frills' service. Following the failure of Ansett in September 2001, Virgin Blue expanded to take up a significant part of the gap in the market. By December 2003, Virgin had 34 per cent of the domestic air market (Qantas 2004). Qantas introduced the no-frills airline Jetstar in May 2004 to offer services in competition with Virgin.

In 1996, the Australian Competition and Consumer Commission released a survey of developments since deregulation. It found that "fares are lower, there is a bigger array of ticket options, the frequency of flights has improved, especially on the main routes, seating capacity has expanded and the airlines now fly to more destinations. ...The airlines are now far more responsive to the varying demands of passengers. ... Before deregulation about 50 per cent of passengers paid the full economy fare. Because of discounts, less than 20 per cent are now paying the full fare". The ACCC concluded that deregulation had "removed the shield of protection for the two main airlines and forced them to compete for market share, respond to the demands of consumers and improve the efficiency of their operations ..." (ACCC 1996).

The Ansett collapse in late 2001 and other factors (see text, section 3) led to difficult market conditions, but the competitive prices engendered by Virgin's entry have seen domestic air travel grow strongly. In the year to July 2004, 37 million passengers were carried on domestic and regional airlines, 7 per cent more than in the year to July 2001. Aircraft productivity is significantly higher than in the pre-Ansett period, with load factors exceeding 80 per cent in much of 2003-04 despite the introduction of new capacity (BTRE 2004, p. 2). Business class fares have risen by about 10 per cent since mid-2000, while economy fares have been steady. Real discount fares have fallen considerably since early 2002. In September 2004, the real best discount fares index was 35 per cent lower than in September 2002 (BTRE 2004, pp. 8-9). The availability of discount fares has been augmented by Qantas's introduction of Jetstar.

The attractiveness of the domestic aviation market to new entrants has been further demonstrated by an announcement by Ozjet Airlines that it intends to enter the market offering low cost fares for business travellers.

## 5.2.2 Potential regulatory costs

Regulatory cost considerations include direct administration and compliance costs. These costs and inhibitors, in turn, can act as a handbrake on the scope to achieve dynamic efficiency gains.

- *Administrative costs incurred by governments.* What markets would normally achieve with existing airline management resources needs to be duplicated by transport officials seeking to manage outcomes. For example, regulators need access to information about service providers' performance, implying policy, compliance and monitoring functions. They also may need to gauge the potential for the regulated provider to improve its performance and/or respond to changes in user preferences as well as understanding the potential performance of alternative service providers.
- *Compliance costs incurred by airlines.* Airlines need to divert resources to reporting performance data, sometimes necessitating different accounting and reporting standards. In addition, if regulation intrudes to the level of specifying aircraft type and services levels, this inhibits the ability of operators to adjust their operations to meet variations in demand.
- *Rent-seeking behaviour.* Rent-seeking refers to the diversion of entrepreneurial effort from core business activities to lobbying governments in order to seek/retain a competitive advantage conferred by regulation. Rent-seeking can be regarded as a dead weight economic loss. In a similar vein, regulation can create incentives for socially inefficient strategic behaviour. For example, if there are cost based pricing rules for fare determinations, providers have an incentive to pad reported costs and/or to shift costs on to services subject to regulation.
- *Regulatory capture.* With regulation, particularly well-meaning regulation to achieve social goals, there is a tendency for regulators to identify with client groups rather than the wider community. For instance, in Grabosky and Braithwaite (1986), the authors surveyed 111 federal and state agencies. Commenting on this survey, Fels and Brenchley (2004) observed that it identifies "a pattern of platitudinous appeals to industry to act responsibly, token enforcement, keeping the lid on problems that could blow up into scandals and passing the buck to other agencies".
- *Regulatory failure:* The following example from New South Wales illustrates a failure of regulatory design that was ultimately rectified by removing the intervention and allowing the market to operate.

*In 1991 a licensed operator withdrew its services from 14 routes, including Forbes, Gunnedah and Lightning Ridge, on which it held the only licence. The Act did not permit the then Government to compel the operator to provide these services. ... The former Government did eventually deregulate in respect of these licences ... all 14 routes — which were 14 of the least patronised in the State — were picked up almost immediately by new operators and those communities have had regular services ever since. (Egan 1998, p. 4030)*

This example highlights the difficulties that can arise in moving from policy intent to regulatory design through to outcomes.

### 5.2.3 Ameliorating regulatory costs

After considering the probability of adverse outcomes in the absence of intervention for a viable service and the potential costs and benefits of a regulatory response, where a government determines that intervention is warranted it could opt for a range of policy options. These include conferring an exclusive licence by administrative fiat or allocating the route by competitive tender. The conferred right could relate to a route, a network or a cluster of routes and there could be licence conditions attached to control prices and service standards.

To assess the relative costs and benefits of these approaches it is necessary to understand the operation of competitive tendering and price control measures.



## 6 Price control and competitive tendering

In 1962, Friedman observed that “there is unfortunately no good solution for technical monopoly. There is only a choice among three evils: private unregulated monopoly, private monopoly regulated by the state, and government operation” (Friedman 1962, p. 128). However, in subsequent years, a fourth solution emerged — that of *ex ante* bidding to award a monopoly franchise, such that monopoly pricing would not be a necessary consequence of a private unregulated monopoly (see Williamson 1985).<sup>6</sup> In the Australian context, IC (1996) and PC (2002) provide insights on the application of this fourth way.

Recall from box 1 that contestability for a market can constrain prices, but prices will be above efficient levels to the degree enabled by the height of any barrier to entry. If that barrier is raised through an exclusive licence so that market contestability no longer plays a role in generating efficient prices, the options are to either regulate prices *in* the market or institute competitive tendering *for* the market.

The Productivity Commission’s inquiry report on the *Economic regulation of harbour towage and related services* (PC 2002) provides useful insights for this paper given the similarities between harbour towage services in certain ports and airline services on thin routes. For example:

- in many instances, harbour towage services generate sufficient traffic to justify the efficient operation of one provider
- as barriers to entry for harbour towage services are not large, there are constraints on the power of the incumbent to exploit its sole provider status
- the nature of the market conditions for harbour towage indicate that prices offered by the incumbent could exceed the average cost of production and include an element of monopoly rent.

### 6.1 Price control

In Australia, direct price control is generally reserved for strategic natural monopoly infrastructure facilities (usually vertically integrated) where providers have the incentive and ability to use their market power to

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<sup>6</sup> Williamson notes that this ‘Chicago response’ was successively developed by Demsetz (1968ab), Stigler (1968) and Posner (1972).

manipulate competition in upstream and downstream markets. And, even in these cases, regulation generally seeks to facilitate negotiation with arbitration on prices as a last resort. The limited recourse to price control reflects its potential downsides, particularly the scope for regulatory error. The Productivity Commission argued that “price controls should only be used where the problem to be addressed generates substantial inefficiencies” (PC 2002, p. xxxvii).

In relation to harbour towage services, the Commission determined that “the costs and limitations of price control regulation are likely to outweigh significantly the benefits of using it to address potential misuse of market power held by towage providers at some ports” (p. 140). These findings are applicable to intrastate aviation where the case for intervention is not strong.

Price monitoring, on the other hand, is a less intrusive form of regulation. Monitoring could be used to complement an exclusive licence regime to dampen incentives for excessive pricing and also provide information to regulators.

## 6.2 Competitive tendering

Competitive tendering is a mechanism whereby the entity seeking the provision of a service can choose a supplier in a more controlled way than reliance on market entry. Competitive tendering has other advantages. For example:

- the tendering body (a state government) has the opportunity to set explicit requirements for quality, pricing and other conditions for the supply of services
- in principle, tendering can avoid the resource costs of a price war and this might encourage prices closer to efficient costs.
- tendering can facilitate a managed transition to a new airline operator
- airfares and scheduling can be made more certain.

A critical consideration with the competitive tendering model is the basis on which the exclusive licence is awarded. With *exclusive* licensing the tender winner is accorded the right to be the sole provider of the service. With *non-exclusive* licensing, the winning bidder is given the right to compete with an incumbent. For those thin aviation routes where the market could not sustain two competitors, it would not be practical to use a non-exclusive licence.

The exclusive licence could be awarded to the highest bidder (tender premium) for the contract. In this instance, there is an implication that prices for the tendered services could incorporate monopoly rents that would be higher than if the air service provider is subject to the threat of entry (see box 1). The Productivity Commission considered that this form of competitive

tendering was not the preferred way of introducing contestability for the market for harbour towage services.

Alternatively, the tender could be awarded to the company offering the lowest price for a specified level of service. This would tend to hold prices towards the costs of the most efficient provider plus a margin for normal profits.

In the context of regional aviation, the latter approach is more suited to achieving outcomes that are in the public interest.

## 6.3 Transactional considerations

There can sometimes be a gulf between projected outcomes at the policy design stage and post-implementation outcomes. Hence, governments need to carefully take account of transactional issues. As Coase noted 40 years ago:

*Contemplation of an optimal system may provide techniques of analysis that would otherwise have been missed and, in certain special cases, it may go far to providing a solution. But in general its influence has been pernicious. It has directed economists' attention away from the main question, which is how alternative arrangements will actually work in practice. It has led economists to derive conclusions for economic policy from a study of an abstract of a market situation. It is no accident that in the literature ... we find a category 'market failure' but no category 'government failure'. Until we realise that we are choosing between social arrangements which are all more or less failure, we are not likely to make much headway. (Coase 1964, p. 195)*

This is a salutary caution that policymakers need to be sure that any regulatory cure does not lead to outcomes that are worse than the disease. Is competitive tendering likely to work in practice for regional aviation services?

Transactional details that need to be taken into consideration include the number of bidders and the scope for collusion, technological and market uncertainty, asset specificity and administrative apparatus. Williamson (1985, pp 350-1) for example, cautions that:

*... where significant investments in durable specific assets are required and contracts are subject to technological and market uncertainties, franchise bidding in practice requires the progressive elaboration of an administrative apparatus that differs mainly in name rather than in kind from that which is associated with the regulation that it is intended to supplant.*

In this context, it is relevant that Baumol and Willig (1981, p. 407) identify local airline services and postal services as areas in which franchise bidding is feasible for services with decreasing cost conditions. The authors identify these as industries with 'capital on wheels' such that "their fixed costs may considerably exceed their sunk costs". Accordingly, in these industries (and

harbour towage services in Australia), winning bidders could be displaced in future without posing serious asset valuation problems, given that assets can be leased or alternatively sold on a second hand market.

Achieving the best outcome from tendering requires competitive bidding for the tender, detailed contract specification and ongoing monitoring. The Productivity Commission considered that specifying harbour towage contract conditions and key performance indicators would be reasonably straightforward, compared with other services that might be characterised by multiple agents, substantial technological change and demand uncertainty. While arguably the regional airline business may be more prone to demand uncertainty, it is likely that contract specification would still be relatively straightforward.

Yet another challenge is to determine the appropriate length of the contract period. A contract must be long enough for potential entrants to earn a return on investment, but not so long that the competitive gains are diminished. Short term contracts increase the transaction costs of tenders, because they are held more often. As a rule of thumb, a range of 3–5 years may be appropriate.

## 7 A framework for policy options

A flow chart outlining decision making criteria is provided below. It emphasises that governments must rigorously assess whether an objective of stabilising RPT services on thin routes is matched by a reasonable likelihood that competition for the market will leave communities without air services for prolonged periods. This premise does not appear to be borne out by Australia's experience at either the inter- or intra-state level.

The decision making criteria are posed as questions that consistently focus on the need to assess all benefits and costs against a backdrop that regulatory failure can lead to outcomes that are no better, or are worse, than those which would prevail in the absence of intervention. The criteria are essentially akin to the sort of questions that would underpin a robust NCP review.

First, *is there a policy objective that there must be RPT air services on this route/network?* This consideration occurs at the scoping stage when a government is contemplating regulation or the continuation of regulation. An initial intention to intervene may be influenced by a robust appraisal process.

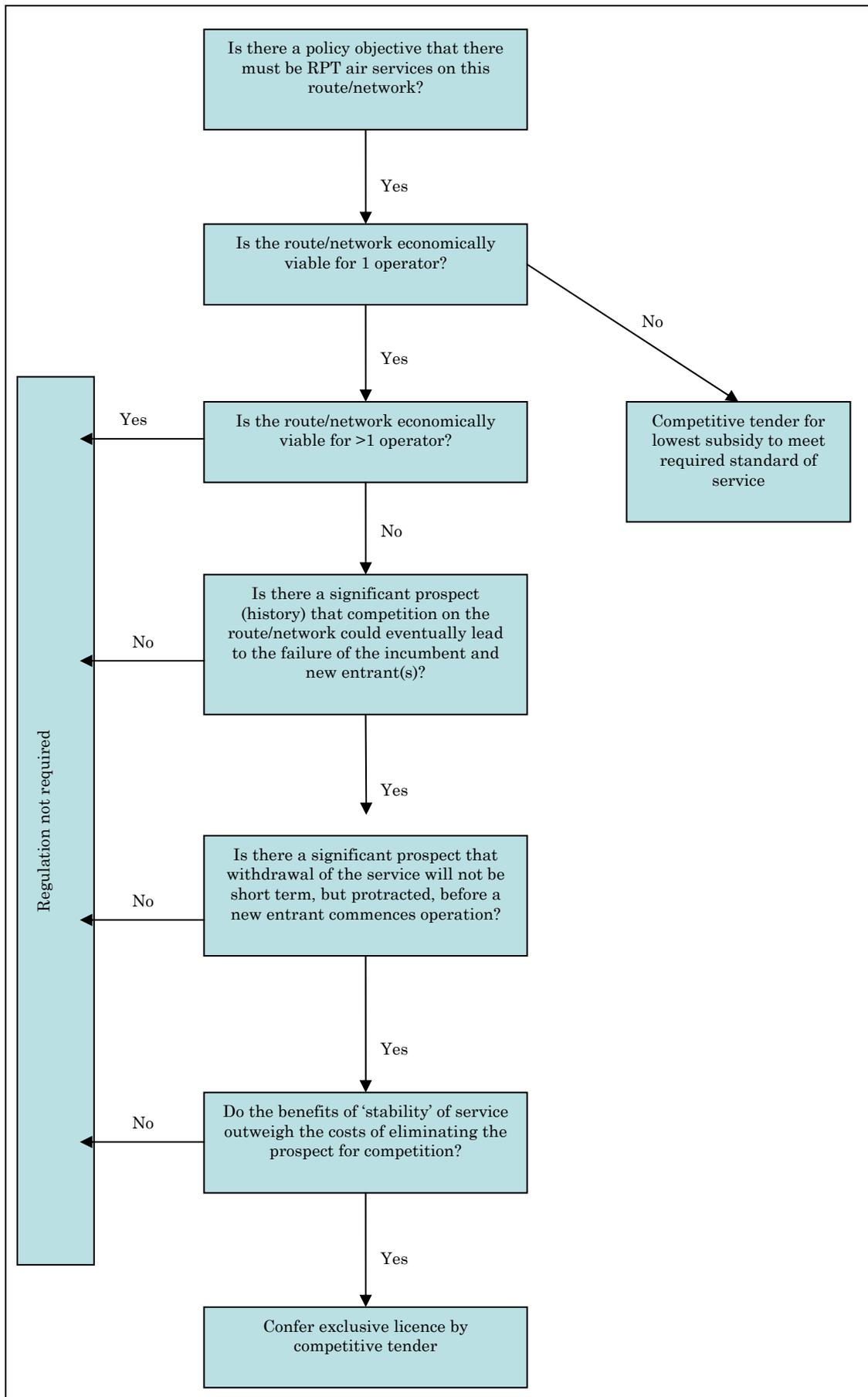
Second, *is the route/network economically viable for 1 operator?* If the route is unviable and for equity reasons the government wishes to provide a service that would not otherwise exist, it should subsidise the service through a competitive tender process.

Third, *is the route/network economically viable for >1 operator?* If the answer is 'yes', then by definition the objective of ensuring stable airline services can be met without restricting competition. Intervention in this case would be likely to be a breach of NCP obligations.

Fourth, *is there a significant prospect (history) that competition on the route/network could eventually lead to the failure of the incumbent and new entrant(s)?* If the answer is 'yes', it may be that intervention will be in the public interest. Clearly, it may difficult to identify circumstances in which competition leads to substantial disruption or no supply. Australia's regional aviation history is replete with instances of carriers that have exited and new firms that entered the industry.

Fifth, *do the benefits of 'stability' of service outweigh the costs of eliminating the prospect for competition?* Intervention to 'correct' the policy problem is not costless. Where a robust assessment determines that restricting competition is in the public interest, on *efficiency grounds* a competitive tendering model that confers the exclusive licence based to the bidder with the optimal price service offering would be the preferred option.

Against the backdrop of this framework, the following sections briefly examine current regulatory models in intrastate aviation against the NCP obligations.



## 7.1 Open skies

The Victorian, Tasmanian, ACT and Northern Territory governments have open skies for intrastate aviation.

### NCP implications

An open skies policy is fully consistent with NCP obligations.

## 7.2 Exclusive licence for a non-viable service

Governments may opt to provide non-viable services (or to subsidise remote routes) for social justice reasons. As there is no government provision of aviation services in Australia, subsidisation is the only means to address this policy objective.

In principle, a government could provide a subsidy to any operator on the route, or offer an exclusive licence. In practical terms, the low density would suggest that any subsidy sufficient to allow two or more operators to make a reasonable rate of return would be higher than subsidising a sole operator. Moreover, a multiple provider model would provide no mechanism for operators to reveal the minimum level of subsidy required, thereby leaving transport officials to ‘guesstimate’ the required subsidies.

Awarding an exclusive contract by competitive tender to the bidder with the lowest subsidy requirement (for a defined price-service offering) achieves the objective most efficiently and at least cost to the community. In its report on *Intrastate aviation*, the Industry Commission made the following observations which remain germane today.

*Where governments decide to support remote area air services ... the application of the following principles would help to minimise efficiency losses:*

- *... governments should fund programs from consolidated revenue.*
- *Contracts for air services should be awarded by tender, on the basis of the lowest bid, according to a predetermined level of service. Although this may not always result in multiple bids, it will impose some cost discipline on the incumbent supplier. Contracts should be re-tendered regularly — about every 2 to 3 years.*
- *If contracts are based on a cost-plus arrangement, subsidies should be made on forecasted aggregates and subsequently adjusted for actual costs and revenues. Where practicable, the subsidy payment should be subject to an annual discount to allow for productivity gains.*

- *Programs should be reviewed regularly to establish if they are meeting their stated objectives.* (IC 1992, p. 178)

These principles ensure that government policy objectives are met in an efficient manner and that relevant information is continually provided. For example, should the subsidised service move towards viability over time — perhaps owing to changes in input costs, an increase in population density, tourism growth or new generation aircraft — this will be revealed in the competitive tendering process through a reduced subsidy requirement.

## NCP implications

The merits (or otherwise) of taxpayers subsidising RPT services for people who live in more remote areas is a matter for governments. Where governments have made the decision that air services should be provided on non-viable routes, the NCP implications are not intrusive. This reflects that competition impacts are not particularly relevant because, in the absence of subsidising the route or networks, there would not be any service.

Moreover, in this instance the NCP is silent in relation to policy instruments. A government could, for example, provide the subsidy to an operator without recourse to a competitive tendering process and not breach its NCP obligations. That said, it is in governments' interests to take efficiency considerations into account given that competitive tendering has demonstrable public benefit advantages over simply conferring an exclusive right.

Similarly, where a (marginally) viable route attracts a subsidy on equity grounds, the NCP is generally silent apart from the principle that the subsidy should be costed and funded by the government and be made transparent.

In Queensland, air services to some remote areas are regulated through exclusive contracts that specify minimum service levels, such as aircraft type, frequency of service and fares.<sup>7</sup> Each contract is for five years, after which it is re-tendered. The NCP review found these restrictions to be in the public interest because the contracted operators provide services that otherwise would not be available, or would be available only at greater cost or with lower service levels. In its 2003 assessment of governments' progress in implementing the NCP, the NCC concurred with the public interest arguments and assessed that Queensland had met its CPA subclause 5 obligations (NCC 2003, pp. 2.63–4).

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<sup>7</sup> The Western Australian Government also pays direct subsidies for certain air services in the Kimberley region.

## 7.3 Exclusive licences for viable services

The following options relate to services that are viable in their own right but which might experience the extreme dislocation or suspension of services owing to competition from potential new entrants. The options would be:

1. *Gifting a monopoly right*: Conferring an exclusive licence to provide an appropriate standard of services by some administrative means.
2. *Tender based on premium bids*: Conferring an exclusive licence to provide an appropriate standard of services, allocated by competitive tender for a premium.
3. *Tender based on service offering*: Conferring an exclusive licence to provide an appropriate price and standard of services allocated by competitive tender on the basis of best offering.

### 7.3.1 Gifting a monopoly right

Gifting a monopoly right refers to administratively conferring an exclusive licence to an operator, perhaps through grandfathering or some other discretionary process. This approach:

- applies no competitive discipline in terms of competition for the market
- provides the conditions for monopoly pricing unless there are further interventions (such as price and service conditions) to ensure that the beneficiary does not abuse its market power
- stymies incentives for the service provider to constrain costs and to innovate
- provides little information to regulators about the relative costs and benefits of regulation at a particular point in time or over time.

Even with a rigorous monitoring regime in place, this approach provides a lower prospect of an incumbent offering a price/service/quality offering that meets the needs of consumers, because not only does the incumbent avoid the prospect of competition *in* the market, it does not face the threat of competition *for* the market.

This approach is the least likely to provide an outcome in the public interest.

### NCP implications

Gifting is a stringent restriction on competition delivered in a way that provides the least certainty that outcomes will be in the public interest. A government pursuing this course of action would need to establish not only

that the objective could not be achieved without restricting competition, but also that the transactional costs of competitive tendering are of such magnitude that the objective is met more cost-effectively by simply conferring a monopoly right. Meeting these requirements would seem unlikely.

It appears that New South Wales has conferred exclusive rights in this way. In contrast to the IPART review (and the initial government response) which the NCC determined had complied with the state's NCP obligations, the shift to re-regulation, without a robust public interest case would appear to be inconsistent with CPA subclause 5(5) obligations.

### 7.3.2 Competitive tender for premium or service offering

As discussed in section 6.2 awarding a tender to the company offering the lowest price for a specified level of service can moderate prices towards the costs of the most efficient provider plus a margin for normal profits. Conversely, awarding a tender to the highest bidder raises a risk that prices for the tendered services will incorporate monopoly rent.

#### NCP implications

On efficiency grounds, awarding tenders based on best available service offering is superior to awarding tenders based on premiums. In terms of meeting the NCP obligations, it is possible that the less efficient approach may still comply. Assuming that a case has been made that the objective can only be met by restricting competition and that this delivers a public benefit, both tendering approaches do so in a way that provides competition for the market. The fact that one has superior welfare implications (ie leads to a greater net benefit) does not necessarily mean that governments are compelled to adopt it.

## 7.4 Exclusive licences for clusters of routes

Regulatory intervention to promote or stabilise certain air services carries the potential for cross-subsidisation. It may even be a government's intention to avoid paying budget subsidies by creating conditions for a monopoly provider to use excess profits on thicker routes to subsidise thin routes.

An implication of cross-subsidisation is that consumers of the artificially improved service are subsidised by the overcharging of users on the thicker, more profitable, routes. This mismatch of costs and prices increases demand for the subsidised service and correspondingly dampens demand, or increases the costs, for users of the other services. On the supply side, the investment decisions of aircraft operators and infrastructure providers may be distorted

and this could, for instance, lead to airport investments on subsidised routes at the expense of investment elsewhere.

The TFI & CAPA review (2004, p. 45) encapsulates the argument for cross-subsidisation in its recommendation to the Western Australian Government to tender networks rather than discrete routes:

*Skywest has developed a turboprop network with Perth as the hub. Services have been provided from Perth to Esperance and Albany in the South, to Geraldton and the Gascoyne region north of Perth and to Kalgoorlie, Leonora and Laverton on the Goldfields. This network has been based on Skywest operating five 46-seat F50 aircraft. Because of the large route lengths and the size of the aircraft, Skywest has joined some of the destinations on the same routes. This is particularly the case in the Gascoyne region.*

*... there is in fact little demand for air travel between such centres at the fare levels necessary for airline profits.*

*Thus most of the traffic is between Perth and the destinations connected by Skywest. The benefit of this network therefore is largely that the aircraft can be allocated to the most profitable routes and then to the less profitable, or loss making, routes on a marginal cost basis to increase overall utilisation. All destinations on the route network benefit from this capacity allocation. ...*

*The network such as that operated by Skywest is of high value to the communities served in WA and allows Skywest to use a larger aircraft type than would be available if the network were broken up.*

The prime source of the 'network benefits' would be the Perth to Geraldton route. In March 2003, the Western Australian Government indicated that it would open the Perth-Geraldton route to staged competition, as it has reached the threshold point of 55 000 to 60 000 passengers. The route is now a managed duopoly. The TFI & CAPA review refers explicitly to the need to maintain regulation on the route. For example, the review posits the following question and answer:

***Should all regulated routes continue to be regulated after May 2005?***

*Yes — if Geraldton is excluded it may result in the need for subsidies for other routes. (p. 47)*

It is implicit in this recommendation that some consumers will be overcharged to support those flying to 'less profitable, or loss making' routes using aircraft that are larger than necessary for the task. (This is at odds with Queensland's approach of letting tenders on the basis of the lowest direct subsidy requirement.)

Proponents of the network model, however, tend not to refer to cross-subsidisation: rather the model is couched in terms of providing aviation

operators with the scope to capture network benefits (such as economies from larger aircraft). However, it is difficult to reconcile claimed marginal cost pricing with a 'loss-making' route.

Nevertheless, the claims do raise the issue of whether, in a non-regulated environment, an airline would cross-subsidise certain routes to achieve network benefits. Certainly forms of cross-subsidisation and price discrimination arise in competitive markets. For example, as business class passengers tend to be less price responsive than economy passengers, they may make a greater contribution to the costs of providing a service. Similarly, an airline might service a marginal route as part of a feeder service to, say, its more lucrative interstate services. In an overall sense, however, provision of the service makes a positive contribution for the service provider.<sup>8</sup>

In relation to offering exclusive licences for clusters, other objectives apart from stability of services to regions may be put forward. Where objectives are mixed, it is important that each be assessed according to subclause 5 principles (see box 3).

**Box 3:** Regulation and mixed objectives

The Western Australian Government considered the merits of regulation based on networks and discrete routes. It argued that:

*On the basis that the WA Government is seeking sustainability but also seeks to promote tourism growth it may be that the best overall approach is that which maximises the prospect for developing (or maintaining) sustainable airline networks. This would suggest that the larger the network, the greater the critical mass (of passengers), the greater the potential for airline network benefits to materialise and the greater the potential to generate tourism benefits. These tourism benefits result from an increased number of discounted seats, increased marketing to tourism and the inclusion of air and tourism products in the major GDS [global distribution system]. (Department for Planning and Infrastructure (WA) 2005, pers. comm, 6 March)*

The above proposition involves several assumed links. Moreover, governments generally seek to promote tourism through a combination of generic promotion campaigns and reliance on private sector agents, rather than regulating air networks. Also, it is unclear that, in the absence of intervention, routes would not be serviced by a carrier with affiliated links to a GDS network. And, the history of tourism promotion on regulated, compared to unregulated, routes has been less than impressive.

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<sup>8</sup> Qantas claimed at the recent House of Representatives inquiry that it “operates under community service operations in some circumstances, despite making a loss on those routes” (HoR 2003, p. 32). The inquiry noted, however, that Qantas did not provide any examples of where this occurred. It is possible that in a period of downturn in a region (perhaps from drought) some routes may temporarily record losses but are retained for continuity of scheduling and to negate predation by a competing airline.

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## NCP implications

It is hard to establish that a cluster-based exclusive licensing regime is in the public interest. There is no justification for conferring any form of exclusivity for those routes that are demonstrably capable of sustaining more than one service provider, because the objective of providing stable RPT air services can be met without restricting competition.

Governments should not confer monopoly rights for route clusters to enable the operator to cross subsidise lower density routes. While such a policy may enable a government to avoid a direct subsidy, the outcome is likely to detract from, rather than advance, the public interest. It is also at odds with CoAG's directive that community service obligations should be met through transparent, appropriately costed and directly funded payments.

Even accepting that an air service provider operating in an unregulated environment might apply cross-subsidies between routes, it is one thing for an airline to choose to operate some routes at marginal cost to achieve network economies, it is another for a government to restrict entry to aviation routes in order to engineer cross-subsidisation.

Establishing that such a regulatory response is in the public interest would require a government to undertake a vigorous analysis to compare the comparative costs and benefits of cross-subsidies:

- under a network tender arrangement
- from direct government subsidies that would be required to ensure aviation services are provided on only the highly 'vulnerable' routes.

Only if a properly conducted analysis concluded that cross-subsidies would yield greater net benefits than direct funding could it meet CPA obligations.



## 8 Concluding comments

Governments agreed to the NCP reforms to enhance the performance of the economy through improved productivity, more efficient (typically lower) prices and better services. Unfettered competition will not always serve the public interest — market failures are well documented. Well-designed regulation, therefore, can enhance community welfare. The case for intervention, however, needs to be made through rational analysis. The NCP legislation review process has shown that well-intentioned interventions can promote adverse outcomes, not only relative to better thought-out interventions, but also, in some cases, to leaving a market failure untreated.

**Table 2:** Form of intervention

<i>Intervention</i>	<i>Efficiency implications</i>	<i>NCP implications<sup>a</sup></i>
Open skies	Neutral	Compliant
Direct budget subsidy	Encourages consumption and production of service. Dead weight costs of taxation and opportunity cost of expended funds are in-principle issues of some relevance.	Compliant
Competitive tender (3-5 years) conferred on basis of best price/service offering	Optimal method of intervention	Compliant
Competitive tender (3-5 years) conferred on basis of highest bid	Sub-optimal intervention. Provides competition for the market but risks incorporating monopoly rent in prices.	Compliant only if robust public interest evidence establishes that this is preferred model.
Competitive tender (3-5 years) conferred on basis of best price service offering for clusters of routes	Sub-optimal intervention. If cross-subsidisation arises (as part of 'network benefits'), consumption, production and investment decisions may be distorted. Also, raises questions of equity for those in 'donor' regions relative to broader taxpayer funded subsidies.	Compliant only if robust public interest evidence establishes that this is preferred model. However, there is unlikely to be a compelling justification for conferring exclusivity for routes that are demonstrably capable of sustaining more than one service provider because the objective of providing stable RPT air services can be met without restricting competition.
Conferring monopoly right	Inefficient allocation method. Provides no competition either in the market or for the market. Provides little information to regulators and little scope for community to capture efficiency gains. Maximises scope for price gouging on routes.	Unlikely to comply. Compliance would need to be based on a strong case that conferring licence in this way (presumably only as a one-off) is justified on the basis of excessive transactional costs associated with tendering. Sustaining such a case would be difficult.

<sup>a</sup> Assuming that it has been established in-principle that intervention would be in the public interest.

This paper has noted several forms of regulating intrastate aviation and their impact on competition (see table 2). Competition is generally an apt proxy for efficiency, although in a rules based framework such as the NCP, it may not always be sufficient. As the NCC submitted to a recent Productivity Commission review of the NCP:

*... governments devised their legislation review schedules on the basis of their initial screening of legislation to identify restrictions on competition. The Council's experience is that some legislation adversely impinges of efficiency without necessarily restricting competition. For example, some restrictions are justified on public interest grounds (such as quotas based on sustainability criteria) but the efficiency of the allocation method may be questionable relative to alternatives. (NCC 2004b)*

Although there may be some divergence between best practice regulation and regulation that meets the CPA subclause 5 obligations, governments should take account of what is in the best interests of the community when contemplating economic regulation in this area.

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## References

- ACCC (Australian Competition and Consumer Commission) 1996, 'Air fares: before and after compass', *Media release 050/96*, 24 April.
- BASI (Bureau of Air Safety Investigation) 1999, *Regional Airlines Safety Study Project Report*
- BTE (Bureau of Transport Economics) 2000, *Regional Aviation Competitiveness*, Working Paper 41, January.
- BTCE (Bureau of Transport and Communications Economics) 1988, *Intra-State Aviation: Performance and Prospects*, Occasional Paper 95, AGPS, Canberra.
- BTRE (Bureau of Transport and Regional Economics) 2005, Australian domestic airline activity time series, viewed 21 April, [http://www.btre.gov.au/statistics/aviation/time\\_series\\_downloads.aspx](http://www.btre.gov.au/statistics/aviation/time_series_downloads.aspx).
- 2004, *avline*, issue 5, November, viewed 21 April 2005, <http://www.btre.gov.au/statistics/aviation/avline/avline.aspx>.
- 2003a, *Regional Public transport in Australia: economic regulation and assistance measures*, Working Paper 54.
- 2003b, *Regional public transport in Australia: long-distance services, trends and projections*, Working Paper 51.
- Baumol, W.J., and R.D. Willig, 1981, 'Fixed costs, sunk costs, entry barriers and sustainability of monopoly', *Quarterly Journal of Economics*, August:405-31
- CoAG (Council of Australian Governments) 2000, *Communique*, Canberra, 3 November.
- CoAG Energy Market Review, 2002, *Towards a truly national and efficient energy market*, Canberra.
- Coase, RH 1964, 'The regulated industries: discussion', *American Economic Review*, 54 (May): 194–7.
- Crowley, J & Findlay, C 1990, *The South Australian airline market in the 1990s*, Director–General of Transport, South Australia.
- Dempsey, PS 1990, *Flying blind*, Economic Policy Institute, Washington.
- Demsetz, H 1968a, 'The cost of transacting', *Quarterly Journal of Economics*, 82 (February): 33–53.
- 1968b 'Why regulate utilities', *Journal of Law and Economics*, 11 (February), 55–6
- DIER (Department of Infrastructure, Energy and Resources, Tasmania), 2005, Air transport information: Aviation issues and strategies, viewed 21 April, [http://www.transport.tas.gov.au/road/transport\\_tas/aviation%2003-02-05.html](http://www.transport.tas.gov.au/road/transport_tas/aviation%2003-02-05.html).

- Duldig, P, Findlay, C & Wong, A 1990, *Regulation, competition and congestion: NSW air transport in the 1990s*, Report prepared for the NSW Business Deregulation Unit, Centre for South Australian Economic studies, Adelaide.
- Egan, The Hon. MR (Treasurer, Minister for State Development and Vice-President of the Executive Council) 1998, Air Transport Legislation Repeal Bill, Second Reading, *Hansard*, Legislative Council, Sydney, 29 April.
- Fels, A & Brenchley, F 2004, 'Chance missed to give regulators more teeth', *Australian Financial Review*, 16 August.
- Government of New South Wales 2003, Legislation review database — New South Wales, in *Report to the National Competition Council on the application of National Competition Policy in New South Wales*, Sydney.
- South Australia 2002, *South Australian Government submission to The House of Representatives Standing Committee on Transport and Regional Services inquiry into commercial regional aviation services in Australia and transport links to major populated islands*, Adelaide.
- Western Australia 2003, *Implementing National Competition Policy in Western Australia*, Report to the National Competition Council.
- Grabosky, P & Braithwaite, J 1986, *Of manners gentle: enforcement strategies of Australian business regulatory agencies*, Oxford University Press, Melbourne.
- HoR (House of Representatives Standing Committee on Transport, Communications and Infrastructure) 1995, *Plane safe*, Inquiry into aviation safety: the commuter and general aviation sectors, Canberra.
- HoR (House of Representatives Standing Committee on Transport and Regional Services) 2003, *Regional aviation and island transport services: making ends meet*, Inquiry into commercial regional aviation services in Australia and alternative transport links to major populated islands, Canberra.
- IC (Industry Commission) 1992, *Intrastate aviation*, Report no. 25, Canberra.
- 1996, *Competitive tendering and contracting by public sector agencies*, Report no. 48, AGPS, Canberra.
- Independent review of economic regulation of domestic aviation 1986, *Report*, (T.E May, Chairman), AGPS, Canberra.
- IPART (Independent Pricing and Regulatory Tribunal) 1997, *Review of the regulation and licensing of air service operators in New South Wales*, Report, July.
- Kahn, A 1988, 'I would do it again', *Regulation*, vol. 12, no. 2, pp. 22–8.
- May Review, see Independent review of economic regulation of domestic aviation 1986.

- 
- NCC (National Competition Council) 2003, *Assessment of governments' progress in implementing the National Competition Policy and related reforms: Volume two: Legislation review and reform*, Canberra.
- 2004a, *Assessment of governments' progress in implementing the National Competition Policy and related reforms: Volume one: Assessment*, Melbourne.
- 2004b, *Submission to the Productivity Commission Review of National Competition Policy Arrangements*, Melbourne.
- Oum, TH, Stanbury, WT & Tretheway, M 1991, 'Airline deregulation in Canada and its economic effects', *Transportation Journal*, vol. 30, Summer, pp. 4–22.
- PC (Productivity Commission) 2002, *Economic regulation of harbour towage and related services*, Report no. 24, Melbourne.
- 2004, *Review of part X of the Trade Practices Act 1974: international liner cargo shipping*, Draft report, Melbourne.
- PSA (Prices Surveillance Authority) 1992a, *Monitoring of movements in average air fares: report no 1*, Monitoring report no. 2, Melbourne.
- 1992b, *Monitoring of movements in average air fares: report no 2*, Monitoring report no. 3, Melbourne.
- Posner, RA 1972, 'The appropriate scope of regulation in the cable television industry', *The Bell Journal of Economics and Management Science*, 3, no. 1 (Spring), pp. 98–129.
- Qantas 2004, 'Highlights: Qantas results for the year ended 30 June 2004', *Media release* (accessed from [www.qantas.com.au](http://www.qantas.com.au))
- Regional Airlines Summit 2001, *Transcript of Proceedings*, Friday 1 June.
- RBA (Reserve Bank of Australia) 2005, *Bulletin*, <http://www.rba.gov.au/statistics> (accessed on 2 March 2005)
- Scully, The Hon. C (Minister for Roads, Minister for Transport) 1999, 'Regional airlines set for growth', *Media release*, 13 August.
- 2002, 'Government boost for NSW regional air routes' *Media release*, 29 October.
- Stigler, GJ 1968, *The organization of industry*, Homewood, Ill.: Richard D. Irwin.
- TFI & CAPA (Tourism Futures International and the Centre for Asia Pacific Aviation) 2004, *Review of intrastate regulated air services in Western Australia*, report to Department for Planning and Infrastructure.
- Williamson, OE 1985, *The economic institutions of capitalism*, The Free Press.
- Wright, The Hon. MJ (Minister for Transport) 2002, Air transport (Route Licensing — Passenger Services) Bill, Second Reading Speech, *Hansard*, South Australia House of Assembly, Wednesday 10 July, pp. 708–10.
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