Sydney Airport declaration application
by Virgin Blue

Report prepared for Gilbert + Tobin

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Frontier Economics Network

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1. Introduction

Frontier Economics has been asked by Gilbert + Tobin for its opinion of the National Competition Council (NCC) Issues Paper concerning the Application by Virgin Blue for Declaration of Airside Services at Sydney Airport (“the Issues Paper”). In particular, we have been asked for our opinion of the issues raised by the NCC under the criterion of s44G(2)(a) – that access (or increased access) to the service would promote competition in at least one market (whether or not in Australia), other than the market for the service.

We have been asked to organise our opinion around three questions:

1. Does SACL have a substantial degree of market power?

2. Does SACL have an incentive to use that market power, through setting prices for airside services above a competitive level, through the way it structures its prices or otherwise in connection with the terms and conditions of access?

3. Do your answers to questions 1 and 2 suggest that declaration of airside services at Sydney Airport would promote competition in a dependant market?

The Report is organised around these headings.
2. Does SACL have a substantial degree of market power?

2.1. SACL’s power according to the Tribunal

In its *Sydney International Airport* decision\(^1\), the Tribunal found that, because of economies of scale and scope, Sydney Airport exhibited strong natural-monopoly characteristics and that, under current government policy, the proposed airport at Sydney West is to be developed and operated by SACL. The Tribunal was in no doubt as to the market power of SACL; and it attributed that market power to:

- economies of scale;

- economies of scope because of interdependencies in both demand and production of the various services provided by the infrastructure;

- the location of the airport close to the CBD; and

- the fact that many of its costs were sunk.

In addition, the Tribunal noted that the prospect of a second airport being developed in Sydney in the future would not constrain SACL’s market power given that it is expected to be developed and operated by SACL.

Moreover, under current government policy, Sydney West, Sydney’s future second airport, is to be developed and operated by SACL. This reflects the overwhelmingly strong market position of [Sydney Airport] in terms of the scale and quality of the infrastructure, the airport’s rich network of connections and its closeness to the Sydney CBD. An airline’s existing investment in facilities at [Sydney Airport], together with the benefits of interconnection with other airlines, provides a very

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\(^1\) Re: *Review of Declaration of Freight Handling Services at Sydney International Airport* (2000) ATPR 41-754.
strong incentive not to move to the new airport unless forced to do so by rising costs or a compulsory shifting of services. Thus, someone other than SACL would face the large initial investment with no alternative customer base at the mercy of [Sydney Airport’s] pricing and traffic allocation policy.²

This assessment is undoubtedly accurate. Furthermore, we know of no evidence that market conditions have changed in any significant way in the last few years so as to change that assessment. Consequently we consider, consistent with the Tribunal’s view expressed in its Sydney International Airport decision, that Sydney Airport has strong natural monopoly characteristics.

We propose to comment on two matters that were raised by the NCC in its Issues Paper:

- The extent to which comparisons of prices and costs of particular services can be used to ascertain the market power of SACL; and

- The extent to which SACL’s market power may be mitigated by the bargaining power of the airlines.

2.2. The extent to which comparisons of prices and costs of particular services can be used to ascertain the market power of SACL

It is standard textbook economics that, in the case of a single-product, profit-maximising monopoly, prices will exceed efficient fully_allocated average costs. This follows immediately from the proposition that the monopoly’s total revenue will exceed the fully_allocated costs of an efficient producer. This standard textbook model suggests that the market power of a business such as SACL might be tested by comparing its prices with the fully_allocated costs of an efficient airport.

² Tribunal Decision at 40,771.
Such a test is impossible in this case because SACL departs so far from the standard textbook model. Three characteristics of SACL’s operations and strategy make the test impossible.

In the first place, the test only applies to a business that is charging monopoly prices. This is almost certainly not currently the case with SACL. SACL’s present prices reflect the fact that until July 2002, SACL was government owned and the provision of aeronautical services (including the Airside Service) was subject to prices surveillance. SACL has since been privatised and the prices surveillance largely removed. As we show in section 3 below, SACL’s recent conduct shows that it is determined to raise the prices of its aeronautical services to the profit-maximising levels of an unconstrained monopolist; but (for the moment) the prices are well below such levels. Consequently, an examination of historic or current prices with costs is unlikely to provide any insight into the extent of SACL’s market power for aeronautical services, or the likelihood that in the future they will charge monopoly prices.

The second reason SACL’s market power will not be reflected in a comparison of prices with costs for aeronautical services (including the Airside Service) is that SACL is a multi-product business with substantial common costs. This is a significant departure from the standard textbook model of a single-product business. The common costs are critical to the test because they mean that one cannot determine the fully-allocated costs of any single product: any allocation of the common costs will be arbitrary. In the presence of substantial common costs, one cannot compare the price with the fully-allocated costs of any individual product to determine the market power of the business. Instead, to examine the extent to which such a firm is charging monopoly prices one must compare its aggregate revenue with its aggregate costs, when the revenue and costs are summed over all the products of the business. However, this will not inform the extent to which SACL has historically, or will in the future, exercise market power in setting prices for aeronautical services.

The final reason why the test cannot be applied to SACL is that the revenue that SACL is able to generate from its aeronautical services is interdependent, to some extent, with the revenue that it generates from its non-aeronautical services. This interdependency means that the contribution of any one service to SACL’s operating profit, is not necessarily equal to the net revenue that
that particular product generates. As we explain in section 3 below, this interdependency does not detract from the proposition that SACL is currently levying prices for aeronautical services that are substantially less than those that would maximise its monopoly profits. The present low price elasticity of demand for aeronautical services suggests that the monopolistic profit-maximising price for these services is substantially higher than the competitive price.

2.3. Countervailing power

One of the issues raised by the NCC with respect to the market power of SACL is: Do the airlines have any countervailing market power? (p 36). We do not consider that the airlines have any significant countervailing market power to constrain SACL in exercising its market power.

Bargaining theory alerts us to the idea that the bargaining power of party A with respect to party B will depend largely on the outside options available to party B. If A makes a demand of B, B has to decide whether to accept or reject that demand. Its willingness to reject the demand will depend on the value it attaches to the alternatives that it has available. Similarly, the credibility of any threat by A to take its business elsewhere will depend on the alternatives that it has available.

Consider bargaining between an airline, such as Virgin Blue, and SACL. Because of the natural monopoly characteristics of Sydney airport, no airline that wishes to service routes connecting with Sydney can credibly threaten to take its business away from SACL.

However, the nature of competition in the air services market will also affect the bargaining power of Virgin Blue. Virgin Blue could vacate Sydney airport by refusing to offer flights into and out of the city of Sydney. The bargaining power of SACL with respect to Virgin Blue would depend on the alternatives available to SACL if Virgin Blue dropped its flights into and out of Sydney. The experience of the demise of Ansett suggests that, if Virgin Blue were to drop its flights into and out of Sydney, other airlines (such as Qantas or regional airlines) would quickly find the capacity to offer the service that Virgin Blue was vacating.
The conclusion is that standard bargaining theory supports the conclusion of the Productivity Commission that:

... evidence suggests that scope for competition in the aviation market and the importance of major airports to airline networks will limit (though not necessarily rule out) airline countervailing power in their dealings with the major capital city airports.³

3. Incentive to use its market power

As discussed in section 2, SACL has substantial market power. Given its market power, SACL, as a profit maximising firm, has a strong incentive to charge prices above the competitive level.

Its incentive to use that market power was severely curtailed until July 2002 when it was privatised and the prices surveillance largely removed. It is almost certain that the current prices for aeronautical services are still substantially less than an unregulated profit-maximising monopolist would elect to charge. This means that one of the key imperatives of SACL’s efforts to maximise profit for its shareholders over the next few years will be to raise prices up to the level of those of an unconstrained profit-maximising monopolist.

The Report of the Productivity Commission⁴ noted that complementarities between aeronautical and non-aeronautical services will restrict prices of aeronautical services. The Productivity Commission is careful to distinguish between the relationship between the prices of different services that are offered by SACL and the level of those prices. It argues that an airport that takes this complementarity into account will set the price of aeronautical services (and, one should add, non-aeronautical services) lower than would be the case if it were not to take this complementarity into account. This is standard, textbook economics.⁵ However, this standard proposition in no way affects the notion that a profit-maximising monopoly will charge prices substantially above the competitive level – as is illustrated in Figure One below.

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⁴ Section 7.1.

⁵ The proposition was first argued in 1838 by Augustin Cournot. His work is available in an English translation in Researches into the Mathematical Principles of the Theory of Wealth, translated by Nathaniel Bacon, Macmillan, 1927. A recent paper that is based on the proposition is Nicholas Economides and Steven C Salop, “Competition and integration among complements, and network market structure”, The Journal of Industrial Economics, vol 40, March 1992.
Figure One: Index of Prices at Sydney Airport

1. Competitive prices (Ramsey optimal)

2. Present level of prices

3. Unconstrained monopoly prices

4. Monopoly prices if complementarities were ignored

Figure One uses a single scale to indicate the relationship between competitive prices and monopoly prices. The array of competitive prices reflects the demand conditions (including any complementarities) and the marginal costs of supplying the range of products of the airport. The competitive level of prices enables the business to recover all its opportunity costs. This is point 1 in the diagram; and the prices that would rule at this point are generally referred to by economists as Ramsey-optimal prices.

Monopoly prices in Figure One are represented by point 3. Monopoly prices will reflect demand conditions and marginal costs. The difference between monopoly prices and competitive prices (as in the case of a single-product business) is that monopoly prices are unconstrained by the existence of any competitors and so they enable the business to generate monopoly profits. As in the case of a single-product business, both the monopoly prices charged for aeronautical services (including the Airside Service) and the monopoly prices charged for non-aeronautical services will each lie significantly above the prices charged by the competitive airport.
The effect of complementarities in demand can also be illustrated by Figure One. If the prices of non-aeronautical services were set independently of the prices of aeronautical services, both sets of prices would be higher than the profit-maximising level. The price index would be at a position like 4 in Figure One. That is, if complementarities are ignored when setting monopoly prices, the prices of all products are too high compared with those that would maximise the (unconstrained) monopoly profits of the airport.

It can be seen from Figure One that, if SACL’s pricing is at a point like 2 (close to competitive levels because of past regulation) complementarities are no constraint on its pricing. SACL’s new owners will be seeking to raise prices to the monopoly level as illustrated by point 3 in the diagram. They will not be seeking to raise the prices to level 4, because those prices would be higher than the monopoly level.

The relationship between points 1, 3 and 4 in Figure One is the standard economics of all the textbooks. The empirical issue is where SACL’s current prices are in relation to points 1, 3 and 4.

The current prices that are charged by SACL for its aeronautical services were those sanctioned by the ACCC in its Decision of May 2001. Chapter 2 of the Decision presents the regulatory framework that was adopted by the Commission in making its decision. The chapter rejects the idea that it should try to set aeronautical prices at those levels that would exist in a competitive world. This rejection seems to be caused (at least in part) by their realisation that, in a competitive world, SACL’s pricing of aeronautical services may be (at least to some extent) influenced by the pricing of non-aeronautical services.

Nevertheless, the ACCC did adopt a competitive standard for the rate of return that SACL should generate:

The Commission considers that, as far as possible, the prices for aeronautical services at Sydney Airport should reflect the following principles:

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• the cost base underlying the proposed charges is efficient;

• the airport operator faces appropriate signals for efficient new investment decisions;

• the airport users receive appropriate signals for the efficiency use of airport services; and

• the airport operator earns a reasonable rate of return which does not reflect monopoly rents.  

So, although the ACCC did not attempt to discover the set of Ramsey-optimal prices (point 1 in Figure One), it did attempt to constrain SACL’s pricing so that it did not generate monopoly profits from its aeronautical services (considered in isolation from the non-aeronautical services).

Standard textbook economics teaches that the prices that reflect an efficient cost base plus a reasonable rate of return with no monopoly rents are below the prices that maximise monopoly profits. Because SACL is no longer constrained in its pricing and has shareholders who are keen to maximise profits, prices are likely to rise.

The strategy by SACL to increase prices in the direction of those that maximise its monopoly profits is confirmed by its media release dated 28 February 2003. This announces that SACL plans to recover a $6 million increase in terrorism insurance by means of a levy on airlines that will be introduced initially for the period between 1 April 2003 and 30 June 2003. The recovery of common costs through the imposition of levies of this kind is simply inconsistent with any model of pricing under conditions of competition. It is also inconsistent with the pricing of a business whose prices are already at the levels that would maximise monopoly profits. (As we noted above, profit-maximising monopoly prices are influenced only by demand conditions and marginal costs.) The levy proposed by SACL can only be explained by:

7 Decision p 53.
➢ its having been constrained to price below its monopoly profit-
maximising levels; and

➢ its judging that terrorism insurance would be a publicly-acceptable (or politically-acceptable) excuse for raising prices closer to the profit-
maximising levels of a monopoly.
4. Detrimental effect on competition in another market

4.1. Definition of the secondary market

In its Application, “Virgin Blue submits that access (or increased access) to the Airside Service would promote competition in, at least, the market in which domestic (both interstate and intrastate) air passenger transport services are supplied to and from Sydney (Sydney Domestic Market).” (p 7)

This market has three notable features:

- it excludes freight services;
- it embraces multiple routes; and
- it only includes routes that start or terminate at Sydney.

Frontier Economics considers that the appropriate definition of the secondary market is the market for air transport services to and from Sydney. This includes both passenger and freight services, and those air services that originate, terminate, and those that use airside services when transiting through Sydney Airport.

4.1.1. Freight and passenger services

The NCC Issues Paper does not accept the separation of passenger services and freight services into separate markets – as is suggested by Virgin Blue’s application:

Virgin Blue has defined the Sydney Domestic Market by reference to passenger services only. The Council notes, however, that a significant proportion of domestic air freight is carried by passenger aircraft. Virgin Blue operates a domestic air freight
carrying service under the name “Virgin Blue Freight Management”. The Council considers that the relevant markets for the purposes of criterion (a) include not only passenger transport services but also freight transport services.8

As is the case whenever firms produce multiple products, the appropriate market definition for analysing competition should not focus narrowly on one product or service when there are clear interdependencies and synergies in the production of, and competition in the provision of, the cluster of products or services.

In the case of this application, one might consider what range of activities an airline would take into account when deciding whether to run another route into and out of Sydney. The revenue that would be relevant to such a question would be the sum of revenue from passenger services and revenue from freight.

It may be argued that the mere existence of dedicated air-freight carriers may be evidence that the synergies between the carriage of passengers and freight may not be important and therefore may provide constraints to behaviour. However, the published data all suggest that dedicated freight carriers account for 10 to 15 per cent of all freight that is carried. The ACCC concluded that:

…there are a number of carriers operating dedicated services but these account only for about 10 percent of the total air freight market.9

The Productivity Commission arrived at a similar figure.10 This order of magnitude was confirmed by information provided to NECG by the Bureau of Transport and Regional Economics to the effect that, in the 12 months to

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8 Issues Paper, p 30.


December 2001, 85% of Tasman air freight was carried in passenger aircraft bellyholds.¹¹

So Frontier Economics agrees with the judgment of the Issues Paper that freight services and passenger services must be included in the same market. The reason is that there are strong complementarities in the production of the two types of services, so that the principal airlines that utilise Sydney Airport would have important cost advantages over a hypothetical airline that might try to specialise in passenger services without providing freight.

4.1.2. Multiple routes or separate markets for each origin/departure pair?

Virgin Blue’s Application submits that the Sydney Domestic Market is the relevant dependent market, and that this includes all domestic air services starting or terminating in Sydney. The Issues Paper proposes that each origin/departure pair should be analysed as a separate market. Adopting the definition proposed in the Issues Paper would involve an immense duplication of words for no analytical benefit at all. The Issues Paper proposes that each is a separate market because a journey connecting one city pair would be a poor substitute in demand for a journey connecting another city pair. But, as the NCC implicitly acknowledges in its treatment of passenger and freight services, products are clustered in markets for reasons other than substitutability in demand.

Different city pairs are linked together in markets because of complementarities in demand and in production. It makes no economic sense to analyse the cost of a flight from A to B independent of the cost of the return flight from B to A. For similar reasons, it makes no economic sense to analyse the structure of competition on the A to B city pair independent of the competition on the B to A city pair. That is, because of complementarities in demand, consumers tend to buy a ticket from A to B when they buy a ticket from B to A. These complementarities in demand mean that one cannot

¹¹ NECG, Report on the Competitive Effects and Public Benefits Arising from the Proposed Alliance between Qantas and Air New Zealand, 8 December 2002 p 63.
analyse competition in A to B journeys independently of competition in B to A journeys.

Exactly the same logic applies to complementarities in production – as the Issues Paper acknowledges when it places passenger services and freight services in the same market. If an aircraft flies from Brisbane to Sydney and then flies on from Sydney to Melbourne (and flies north on the return journey) it makes little sense to say that the airline is transferring capital equipment from one market to another. For this reason, it is a standard precept when defining markets to link together products between which there is a high cross elasticity of supply. If aircraft can be switched from one city pair to another, it is appropriate to define a market that embraces both city pairs.

In summary, defining separate markets for each city pairs leads to two problems. First, it makes no economic sense to analyse competition on one city pair independently of that of any other if there are strong complementarities in flying one city pair and another. If there are strong complementarities in supply, airlines that fly multiple city-pairs will have a strong competitive advantage over a hypothetical airline that attempted to specialise in only one city-pair. Secondly, it will lead to a costly duplication of words because the NCC will need to analyse the effect of the proposed declaration on each city pair. The most appropriate way to think of the market that is likely to be affected by declaration is the market for air services to and from Sydney.

4.1.3. Why restrict the definition of the secondary market to Sydney?

It is worth asking whether the market definitions most appropriate for assessing the effects on competition of the proposed alliance between Qantas and Air New Zealand are the market definitions most appropriate for assessing the effects on competition of the declaration of the airside services at Sydney Airport. The answer to this question must be: “not necessarily”.

The proposed alliance between Qantas and Air New Zealand covers both countries as well as the trans-Tasman routes. The application for declaration that is being considered by the NCC affects principally routes that originate, terminate, or transit through Sydney. Little is gained by extending one’s
analysis to activities outside these routes. Frontier considers it is most appropriate to define the relevant downstream market as the market for air services to and from Sydney.

Markets are defined to facilitate the analysis of the relevant competitive forces. As Professor Brunt observes: “As is often said, the ‘market’ concept is an instrumental concept, designed to assist in the analysis of processes of competition and sources of market power.”

Because markets are defined to facilitate the analysis of particular issues, one can only define markets if one is aware of the issues that are under investigation. Williams and Norman explain this idea as follows:

The market is defined because the definition assists in providing an answer to the question before the authority of the extent and nature of competition. Thus, in defining the market one should begin with the problem at hand and ask: what definition of market will best assist in analysing the processes of competition relevant to this case? We are not suggesting [an arbitrary approach]. Rather, we are suggesting that the starting point of any identification should be the problem at hand.

4.2. The effects of monopoly pricing of airside services on competition in the air services market

As was noted above, a standard effect of monopoly power is that the monopolist has the power to charge prices that are higher than would be charged in more competitive markets. The market power of SACL enables it to charge prices that are higher than it could otherwise charge.

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SACL, will tend to exercise its market power in this way, subject to two conditions:

- it is attempting to maximise its profits; and

- it does not price discriminate to any significant extent in setting prices for aeronautical services, such as the Airside Service.

Where these conditions hold, the charges for aeronautical services set by SACL may hinder new entry and competition in the market for air services to and from Sydney by increasing the costs of airlines seeking to compete on routes to and from Sydney.

We shall postpone our discussion of price discrimination until section 5 below. In this section, we shall assume that SACL will continue with its current structure of prices for aeronautical services and address the level of those prices, and the effects on competition in air services of SACL’s moving to take full advantage of its market power.

As we showed in section 3 above, there is powerful evidence that SACL has been constrained in exercising its market power and may have yet to take advantage of the full extent of its market power to raise prices for its aeronautical services (such as the Airside Service) to full monopoly levels.

The raising of prices above competitive levels will affect both:

- entry to the market for air services into and out of Sydney; and

- the take up of routes by those who are already in the market.

Standard textbook theory on monopoly pricing predicts that the profit-maximising price for a monopoly will be on the elastic portion of its demand curve. That is, it will raise price so far above the competitive level that the rate at which it is increasing its price is greater than the rate at which use of the service is decreasing. By charging higher prices than would exist in competitive conditions SACL will reduce the profits of potential entrants to the air services market and it will reduce the extent to which incumbents are willing to take up new routes.
These are the ways in which demand for landing slots and associated aeronautical services will be reduced in accordance with the standard theory. In turn, these effects of reducing participants in the market and the number of airlines servicing any particular route will tend to increase prices of the air services.

The NCC’s Issues Paper raises an issue as to whether barriers to entry in the dependent market affect the extent to which declaration of services can promote competition. The Issues Paper suggests that:

For example, it may be that even though the natural monopoly and bottleneck characteristics of a facility may confer market power on the service provider in a dependent market, prohibitive barriers to entry in the dependent market may nonetheless mean that the pro-competitive effects of declaration would be negligible.  

This view is attributed to the Tribunal. Frontier considers it is incorrect and inappropriate to assume that barriers to entry in the dependent market eliminate the benefit of declaring services. Competitive pressure can come both from outside a market (in the form of prospective entrants) or from other incumbents within a market. Even if entry to a downstream market is blockaded, competition within that market may be reduced by any method that reduces rivalry among the incumbents within that market.

An example of this might be the way in which the pricing policy of an upstream monopolist can increase the marginal costs of enterprises downstream. By raising their marginal costs, an upstream monopolist can use its market power with the effect of raising prices downstream. This is an obvious way in which an upstream monopolist can affect patterns of competition in a downstream market without raising barriers to entry in that market.

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14 Issues Paper, p 35.
5. Would price discrimination mitigate these effects?

If SACL set its charges for aeronautical services according to the principles of perfect price discrimination, the problems of monopoly pricing that were raised in section 4.2 above would be eliminated. This is a standard result of economic theory. In the (normal) case of uniform pricing, monopoly power will result in under-investment in downstream activities. But (perfect) price discrimination by the monopolist can overcome this problem.

The Productivity Commission noted that weight-based charges or passenger-based charges might be forms of price discrimination and that they may have efficiency-enhancing effects.\textsuperscript{15} However, both of these forms of price discrimination are far from perfect and would be unlikely to mitigate the detriments to competition resulting discussed in 4.2 above. It is likely that SACL would find it extremely difficult to perfectly price discriminate in practice. In this section we:

- Examine two possible forms of price discrimination that could be employed by SACL and conclude that neither are likely to be effective in offsetting competition effects; and

- Consider SACL’s incentives to avoid price discriminating in order to increase its ability to commit to maintain high prices in the future.

5.1. Does SACL have the ability and the incentive to engage in effective price discrimination?

We examine two alternatives to weight-based charges:

\textsuperscript{15} See p 199.
Charging according to the revenue generated per aircraft; or

Charging according to the number of passengers per aircraft.

Each of these may have significant effects on patterns of competition in the market for air services into and out of the relevant airport.

Charging according to revenue can be justified by means of the logic presented above. Perfect price discrimination would involve the airport charging each airline in accordance with its willingness to pay. This theoretical possibility can never be exactly attained. However, the most-obvious way for an airport to approach this ideal may be to charge in accordance with the revenue that an airline generates through its use of the airport. Revenue-based charging can be justified as approximating to perfect price discrimination, with its attendant efficient consequences for competition in downstream markets.

Pricing aeronautical services according to the number of passengers was proposed by SACL on 3 August 2001. Almost certainly, this would be less efficient and would lead to less-competitive outcomes in the air services market than do weight-based charges. The reason for this is that charging per passenger increases the marginal costs to an airline of taking on an additional passenger. This increase in marginal costs will lead to inefficiently-high prices for passenger services.

Once an airline has scheduled a flight, the opportunity cost to the airline of filling an additional seat is very low (except when the airline is very full). This means that, in competitive markets, the pricing of marginal seats might be very low. By loading landing charges on these marginal seats, airports would be raising the floor on the price of marginal seats offered by airlines.

The conclusion is that airports can affect patterns of competition among airlines not only by raising prices for aeronautical services above competitive levels, but also by affecting the structure of prices. The range of possible price
structures for airport services is immense. However, some generalisations are possible:

- Perfect price discrimination (if it were possible and in the interests of SACL to implement) would eliminate the adverse effects on competition that were outlined in section 4.2;

- Perfect price discrimination in aeronautical services is not possible; but revenue-based charges may well be the best available substitute;

- Charges that vary with the time of day would almost certainly enhance efficiency; and

- Charges levied on the basis of the number of passengers would restrict price competition among carriers compared with weight-based charges.

One striking feature of SACL’s pricing of aeronautical services is that it departs from the above principles so markedly. Perfect price discrimination would involve charging low prices for marginal airlines and for the marginal flights of established airlines. This would be good for competition; but it is very different from the current pricing policy of SACL. Modern industrial economics suggests a reason why this might be.

5.2. Why SACL may not wish to engage in price discrimination

As stated above, we consider that, although the prices charged by SACL (including the prices of aeronautical services) are below pure monopoly levels, SACL has the ability and incentive to more-fully take advantage of its market power by raising its prices. This analysis depends on SACL being able to commit to the higher prices that it has the incentive to charge.

The classic reason why any monopolist may have trouble taking full advantage of its market power is that it cannot commit to sticking to full-monopoly prices. The argument is that, if a business has some excess capacity, it will always be in its interest to accept offers from marginal operators downstream. The fewer the number of downstream firms (read ‘airlines’), the
less will this problem of commitment be. By limiting the number of downstream purchasers the airport will not be able to generate more than the unrestricted monopoly profits. Rather, by limiting the number of airlines, the airport will be better able to gain something approaching the pure monopoly profit because it will help it overcome the commitment problem.

As Rey and Tirole point out, the argument is common in the context of patents and franchise contracts:

A patent holder is the owner of an essential facility, namely a technology that can be used as an input in productive processes. The patent holder is unlikely to make much money if it cannot commit not to flood the market with licenses; for, if everyone holds a license, intense downstream competition destroys the profit created by the upstream monopoly position. Therefore, a patent holder would like to promise that the number of licenses is limited. There is however a commitment problem: Once the patent holder has granted \( n \) licences, it is then tempted to sell further licenses. It thereby depreciates the value of the existing \( n \) licences. Such expropriation is ex post profitable for the licensor, but reduces its ex ante profit. A similar point can be made for franchising. Franchisees are unlikely to pay much to franchisors if they do not have the guarantee that competitors will not set shop at the doorsteps.\(^{17}\)

The conclusion of this analysis is that controllers of essential facilities do have an incentive to limit the number of competitors to whom they sell in a downstream market.

In summary, if an airport has substantial market power, and it has no problem in committing to policies of monopoly pricing, then it may use its power to charge high prices or to structure its prices in ways that can affect competition in the related air services markets. Alternatively, the airport may have trouble committing to monopoly policies. In this latter case, it has an incentive to strengthen that commitment by restricting the number of airlines with which it deals. If this strategy succeeds, the airport will be better able to exert its monopoly power in one or both of the first two ways.

A similar version of the same argument can be applied to engaging in price discrimination. One reason a monopolist may wish to charge uniform prices (and even commit to the charging of uniform prices to a regulator) is that it

\(^{17}\) Re and Tirole p 8.
does not want to be open to the possibility of negotiations over price. If it is known to be open to such negotiations, the downstream users who are paying high prices will try to negotiate lower prices. The outcome may be that, by offering marginal operators low prices, the monopolist finds that it is unable to sustain high prices for anyone.
6. Conclusion

SACL has substantial power in the provision of airport services in the Sydney area because there are no large-scale competitors and there is no prospect that any might emerge. Although SACL’s pricing has been constrained in the past by its public ownership and price surveillance, these constraints have now largely been removed. It now has shareholders who expect it to maximise its profits. This is likely to entail substantially higher prices than it is currently charging and changes in the structure of its prices. Both of these changes will have significant effects on patterns of competition in the market for air services into and out of Sydney. There are real dangers that SACL will introduce policies that will:

- reduce incentives for airlines to enter the Sydney air services market;
- reduce incentives for incumbents to enter new routes; and
- raise prices for passenger services above those that would prevail under tough competition.