DO AIRPORTS COMPETE?

Joseph Monteiro*

I. Introduction

This focus of this paper is to examine if airports compete. This issue has attracted the interests of airlines, travellers and antitrust economists with the growth in demand for air travel since the mid 1980s. It has also evoked a great deal of emotion from airport authorities who seek increases in airport charges and user groups who oppose such increases. This is not surprising as the interests of airport authorities and users are not necessarily the same. The former are in need of capital funds for expansion of infrastructure or in need of ways to become more efficient through acquisitions. The latter want lower prices and more choices. In between are the referees who have to decide whether the charges should be regulated and whether mergers raise issues of market power and competition.

This paper reviews recent developments on this subject. Part II, outlines the most common issues raised in defining airport markets. Part III, deals with the approaches to defining airport markets adopted by the Competition Commission in the UK and the Australian Productivity Commission. In Part IV, the central issue whether airports compete is examined by reviewing the experiences in UK and Australia, together with an examination of academic and industry reviews where available. Finally, a few concluding remarks are made.

II. Issues in Defining Airport Markets

Before one can examine whether airports compete, the approach commonly adopted is to define the market. Should it be defined broadly or narrowly. The issue is important in deciding whether airports compete with other transportation terminals, compete among themselves and which airports compete, especially if they are situated within close proximity to each other or in the same city.

More specifically, should other types of transportation terminals be

---

** The views expressed here are those of the author and are not purported to be those of the Commissioner or the Competition Bureau or Industry Canada.*

included? In other words, airport, rail and bus terminals? One could make a case for its inclusion if it is believed that air transportation competes with rail or bus transportation. If other types of terminals are included it will mean a much broader definition. In general, it is typical to exclude terminals of other modes from the definition because travellers cannot substitute one mode of transportation for another (except on some origin-destination pairs) and because modes cannot switch from terminals.

More problematic is which airports should one consider to be in the same market. For example, Pearson International Airport and Toronto Island Airport; LaGuardia, JFK and Newark; Dorval Airport and Mirabel Airport; etc. In the latter case, the issue may not be problematic since domestic and transborder traffic may go to Dorval and international traffic may go to Mirabel. In determining the above, it is typical to first consider the demand side, as the demand for airport services is a **derived** demand. It depends on the airlines' demand for airport services and upon passengers' demand for air travel. Some of the considerations and problems that affect these two factors will be briefly described.

Airlines' demand for airport services: On the *demand side*, should - i. infrastructure of the airport; ii. airport capabilities; iii. landing fees; iv. other factors; and v. weather conditions - be considered? Each of the above issues raise other considerations. Regarding the first, what should be considered under infrastructure. Should it include full-length runways, access, slots, gates, networks, ICT, interlining possibilities, baggage handling equipment, ground equipment, etc. Regarding the second, should airports be capable of not only handling jets but also servicing turboprops and other jets. Regarding the third, should landing fees of airports be considered? Regrading the fourth, should baggage and handling services, air cargo sorting and storing facilities, maintenance, cleaning services, catering services, other services - taxi rentals, airport duty-free shops, etc. be included. Regarding the fifth, how should weather conditions be measured? What should be included in it?
Passengers' demand for air travel: On the *demand side*, should - i. cost of travel or factors that determine travel time; ii. locational costs of airports to destination; iii. nature of airport services; and iv. other factors that determine travellers choice; etc. - be considered. Each of the these issues raise other

considerations. Regarding the first, what should cost of travel include: the price of the ticket, costs such as fuel surcharge, security tax, navigation surtax, airport maintenance fees, other levies or taxes, etc. What should determine travel time: gate to gate travel time (which would include consideration of average speed of type of aircraft used, distance, slot availability and slot congestion); and check-in time (would time to clear customs and immigration have to be factored in). Regarding the second, how should one consider: locational costs (downtown where business and most accommodation is found or not; travel time to downtown and cost of going downtown; congestion on the highways to reach the downtown; etc). Regarding the third, should one consider: frequency of flights, interconnecting flights, large hubs vs. terminal points (as travellers seek to avoid accommodation costs of hotels in overnight stay); networks that include both domestic and international destinations; non-stop vs. one-stop flights which pick-up passengers; airport to airport competition; service of other airlines, etc. Regarding the fourth, is the consideration of other factors: aeroplans, alliance membership, service of other alliance carriers, etc. relevant.

Supply Considerations of Airlines and Passengers: Should airlines' costs associated with development of new routes be considered? Should the airlines' costs of moving facilities and the costs of relocating staff and crew be considered? Should switching costs and capacity of neighbouring airports be considered? Should planning, government policy and regulation be considered in the supply of future capacity? Is the catchment area for passengers important?

III. Approaches to Airport Market Definition

How the above matter was considered will be examined.

a) UK: The Competition Commission (CC) in the UK attempted to define the market (in its 2008 interim report on *BAA Airports Investigation - Provisional Findings*) to determine if airports under British Airport Authorities' control compete. Their findings are summarized hereafter. They begin by indicating that market definition has two dimensions: product and geographic. Under product market, they first consider whether aviation, including airports is a separate market or part of a wider transport market, together with products supplied by airports. They then discuss the geographic market definition.

Product Market: The CC delineated the product market as transport for air travel based on the evidence that substitution between air travel and other modes (surface transport) is too weak. They then attempt to determine what services should be included as airport services. Should it be confined to: i) aeronautical services (provision of airport infrastructure); and coordination and control of the activities on or in the airport infrastructure (including security); or should it also include ii) commercial services (including catering, retail, car rental, sale of advertising, car parking activities, etc).

First, aeronautical services include a number of products. The most important are: landing a plane, parking a plane and handling its passengers. The latter accounts for the most. The three are interdependent (i.e., charges) with the latter two being secondary. Since the charges of the secondary products (parking and handling) are constrained by the primary product (landing), the CC concluded that there is a single product market for all services covered by airport landing charges. Since 'other' aeronautical services (eg. security) can be included under the secondary category, they include 'all' aeronautical services in a single market. Further, they determined that the evidence does not justify segmenting aeronautical services by users and type of use, furthermore the characteristics of the airports including hub status is better considered when evaluating competitive effects.

Second, commercial services (i.e., retail and car parking being the most important) are found not to affect the demand for aeronautical services. The CC therefore concluded that airport commercial services are a separate market and not part of a single bundled product market for airport services.

A similar approach was adopted by the Merger and Monopoly Commission (MMC) in the 1996 contemplated merger between Belfast International Airport and Belfast City Airport Limited. Here airport services were considered to be all services supplied by an airport to airlines and passengers. These were classified as 'core services' (i.e., activities which relate to the handling the aircraft and the business of getting passengers including baggage and freight on and off the aircraft) and 'non-core services' (i.e., activities such as restaurants, car parking, etc.).

Geographic Market: In defining geographic markets, location relative to other airports and passengers was considered to be one of the most important characteristics. This means that there is a continuum of substitution possibilities. The CC concluded that since market definition is not an end in itself, there is no advantage in defining rigid geographic markets for airports. In the earlier Belfast inquiry, the MMC considered airports in Dublin and Belfast, however, the evidence suggested that for the majority of the population, flights from the two airports were not a close substitute.

In sum, the CC's approach to market definition is that it should set a framework within which to analyse the effects of market characteristics. They were of the opinion that the aviation market is a separate market from the wider transport market and therefore defined the market as 'a market for aeronautical services provided by airports'. Aeronautical services, however were not considered to include commercial services as the CC was of the opinion that it did not affect the demand for aeronautical services. They did not find it appropriate to sub-divide the market for aeronautical services by type of user or by airport characteristics. Nor did they find it appropriate to define rigid geographic markets for airports. Their approach reflects the general problem of defining markets in transport.[1]

b) Australia: In considering price regulation of airport services in Australia in 2002, the Productivity Commission (PC) attempted to define the market to determine if airports had market power. It stated "First, the degree of market power a firm is assessed to have depends critically on how the market in which it operates is defined. The market should be defined so as to identify fully any potential sources of substitution for the firm's products or services. Market definition requires consideration of what is being demanded (and by whom), the geographic area of the market, the functional level of the market (that is, the position of the firm in the overall supply chain), and the time frame."(pp. 95-6). These 4 dimensions are briefly described.

Service Market: Airports provide a number of services. It is therefore essential to determine the services that are essential to the airlines that must be consumed as a bundle. This however may vary with the airline customer market segment - eg. business, non-business, international, domestic, etc. The narrower the segment the narrower the market.

Geographic Market: The geographic market could be defined narrowly (city) or broadly (region). The appropriate definition was defined according to the market segment (i.e., international or domestic) and airport.

Functional level of the Market: At the functional level, the market was circumscribed depending on whether it was defined as that for transport services, airport services, or particular airport services.

Timeframe for Responses in the Market: Timeframe for responses was also considered relevant as the time frame for response determines the substitution possibilities. If a very long time is required for the market to respond, the market is much narrower.

In brief, the PC identified four elements in its approach to market definition. It also noted that even where a firm has market power, the potential for abuse can be mitigated by factors such as countervailing power and complementarities in demand. Further, price discrimination may reduce efficiency losses from the exercise of market power.

c) Canada: To date no cases on airports have been brought to the Competition Tribunal in Canada. Nevertheless, the approach to market definition on airports could be considered within the general framework of market definition laid down in *Canada (Director of Investigation and Research) v. Southam Inc*. Airports compete among themselves, if the service and related service provided by them, the quality of these services, the price of these services and the markets that these airports intend to serve are comparable. In other words, if the services that airports offer are substitutable they can be considered to be competitive.

Substitutable services or products for antitrust purposes has been defined by Canadian Courts. In the above case, the courts held that direct evidence of substitutability includes both statistical evidence of buyer price sensitivity and anecdotal evidence, emanating from buyers on past or hypothetical responses to price changes. Indirect evidence of substitutability may be garnered from certain practical indicia, such as functional interchangeability and industry views/behaviour. Since direct evidence of substitutability is generally not readily available one generally relies on functional interchangeability and industry views. One can consider functional interchangeability of service in the case of airports depending upon: *natural endowment factors* (i.e., weather affected airports (winter - snowbound), space, etc.); *infrastructure factors* (i.e., full length runways, navigational capabilities, hubs, networks, intermodal connections); *human factors* (i.e., labour harmony, productivity, and legislative environment); and *locational factors* (i.e., closeness to markets and markets to be served). Even in the face of evidence disclosing low-demand elasticity (i.e., direct evidence that products are not substitutable), product substitutability may nevertheless be shown to exist, based upon indirect evidence such as functional interchangeability and industry views/behaviour.[2]

In sum, the approach to market definition has been developed at length by the Competition Commission in the UK and to some extent by the Australian Productivity Commission. The former defined the relevant market for an airport's services in terms of its product and geographic dimensions. The latter defined it in terms of four elements. The former developed its definition to evaluate certain proposed mergers and the latter developed it to consider whether airport services need to be regulated. Having reviewed the views by a competition authority and a government commission, the central issue whether airports compete will hereafter be examined.

IV. Competition Analysis - Do Airports Compete?

Airports have traditionally been viewed as *natural* monopolies. With privatization and commercialization of airports, this view is being increasingly challenged and is being subjected to increased scrutiny especially as airport authorities have attempted to acquire airports or raise airport charges. To examine this issue, three types of evidence will be presented: antitrust; academic; and industry.

a) *Antitrust/Government views*

UK - The BAA Airports Investigation (2008): In its analysis of competition, the Competition Commission (CC) stated "In order to examine competition between airports, information on the behaviour of both airlines and passengers is relevant. This is because the demand faced by an airport is a 'derived demand': it depends on airlines' demand for airport services which depend upon passengers' demand for air travel. Passenger preferences will therefore influence the extent to which airports can compete for airlines."[3] In other words: passenger choice, airline choice and other factors.

Passengers choice of airport depends on proximity to them (this is because it enables them to reduce cost and time of travelling to it). Their choice also depends on availability of greater destinations, more conveniently-timed or frequent flights and/or lower air fares available on those flights. Other factors such as service problems also affect their choice.

Airlines choice of airports depends on costs or other advantages. These costs include establishing new routes or schedules, the costs of moving facilities and the costs of relocating staff and crew. Switching costs between airports also affect their willingness to substitute.

Other factors that are relevant to the assessment of competition between airports include: the greater flexibility when locating new routes; the network connections at a major hub (i.e., the benefits of transfer traffic); and the availability of spare capacity at alternative airports.

Competition between airports is also affected by changes in the structure of the airline market and the nature of competition between airlines, for example the low cost carriers vs. skeds. This is because, the requirement of such carriers for airport facilities is significantly different from that of the more traditional carriers.

The provisional findings of the Competition Commission in its investigation in U.K found that the factors affecting competition between airports were: ownership, capacity constraints (short and long term), planning and government policy (which can affect capacity), regulation (which can affect the investment and the level of service to passengers and airlines), catchment size, lack of extensive system of international and domestic routes and lack of an extensive terminal facilities and full-length runways. In its final report, it concluded that a number of features give rise to an adverse effect on competition: common ownership; isolated geographical position; Heathrow's position as the only significant hub airport in UK; aspects of the planning system; aspects of government policy and the current regulatory system.

The Belfast Report (1997): In this report, the analysis of competition centres around the proposed acquisition of Belfast City Airport by Belfast International Airport Limited (BIA) .

Factors relevant to the MMC's assessment of airport competition were: passenger's demand for airport services and airlines' demand for them. The former is determined primarily by availability of flights and location (nearness, convenience and cost). Other factors are facilities provided by airlines and other services such as car parks and shops. Types of passengers (eg. business vs. leisure) also affect demand. The latter is driven by the airlines assessment of passenger demand, airport charges, services offered such as lounges, airport space, ticketing and check-in services, etc. The views of various parties (BIA, Short's and third parties) were also considered in determining if there was competition between the Belfast airports. Incidentally, the acquisition would increase BIA's share of airport services in Northern Ireland from about 63 per cent to about 89 per cent.

Based on its competitive analysis, the MMC expected that the loss of competition between the airports would result in higher airport charges; a reduction in competition between airlines; a likely reduction in routes and services offered by airlines and/or an increase in air fares.

It was believed that this would occur for the following reasons: the Belfast airports have sought to compete vigorously under separate ownership; the airlines are influenced in their choice of airports by that competition; and the competing airports encourage competition between airlines. Under joint ownership, competition between the airports should not be expected to continue. Balancing the detriment from competition with the potential benefits from the merger, they believed that the detriment would outweigh the benefits.

In sum, in the 'BAA inquiry' the CC found that BAA handles 63 per cent of passenger traffic in the UK, and that it should be forced to sell not only

Gatwick, but also another London airport (Stansted) and Glasgow or Edinburgh. It stated that a shortage of runway capacity in the south-east is a main cause of poor service standards. A month after the Commission published its Interim Report (i.e. September 2008), BAA which owns seven UK airports, announced that it would sell Gatwick airport. The final report (March 2009) confirmed its initial findings and found "competition problems with adverse effects on passengers and airlines at all seven of BAA's UK airports..."[4] In the 'Belfast inquiry', the MMC concluded that the merger may be expected to operate against the public interest and recommended that it should be prohibited as the detriments outweigh the potential benefits and the adverse effects or detriments could not be addressed by any remedies. The analyses of these 2 matters by the UK Competition Authorities suggest that airports compete.

Australia - (Australian Productivity Commission (2002)): In its analysis of price regulation of airport services the Productivity Commission indirectly provided indication of whether airports compete by examining which airports have market power and whether they abuse their market power. Their analysis of barriers to the entry to the industry and the sensitivity of users to price increases reveals the following.

Most Australian cities have only one airport catering for regular passenger transport as the barriers to entry are significant (infrastructure, economies of scale, sunk costs and costly duplication). It found that the potential for *airport substitution* was low in 8 of the 12 core-regulated airports and that the degree of overall market power was high or moderate in 7 of the 8.

The PC then investigated the degree of market power across a range of services provided by airports. It found that it was the strongest for airport movement facilities and vehicle access; and was strong to moderate for passenger movement facilities and aircraft refuelling. For other airport services (eg. lounge space, car parking, taxi facilities, maintenance facilities, catering facilities, storage sites, freight facilities, waste facilities and retail activities) market power was considered to be low generally.

In sum, the report concluded that the Australian airports have 'significant market power', "however, it is important to note that the essence of an airport's monopoly is spatial or locational in nature. A direct competitor may not emerge in the same city, but an airport in another city may provide some competition. The degree to which this type of competition could emerge can only be assessed by examining the demand characteristics of particular locations and airport."[5] Market power appears to be the highest where supply-side substitution possibilities are limited. The PC's examination of market power suggests that there is limited competition in Australia between its airports given the number of airports in each city (one) and the low potential for competition.

b) *Academic views*
Academic: The best known academic views on the subject in Canada are those by Tretheway (1998) and by Tretheway and Kincaid (2005). Other well known views are those by ACI Europe (1999); Barrett (2000) Starkie (2000); etc. The Canadian authors indicate that in contrast to the traditional view which regarded airports as monopoly providers of services to airlines and passengers or natural monopolies they compete in a number of ways today. They compete for: serving a shared local air market; connecting air traffic; sharing air cargo traffic; sharing destination traffic; providing non-aeronautical services (retail, food, etc.); and sharing passenger traffic with other modes.

Tretheway (1998) indicates that airports utilize four strategies to compete: a. product; b. price; c. promotion; and d. physical distribution. a. The product relates to: infrastructure - runways, taxiways, terminals, etc.; passenger facilitation - preclearance services, baggage processing, streamlined facilities, etc.; airport flexibility; service to third party vendors - warehousing to hold and process cargo, ground handling, fuelling, maintenance, etc; constraints on airport operations - curfews on night operations, noise levels; and cargo facilitation - 24 hour operation, customs processing, transshipment facilities, value added distribution facilities, free trade zones, etc. b. Price relates to airport fees and charges and other charges paid by the airlines together with flexible pricing policies. c. Promotion relates to creating awareness of specific service and advantages through - air service development, passenger marketing, integrating marketing approaches, airport naming and branding, etc.

d. Physical distribution relates to the means airport services are delivered - computer reservations systems, travel agents, airport websites, etc.

ACI Europe (1999) lists six forms of competition that affect airports: airline services (passenger and freight); overlapping hinterlands; hub and transfer traffic; location within urban areas; services at airports; and airport terminals. The last two are not considered as competition forms by some.

Forsyth (2004) lists six forms of competition: for a particular traffic; for hubs; for airline operational basis; for concession revenue; for a location; and for airport services generally.

Barrett's (2000) article examines seventeen case studies of airport competition in several European countries. The author finds that the gains from airport competition have been impressive contributing to lower fares. In the case studies examined, one or more of the following factors indicated hereafter are relevant in the analysis of competition (through passenger and airline choice): airfares and airport charges, flights and packages, networks, proximity to dwellings, types of passengers (leisure v. business), catchment areas, size and congestion, slot constraints and facilities (runways), transport services to the airport and car parking. His *(2004)* analysis distinguishes between airports that accommodate low cost airlines vs network airlines or carriers that adopt the 'low cost model' vs the 'network model'. These airports offer different facilities and services to airlines and passengers. This suggests that there is unlikely to be any competition between the two.

Starkie's (2002) article indicates that privatization and commercialization of airports suggests that it is doubtful whether airports can be regarded as natural monopolies and that the framework of analysis should be monopolistic competition. He concentrates on market power of airports and whether they will choose to exploit it. Nevertheless, the factors that are relevant in his analysis of competition (explicit or implicit) are: nature of services (connecting or network or hub vs point-to-point services), catchment areas and location, modal competition, aeronautical charges, prices for the use of runways and terminals, services at airports that are bundled together and types of traffic.

The *Amsterdam Study (2005?)* synthesises the forms of competition as follows: for a particular traffic (types of carrier, passenger and cargo); for attracting new services; for sharing a local market; for airline operation; and for services at airports and with other modes.

Anne Graham (2005) attempts to undertake a competitive analysis of the airport industry by applying Michael Porter's five forces framework to airports. This framework - threat of new entrants; threat of substitutes; power of suppliers; power of buyers; and rivalry amongst existing airports - is applied to: airlines as airport customers of aeronautical services and facilities (eg. runways, taxiways, aprons and terminals); and passengers and consumers as purchasers of commercial services (eg. shops, catering and car parks) from airports.

The threat to airport competition from airlines due to the first two forces of the framework are comparatively low. The threat from supplier and customer power will vary, the latter being much weaker if no alternative airport exists. There will also be no threat to airport competition from airport rivalry if the airports serve distinct catchment areas with a wide network of services, unless they compete as a hub. Competitive rivalry will also be more intense if airports are physically close. With regards to commercial services from airports, passengers and consumers are likely to be in a strong position with regard to their suppliers indicating that this should not be a threat to airport competition.

All these views that affect competition between airports are summarized in the following table where possible.

Competition Between Airports For

Areas	*Traffic*: Passenger; Cargo; Destination; Other Aviation	New Services	Overlapping hinterlands	Urban Areas	Hub	Airline Operation	Terminals	Services at Airports	Other Modes
Sources	ACI; B; C; F; T; A; S	ACI; C; A	ACI; B; C; F; T; A; S	ACI: C	ACI; B; C; F; S	F; A;S	ACI; B; S	ACI; B; F; T; A; S	B; T; A; S

Passenger (types)=Scheduled, Business, Transit (hub); and Charter. Cargo (types)=Dedicated, Scheduled; Charter. ACI=ACI Europe (1999); B=Barrett (2000); C=Cranfield (2002); F=Forsyth (2004); T=Tretheway (1998/2005); A=Amsterdam (2005).

In sum, the authors have "attempted to show that airports do compete with each other in a number of major business segments. The emergence of secondary airports has created intense competition for some major airports. As well, major airports compete among themselves for connections, for gateway traffic and even for destination."[6]

c) *Industry views:* The best known survey of the industry is by Cranfield University (2002). The survey concentrated on two issues: 1) The catchment area; and 2) The airport perception of major competitors.

The first was used to define the area in which most of the existing or potential traffic of an airport lies. Its relevance is the identification of *overlapping* catchment areas. The survey "Unfortunately, ... did not provide very useful information on the degree of overlap of catchment areas." However, one would expect that catchment areas depends on the nature of traffic under consideration, the total length of the trip, and the airline service and fares offered at each airport.

The second was an attempt to examine the categories of traffic - low cost airline service; scheduled long-haul and transfers; scheduled short-haul; charter; and all cargo - to determine the major competitors in each. It came to the following conclusions: low cost airline service at 'alternative' airports has little affect on competition; origin/destination scheduled traffic effect on competition is ambiguous; and short-haul charter flights, low cost and cargo has the greatest potential for competition.

The results of the survey indicated that airports saw themselves as competing for all types of traffic: passenger (low cost, charter and transfer) and cargo.

Overall, airports in the past have been viewed as non-competing *natural monopolies.* With privatization and commercialization, this view has been increasingly challenged. To examine whether airports compete today three types of evidence were presented: antitrust/government views, academic views and industry views or surveys. In general, airports compete along the dimensions described above, however, the specific situation of each has to be considered to reach a conclusion.

V. Conclusion

Bilateral agreements of the past stifled competition among airlines. As a result, it reduced the incentives for airports to compete. As Barrett stated "The world of non-competing airlines was mirrored in non-competing airports. Collusion between airlines restricted innovation such as the development of new airports and routes."

This has begun to change with airline deregulation. First, competition among airlines has led to a fall in airfares and this has increased the importance and concern of airport costs as components of air travel costs. Second, airports have been privatized or commercialized providing them with a more competitive opportunity. Third, the traditional view that airports are natural monopolies is gradually being supplanted with the view that this is not so, except for airports of certain size. With these developments together with mergers among airports in some parts of the world, questions of market definition, market power and the need for regulation of prices of airport services have arisen. Therefore an attempt has been made to review some of the issues involved in market definition together with whether airports compete and the analysis used.

This review indicates that the CC in UK prefers to define a framework to analyse market characteristics rather than adopt a rigid approach to market definition. The aviation market is considered to be separate from other transport markets and within the product market (aeronautical services and commercial services) and geographic market (location, etc.) various secondary services or products and factors are considered. The Australian PC identified four elements: service market, geographic market, functional level of the market and timeframe for responses in the market in its approach to market definition.

The analysis of competition between airports examined three types of evidence: antitrust views; academic views and industry views. A number of factors were considered as having an effect on competition between airports: traffic, new services, overlapping hinterlands, urban areas, hub operations, airline operations, terminals services at airports and other modes of transport. The general consensus is that today airports compete with each other in a number of major business segments in contrast to the traditional view that they were non-competing natural monopolies. Nevertheless, some airports may have a considerable degree of market power, given the spatial nature of competition, especially where supply-side substitution possibilities are limited. This may suggest that airports do not compete, however, the specificity at each airport has to be examined before a final conclusion is reached.

Bibliography

1. Barrett, S. D., *Airport competition in the deregulated European aviation market*, Journal of Air Transport Management, Vol. 6, No. 1, Dublin, 2000, pp. 14-27.
2. Forsyth, P., *Airport Competition: Regulatory Issues and Policy Implications*, paper presented at the HWWA Workshop 'Congestion and Competition-Major Problems of the Airport Industry', Hamburg, February 2004.
3. Graham, A., *Airport Strategies to Gain Competitive Advantage*, University of Westminister, London.
4. Morrell, P., *Airport Competition or Network Access?, A European perspective*, Air Transport Group, Cranfield, 2003.
5. Starkie, D., *Airport Regulation and Competition*, Journal of Air Transport Management, Vol. 8, No. 1, London, January 2002, pp. 63-72.
6. Tretheway, *M., Airport Marketing: An Oxymoron?*, Handbook of Airline Marketing, ed. G.F. Butler and M.K. Keller, McGraw Hill, 1998, pp. 649-656.
7. Tretheway, M. & Kincaid, I., *Competition between airports in the new millennium: what works, what doesn't work and why*, 8th Hamburg Aviation Conference, 2005.
8. *European airports: a competitive industry*, Policy paper submitted by the ACI Europe Policy Committee, ACI Europe, 1999.
9. *Canada (Director of Investigation and Research) v. Southam Inc*., Nov. 25, 1997.
10. *BAA Airports Investigation - Provisional Findings,* CC, August 20, 2008.
11. BAA Ordered to sell three airports, March 19, 2009.
12. *Belfast Inquiry*, Merger and Monopolies Commission, 1997.
13. *Temphelof Airport 'Turning history into future*', C. 8, Amsterdam School of Technology.
14. *Price Regulation of Airport Services*', Australian Productivity Commission, 2002.
15. *BAA Airports Market Investigation*, Competition Commission, March 19, 2009.

Endnotes

1. See *Review of methodologies in transport inquiries*, by Kate Collyer, Anthony Felet and Tom Kitchen, Competition Commission. However, it should noted that the review was concerned with transport and not transport terminals or airports.
2. See reference 9 in Bibliography.
3. See reference 11 in Bibliography.
4. See reference 11 in Bibliography.
5. See reference 14 in Bibliography, p. 106.
6. See Tretheway and Kincaid in reference 7 in Bibliography.