THE UTILISATION OF QANTAS' SPARE DOMESTIC CAPACITY: TWO MARKET SCENARIOS

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Abstract:

This paper outlines various options whereby Qantas' spare passenger capacity could be utilised over domestic routes in Australia. At present this spare capacity is estimated to be 890,656 seats per annum. Two alternative market scenarios which could develop as a result of the May Inquiry - a closed and an open market scenario - are analysed.

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"... Qantas flies thousands of empty seats on its Australian sectors each week. This is a serious waste of national resources."

(Qantas Airways Limited, Submission to the Independent Review of Economic Regulation of Domestic Aviation, September 1985, p4)

INTRODUCTION

The issue of excess capacity in Australia's international airline, Qantas Airways Limited, has been a long recognised matter of concern. Qantas has continually sought to gain access to the domestic civil aviation market in order to soak up some of this excess capacity.

However, to date, there has been little development in this area. Despite the considerable focus on domestic aviation policy in recent years, there exists little literature that deals with this aspect of aviation policy. References to it, when made, have been incidental in nature. Policy makers have seemingly put this problem in the "too hard" basket or have hoped that it would go away.

The present paper seeks to redress this apparent anomaly. It examines the economic effects of the participation of Qantas in the domestic aviation market with a view to bringing about more informed policy formulation and greater efficiency in airline operations.

TWO ALTERNATIVE MARKET SCENARIOS

With the renegotiation of the "two airline policy" looming ahead in 1990, and the Independent Review of Economic Regulation of Domestic Aviation (the May Inquiry)(1) currently holding hearings around Australia, a meaningful analysis of Qantas' entry into the domestic aviation industry must consider the effects of such a move under two alternative market scenarios.

The first scenario examines the participation of Qantas within a closed door policy. This scenario is based on the assumption that the May Inquiry will result in the the existing "two airline policy" in Australia becoming, in essence, a "three airline policy".

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1. Initially Mr T E May was appointed as a consultant to undertake the Review. However, in October 1985 the Minister for Aviation announced that two additional persons - Professor G Mills and Mr T Butcher - had been appointed to assist Mr May. See Minister for Aviation, News Release, 19 October 1985.

The second scenario analyses the effects of Qantas' entry into the domestic market on the assumption that the May Inquiry will result in the removal of restrictions on entry, ie the implementation of an "open door" policy framework similar to that which has been adopted in the United States and New Zealand, and to a lesser extent in South Australia. See Starkie and Starrs (1984 a). However, before proceeding to examine these two scenarios, it may be useful to note some qualitative differences between Qantas and the two major domestic airlines.

QANTAS IN THE DOMESTIC AVIATION MARKET : SOME QUALITATIVE DIFFERENCES

An additional dimension to the analysis stems from the fact that Qantas, as an international airline, bears a series of features that are distinct from those of the two existing major domestic airlines, Ansett Transport Industries Limited (Ansett) and Trans Australia Airlines (TAA).

These features will to varying degrees impact upon the extent to which Qantas' participation in the domestic arena will affect the existing market - airlines and consumers of air travel alike - as well as the Australian community as a whole.

As an international airline operator, Qantas offers superior on board service (eg better meals, free alcohol, free headsets, movies, wider aisles, wider seats, more leg room between seats, etc), larger aircraft carriers (with different carriage capacity and cost structures) and a flight timetable that is determined independently of domestic "peak flying times" so that its carriage of travellers within the country would be dependent on its scheduled arrival and departure times, as well as fluctuations thereof.

Qantas' unique timetabling obviously would play an important role in determining its participation in the domestic market. Bearing this point in mind, it appears that Qantas could service the domestic market in at least four different ways. First, it could service its own international passengers by flying them en route between the various gateways within Australia. Second, it could pick up passengers who travel to Australia via other international airlines and fly them between the various gateways in the country en route. Third, it could pick up domestic passengers who are travelling within the country en route and who would otherwise use the major domestic airlines. Fourth, it could schedule additional flights during peak periods to cater for any or all of the above categories of passengers. These options are discussed in more detail below.

Option 1: The Carriage of Qantas' Own International Passengers En Route

This option is what is currently in practice. However, this has been insufficient in itself to make any significant inroads into Qantas' problem of excess capacity. Thus the report of the Domestic Air Transport Policy Review, Department of Transport (1979), showed that in the year ended June 1977, Qantas had 508,769 empty seats on domestic stages. The amount of seat capacity unutilised ranged from 69.3 per cent for the Darwin - Brisbane sector to 41.9 per cent for the Darwin - Sydney sector. The report suggested that there would be less international flights over domestic routes in the future as more point to point international flights were introduced, and claimed that this would result in a reduction of Qantas' capacity available for domestic use. However, the submission by Qantas to the May Inquiry, Qantas (1985 a), revealed that in the year ended March 1985 Qantas had an average of 17,128 unfilled seats per week (or 890,656 unfilled seats per annum) on its services operating over domestic sectors while utilising its excess capacity to carry its own "stop over" passengers. The amount of seat capacity unutilised ranged from 75.0 per cent for the Brisbane - Cairns sector to 48.0 per cent for the Brisbane - Sydney sector. Overall, 63.6 per cent of Qantas' international capacity on domestic routes was unutilised.

This unutilised seat capacity, if used for servicing the domestic market, could impact on the supply of domestic air services provided by Ansett and TAA to varying degrees. Whilst data on the average weekly number of seats available by Ansett and TAA on all flights between international gateways in Australia is not available, the following figures provide an indication of the impact Qantas would have on existing routes if it were to utilise the spare capacity on its international flights to supplement the total number of seats provided by the two major domestic airlines.

Route	Total seats provided by Ansett and TAA	Qantas unused seats available for domestic purposes	Impact (% increase of domestic caoacity)
Syd - Melb	25474	5752	22.6
Syd - Bne	15447	802	5.2
Syd - Perth	2192	409	18.7

The impact upon existing air services currently supplied by Ansett and TAA due to the utilisation of Qantas' excess capacity in the domestic market could be significant, increasing the supply of air services by a modest 5.2 per cent on the Sydney-Brisbane route but more substantially on the Sydney-Melbourne and Sydney-Perth routes by 22.6 and 18.7 per cent respectively.(1)

The nature of Qantas' excess capacity on domestic sectors can also be seen from the following examples of Boeing 747 flights in June 1985. In

1. These estimates are expected to be slightly above that which would be observed should Qantas operate in the domestic market. This is because Qantas would need to reserve some spare capacity for non-revenue passengers such as its staff and also to retain a margin of spare capacity for potential international passengers.

each case passenger capacity was 413, 413, 302 and 302 seats repectively:

Flight Number	Date	Sector	Seats available	% seats available
QF1	15.6.85	Melb - Syd	115	27.8
QF2	15.6.85	Syd - Melb	266	64.4
QF23	16.6.85	Syd - Perth	80	26.5
QF24	17.6.85	Perth - Syd	75	24.8

Given that this first option has not been successful in solving the problem of Qantas' excess capacity, the analysis in this paper will focus on the impact of the last three options on the domestic aviation market.

Option 2: The Carriage of Other International Passengers En Route

This option, known as "international interline rights" was in operation until 1979 when it was withdrawn. According to Qantas (1985 b), the situation changed dramatically that year "when the Australian Government, without notice or consultation, restricted Qantas' rights to the carriage of its own traffic, meaning only those passengers which were entering or leaving the country on a Qantas flight. Qantas' market of other airlines stopover traffic disappeared overnight." The effect of this move was to preclude Qantas from the market to the benefit of the two major domestic airlines, although other international carriers still maintained the right to service both their own and other international passengers over Australian sectors. These airlines are notably Air India, Singapore Airlines, UTA, and KLM.

Option 3: The Carriage of Domestic Passengers En Route

Up until the mid 1970s this option was permitted in a restricted form. Qantas was allowed to carry domestic passengers over the Darwin - Sydney, Darwin - Melbourne and Darwin - Brisbane sectors by charging an exogenously determined minimum fare. This floor was set at one third again the corresponding first class fare that was charged by the domestic airlines. According to Qantas (1985 a), the consequence of this fare setting restriction was that very few passengers utilised these flights. This concession was withdrawn altogether in 1976.

Option 4: The Scheduling of Additional Flights for Domestic Peak Time Travel.

This option is perhaps theone that has received the least scrutiny. While the first three options deal with excess capacity on existing Qantas flights, the fourth option addresses the problem of excess capacity that arises from having Qantas aircraft lying idle between international flights during periods of domestic peak demand. In its submission to the Independent Public Inquiry into Domestic Air fares (the Holcroft Inquiry), Qantas made an application to operate a transcontinental service using Boeing 747 aircraft. This submission was "a proposal to introduce a purely domestic service rather than use spare seating on international services".

However, the Inquiry stated that it "did not have the time to review the price and cost data submitted by Qantas." See Holcroft (1981).

Spare capacity arising from idle aircraft between international flights actually constitutes only a small portion of Qantas' overall spare capacity problem. Qantas schedules its short haul international flights in between its long haul ones in order to maintain a high aircraft utilisation. It further utilises the time its aircraft are grounded to service, repair and perform general maintenance work on its fleet. Hence, Qantas' participation in the peak time market alongside the two major domestic airlines would be subject to the very tight constraints imposed by its international flight commitments.

Inconvenience and Uncertainty

The second and third options, if implemented, would enable Qantas to pick up passengers on arrival into and before departure from Australia. Since the arrivals and departures of international flights are scheduled at "less desirable times of day", (1) this timetabling would effectively restrict Qantas to the carriage of passengers on the domestic legs of its international flights at those times. For most domestic travellers, this would prove to be inconvenient.

An additional inconvenience attached to Qantas' flights under these two options is that there is no guarantee that inbound flights would arrive on time. Delays could be frequent and lengthy. As the submission from Ansett Transport Industries Limited (1985) to the May Inquiry noted, there "have been many arguments in the past that .... Qantas .... should be allowed to carry domestic passengers in empty seats which were being operated in any case as part of the international services. The typical example was the Qantas flights to Europe from Sydney via Perth. While it is clear that a flight leaving at 3.00 p.m. from Sydney to fly to Perth with empty seats could carry passengers to Perth, it is obviously very much less attractive for passengers from Perth to catch a Qantas flight for Sydney in the early hours of the morning when the plane may well be running hours late because it is from London." By contrast, Ansett and TAA flight schedules are centred around the peak domestic demand each day. They are insulated from delays and setbacks caused by external international factors and hence the two domestic airlines can provide a punctual and reliable domestic air service.

EFFECT ON MARKET OF MAJOR DOMESTIC AIRLINES OF QANTAS' ENTRY

For most existing domestic airline travellers, the inconvenience and uncertainty of flying with Qantas on the domestic scene could prove to be prohibitive. However, some passengers might be happy to fly at more inconvenient times if they could be compensated with lower airfares and/or the superior service offered by an international airline. These cheaper flights also would attract those travellers, who, due to the high cost of flying, would previously not have utilised air transport but would have opted for a much cheaper mode of transport, such as rail and road. Indeed

1. Qantas (1985 a)

it is conceivable that new traffic might be generated from consumers who would not have travelled at all under the present aviation policy. East-West Airlines (1985), in its submission to the May Inquiry, cited the results of a Bureau of Transport Economics Survey of Passenger Response to East-West Discount Fares on Trunk Routes, as well as several fare experiments it had undertaken, as indicating that an extremely large, unsatisfied market for air travel existed in Australia. Such a market, it contended, is "(one) which is being excluded by the cost and style of travel offered by TAA and Ansett ... (which places) ... emphasis on capturing the custom of the business traveller".

The entry of Qantas into the domestic aviation industry could affect consumers in various ways. These can be examined by looking at the different markets of air services provided. These markets are characterised by the timetabling of the flights. The first market is the "peak time" market where passengers fly on flights scheduled during the period of highest demand each day. With the inclusion of Qantas under option 4, this peak time market would be serviced largely by the two existing airlines and, to a lesser extent, by Qantas. The market, however, would be reduced to the extent that, given the choice of the two alternative flying times (peak and off peak) and the associated differences in fares, some consumers might choose to fly with Qantas at the more inconvenient times.

The second market would be an "off peak" market created by Qantas in picking up additional passengers en route on its international flights under options 2 and 3.[1] This market would be made up of the traffic diverted from the peak time market as well as a newly generated group of consumers who would not previously have flown without the cheaper rates. Travellers in this off peak market would be characterised by their lower value on their time relative to their pecuniary assets.

QANTAS AND A "THREE AIRLINE POLICY": A CLOSED MARKET SCENARIO

The present "two airline policy" is premised on the notion that "too much" competition is destructive. Thus the number of operators in the industry has been restricted to two. However, if policy makers were to decide that the present number should be increased by one in order to include Qantas in the market, the situation would then be one of a "three airline policy". With the entrance of Qantas, the doors would once more be closed to any further entrants to the market.

The "two airline policy" has been regarded as a highly unsatisfactory arrangement to meet the modern day requirements of domestic aviation. Whilst it was hoped that the two airlines would fulfil some notion of an optimal level of competition, there has been little empirical evidence to support any significant degree of competition. Instead,

1. Ansett and TAA operate a limited number of flights in between peak periods. These are temporarily set aside. The implications of Qantas' development of an off peak market on such flights offered by Ansett and TAA are discussed at a later stage.

studies have found the industry to be characterised by a lack of incentives to operators to achieve an efficient performance. See Holcroft (1981), Kirby (1981), Albon and Kirby (1983), Starkie and Starrs (1984 b). Whilst the question of the efficiency of Ansett and TAA is an issue somewhat more general in nature than that which is at hand, it must be recognised that the existing "two airline policy" has, in restricting entry, removed the principal source of economic discipline, namely competition.

There has been little incentive for the two domestic airlines to provide a greater range of air travel. A case in point is the scheduling of flights during peak periods by each airline to the same destination virtually minutes apart in the bid to obtain a share of the peak demand and few flights outside those hours.

The closed market structure has insulated the two airline operators from the threat of competition and provided the opportunity for the two operators to collude to reap supernormal returns. The resultant market structure thus resembles that of a monopolistic operator.[1]

While the restrictions to entry give rise to supernormal returns, pricing restrictions may prevent the airlines from consuming these returns directly as monopoly profits. Albon and Kirby (1983) argue that, under these circumstances, there will be an incentive for the airlines to capture these disallowed profits through cost-padding. This possibility also was raised by Holcroft (1981). Hence, even though the levels of fares charged by Ansett and TAA are set by an Independent Air Fares Committee, there is still opportunity under these regulated conditions for supernormal returns to be earned.[2]

With the entrance of Qantas under a "closed door" policy, incentives to collude to the common gain of all would remain. The only difference would be that the supernormal profits would be shared between three airlines, instead of two.

Peak Market

If Qantas were to operate flights for solely domestic purposes in the peak time market under option 4, the supply of peak time air services would increase. However, the quantity of air services supplied would fall

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1. Hocking (1975) notes that the true (single producer) monopoly structure would, in fact, be more efficient than a monopoly-like structure formed by the collusion of airlines under a "closed door" policy. A single operator in the domestic aviation industry, he argues, would do away with the duplication of flights from parallel scheduling and would schedule a greater spread of flights over the day.

2. The decisions of the Independent Air Fares Committee are based on cost estimates provided by the airlines. It is feasible, therefore, for the airlines to substantially influence the setting of fares. The extent to which they are successful in doing so will determine the extent to which these monopoly rents are realised.

short of the competitive optimum. Airfares would be adjusted downwards only enough to secure sufficient demand to maximise the colluders' joint monopolistic returns.

With an additional operator in the domestic peak time market, Ansett and TAA would receive a reduced **share** of the market. This reduction in share would be small as Qantas would be constrained from participating fully in the peak time market by its international flight commitments.

A more significant factor would be the resultant fall in the airfares charged by Ansett and TAA as a result of the expansion of total air services arising not only from Qantas' participation in the peak time market, but also from the creation of a second, off peak market, operated by Qantas over the domestic sectors of its international flights under options 2 and 3. The effects of this fall in airfares in the peak market on the off peak market are discussed in the following section.

While the readjusted (lower) level of airfares might result in an increase in the **absolute** size of the market and hence a larger clientele, this would not be sufficient to completely offsett the loss to Ansett and TAA. This is clearly so because they could have generated this additional clientele if they had been prepared to lower their fares in the absence of Qantas but evidently found it suboptimal to do so. It could scarcely be a preferred position for Ansett and TAA to share this additional number of consumers with an additional airline.

Nevertheless, it would not be beneficial for the two airlines to compete with Qantas as this would lead to a wastage of their supernormal rent. The best strategy for Ansett and TAA would be to try to preclude Qantas from the market from the start. This would explain statements such as the following in submissions to the May Inquiry:

> "We (Ansett) are in absolutely no doubt that were Qantas to be allowed access to domestic routes this would have serious and detrimental effects on the domestic aviation industry and on the vast majority of passengers it serves." Ansett (1985)

Failing that, collusion with Qantas to preserve their supernormal rent, albeit a reduced share, would be the next best option to having the market all to themselves.

As for the consumers of peak time air travel, they would undoubtedly be better off with the addition of Qantas to the industry. Because of Qantas' entrance into the peak time market, they would face lower airfares and they would have a greater choice of aircraft to fly on with the associated quality differences, including the intrinsic value placed on flying on an international aircraft, albeit on a domestic route.

Qantas would be better off operating in the peak time market if it could recover at least the variable costs that would arise from operating a flight. A large proportion of the cost of operation in this market would be a sunk cost if aircraft were to lie idle between international flights and did not operate on domestic flights. If Qantas could recover the variable cost of operating a purely domestic flight, it could then allocate any excess revenue toward recovering its fixed capital costs.

It has been argued that there are other factors that would have to be taken into consideration in determining the overall welfare efficiency of the Australian community. Noise pollution, air pollution and airport congestion are factors that have been raised. However, they are really arguments for the need to develop improved operational systems. The first two are essentially technological problems, to the extent that the cost of air and noise pollution cannot be satisfactorily internalised to the airline operators.

The congestion argument is somewhat of a red herring. Rather than regarding it as an obstacle to the expansion of air services through the introduction of Qantas into the peak time market, congestion of airports in fact reflects on the inefficient management system currently adopted by aviation authorities.

In considering the problem of congestion, the Commonwealth Treasury summarises this inefficiency succintly:

> "Congestion problems can be managed in essentially two ways: through an administered or non-market system or through a market or price system. Aviation authorities have generally tended to adopt the former approach...." Treasury (1985)

The Commonwealth Treasury further advocates the latter way of allocating scarce airport space as the more efficient means. Essentially, this would be administered by instituting a market for flight slots (rights to use the limited air and runway space during a given time for the purposes of landing or taking off of aircraft) so that the price which is determined by the interaction of demand for and supply of slots will in turn ration the limited airport facilities to the highest value users.

It would seem that insofar as these factors are problems in themselves, they should be dealt with directly and not be regarded as obstacles to the operation of a third airline in the domestic peak time market.

Off Peak Market

Perhaps the more interesting and immediately relevant question of welfare gains lies in the second market where Qantas (under options 2 and 3) could provide en route services by utilising its "international interline rights" as well as servicing those domestic passengers who would be prepared to fly at inconvenient times.

The immediacy and hence the interest in this question lies in the lack of perceived problems that would be associated with the scheduling of additional Qantas flights in the peak period as discussed in the previous section. The possibility posed here merely entails the picking up of additional passengers on flights which already operate between stipulated gateways. Perceived complications such as additional noise pollution, air pollution and airport congestion mentioned in the above section simply would not not occur in this instance. Moreover, as these off peak flights would be no more than existing domestic legs of international flights, they also would avoid the problem of operating during airport curfew hours.

It would pay Qantas to provide these services if it could at least cover the marginal cost of doing so. For the reasons stated above this cost would be small. As sole operator in this market,(1) Qantas could charge a fare above its marginal cost to reap supernormal returns. The extent to which it could raise airfares profitably would depend on the sensitivity of demand in this market to prices. In any event, under a closed market structure with a monopolistic producer of off peak air services, airfares would not be set at the marginal cost of picking up the additional passenger at a domestic gateway. One would expect that the upper level of fares would be contrained by the airfares for the peak hour flights.

The level of fares also would have to be sufficiently lower than the fares charged for its peak time flights in order to compensate consumers for the inconvenience associated with off peak flights. Fares in this market might further differ depending whether a flight was in bound or leaving the country as the former would involve the additional element of uncertainty resulting from possible delays during the international leg of the journey.

Meanwhile in the peak time market of consumers Ansett and TAA would lower their fares in an attempt to regain their market share. For Qantas' off peak services to remain an attractive and viable proposition, passengers would have to be offered a compensatory margin in fares to offset the inconvenient schedules of these services. To this end Qantas would have to lower its airfares in this market accordingly.

Unless Ansett and TAA could lower their peak time fares sufficiently to push Qantas out of the off peak market altogether, it would not pay them to undertake predatory action. The ultimate winners of any price-cutting exercise would be the consumers of air travel, with the choice of three major airlines and an expanded selection of flying times. Ansett and TAA would lose out not only on the reduced market, but also from a lower airfare chargeable. Accordingly, the two domestic airlines would adjust their fares only sufficiently to maximise their profits while accomodating Qantas in the market.

Alternatively, Ansett and TAA could schedule additional flights during off peak times in an attempt to obtain a share of that market. At present, the two domestic airlines operate a limited number of flights to

1. Air India, Singapore Airlines, UTA and KLM would operate in the off peak market through their international interline rights, but it is assumed in this paper that their impact would be negligible.

and from Perth during the off peak period. Fares charged are not discounted for the additional cost of inconvenience to passengers who have to travel on these flights.

If Qantas was permitted to service domestic and international interline passengers, in addition to its own "stop over" passengers, Ansett and TAA would have to be able to meet Qantas' lower fares on these routes in the off peak market. Pending the value to the passengers of punctuality of the flights, Ansett and TAA might be able to command a premium on their fares. However if Qantas decided to woo these passengers, it could reduce its fares as further compensation to these passengers. The two domestic airlines might then have to subsidise the profitability, indeed losses, of these flights if Qantas were to exercise its scope for reducing airfares down to the marginal cost of servicing these additional passengers. Under such circumstances Ansett and TAA would face a significant cost disadvantage as the cost to the two domestic airlines of scheduling new flights in the off peak market would be considerably higher than the marginal cost to Qantas of picking up addtional passengers en route between gateways under options 2 and 3. Furthermore, Qantas is a more cost efficient operator than Ansett or TAA. In the year ended March 1985, Qantas operated at the rate of $0.40 in services cost per available tonne-kilometre whilst TAA incurred $1.46 in expenses per tonne-kilometre performed(1) in the year ended June 1985.

In view of the sizeable cost advantage Qantas would command over Ansett and TAA, one would expect that the two domestic airlines would bow out of the off peak market altogether, perhaps to reschedule their flights at times which are not accesible by Qantas due to the latter's international flight commitments.

In servicing the off peak market, Qantas would gain from an increased utilisation of its excess capacity. In its submission to the May Inquiry, Qantas (1985 a) estimated that, after allowing for "a margin of spare capacity for international through ... Company ... and "other non-revenue" passengers", it would be able to fill under half the remaining number of seats, incurring a marginal cost of about $7 million and obtaining a net revenue of $20 million. Qantas further estimated its impact on Ansett and TAA in the peak time market from operating solely in this off peak market would be in the region of $12.5 million or under 1 per cent of Ansett and TAA's joint annual revenue.

Qantas could conceivably come to an arrangement with Ansett and TAA whereby Qantas could compensate the other two airlines for their loss in revenue and still be better off for operating in this off peak market. This

1. See annual reports of Qantas and TAA for financial year 1984-85. A similar measure is unavailable for Ansett as its annual perfromance is reported jointly with other subsidiaries under the umbrella of Ansett Transport Industries (Operations) Pty Ltd. One would expect Ansett to be marginally more cost efficient than TAA due to the incentive structure stemming from private sector ownership. See Kirby and Albon (1984). However it is unlikely that Ansett's cost performance will differ substantially from that of TAA's as both airlines face a similar cost structure.

level of compensation could be as little as 1 per cent of the two airlines' joint revenue or as much as all of Qantas' supernormal returns earned from the carriage of passengers en route between its gateways. The resultant size of the compensation would depend on the airlines' relative bargaining power but it in turn would determine the distribution of the "spoils" from the creation of this market by Qantas between the airlines. In any case, according to Qantas' figures, there would be a net gain on the producers' side of $17.5 million per annum.

Turning to the consumers' side, they would emerge as net winners from Qantas' operation in this market. They would face a choice of flying times and differential fares associated with the timetables. Those who would choose to travel during peak time periods would benefit from an additional reduced airfare resulting from the pressure of the presence of the off peak market. Those who would choose to patronise the off peak flights in preference to the peak time flights would face a cheaper form of air travel. Consumers of off peak flights would benefit from a still cheaper form of air travel that would be better suited to their needs.

In the off peak market the question of airport congestion would not arise as Qantas is scheduled to land at the appointed gateways in order to service its international passengers anyway. There would be no additional noise or air pollution to be contended with.

In the short term, therefore, there would seem little reason not to permit access to Qantas to operate in the domestic market in order to utilise the excess capacity on its international flights.

QANTAS AND AN "OPEN SKIES POLICY" : AN OPEN MARKET SCENARIO

In the closed market scenario outlined above, it was argued that Qantas' entrance into the domestic aviation market would result in an expansion in the supply of air services, both in the existing market and in the off peak market that would be created. Airfares would fall as a result of this increase in supply.

However, the extent of this increase in air services supplied and the consequent fall in airfares in the closed market scenario would be determined so as to yield the maximum possible supernormal returns to the three operators. In both peak and off peak flights times, the three airlines would exercise some form of monopolistic power, through collusion in the peak time market and by means of a simple monopolistic structure in the off peak market. This would be possible because of the restriction on further entrants into the market.

In an open market structure, the two major airlines would not be protected against potential entrants into the market. In such a scenario, Qantas might be the sole entrant into the industry to operate alongside

Ansett and TAA. Alternatively, it might be just one of a number of airlines entering the market.[1]

In both the above instances, competition would exist, either in the form of potential competition from airlines that would enter the market if revenue was sufficiently high to enable them to at least cover their costs, or in the form of actual competition. It is this threat of competition that would prevent an individual operator from charging excessively high fares.

Collusion would be made increasingly costly the greater number of airlines operating in the industry. The chances of an operator "cheating" for its own gain at the expense of the rest in the collusion would increase with the number of operators in the industry. This would be especially the case the greater the difference in the cost structures of the individual operators. The cost of monitoring the collusion would thus make such a collusion less profitable.

But perhaps the most formidable disciplinarian would be the threat of **potential** competitors. This could come in the form of airlines entering the market to operate on the main trunk routes when they perceived that there were supernormal returns to be earned. These supernormal returns could further attract other forms of air transport, such as helicopter services, on a large scale.

The prospect of competition from potential entrants under an open market structure is very distinct. The aviation industry is characterised by a low fixed cost relative to operating cost structure. Furthermore, capital is easily transferable, both intra- and inter-industry. Aircraft, for instance, can easily be bought or sold or leased and computer systems and other engineering facilities are adaptable for purposes other than aviation.

Existing operators might endeavour to keep out these potential operators, but such activities would erode away their supernormal returns. Ultimately the surest means to prevent their replacement by potential competitors would be the ability of the individual firms to offer competitive service to consumers of air travel. To do so would require airline operators to function efficiently. Competition would root out the less efficient operators and these would be replaced by more cost efficient producers of air services. The efficiency gains from competition would be passed on to consumers in the form of lower airfares and standards of service that best suited the traveller.

The effect of this competition would be to permit only the most efficient of operators in the market. Qantas, as well as Ansett and TAA, would remain functioning in the market as long as they were amongst the most efficient of the operators.

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1. This latter scenario is more likely. There are domestic airlines presently precluded from operating on the trunk routes who would like to have "a part of the action" enjoyed by Ansett and TAA under the "two airline policy". East-West Airlines is one such outstanding contender.

Air services would increase beyond that offered by Qantas' entrance under a closed market scenario. Fares would fall as the gains from the improved levels of efficiency were transfered to the consumers. At the competitive output of air services, airfares would reflect the cost of providing the service.

One would expect to observe a wider variety of services offered in the market as the differing infrastructure of operators would enable them to cater to passengers in different ways. For instance, operators with bigger aircraft might provide a greater proportion of long distance domestic flights. Some might streamline their services to cater to the specific needs of a group of consumers. The "no frills" service introduced by TAA in response to competition from East West Airlines is one such example. Accordingly, airfares would differ to reflect the cost of providing each type of service. To the extent that these services would include an expansion of flight timetables, the notion of "peak" travelling time would be eroded. The peak time market would diminish to the extent that consumers would have a greater choice of close substitutes in travelling times.

It is likely that Qantas would remain viable in at least the "off peak" market that was described earlier. However, Qantas would face close competition in this market, even if it were to remain the sole operator due to its cost advantage in picking up passengers en route over the domestic sectors of its international flights. Faced with a wider range of competitively priced air services, some of its clientele who would have chosen to fly with Qantas in the off peak time under the closed market scenario might opt for a less inconvenient flying time. Qantas would not be able to exercise the monopolistic power it would have had under the closed market scenario. Nevertheless, the low marginal cost of utilising excess capacity on the domestic legs of its international flights would allow Qantas to function as a viable alternative to the other airlines that might result from the removal of barriers to entry to the market.

The gainers in an open market scenario would be those operators who would have been excluded from the market under a "closed door policy", as exemplified by the "two airline policy" or indeed an "X airline policy". Consumers, once more, would be winners from the deregulatory move. They would receive an even greater choice of air travel with competitively priced fares and a range of service more closely suited to their differing requirements.

Qantas would gain from operating in the domestic market provided it was able to cover its operational costs. In the peak market these costs would be the variable cost component of scheduling an additional flight for solely domestic purposes. In the off peak market these costs would be the marginal cost of carrying additional passengers between domestic gateways on existing flights.

CONCLUSION

Of the four options which would enable Qantas to reduce its spare passenger capacity in the domestic market, option 1 describes the status quo which, in itself, has proven ineffective in resolving Qantas' spare capacity problem. Options 2 and 3 would enable Qantas to service passengers within Australia en route on its international flights. These two options, if implemented, would translate into the creation of an "off peak" market for domestic services. Option 4, on the other hand, would enable Qantas to participate in the peak time market, subject to its international flight commitments.

Qantas' entry into the domestic aviation market would lead to net welfare gains under both the closed and open market scenarios. In the closed market scenario, net welfare gains would result from having Qantas operating at least in the off peak time market. In the peak time market under a "closed door" policy, however, the absence of data prevents the measurement of the gains and losses. Nonetheless, it is unlikely that the losers - Ansett and TAA - would be severely affected by Qantas' limited participation in the peak time market under option 4.

In the open market scenario, the removal of barriers to entry would result in net welfare gains. Competition, both actual and potential, would ensure that the most efficient operators would service the market. These efficiency gains would be reflected in the form of lower prices, a greater supply of air services and a wider spread of flight timetables acompanied by a greater range of on board service to cater to consumer needs.

The above results under the open market scenario are not surprising, as shown by a note from the Holcroft Report (1981):

> "There is a strong feeling among many organisations and individuals that greater competition, including the use of vacant Qantas seats, is desirable on domestic air routes since, in their view, this ought to provide a more effective discipline over air fare pricing than the present regulatory system." Holcroft (1981)

Perhaps what is surprising is the resultant net welfare increase from Qantas' entry under the closed market system. Despite the incentive and opportunity to collude, Qantas' entry to the domestic market would give rise to more air services and lower air fares as the three airlines would collude to seek out a fresh rent maximising optimum. An important contributing factor to these gains is the fact the Qantas, as an international airline, has commitments which would, under options 2 and 3, give rise to a greater spread of flights, through the creation of a new off peak market.

Apart from the size of the welfare gains, a further difference resulting from Qantas' entry under the two alternative market scenarios is the distribution of these gains and losses. Under a closed market system, Qantas would enjoy a larger share of the gains, as a result of its ability to charge above marginal cost prices. In the open market scenario, Qantas would be restricted to charging competitive airfares that reflect the cost of providing the service. This cost (marginal cost), as noted earlier, would be minimal in the off peak market.

Ansett and TAA would lose in both the closed and open market scenarios, but would be bigger losers under the open market system. This is because the two airlines would still maintain some monopolistic power in a closed market by forming a collusion with Qantas. In an open market, however, the two airlines would have to compete with each other and with Qantas as well as any other entrants to the market. These efficiency gains would then be passed on to the consumers.

Consumers would be net winners in both peak and off peak markets and under both closed and open open market scenarios. They would reap bigger gains in the open market as airfares would fall and the quantity of air services would expand beyond that under the closed market structure to the competitive optimum. Furthermore, the nature of services supplied would be tailored more closely to their requirements.

Overall, net welfare gains from Qantas' participation in the domestic aviation industry would be greater under an open market scenario.

Whilst the economic deregulation of the domestic airline industry is seen by many to be a long way away (at least not until 1990 when the "two airline policy" is due for renegotiation) and fraught with many social and political obstacles, there is little rationale not to at least restore Qantas' "international interline rights" under option 2 immediately in order to reap a net welfare improvement for the Australian community.

Between potential and realisation of any of these gains is ultimately Government, the absolute barrier.

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