Response to the CAA's consultation on the Initial Competition Assessment

Date: 26th March 2012

Status: Final Draft

Heathrow

Making every journey better

Contents

1. Introduction

BAA welcomes the opportunity to comment on the CAA's Initial Competition Assessment. In this response we provide initial comments on the CAA's assessment, and the various supporting research papers and analysis. Our comments are focused primarily on the issue that we believe is of greatest importance in the CAA's assessment of Heathrow;Heathrow is the UK's only hub airport and competes with other hub airports in Europe. Although the CAA goes some way to recognizing this, ultimately the analysis falls short of concluding that Heathrow is at least partially constrained by the effectivness of competition from other hub airports.

In addition to helping inform the CAA generally on competition policy, the CAA's market power assessments will provide the basis for the CAA's consideration of the economic regulatory framework beyond Q5. BAA's response to the CAA's competition guidelines, and more recently, the Setting the Scene document, stated that the CAA should follow a "theory of harm" process; any potential detriment should be defined first in terms of the possible implications, and an assessment made as to whether this can (or should) be remedied by a form of economic regulation.

In respect of the competition assessments, it is fundamental to the integrity of any assessment that each of four relevant steps is undertaken (market definition, an assessment of market power/market failure, an assessment of potential harm and finally the consideration of appropriate remedies) and that the process is not contracted, or critical issues will be missed. We recognise the remedies phase of this process will largely be a matter for consideration under the general "Q6" programme of work[1].

While Heathrow intends to adopt a pragmatic approach to both the competition assessments and the continuing "Q6" programme of work, this does not obviate the need for robust analysis, or considered and evidence based decisions. The CAA's competition assessment will underpin the future regulatory framework, and provide the template against which regulatory and competition policy is conducted. In short, it is not a matter of working to a low "burden of proof" or applying research such that it appears consistent with *a priori* assumptions.

Section 2 of the response sets out our preliminary analysis and conclusions on market definition, The outline assessment of market power in Section 3 includes quantitative evidence on Heathrow relative to certain comparators, and section 4 provides initial comments on some of the other competition policy issues raised by the CAA. Annex A discusses the CAA's catchment analysis and Annex B provides a synopsis of recent precedent on market definition in aviation.

[1] Even in the event of market failure, *ex post* regulation – competition law - could provide the appropriate means of safeguarding and/or mitigating some of the potential harms identified if the likelihood of the operator exploiting its market power is low, for example in the presence of countervailing buyer power.

In accordance with the CAA's consultation, this response represents Heathrow's preliminary thinking and initial observations on the CAA's competition assessment. We look forward to further discussion with the CAA and other stakeholders, and to submitting a more comprehensive response in due course.

2. Market Definition

There is a well-established approach to market definition in regulatory and competition proceedings, referred to as the hypothetical monopolist or SSNIP test, which analyzes the potential for substitution by customers and suppliers in order to determine the economic boundaries of a market. It is, however, also clear that it is quite challenging to apply this standard approach in the airports sector, and different competition authorities have taken very different views on market definition and the assessment of market power.

There are arguably two main decisions relating to the definition of the product market for Heathrow. Firstly, is there a single market for aeronautical services or should it be divided into separate markets reflecting, for example, the characteristics of different market segments (e.g. O&D (surface) and transfer (connecting) passengers)? Secondly, is there a single market for airport services or are there separate markets for aeronautical services and commercial services? In identifying product markets there is also the need to determine the geographic boundaries of these markets.

Market(s) for aeronautical services

The main factor complicating the definition of markets is the derived nature of the demand for aeronautical services (acknowledged by the NMa - the Dutch competition authority - as a key issue). This is by no means unique to aeronautical services but it does complicate the process for defining the market(s). When attempting to determine the boundaries of the market(s) for aeronautical services, as per the CAA's analysis, it is necessary to analyze the switching possibilities of two groups of customers: airlines and passengers.

The CAA considers a number of possible separate markets, based both on airline and passenger type. As noted above, our focus here is on what we consider to be the most important issue: the recognition that Heathrow competes with other hub airports for transfer (connecting) passengers. At Heathrow, aeronautical services for O&D and transfer passengers are charged at different prices. In practice, however, there may be a degree of overlap between the type of service offered to different passengers and an aeroplane is likely to contain a mix of passengers on the same flight[2]. The existence of different prices may not be sufficient to identify separate product markets, but it does suggest that this possibility should be examined further.

[2] This does not however imply that there is a single passenger or airline market. For example, passengers originating at a regional airport and connecting via Heathrow to elsewhere can still be differentiated from those whose destination is Heathrow. If they were in the same product market, then the geographic boundary of the market must logically be extended to include these regional airports.

Airline switching

Faced with a 10% price increase for aeronautical services at Heathrow, would airlines be induced to switch? Although airlines need the services provided by an airport to be able to provide services to passengers, they represent only a small part of the overall cost base of an airline and hence a 10% increase in the price of aeronautical services would be likely to have a much smaller impact on the overall cost of operating a route.

Additionally, an airline would need to be able to find an adequate substitute service at another airport and would incur some costs in switching to that airport. However, it is also the case that there is excess demand for slots at Heathrow, which could either make an airline reluctant to give up its slot or alternatively could allow the airline to trade its slot at a value that would be likely to exceed the level of switching costs. This issue does not appear to have been addressed in the CAA's analysis. While the potential for switching by an airline may be limited (subject to slot values and other considerations); this does not mean that the market cannot be extended beyond Heathrow.

To define Heathrow as a market runs the risk of ignoring the dynamic nature of the market and the various segments therein. An airline might be in a position to switch a reasonably large number of routes, frequencies and otherwise, for example, where it is prepared to operate a dual hub. Any decision would be made to optimize a number of factors, one of which would be airport charges. Moreover, airports may not compete on price alone. The quality of the services provided is also of significance, as will be a number of other factors; focusing on switching in response to price changes may misrepresent the form and extent of competition between airports.

Passenger switching

Passengers could also switch in response to an increase in the price of aeronautical services that was directly passed on downstream in the form of higher airfares. However, as the CAA's own research suggests, accurately measuring the scope and impact of passenger switching is extremely complicated, not least because the demand characteristics differ significantly between passengers[3]. An O&D (surface) passenger may indicate a willingness to use Heathrow, Gatwick, Stansted or Luton, but that is clearly not sufficient if the planned journey is to a destination that can be reached directly from only one of those airports. At one extreme, for example, there is business passenger demand for First Class to a specific destination, with an airline that offers a sufficient number of flights each day (thus insuring against a missed flight); at the other extreme, there is passenger demand for leisure travel, but where that type of demand may be indifferent to the precise destination. The possibilities for substitution would appear to be far greater in the latter case than the former.

[3] The CAA's Catchment Analysis and Survey attempted to identify the willingness of passengers to use different airports. This is important, but may not be sufficient to understand real switching options.

To analyze the switching options accurately it is necessary to work at an extremely disaggregated level, such as a particular type of customer going to a specific destination (a sub-set of overall demand). For each of the customer type/route combinations the potential switching options would need to be identified. This, however, would be an overstatement of the level of switching that would be likely to result from a price increase and hence some adjustments would be required. For example, some customers would not be sufficiently price sensitive to consider switching, some would not accept the alternative airport as an acceptable substitute and some alternative flights could already have a sufficiently high load to prevent switching from actually taking place. This analysis would be formidably complex, but it would provide a reasonably sound basis for estimating the level of switching by passengers to other airports.

It would then be necessary to determine whether this level of switching would be sufficient to render a price increase uneconomic, and if so, to reflect this in the geographic boundaries of the market. We are not in a position to undertake this extremely detailed level of analysis, but it is still possible to offer some observations on what is likely to be the most legitimate way of defining markets.

In light of precedent, initial analysis and business practice it seems likely that aeronautical services should be divided into two separate product markets: the market for O&D passengers, and a market for transfer passengers[4]. As noted above, different charges are currently raised against O&D (surface) and transfer (connecting) passengers.. Crucially, however, it is the additional fact that these two groups of passengers have completely different switching options that suggests that separate markets may be appropriate.

If the market definition exercise outlined above were undertaken for O&D (suface) passengers, it is likely that the substitution possibilities would be to other airports in the London area. However, that is not to say that the level of switching would be sufficient to suggest that Heathrow operates in a London or South East England geographic market for O&D (surface) passengers (although route and destination overlap and other factors would appear to indicate that Heathrow may compete with certain other London airports for certain passengers).

By contrast, the switching options for transfer passengers are likely to be to other European hub airports. It is worth noting here that the CAA's passenger research has highlighted the willingness of transfer passengers at Heathrow to switch in response to a price increase. Connecting passengers at Heathrow seem much more likely to switch away in light of a price increase, as opposed to their short haul and long haul counterparts. Thirty-four percent of connecting passengers stated that they would switch away from Heathrow when faced with a £40 increase in the cost of flying through Heathrow, which is a similar proportion to the overall percentage of passengers that had considered another European hub airport through which to transfer.

[4] We offer no detailed comments at this stage on cargo, but assume that this would also fall to be considered as a separate relevant economic market.

Conclusions on aeronautical services

BAA's preliminary analysis is broadly consistent with the CAA's and much of the precedent in this area. The NMa noted the higher price sensitivity of transfer passengers in its investigation of Schipol airport, and in a separate investigation of Schipol's market power, GAP identified separate relevant economic markets for O&D (surface) and transfer (connecting) passengers. Further discussion of these cases is included in Annex B.

Similarly, both the UK competition authorities clearly indicated there was scope for a further disaggregation and delineation of the market, such that an analysis of the effects of direct competitive constraints may result in separate relevant economic markets for O&D (surface) and transfer (connecting) passengers.

While BAA's preliminary analysis is broadly consistent with that of the CAA, we are unpersuaded by the CAA's proposed narrowing of the markets when balancing the interaction between the airline and passenger markets. If the overarching assessment is conducted within the context of derived demand, it is difficult to understand how a broad European geography effectively becomes "irrelevant" when considered in the context of substitutability. Similarly, it is difficult to understand the proposition that Heathrow is itself a relevant economic market when viewed from the perspective of *based network carriers*. This clearly infers that Heathrow is wholly unconstrained by any other hub/airport. Notwithstanding arguments on airline substitutability, this appears contrary to the evidence on (connecting) passenger price sensitivity and their propensity to switch. It is clear that, at the margin, passenger switching could impact upon airline behavior (and propensity to switch).

We believe that the CAA should now undertake a more rigorous financial assessment of transfer passenger switching, as we believe that this would lead to the conclusion that there is a separate market for transfer passengers (that has geographic boundaries encompassing the European hub airports). Certainly this is what our analysis of transit passengers discussed in Section 3 suggests.

The delineation of Commercial and Retail activities

The second issue that we highlighted at the beginning of this section is whether the market should be defined as a joint market for airport services (including both aeronautical and commercial services) or whether multiple markets should be defined, including one or more for aeronautical services and one or more for commercial services. We note the very different approaches taken by the different competition authorities in the UK and elsewhere.

Typically, the case for extending or narrowing product markets rests on the strength of the substitution potential between the options. However, this approach is not relevant to the

distinction between aeronautical and commercial services, since these could be described as "complementary" products rather than substitutes.

While the OFT considered that a joint market for airport services (including commercial services) would be appropriate, it did not examine this issue in detail. The CC examined the effect of changes in commercial prices and found that there was insufficient interaction between the commercial and aeronautical prices to justify a single market.

Prices for some commercial activities are faced by passengers directly (rather than indirectly, as in the case of aeronautical charges). This may enhance the case for separate markets. Some activities which could be defined as commercial, such as the rental of office space to airlines and third parties providing services to airlines at the airport, may be an exception as these charges may feed through directly or indirectly to the costs to airlines of using the airport.

Within the wider class of commercial services provided at an airport, a number of separate product markets may also be identified. This reflects the following qualitative arguments:

- Activities such as car parking (and other forms of surface access) may be distinguished from rental of commercial space. Surface access is a derived demand undertaken only as part of the overall passenger journey, though passengers have a number of surface access options to consider, including self-drive, drop-off, taxis and public transport. Many retail services at the airport may not be derived from the decision to travel, i.e. passengers have the opportunity to make discretionary purchases at the airport, though others such as food and beverage may arguably be linked to the decision to travel.

- The commercial services are typically purchased as a separate transaction to aeronautical services, rather than as part of a joint bundle of services.

- In the case of many of the commercial services the consumer has discretion as to whether to purchase such services at all (particularly retail services), which is not generally the case for most aeronautical services.

- The characteristics of the commercial and aeronautical activities differ in many respects, for instance in the type of consumer (passenger vs airline); the type of substitutes which might be considered (alternative flights/airports versus alternative forms of surface access at a given airport or commercial services consumed off-airport).

- The geographic markets for aeronautical and commercial services would be expected to differ, possibly with a wider London/European dimension to substitution options for O&D (surface) and transfer (connecting) passengers (or, airlines using the airport); versus a more local market (centred on the airport and immediate surrounding area) for surface access. The geographic market for retail services may span a wider geographic area than

that for surface access but may still be more narrowly defined that the area bounded by airport catchment areas.

Conclusions in relation to commercial services

While precise market definitions for the commercial services are not feasible to derive in the absence of a more detailed review of quantitative evidence on pricing and other features of these services, a qualitative assessment indicates that the commercial activities can be treated as part of a separate market from the aeronautical activities. Furthermore, there are reasons to suggest that within the wider set of commercial services, it would be useful to examine competitive conditions separately in respect of several of these. These could include car parking (itself potentially sub-divided); letting of commercial space; and access to infrastructure to third parties required to operate their business at Heathrow. It is worth noting that the limited case history suggests a similar disaggregation of the wider commercial activities.

For the purpose of an overall assessment of market power at individual airports, we understand the main focus of the CAA will be on the market power with respect to aeronautical charges since these are the primary products of the airport. The extent to which individual commercial services may operate in competitive markets (for example off-site car parking and retail markets) would not significantly affect the assessment of market power in relation to the primary markets, since the commercial services are not substitutes for access to the airport infrastructure.

3. Market Power

Our focus in this section is on Heathrow's position as a hub airport and its competition with other European hub airports. We provide the following analysis: 1) an econometric model that indicates the similarity in the demand characteristics of Heathrow and three other European hub airports (Amsterdam, Frankfurt and and Paris) and its dissimilarity with Gatwick; and 2) a quantitative analysis of passenger data that highlights the degree of competition between Heathrow and the three hub airports identified above. We conclude by providing some initial observations on the CAA's assessment of Heathrow's market power.

Characteristics of demand at Heathrow

We have undertaken an indicative regression analysis of demand at Heathrow relative to Gatwick and European hubs (Amsterdam, Paris and Frankfurt). The purpose of this analysis is to demonstrate the similarity in demand characteristics between Heathrow and other European hubs, and how these differ from the demand characteristics faced by Gatwick (and very probably other UK airports).

The analysis used monthly long haul passenger volumes from January 2006 to July 2011. For each airport, long haul passenger volumes were "regressed" against the following explanatory variables:

- EU-27 GDP;
- Oil price (lagged 6 months) – a major component of fares;[5]
- Dummy variable for volcanic ash in April 2010;
- 12 seasonal dummy variables.

Logarithmic transformations were used for all variables so that GDP and oil price coefficients can be interpreted as elasticities[6].

Results are shown in Table 1. The hub airports all display relatively similar demand characteristics, particularly in relation to the economic elasticity in respect of EU-27 GDP.[7] The elasticity of Frankfurt and especially Heathrow are lower – most probably a reflection of the capacity constraints at Frankfurt prior to the opening of the new runway, and Heathrow. By

[5] We are not aware of a source for comparable fare price data at European hubs.
[6] The elasticity estimated from Haethrow's more detailed econometric model, when averaged across all long-haul passenger types for this same period (Jan' 2006 to July 2011), is not statistically different at the 5% level.
[7] All of which are statistically significant at the 5% level.

contrast, we were unable to estimate a plausible economic elasticity for Gatwick.[8] This is most probably due to Gatwick's greater dependence on the UK economy (and the leisure/consumer sector in the South East England region in particular), rather than the wider EU-27 economy that clearly drives demand at the European hub airports.

We note however that Gatwick's demand is very sensitive to the oil price,[9] in a way that is not experienced by the European hub airports (other than Frankfurt to a small degree). No statistically significant oil price effect was found at any of other European hub airports. We believe this must be a reflection of Gatwick's dependency on low cost carriers, for whom the price of oil is likely to be a larger proportion of the overall cost base.

Table 1: Model of characteristics of demand at large airports: model elasticites

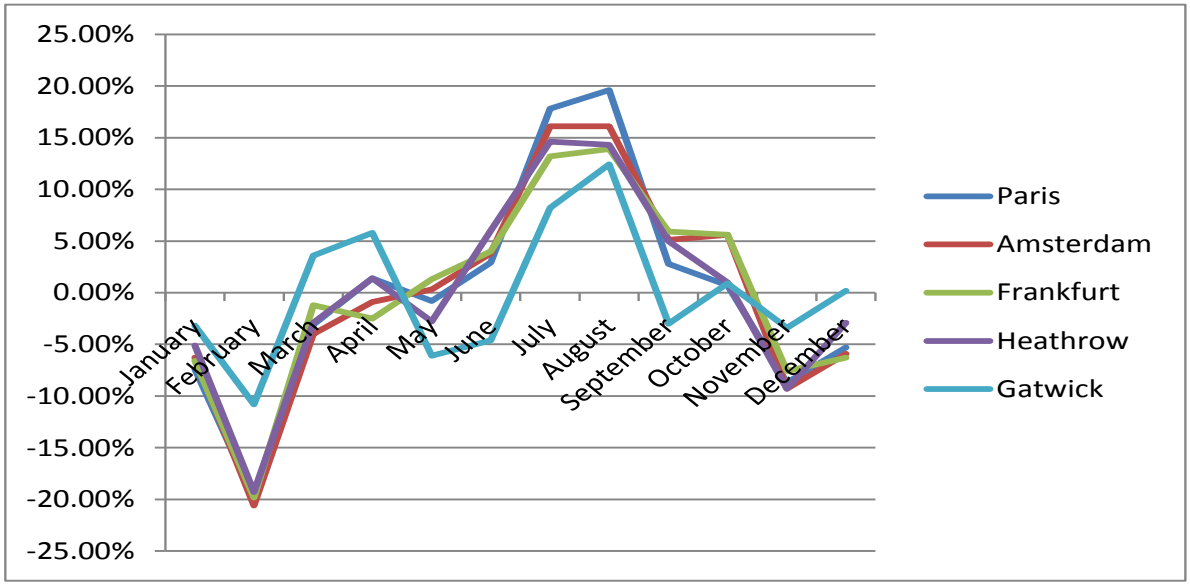
	Paris	Amsterdam	Frankfurt	Heathrow	Gatwick
EU-27 GDP	1.54	1.55	1.20	1.17	Unable to estimate
Oil price (6 month lag)	Unable to estimate	Unable to estimate	-0.05	Unable to estimate	-0.41
Volcanic ash (April 2010)	-16.9%	-18.3%	-15.9%	-21.3%	-27.2%
January	-7.4%	-6.3%	-6.6%	-5.1%	-3.2%
February	-19.9%	-20.6%	-19.8%	-19.3%	-10.8%
March	-3.1%	-4.0%	-1.2%	-2.9%	3.6%
April	1.4%	-0.9%	-2.5%	1.4%	5.8%
May	-0.8%	0.3%	1.3%	-2.8%	-6.1%
June	2.9%	3.8%	4.0%	6.0%	-4.6%
July	17.8%	16.1%	13.2%	14.6%	8.2%
August	19.6%	16.1%	13.9%	14.3%	12.4%
September	2.8%	5.1%	5.9%	5.0%	-3.0%

[8] The estimate was negative.
[9] Statistically significant at the 5% level.

October	0.7%	5.6%	5.6%	1.0%	0.9%
November	-8.7%	-9.3%	-7.6%	-9.3%	-3.4%
December	-5.3%	-5.9%	-6.3%	-2.9%	0.2%

Finally, Gatwick appears to have a very different pattern of seasonality compared to the close pattern of seasonality followed by the European hub airports.[10] This is illustrated in Chart 1, and provides further evidence of the different nature of demand between the European hubs and UK airports like Gatwick.

Chart 1: Airport seasonal factors



The analysis clearly illustrates that, in terms of aggregate demand and demand drivers, Heathrow is similar to the other European hubs, and different to Gatwick (and very probably other UK airports). By definition, the demand curve facing Heathrow must be different to that of Gatwick. It is therefore reasonable to assume that, if the composition and shape of the demand curve is different there cannot be effective or "perfect" substitution of demand (but perhaps potential scope for substitution at the margin for certain products and services).

Effectiveness of competition in the transfer market segment

As discussed above, Heathrow is the UK's only hub airport, insofar that it is the only UK airport used by a significant number of passengers as a point of transfer between flights (and

[10] Gatwick's seasonal profile is clearly influenced by English school holidays (e.g. half terms and Easter holidays), in a way that is not apparent in any of the European hubs (including Heathrow).

destination). However, Heathrow does compete, and increasingly so, against other European hubs, including of course for passengers originating within the UK.

It is generally accepted that Heathrow competes with other European hubs[11] however, what is perhaps less well understood is the degree of competition between the European hubs, and the prospect for even greater competition in the future. In order to help illustrate the nature and degree of competition between the European hubs, BAA has conducted an analysis of data based on the CCA's passenger survey for the years 2005 and 2009.

For each year, analysis was conducted on passengers flying from Manchester, Aberdeen, Edinburgh, Glasgow, Inverness, Newcastle and Prestwick, onto an international destination (and requiring a transfer hub to do so). In order to ensure that a reasonable and robust sample size could be compiled from the CAA survey data, the analysis has been restricted to passengers travelling onto the following international destinations: China; India; and USA. Table 2 shows the results of our analysis.

Table 2: Transfer shares of European hubs on passengers from UK regional airports

	2005			2009	
	Number of Pax	%		Number of Pax	%
China					
Number of Passengers Interviewed	*298*			*272*	
AMS	55,268	47.1%		41,828	26.6%
CDG	11,206	9.6%		46,934	29.9%
FRA	11,613	9.9%		23,504	15.0%
LHR	39,147	33.4%		44,942	28.6%
Total Pax	**117,234**			**157,208**	
HHI	**3,527**			**2,640**	
India					
Number of Passengers Interviewed	*117*			*131*	
AMS	3,050	4.4%		9,033	10.2%
CDG	1,481	2.1%		11,102	12.6%
FRA	15,898	22.9%		17,211	19.5%
LHR	49,109	70.6%		50,990	57.7%
Total Pax	**69,538**			**88,336**	
HHI	**5,534**			**3,974**	
USA					
Number of Passengers Interviewed	*1,549*			*1,302*	
AMS	140,728	18.3%		145,651	19.2%
CDG	50,652	6.6%		32,739	4.3%
FRA	16,125	2.1%		13,302	1.7%
LHR	559,432	72.9%		568,553	74.8%
Total Number of Passengers(weighted)	**766,937**			**760,245**	
HHI	**5,706**			**5,982**	

[11] Insert

Firstly, the data clearly shows the scope for demand substitution by transfer (connecting) passengers (to the sampled destinations), such that the effective demand substitute for transfer passengers is very likely to be another European hub, not an alternative UK airport.

In terms of "market" power, the preliminary analysis also appears to suggest that Heathrow may not hold a dominant position, even in the context of long haul or transfer (connecting) passengers. Table 2 illustrates, for example, Heathrow's share of transfer passengers from UK airports to China has fallen from 33.4% in 2005, to 28.6% in 2009. Correspondingly, the shares of Paris and Frankfurt have risen from 9.6% and 9.9% respectively to 29.9% and 15.0%. Amsterdam, previously with the largest share of UK passengers destined for China, saw a reduction from 47.1% to 26.6%. The overall picture is of a marked increase in the ability of all four hubs to compete effectively for the UK's transfer passengers. Heathrow is subject to competitive constraint from other European hubs.

The same pattern of competition is evident on the India route, where Heathrow has experienced a decline in its share of passengers, from 70.6% to 57.5% between 2005 and 2009, with each of Amsterdam and Paris gaining share (Frankfurt already had a large share of the UK's passengers to India). Again, this appears to be indicative of increasing competitive pressure on Heathrow, and a continuing competitive interaction between the European hubs. At this time, the data relating to the USA indicates that Heathrow has been able to maintain a broadly consistent share of transfer passengers. However, this is not to say that Heathrow has not had to compete strongly to maintain this position (as it has also done on all other routes).

While the analysis is necessarily high-level, it clearly evidences competitive activity as between the European hubs (which we believe would also be evident across a wider sample of passengers and destinations). Moreover, it further illustrates the dynamism within the airport sector; the presence of competition and scope for greater competition within certain markets, and how that competition appears to be developing and intensifying.

Initial observations on the CAA's assessment of market power

The CAA's conclusions appear to be based largely on the view that, as a consequence of network and alliance type economics (and sunk cost), *based network carriers* have no incentive to switch. Moreover, lack of effective substitutes implies they simply cannot switch. However, this would seem to imply that it is largely irrelevant what happens at the passenger/retail level as airlines simply would or could never switch.

If this assertion were to be correct it can also be inferred that airlines are effectively in a position to increase prices without impacting passenger demand (certainly to the extent that it would not drive away demand). To argue otherwise is to suggest that there is no demand relationship between passenger, airline and airport demand, which is counter-intutive.

We note also the CAA's reference to airlines being unable or unwilling to switch[12] because of the higher yields available from operations at Heathrow; the presence of higher yields is, however, presented as reinforcing Heathrow's market power. Aside from the observation that such an argument is indicative of airlines being somehow insulated from competition when operating from/to Heathrow, it is difficult to reconcile this aspect of commercial reality with the view that Heathrow is somehow able to exercise market power.

We also note that, what are described as marginal airlines/customers, impose no or a very weak constraint on Heathrow (these are *inbound*/non-*based carriers*). However, these types of carrier account for ~50% of traffic and ATMs, and these airlines are acknowledged by the CAA to have very different substitution options relative to *based carriers*. Notwithstanding the CAA's analysis, it is questionable whether it is necessarily correct to assume that these airlines do not impose a meaningful constraint, and/or are unlikely to switch.

The CAA's document also sets out market share figures, but appears to focus largely on the long-haul market segment. We note however, that the CAA have not explicitly defined long-haul as a relevant economic market, therefore references to Heathrow's dominance and otherwise based on this particular analysis may be misplaced. Similarly, references to the proportion of ATMs are misplaced as Heathrow has little, if any, control on the absolute number or their allocation.

Finally, Heathrow's low share of short-haul is effectively discounted as a result of what is described as network economics and route profitability (inter-dependency of long-haul and short-haul etc.). To the extent there is then a relationship between the respective market segments, they could be argued to fall within a wider relevant market definition in which Heathorw would then presumably have a lower absolute share.

[12] This ignores the fact that airlines would be in a position to trade slots at a value that would be likely to exceed the level of switching costs.

4. General observations on the CAA's Competition Assessment for Heathrow

This section contains observations on a number of issues relevant to the CAA's analysis, whether in respect of the market definition process, or the assessment of market power.

Irreversible/sunk costs (and slot values)

- Reference is made to the airlines inability to switch because of the presence of irreversible sunk/costs. We note that not all of the costs are necessarily irreversible or airline specific. For example, the CAA observe that, as a consequence of excess demand at Heathrow any airline exit or switching would be quickly followed by (new) entry; the airline assets could therefore be sold or reused by the new entrant(s).

- Perhaps more significantly, it is also reasonable to assume that a sale of slots, depending on the number and type, could more than outweigh any potential switching cost.

Pricing to the cap

- Reference is also made to Heathrow pricing to the cap and that this is indicative of a position of market power. It is however important to understand the wider context, not least the historic and ongoing capital investments, and other efficiently incurred costs which Heathrow is simply seeking to recover. Moreover, Heathrow's current practice of pricing to the cap does not generate a return at the Regulated WACC, much less "super-normal" profits.

- If the prevailing price level is a consideration in the analysis (and the CAA do not appear to be minded to conclude that it is necessarily a key component), BAA would recommend that any price analysis takes a wider perspective, for example, the imputation of a "market clearing price". Excess demand at Heathrow might imply that the current price is being compressed to an artificially low level, and that the "market" price is actually above the current regulatory price cap.

Buyer power

- We note the discussion of (countervailing) buyer power and the CAA's view that this can be discounted on the basis that airlines are effectively more reliant on Heathrow (than Heathrow is on the airlines) . Firstly, this overly simplifies the nature of the relationships at Heathrow; and, in light of the CAA's data on *based network carriers* and airline concentration and their share of traffic/ATMs at Heathrow, there is clearly a degree of mutual reliance.

- In addition, the CAA use a measure of passengers to illustrate the point, however, this may be incorrect. In light of its own proposed market definitions it should arguably use measures based on the share of, e.g., *based network carriers* (both passengers and

ATM's). More importantly, the CAA might also consider the relative revenues/incomes as an appropriate measure. Lastly, the analysis fails to recognize that through constructive engagement and otherwise, in many respects the airlines act as a collective and single entity. When viewed from this perspective, it is clear that Heathrow would be more reliant on the airlines.

Annex A

Comments on the CAA's Catchment Analysis

We note that in a number of places in its document the CAA recognizes the limitations of its Catchment Area Analysis, nevertheless we believe it is important to highlight what we consider to be the obvious limitations with the analysis:

The CAA's analysis of actual airport usage (see Section 4) highlights the dangers of relying on predictions of airport usage based on surface travel times (see Section 3). Whilst the latter measure can be thought of as capturing passengers' "notional" willingness to use an airport, the former captures their "actual" willingness to travel. The latter measure suggests a catchment area for Heathrow of 125 districts, whereas the former suggests a catchment area of 94 districts. This suggests that any predictions of airport usage should be treated with a considerable degree of caution.

Indeed the challenge may actually much greater than this, as discussed earlier in Section 2 of this response. All of the measures contained in the CAA's analysis deal with the willingness of a passenger to use an airport. Crucially, however, they do not consider whether an adequate substitute is available at each airport. The fact that a passenger is willing to use a particular airport is necessary for substitution to be possible, but is not sufficient. If a passenger is willing to use Heathrow, Gatwick, Stansted or Luton, that is not sufficient if, for example, the destination that they wish to fly to can only be reached from Heathrow.

We highlighted earlier in Section 2 that, when defining economic markets, it is necessary for the CAA to analyze passengers' substitution options at a very disaggregated level, such as passenger type by destination. Some elements of the Catchment Area Analysis could provide useful data for this market definition exercise, but the analysis as it stands has only limited value.

Perhaps the greatest limitation of the Catchment Area Analysis with regard to Heathrow, however, is that it ignores around 35% of its outbound passengers, those that arrive at the airport by aeroplane rather than surface transport. Clearly, this major weakness has to be addressed in the CAA's market definition exercise before it could possibly be used to inform either market definition or an assessment of market power.

Annex B

Recent Precedent and Analytical Framework

The definition of the market in the context of airports has arisen in a number of cases. For example:

- Market investigations into the airports sector in the UK: these include the work undertaken by the OFT (airports market study, 2007) and the CC (BAA market investigation, 2009) as well as the on-going work being carried out by the CAA (Competition Guidance and associated working papers).
- Merger clearances by the European Commission involving the airport sector, (including the acquisition of BAA by Ferrovial).
- International studies which have focused on airport competition and market power, including a recent study commissioned by the NMa into market power at Schiphol Airport, and recent investigations by the NMa into Schiphol's charges following complaints by EasyJet and KLM.

UK Market investigations

Office of Fair Trading (2007)

In its market study the OFT defined the product market as that for airport services as a bundled product, comprising airport infrastructure to airlines, services provided directly to passengers, and services provided to other commercial operators at airports. It found that the relevant geographic market was for the South East of England and East Anglia.

The OFT did not reach firm conclusions on the precise product market definition, or on the geographic scope of the market. Indeed, it left open the possibility that the market could be more narrowly defined and that differences in market features across segments within the widely defined market would need to be taken into account in the competitive analysis.

The OFT recognised that the drivers of demand (such as price sensitivity, value of time and convenience) would differ between business and leisure passengers or between outbound and inbound passengers. However it did not seek to assess the case for defining these segments as being part of separate markets.

Competition Commission (2009)

The Competition Commission (CC), in its market investigation of the BAA airports, appeared to disagree with the OFT's view that a single product market for airport services constituted the

relevant product market. It separated commercial services from aeronautical services. Both airport charges and other aeronautical services (including ground-handling, check-in desks etc.) were included in the aeronautical services product market, on the basis that the pricing of secondary products would affect airlines' demand for use of the airport.

The CC reviewed the various ways in which users of the airport may be differentiated but did not establish separate markets in relation to these. It justified this on the basis that, for the most part, [at the time] the BAA airports did not charge different published prices to different users with the exception of domestic/international charges. It further noted that where charge differentiation reflects cost differences, it would not be discriminatory and hence would not necessarily suggest evidence of separate markets.

The CC considered that the interaction between pricing of commercial and aeronautical services was not strong enough to suggest a single product market.

EC Merger clearances

A number of mergers have taken place in Europe in recent years and in each of these the European Commission has referred to the relevant market definition in reaching its Decision. For example, the acquisition of BAA plc by Ferrovial (and other financial partners) in 2006 was notified in accordance with the turnover thresholds specified in Article 2 (1) of the EC Merger Regulation. The merger was cleared by the Commission on the basis of a review of the potential competitive effects that may have arisen as a result.

The approach adopted by the Commission in this case was similar to that adopted in previous airport merger cases. The product market was divided into the following segments:

- Airport infrastructure services to airlines;
- Groundhandling services (including baggage handling, fuel, etc), whether provided by the airport operators or contracted out; and
- Commercial services.

In each of these cases, the Commission recognised that the airport infrastructure market could be further divided by types of airlines, though it did not consider it needed to address this given the absence of concentration in the relevant markets arising from the mergers in question.

In relation to the geographic market definition, the Commission referred to a number of factors which might affect substitutability between airports, including catchment area, (itself affected by population size, density and wealth, as well as size and type of businesses in the area). These factors would influence the airlines' decision to use the airport (including as a hub).

In any event, the Commission left open whether the geographic market is limited to a certain airport in London or encompasses a wider area comprising some or all of the London airports, as

no competition concerns arose in relation to the acquisition of BAA under either alternative geographic market definition.

NMa Market Investigation of Amsterdam Airport Schiphol

In 2010 the NMa carried out an investigation at the request of the Dutch Ministry of Transport, Public Works and Water Management as to whether Schiphol Airport enjoys a dominant position in one or more markets for aviation activities or for activities closely related to aviation activities. The study was designed to inform whether risks of abuse of a dominant position arose which would justify the continuation of sector-specific regulation of the relevant markets, as opposed to reliance on general competition law. The NMa did not investigate the non-aviation activities carried out by Schiphol Airport (including real estate and commercial activities) since it determined that the market characteristics of these markets gave no reason to believe that Schiphol Airport enjoys a dominant position, and in any event competition law would be very likely to be sufficient even if Schiphol did have market power in the supply of these activities.

A market power assessment was carried out by German Airport Performance (GAP) on behalf of NMa. The study first sought to define relevant markets for the aviation and aviation-related activities[13], before assessing whether Schiphol held a dominant position in these markets.

The study highlighted that the market for airport infrastructure services is derived from the demand for air travel services. While the focus of the study was the market for upstream (airport infrastructure) services, it noted that this needs to take into account how the downstream market for transportation services operates. At the upstream level, the airport provides infrastructure to several types of flights including passenger, cargo, general and instruction flights. The study noted that passenger flights could be subdivided according to different characteristics of transportation services, such as short vs long-haul; O/D vs transfer; or flights by low cost, charter or full service carriers.

The study considered that airline switching costs may be high due to sunk costs, which it considered would apply to airlines with a base (or their alliance partners) or even those network carriers using routes to Schiphol to build up networks and to feed traffic into their own hubs.

The extent to which separate charges for services are levied by Schiphol Airport was deemed to be an indication that the services are in separate markets. Secondary products usually consumed as part of a wider bundle were noted as typically falling within a common market with the primary products. The main focus of the study was on demand-side substitutes at the airport services level, with evidence on the extent to which downstream market segments may be separately defined also taken into account.

The GAP study identified four markets for airport infrastructure services as follows:

- the provision of infrastructure to airlines serving O/D passengers;

- the provision of infrastructure to airlines serving transfer passengers;
- the provision of infrastructure to airlines offering cargo services; and
- the provision of infrastructure for local and instruction flights.

Though the study emphasised that geographic markets should not be defined too rigidly (as this might mislead the assessment of market power), it did highlight the catchment areas assumed by the European Commission. For O/D passengers, this is around 100km or 1 hour's drive for short haul flights, or up to 300km for international long-haul flights. On this basis, the geographic market for provision of infrastructure to airlines serving O/D would include various airports within the Netherlands, Belgium and Germany. The catchment area for alternative hub airports for transfer passengers is up to 2 hours flying time, which therefore would include the main hub airports in Northern Europe.

In conclusion, the GAP study identifies a number of separate markets, based largely on a qualitative assessment of how the airport charges its customers, the switching costs facing airlines, and the distinction between different types of flights.