

# Consultation on Heathrow market power assessment

**CAP 1051**





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**Consultation on Heathrow market power  
assessment**

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# EXECUTIVE SUMMARY

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# Executive Summary

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## Purpose of this document

1. This document summarises the CAA's provisional analysis of whether the market power test (MPT) is met in relation to Heathrow airport (Heathrow). Under the "deeming provision" in the Civil Aviation Act 2012 (the Act) the test is currently treated as being met in relation to the areas of Heathrow, for which Heathrow Airport Limited (HAL) has overall responsibility. The full consultation document that accompanies this summary will be published by the end of May 2013.
2. The CAA is minded to find, consistent with its section 1 duties in the Act, that the MPT is met, at least, in relation to the core area of Heathrow.
3. This document sets out the CAA's reasons for this provisional view. The CAA wishes to consider representations and reach a final decision later in 2013. The CAA especially welcomes views on how the CAA should weigh evidence that has so far been provided.
4. The CAA requests views on the full consultation document by no later than 26 July 2013.

## Potential implications for the regulation of Heathrow

5. The practical consequence of the MPT being met is that HAL, the main operator of Heathrow, would be unable to charge for most services from April 2014, unless it has a licence granted by the CAA.<sup>1</sup> The Act sets out the primary duty of the CAA as being to further users' (which is to say, passengers' and cargo owners') interests in the provision of airport operation services; and, where appropriate, to do this by promoting competition.<sup>2</sup> It also sets out the provisions for the grant of a licence and what a licence may contain.<sup>3</sup> A licence may include such conditions as the CAA considers necessary or expedient in relation to risks of abuse of market power. This may include price control conditions. Any regulatory intervention must be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed.<sup>4</sup>

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<sup>1</sup> Section 3 of the Act

<sup>2</sup> Sections 1(1) and (2) of the Act

<sup>3</sup> Chapter 1 of the Act

<sup>4</sup> Sections 1(3)(g) and (4) of the Act.

6. The CAA has consulted in general terms about options for the form of future regulation for HAL. Specific proposals for the regulation of HAL have been published on 30 April 2013.

### The Market Power Test

7. The CAA has applied the MPT to the relevant airport operator (HAL). The MPT has three parts:
  1. Test A is that HAL has, or is likely to acquire, substantial market power (SMP). This must be in a market for, or including, one or more types of airport operation services provided in the airport area and that market must include geographically all or part of the airport area.
  2. Test B is that competition law does not provide sufficient protection against the risk that HAL may engage in conduct that amounts to an abuse of that SMP. Such conduct may, in particular, include behaviour defined under UK competition law as abuse of a dominant position.
  3. Test C is that, for users of air transport services, the benefits of regulating HAL by means of a licence are likely to outweigh the adverse effects.
8. The CAA's assessment has focused broadly on the current position and the Q6 period, 2014 to 2019, although some of the trends reviewed seem likely to extend beyond that period.

### Test A

#### Market definition

9. The CAA has adopted the standard approach used by regulators and competition authorities in assessing HAL's market power and has sought, as a starting point for its analysis, to define the relevant markets in which HAL operates. This provides the framework for analysing competitive constraints, whether they come from within or outside the market.
10. Combining the product and geographic dimensions of market definition, the CAA is minded to take the view that HAL currently operates in the market for airport operation services for full service carriers (FSCs) and



associated feeder traffic that is limited to Heathrow. This market is referred to as the Heathrow FSC and feeder market.

11. This market was identified on the basis of the infrastructural demands of FSC and associated feeder traffic, as well as evidence on the substitutability of other airports for Heathrow. The market definition was informed by the views of airlines and airport operators, evidence on airline switching behaviour and the analysis of passenger preferences and behaviour.
12. The methodology for analysing the substitutability of airports usually assumes that airport charges are at the competitive level. The CAA recognises that HAL's airport charges may be below those that would be considered as a market clearing price. This situation has arisen, in part, because current government policy restricts the development of runway capacity at Heathrow, Gatwick and Stansted. However, the CAA considers that the current, regulated price is above the long-run price that would be achieved in the absence of capacity constraints. This position is supported by evidence that HAL's current charges are significantly above those of comparator airports. The CAA considers that its SMP analysis for HAL is robust and would not be overturned if airport charges were different.

#### *The product market*

13. The CAA considers that airlines using Heathrow purchase a bundle of services<sup>5</sup> taking into account the total charge of this bundle rather than focusing on any one individual charge in their purchasing decision. Given the prevalence of the FSC business model at Heathrow the CAA considers that the focal bundle includes, in particular, the provision of infrastructure and facilities for services to premium passengers and the provision of the infrastructure and facilities to allow for the integrated transfer of passengers and associated baggage.
14. The CAA has considered whether the product should be differentiated by: based and inbound airlines; route destination; and cargo operations. In its Initial Views for Heathrow<sup>6</sup> the CAA stated that it did not consider it was appropriate to segregate the market on the basis of based and

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<sup>5</sup> These activities include facilitating the use of runway and taxi-ways, aerodrome ATC, aircraft parking, ramp handling services, fuel and oil handling, and aircraft maintenance, as well as the minimum activities required for the processing of passengers at the airport, the provision of a terminal and the facilities for check-in, baggage handling, security screening and the transit of passengers to and from the aircraft, facilities required for premium passengers and for the integrated airside transfer of passengers and baggage between flights.

<sup>6</sup> [Heathrow Market Power Assessment Initial Views, CAA, February 2012](#)

inbound airlines and route destination of passengers. The CAA remains of this view. With regards to cargo operations, 99 per cent of cargo by weight at Heathrow is bellyhold cargo carried by FSCs and associated feeder traffic. The CAA considers that cargo infrastructural services are part of the bundle of services that FSCs and feeder traffic demand and there is no need to define a separate market for cargo at Heathrow.

### *The geographical market*

#### *Airlines*

15. In the Heathrow FSC and associated feeder market, airlines require a number of key inputs to ensure the efficient and profitable running of their networks, including sufficient demand from premium passengers, the provision of feeder traffic mainly from short-haul networks and the provision of bellyhold cargo. Apart from Heathrow, the only other London airports where FSC airlines can currently access the facilities and infrastructure they require for connecting traffic are Gatwick and Stansted.
16. Gatwick has been, or is, used for some services by airlines that are present at Heathrow. However, evidence from these airlines suggests that they consider these airports as serving different markets. The evidence suggests that Heathrow is key to the airlines' networks as:
  1. almost all Heathrow's passengers are carried by FSCs, compared to 35 per cent at Gatwick;
  2. of the FSCs present at each airport, approximately 75 per cent are members of an airline alliance at Heathrow compared to 55 per cent at Gatwick;
  3. approximately 34 per cent of Heathrow's passengers connect at the airport compared with 8 per cent at Gatwick;
  4. Heathrow benefits from strong demand from business/premium passengers (approximately 5 per cent of Heathrow passengers are carried in First and Business class compared with 1 per cent at Gatwick). Gatwick is an airport that is more usually associated with leisure travel by airlines; and
  5. average airline fares and average yields are higher at Heathrow than at Gatwick.
17. The factors that the airlines cited as key to their business model at Heathrow suggest that it would not be constrained by Gatwick or other London airports. The evidence presented to the CAA shows significant

differentiation such that it points to Heathrow being a market in itself. If HAL's airport charges were to increase by a small but non-transitory amount of 10 per cent few, if any, airlines would switch capacity to Gatwick or other UK airports.

18. Although Stansted has the required facilities for the FSC and feeder market and spare capacity, it does not operate with them at present, though potentially this could change over time depending on the business strategy adopted by Stansted's new owners. Currently, Stansted lacks a suitable feed of connecting traffic and it is difficult to see this changing appreciably over the short to medium term. FSC airlines stated that Stansted was not a substitute for Heathrow and the CAA has not included it in the relevant market.

#### *Passengers*

19. The CAA considers that the majority of Heathrow's passengers, including connecting passengers, are unlikely to be sensitive to a small but significant increase in HAL's charges because airport charges form a small proportion of the cost of their ticket price.
20. The CAA notes that airlines may not pass on an increase in HAL's charges or may only do so after some time. Passenger switching will only occur to the extent that any increase in HAL's charges are passed on by the airlines.
21. The evidence from HAL shows that it considers that Origin & Destination (O&D) and transfer passengers represent different markets for the purposes of airport operation services, highlighting the currently differentiated charging.
22. The CAA considered whether switching by either O&D or transfer passengers might suggest that other airports should be included in the same geographical market as Heathrow. Surface passengers at Heathrow are drawn from a wide catchment. Heathrow's catchment overlaps with other London airports suggesting that some passengers could switch to other London airports if Heathrow were to increase its prices. Only 6 per cent of passengers at Heathrow come from districts not served by Luton, Stansted or Gatwick airports.
23. If passengers who wish to travel to a specific destination want to use a different airport, the destination must be available at an alternative airport. The great majority of short-haul destinations available at Heathrow were also available at one other London airport. However,

looking at long-haul city pairs, only 17 per cent of cities served from Heathrow were served by other London airports.<sup>7</sup>

24. Many passengers exhibit a strong preference for Heathrow over other London airports. For short-haul flights; 67 per cent of passengers flying from Heathrow expressed a first preference for flying from that airport<sup>8</sup>. Connecting passengers expressed a strong (62 per cent) first preference for connecting at Heathrow.
25. Connecting passengers could reach their final destination by connecting via an alternative hub airport. However, the evidence available to the CAA is not sufficient for the CAA to consider widening the market. The CAA considers that there are a number of factors that would make passengers less sensitive to hub airport pricing.

The hub airport's charges are likely to be a low proportion of the total fare.

Passengers may have a preference for particular airlines. Further, airline alliance frequent flyer programmes, are likely to influence the hub a passenger will use, as alliances tend to be linked to specific hub airports.

To some extent airlines specialise in serving specific markets, often driven by history. Passengers flying to certain destinations may therefore opt for the airline offering the greatest frequency in service. Similarly the time preference of passengers may override cost and therefore lead them to choose the shortest flying times.

26. The CAA has been unable to find significant evidence to lead it to define a hub-based market that is wider than Heathrow. In recent years, HAL's charges have increased substantially relative to alternative European hubs, which indicates that they have not provided an effective constraint.

*Provisional conclusion on the relevant geographical market*

27. The CAA's provisional conclusion is that passenger switching in response to a small but significant, non-transitory increase in price would be insufficient to justify a market that is wider than Heathrow.

*Framework for analysing competitive constraints*

28. In the Heathrow FSC and feeder market, the CAA has sought to identify how much of the capacity at the airport is marginal in the sense that it would be likely to switch away if HAL's airport charges were to increase

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<sup>7</sup> Table 14 "Initial Views", CAA February 2012

<sup>8</sup> Source: CAA Passenger Survey Working paper November 2011.

by a small but significant and non-transitory amount of 10 per cent. This analysis considered:

1. the means available to an airline to switch away capacity, and how reasonable and effective different strategies would be in constraining HAL's pricing. For example, airlines might allocate future growth to other airports; reduce the frequency of their service(s); ground marginal aircraft; or switch away their marginal based aircraft;
2. the types and size of switching costs airlines might incur. These costs range from the costs of relocating aircraft, crew and facilities to costs from lost revenue if an airline has to switch away from a preferred market. The integration of services within a carrier's network and the benefits derived from the presence of alliance partners were also considered in relation to airline switching;
3. the constraints to airline switching imposed by the availability of spare capacity at competing airports; and
4. whether airlines could exercise buyer power to counteract any SMP that HAL might have.

#### **Current competitive constraints on HAL: Heathrow FSC and feeder market**

29. The CAA notes that HAL's charges are a low proportion of FSCs' operating costs. Many airlines indicated that they would absorb an increase in airport charges in the first instance and seek to pass it on to passengers in the longer term. Reducing the frequency of services was considered to be the most feasible means by which both based and inbound airlines could seek to reduce their use of Heathrow in response to an increase in airport charges.
30. BA and Virgin are the main based FSC carriers at Heathrow. Both also have bases at Gatwick. However, carriers operating at Heathrow have consistently maintained that Heathrow is their preferred option when operating from London. This is supported by evidence that there are very few instances of switching services from Heathrow to Gatwick.
31. Both based and inbound airlines at Heathrow tend to operate hub-and-spoke services, either using the airport as their hub or operating spoke services to their domestic hub at another airport. The resulting network of airlines, serving different destinations from Heathrow, means that there are significant network effects at this airport. The principal factors

- creating these network benefits are the demand from connecting passenger and, related to this, the presence of strategic partner airlines.
32. When an airline has strategic partners at an airport, for example as part of an airline alliance or with airlines with which it has a code sharing, interlining or similar type of agreement, removing routes or reducing the frequency of services may reduce an airline's profits by the loss of revenue:
1. from operating the route itself;
  2. from the contribution of the route to the network; and
  3. from the profits of its partner airlines, as it may share in some of their revenue under a code sharing or interlining agreement.
33. As Heathrow is the only hub airport in the UK, losing network benefits could constitute a significant switching cost if an airline were to switch away from the airport. For the above reasons, the CAA considers that airlines with a significant proportion of connecting passengers or a reliance on partner airlines are unlikely to switch in response to an increase in HAL's charges.
34. An additional benefit of operating from Heathrow is the availability of significant air cargo demand. This means that airlines can increase their revenue by carrying it in the bellyhold of passenger aircraft. Since there would not be the same quantity of air cargo feed at another London or UK airport, the potential loss of cargo revenue can constitute an additional switching cost.
35. Another cost of switching away from Heathrow is the loss of the valuable contribution that serving the airport makes to airlines' viability and commercial strategy. Overall, the CAA considers that operating to London is strategically important to the operation of both based and inbound carriers. This is due to a number of factors, including the network benefits, strong passenger demand from a large and relatively wealthy catchment in London, and strong demand from inbound passengers to travel to London either to connect or to terminate their journey.
36. The CAA found no evidence in the commercial arrangements between HAL and the airlines to indicate that FSCs were able to exercise buyer power. Although BA accounts for a high proportion of HAL's business it appeared to lack credible alternative airports to which to switch.
37. From the above the CAA considers that the majority of airlines would be unlikely to switch away from Heathrow in response to an increase in

airport charges. Inbound airlines with less than 10 per cent of connecting passengers are considered by the CAA as the most likely to be marginal, especially if they also are not part of an alliance. The CAA estimates that the number of passengers carried by marginal airlines is unlikely to be sufficient to make a price increase unprofitable for HAL as, even if they were all to switch in response to such a price increase, it would be insufficient to constrain HAL's pricing.

### **Indicators of market power**

38. In addition to competitive constraints, the CAA considered a number of indicators that it considers to be relevant to its assessment of HAL's market power. The CAA recognises that relatively more weight can be given to some indicators compared to others.
39. The CAA's provisional view is that HAL is the only operator in the relevant market suggesting that it has SMP. In the market for airport operation services the CAA considers that there are a number of reasons why market share data may not be a reliable indicator of market power. These include:
  1. the importance of geographical location for airport competition means that there is a continuum of substitution possibilities depending on distance and other airport characteristic; and
  2. any market definition beyond a single airport is, to an extent, arbitrary and assessment of market shares is unlikely to be a useful tool in itself for measuring airport market power.
40. With respect to HAL's financial performance, the CAA notes that Heathrow is a regulated airport. As such, the CAA considers that its financial performance is unlikely to provide particularly strong evidence about the airport operator's market power.
41. Similarly, on service quality, the CAA notes that Heathrow is a regulated airport that is subject to a service quality scheme. Therefore, quality outcomes are unlikely to provide particularly strong evidence about HAL's market power. That said, the CAA notes that HAL's performance appears to be at or slightly above the target levels for the measure of service quality. The relatively high levels of service quality experienced at the airport may also, in part, reflect the efficiency of the capital expenditure (capex) and operating expenditure (opex) incurred at the airport.
42. The CAA notes that independent studies have identified several areas where inefficiency at the airport is present. This might indicate market

power, as an airport operator with SMP is likely to face insufficient competitive pressures to drive up operating efficiency.

43. HAL's negotiations with the airlines indicate whether they are able to secure advantageous terms and conditions. This may suggest whether or not the airlines consider that they have alternatives to Heathrow. The CAA considers that the evidence suggests that HAL appears to select which airline it wishes to operate at the airport in line with its commercial strategy. The scope for negotiation appears to be relatively limited, with new and existing airlines rarely able to achieve terms that are different from those set out in the Conditions of Use (with prices usually at the price cap).
44. While the individual indicators may each suggest slightly different conclusions, when considered as a whole, the CAA considers that they suggest HAL has SMP.

#### **The CAA's 'minded to' assessment for the Heathrow FSC and feeder market**

45. The most likely source of any SMP that HAL has would appear to stem from its position as the operator of the UK's only hub airport and the combined package that it offers of strong demand, including premium passengers, cargo and connecting passengers. This makes it attractive for both based and inbound airlines. The CAA considers that the importance of network effects means that very few airlines would be able and willing to switch sufficient capacity to constrain an increase in HAL's charges.
46. Heathrow's good surface access options, the inherent attractiveness of the London market, and its strategic importance to airlines in general combined with constraints in the London system that act to reduce the number and size of available alternatives are also important.
47. The CAA notes that the government has currently put a hold on the expansion of the main London airports and that the Davies' Commission is not expected to bring out an interim report until the end of 2013, with a full report in summer 2015. The CAA considers that any change in government policy after the release of the Davies' Commission's final report may take some time to be implemented and that any significant capacity expansion would not be expected until 2025. Over the Q6 period, due to improving economic conditions and tightening capacity across the London airports, the CAA considers that HAL's SMP will endure over the Q6 period.



48. The CAA is minded to conclude that HAL has SMP in this market and will continue to do so over the Q6 period, but will consider carefully any further submissions that might indicate that it is constrained by competition, in particular by the credible possibility of switching by FSC and associated feeder carriers, or passengers, to other hub airports.

## Test B

49. Test B requires that the CAA is satisfied that competition law does not provide sufficient protection against the risk of abuse of SMP. Further, as with all of the CAA's regulatory functions, the assessment of Test B must be conducted in accordance with the CAA's "general duty" in section 1(1) of the Act. The CAA must apply Test B "in a manner which it considers will further the interests of users of air transport services regarding the range, availability, continuity, cost and quality of airport operation services". Further, in so doing, the CAA must, where appropriate, seek where appropriate to "promote competition in the provision of airport operation services".
50. Importantly, for Test B, the CAA has to assess the adequacy of competition law from the perspective of "users of air transport services", which are defined in section 69(1) of the Act as passengers carried by the air transport service or a person who has a right in property carried by the service. Accordingly, when assessing the merits of competition law, the CAA has to further the interests of passengers and cargo owners, and not the interests of commercial passenger or cargo airlines or other intermediary service providers, such as groundhandling providers, car parking or retail concessionaires.
51. Under competition law, a dominant company has a special responsibility not to allow its conduct to impair or distort competition in the relevant market. It is not the position of dominance or SMP itself that is prohibited but rather the undertaking using that position to prevent or distort the effective competition in the market.
52. However, it is the CAA's view that there are clear and distinct aims for *ex-ante* regulation and *ex-post* competition law. The former is to foster the development of competition correcting for known impediments to the competitive process. The latter is to protect the current state of competition (as a minimum) within the market.
53. The CAA considers that there is adequate competition case law, on which it would be able to rely in order to tackle vertical abuses where an

airport operator has an interest in a downstream market or horizontal abuses where the airport operator is seeking to foreclose the market for a competing airport operator.

54. It is the CAA's view, however, that for vertical abuses of an exploitative nature, where the airport operator does not have an interest in the downstream market, the CAA has insufficient comfort that it would be able to successfully discipline behaviour through the use of competition law. Such abuses might include excessive pricing and service quality based abuses.

### **Potential detriment from relying on competition law**

55. The CAA considers that the consumer detriment for users from HAL's market power is likely to have effects in a number of areas.
56. Excessive prices are likely to have a direct impact on passengers' ability to travel where these are passed straight through in the fare paid. Although individually the amounts involved are likely to be limited over the passenger group as a whole these are likely to lead to significant sums.
57. Where the prices are not directly passed through, this will have a direct impact on the profitability of the airline sector. This is in turn likely to have an effect on the incentive and ability of airlines to invest and innovate, for example, in new routes and also affect the viability of existing routes offered. This is likely to affect air transport users, ultimately by reducing their choice in airlines and direct destinations available from the airport.
58. Likewise, it is expected that HAL's ability to charge excessive prices may lead it to have less incentive to deliver the level of service that air transport users demand from the airport.
59. Given the nature of the detriment that could affect users of air transport services and the difficulties in pursuing potential exploitative vertical abuses, in light of the case law, the CAA is minded to consider that, in the case of HAL, competition law is likely to be insufficient to curtail abusive behaviour.

### **Test C**

60. Given the level of market power identified in Test A it is unlikely that HAL would face significant competitive pressure following deregulation. Although the Airport Charges Regulations (ACR) and Airport Groundhandling Regulations provide some measure of protection to

users, it is the CAA's consideration that neither of these regulations is adequate to tackle the level of market power present.

61. The CAA notes on the indirect costs of regulation that:

- evidence on opex efficiency at Heathrow shows that areas of HAL's operation are inefficient. Opex is higher on a per passenger basis at Heathrow than most benchmark airports;
- on service quality, research indicates that passengers are broadly content with the current level of performance at the airport and that there have been some improvements over Q5. However the improvements that have been observed in some areas appear to have been at the expense of others;
- the history of regulation at Heathrow shows that it clearly has sufficient incentive under the regulation to invest; and
- Heathrow has performed poorly during periods of disruption.

62. The CAA considers that there would be limited incentive on HAL to improve its efficiency or improve its service quality in the failing areas if it were deregulated. The CAA is less certain as to what the impact on investment would be. The CAA considers that, absent regulation, HAL would be likely to have an incentive to develop additional runway capacity should the opportunity become available. There is some uncertainty over whether it would face sufficient incentive to invest or innovate in other areas of airport infrastructure. Given the structure of the legislation, a licence would allow the CAA to regulate to improve HAL's performance during disruption.

63. The evidence that the CAA has been able to obtain on the direct cost of regulation suggests that these are around £12m a year. These include the costs associated with the CAA of £2m a year, £8m net costs for the airport operator and £2m for the engagement of airlines within the regulatory process. The CAA's initial proposals for the price cap are £4.21 per passenger lower than those in HAL's business plan. This equates to a saving for air transport users of an estimated £295m per year for services from Heathrow.

64. It is the CAA's consideration that the benefits of licence regulation outweigh the costs to air transport users.

**CAA**  
**April 2013**

# FIRST PART: TEST A

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## CHAPTER 1

# Introduction

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### Purpose of this document

- 1.1 This document sets out the CAA's 'minded to' views on whether Heathrow Airport Limited (HAL) has, or is likely to acquire, substantial market power (test A).<sup>9</sup> It also sets out the CAA's 'minded to' views on:
- test B – whether competition law provides sufficient protection against the risk of abuse of substantial market power (SMP); and
  - test C – which requires the CAA to be satisfied with the benefits of licence regulation against its potential adverse effects.
- 1.2 This is the non-confidential version of this document and excisions from the text are marked with [X].
- 1.3 The CAA notes that the Civil Aviation Act 2012 (the Act) commenced on 1 April 2013 and that this 'minded to' consultation is consistent with the CAA's new primary duty to further passengers' and cargo owners' interests in the provision of airport operation services, where appropriate, by promoting competition and the market power test under the Act.
- 1.4 The CAA is seeking stakeholders' views on the information and conclusions presented in this 'minded to' document. Those wishing to respond to this consultation should do so in writing, by no later than **5 pm on 26 July 2013**. Responses should be emailed to: [economicregulation@caa.co.uk](mailto:economicregulation@caa.co.uk).

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<sup>9</sup> The Civil Aviation Act 2012 (the Act) only permits economic regulation of an airport operator and the granting of a licence by the CAA if three tests set out in section 6 (market power test) are met. The tests are: (1) test A, which requires the CAA to establish whether "the relevant operator has, or is likely to acquire, substantial market power in a market either alone or taken with such other persons as the CAA considers appropriate"; (2) test B is that competition law does not provide sufficient protection against the risk of abuse of substantial market power; and (3) test C requires the CAA to be satisfied with the benefits of licence regulation against its potential adverse effects.

- 1.5 The CAA intends to publish responses to this consultation on its website shortly after the close of the consultation period. If there are parts of your response that you consider commercially confidential, please mark them clearly as such. Please note that the CAA has powers and duties with respect to information disclosure that can be found in section 59 and Schedule 6 of the Act and in the Freedom of Information Act 2000.

### Background and structure of this document

- 1.6 In 2011, the CAA commenced a project to understand the extent and nature of market power held by the operators of the airports that are currently 'designated' under the Airports Act 1986 (AA86) and that are subject to price regulation, i.e. Heathrow, Gatwick and Stansted.
- 1.7 In February 2012, the CAA published "Heathrow – Market Power Assessment: the CAA's Initial Views" (the Initial Views). In the Initial Views, the CAA indicated that HAL enjoyed a particularly strong market position as a hub airport with airline network operations and a strong position for long-haul services and passengers.
- 1.8 Since the publication of the Initial Views, the CAA has strengthened its evidence base by undertaking additional analysis on the existing evidence as well as considering new material, including material submitted in response to the Initial Views and material obtained from further stakeholder engagement.
- 1.9 In particular, since the publication of the Initial Views the CAA's thinking has evolved with respect to defining the market(s) that HAL operates in (see chapter 4) – a key step in any competition assessment – and competitive constraints (see chapter 5). The CAA has also further developed its thinking on price and the other indicators of market power (see chapter 6).
- 1.10 This document is structured so that material and analysis associated with test A is initially examined. An examination of tests B and C then follow. An overall conclusion is then presented. In particular:
- Chapter 2 describes HAL's business and operations;
  - Chapter 3 describes the analytical framework for market definition;

- Chapter 4 considers the definition of the relevant market and includes a discussion of the competitive price for aeronautical services at Heathrow;
- Chapter 5 assesses competitive constraints for Full Service Carriers (FSCs) and associated feeder traffic, including airport users' ability to discipline the airport operator through switching or the threat of switching, buyer power and potential entry and expansion;
- Chapter 6 investigates indicators of market power, including pricing, profitability, efficiency and service quality;
- Chapter 7 outlines the CAA's 'minded to' view on test A for HAL;
- Chapter 8 considers test B;
- Chapter 9 considers test C; and
- Chapter 10 outlines the CAA's 'minded to' view on the market power test and the market power determination.

### CAA's approach to consultation and evidence gathering

1.11 In coming to its 'minded to' view, the CAA has undertaken extensive evidence gathering, including through stakeholder engagement. Stakeholders that the CAA has engaged with include HAL, unregulated airport operators and airlines operating at Heathrow. This engagement has taken a variety of forms, including:

- one-to-one meetings with HAL and its airlines to discuss relevant evidence;
- stakeholder feedback and discussion on work in progress;
- a CAA Board Heathrow stakeholder engagement day (16 January 2013);
- the submission of evidence by stakeholders (including reports commissioned from economic consultancies);
- questionnaires issued by the CAA to both airport operators and airlines and gathered documentary evidence from both; and
- consultants' studies commissioned by the CAA.

1.12 The CAA also notes that in 2011 it published a number of working

papers (all of which are available on its website), including:

- empirical methods relating to geographical market definition and updates focusing on competitive constraints between neighbouring airports;
- empirical methods for assessing behaviour, performance and profitability of airports;
- general market context;
- catchment area analysis; and
- passengers' airport preferences.

### Contact details

- 1.13 If you would like to discuss the contents of this paper, or the CAA's work on assessing airport competition more generally, please contact the CAA on 0207 379 7311.

### Next steps

- 1.14 The CAA intends to publish its formal decision under the Act on the market power determination for HAL before the end of 2013.



## CHAPTER 2

# The business of Heathrow Airport Limited

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## Background

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2.1 This chapter provides an overview of the current ownership and history of Heathrow and the business of Heathrow Airport Limited (HAL). In particular, it looks at the services the airport provides to different users as well as the different sources of revenue for the airport.

### The ownership of Heathrow

2.2 Heathrow is currently owned by Heathrow Airport Holdings Limited (previously BAA). Heathrow Airport Holdings Limited is in turn owned by FGP Topco Limited, a consortium owned and led by the infrastructure specialist Ferrovial S.A. (33.6 per cent), Qatar Holding LLC (20 per cent), Caisse de dépôt et placement du Québec (13.3 per cent), the Government of Singapore Investment Corporation (11.9 per cent), Alinda Capital Partners (11.2 per cent) and China Investment Corporation (10 per cent).<sup>10</sup>

### The development of Heathrow

2.3 Heathrow has two parallel east-west runways and is located around 14 miles west of London.<sup>11</sup> It sits on a site that covers 1,227 hectares.<sup>12</sup>

2.4 Heathrow began life in 1930 as a private airport to assemble and test aircraft. It was comprised of a single grass runway and a handful of hastily erected buildings.<sup>13</sup>

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<sup>10</sup> HAL, Company Information, <http://www.heathrowairport.com/about-us/company-news-and-information/company-information>, (accessed 17 May 2013)

<sup>11</sup> Liaison Group of UK Airport consultative committees, <http://www.ukaccs.info/profiles.htm#LHR> (accessed 20 December 2012)

<sup>12</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures>, (accessed 21 December 2012)

<sup>13</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures/heathrow's-history> (accessed 20 December 2012)

- 2.5 In 1944, as part of the World War Two war effort, the aerodrome and adjacent land was requisitioned by the Air Ministry for development into a Royal Air Force (RAF) transport base.<sup>14</sup> An RAF-type control tower was constructed and a 'Star of David' pattern of runways laid, the longest being 3,000 yards long and 100 yards wide.<sup>15</sup>
- 2.6 However, before the planned work was completed, World War Two ended and the aerodrome was no longer required by the RAF. The airport was consequently handed over to the Air Ministry as London's new civil airport on 1 January 1946 and was known as 'London airport'.<sup>16</sup>
- 2.7 By 1947, three runways at the airport had been completed and work on the other three runways – subsequently abandoned – was occurring.<sup>17</sup>
- 2.8 In the 1950s, a new permanent building was built at the airport to replace the existing (ex-military marquees) passenger terminals.<sup>18</sup> The building's plan included the creation of a central area which was to be accessed via a 'vehicular subway' running underneath the original main runway.<sup>19</sup>
- 2.9 Various other developments were undertaken at the airport over subsequent years:
- By 1961, the old terminal on the north side of the airport had closed and airlines operated either from the Europa terminal (later renamed Terminal 2) or the Oceanic terminal (now Terminal 3).<sup>20</sup>

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<sup>14</sup> Heathrow airport guide, <http://www.heathrow-airport-guide.co.uk/history.html>, (accessed 20 December 2012)

<sup>15</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures/heathrow-s-history>, (accessed 20 December 2012)

<sup>16</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures/heathrow-s-history>, (accessed 20 December 2012)

<sup>17</sup> Heathrow airport guide, <http://www.heathrow-airport-guide.co.uk/history.html>, (accessed 20 December 2012)

<sup>18</sup> Heathrow airport guide, <http://www.heathrow-airport-guide.co.uk/history.html>, (accessed 20 December 2012)

<sup>19</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures/heathrow-s-history>, (accessed 20 December 2012)

<sup>20</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures/heathrow-s-history>, (accessed

- In 1966, the British Airports Authority (later BAA) was created and London Airport was renamed 'Heathrow'.<sup>21</sup>
- In 1969, Terminal 1 was opened<sup>22</sup> and in 1977 the London Underground link at the airport was opened.<sup>23</sup>
- In 1986, Terminal 4 was opened on the south side of the airport.<sup>24</sup>

2.10 In 2003, the Government issued 'The Future of Air Transport' (the White paper), which set out a strategic framework for the development of airport capacity in the UK over the next 30 years. Among other issues, this document examined current and future capacity requirements and found that there was a need to make the best possible use of existing runways at the major South East airports. It also recognised that new runway capacity in the South East was required and Government policy supported further development of Heathrow, including a further new runway and additional terminal capacity to be delivered as soon as possible.<sup>25</sup>

2.11 In 2007, a consultation process began for the building of a new third runway and a sixth terminal at the airport, and this was subsequently approved (January 2009) by the Government.<sup>26</sup> In the same year, the Competition Commission (CC) launched an investigation into BAA's ownership of airports within the UK.<sup>27</sup>

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20 December 2012)

<sup>21</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures/heathrow-s-history>, (accessed 20 December 2012)

<sup>22</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures/heathrow-s-history>, (accessed 20 December 2012)

<sup>23</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures/heathrow-s-history>, (accessed 20 December 2012)

<sup>24</sup> Heathrow airport guide, <http://www.heathrow-airport-guide.co.uk/history.html>, (accessed 20 December 2012)

<sup>25</sup> Department for Transport (DfT), The Future of Air Transport – White Paper, accessed at: [http://collections.europarchive.org/tna/20050301192906/http://dft.gov.uk/stellent/groups/dft\\_aviation/documents/page/dft\\_aviation\\_031504.hcsp](http://collections.europarchive.org/tna/20050301192906/http://dft.gov.uk/stellent/groups/dft_aviation/documents/page/dft_aviation_031504.hcsp) (accessed 21 December 2012)

<sup>26</sup> BBC, [http://news.bbc.co.uk/1/hi/uk\\_politics/7829676.stm](http://news.bbc.co.uk/1/hi/uk_politics/7829676.stm), (accessed 21 December 2012)

<sup>27</sup> Competition Commission (CC), [http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/inquiry/ref2007/airports/pdf/core\\_terms\\_of\\_reference.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/inquiry/ref2007/airports/pdf/core_terms_of_reference.pdf), (accessed 6 March 2013)

- 2.12 In 2008, Terminal 5 was opened<sup>28</sup> and in the following year (2009), Terminal 4 underwent a major refurbishment.<sup>29</sup>
- 2.13 In 2009, the CC concluded that BAA's common ownership of airports in south-east England and lowland Scotland gives rise to adverse effects on competition.<sup>30</sup> The CC concluded that a package of remedies that would be effective in remedying this included the divestiture of both Stansted and Gatwick to different purchasers and the divestiture of either Edinburgh or Glasgow airport.<sup>31</sup>
- 2.14 In 2010, demolition work is started on Terminal 2 to make way for its replacement.<sup>32</sup> The new Terminal 2 is expected to open to passengers in 2014.<sup>33</sup>
- 2.15 In 2010, following a change in government, the Government indicated that it would not permit further runway expansion at the designated airports until its new aviation strategy had been developed.<sup>34</sup> This meant that the development of a third runway at the airport was stopped.<sup>35</sup>
- 2.16 Heathrow has been regulated by the CAA in accordance with AA86, under which an airport with an annual turnover of at least £1 million requires a '*permission to levy airport charges*' from the CAA. Specifically, AA86 requires the CAA to impose conditions on airports designated by the Secretary of State for Transport for regulating the maximum amounts that may be levied by an airport operator by way of airport charges during a specified five-year period. On 28

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<sup>28</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures/heathrow's-history>, (accessed 20 December 2012)

<sup>29</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures/heathrow's-history>, (accessed 20 December 2012)

<sup>30</sup> CC, [http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep\\_pub/reports/2009/fulltext/545.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2009/fulltext/545.pdf), p. 4 (accessed 6 March 2013)

<sup>31</sup> CC, [http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep\\_pub/reports/2009/fulltext/545.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2009/fulltext/545.pdf), (accessed 6 March 2013)

<sup>32</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures/heathrow's-history>, (accessed 20 December 2012)

<sup>33</sup> Heathrow airport guide, <http://www.heathrow-airport-guide.co.uk/terminal-2.html>, (accessed 21 December 2012)

<sup>34</sup> DfT, <http://www.dft.gov.uk/news/speeches/villiers-20101214/>, (accessed 8 November 2012)

<sup>35</sup> BBC, <http://news.bbc.co.uk/1/hi/england/london/8678282.stm>, (accessed 21 December 2012)

November 1986, the Secretary of State for Transport granted permission to Heathrow to levy airport charges, and the airport has been subject to this form of regulation since. While the CAA sets a maximum level of charges that an airport can set, an airport can enter into bilateral agreements with airlines to agree terms, which means that the charges incurred by an airline can be lower than the cap that has been set.

- 2.17 The CAA notes that the Act replaces the framework for airport regulation under AA86.

### Heathrow's facilities

- 2.18 This section describes the scale and disposition of some of the facilities at Heathrow.

#### The runways

- 2.19 Heathrow has two parallel runways running east-west. The northern runway has a length of 3,902 metres by 50 metres wide and the southern runway has a length of 3,658 metres by 45 metres wide.<sup>36</sup>

#### The terminals

- 2.20 Heathrow has five terminals:
- Terminal 1 is home to a large number of Heathrow's domestic flights, as well as some European and long-haul destinations.<sup>37</sup> It covers an area of 74,601 square metres.<sup>38</sup>
  - Terminal 2 was Heathrow's first terminal (facility) and is currently closed while demolition and modernisation works take place. A new Terminal 2 is expected to open in 2014.<sup>39</sup>

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<sup>36</sup> Liaison Group of UK Airport Consultative Committees, <http://www.ukacccs.info/profiles.htm> (accessed 21 December 2012)

<sup>37</sup> Heathrow airport guide, <http://www.heathrow-airport-guide.co.uk/terminal-1.html>, (accessed 21 December 2012)

<sup>38</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures>, (accessed 21 December 2012)

<sup>39</sup> Heathrow airport guide, <http://www.heathrow-airport-guide.co.uk/terminal-2.html>, (accessed 21 December 2012)

- Terminal 3 mainly operates long-haul flights, although some flights are to European destinations.<sup>40</sup> It covers an area of 98,962 square metres.<sup>41</sup>
- Flights operating from Terminal 4 are mainly for long-haul and European destinations.<sup>42</sup> This terminal is connected to Terminals 1, 2 and 3 by the Heathrow Cargo Tunnel and covers an area of 105,481 square metres.<sup>43</sup>
- Terminal 5 is Heathrow Airport's newest terminal. Terminal 5 is currently used exclusively by British Airways (BA) and Iberia and is the largest free-standing building in the UK.<sup>44</sup> The main terminal building, 5 A, has an area of around 300,000 square metres while 5 B covers around 60,000 square metres.<sup>45</sup>

### Aircraft stands

2.21 The aircraft stands at Heathrow can be used flexibly for a range of different aircraft sizes. The airport has 133 aircraft stands that are served by an air bridge. It also has 70 remote stands.<sup>46</sup>

### Surface transport facilities and car parks

2.22 Key components of Heathrow's surface access infrastructure include:

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<sup>40</sup> Heathrow airport guide, <http://www.heathrow-airport-guide.co.uk/terminal-3.html>, (accessed 21 December 2012)

<sup>41</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures>, (accessed 21 December 2012)

<sup>42</sup> Heathrow airport guide, <http://www.heathrow-airport-guide.co.uk/terminal-4.html>, (accessed 21 December 2012)

<sup>43</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures>, (accessed 21 December 2012)

<sup>44</sup> Heathrow airport guide, <http://www.heathrow-airport-guide.co.uk/terminal-5.html>, (accessed 21 December 2012)

<sup>45</sup> Rogers Stirk Harbour + Partners, Heathrow Terminal 5, [http://www.richardrogers.co.uk/Asp/uploadedFiles/Image/1065\\_t5/RSHP\\_A\\_JS\\_1065\\_L\\_E\\_GB.pdf](http://www.richardrogers.co.uk/Asp/uploadedFiles/Image/1065_t5/RSHP_A_JS_1065_L_E_GB.pdf), (accessed 20 May 2013)

<sup>46</sup> HAL, <http://www.heathrowairport.com/about-us/facts-and-figures>, (accessed 21 December 2012)

- Three rail stations, Heathrow Central (Terminal 1, 2, 3), Terminal 4 and Terminal 5. The airport also has three stations on London Underground, one for Terminals 1, 2 & 3, one for Terminal 4 and one for the newly opened Terminal 5. The station for Terminals 1, 2, 3 is located between the terminals, a few minutes' walk via underground walkways. Terminal 4 and Terminal 5 stations are situated in the basements of the terminal buildings.<sup>47</sup>
- The motorway system, in particular, the M4, A4, A30 and M25 road networks which connect the airport to London and other areas.
- Car rental pick-up, drop-off, valet facilities and taxi and coach feeder parks.<sup>48</sup> There is also a central bus station located between Terminals 1, 2 and 3.<sup>49</sup>
- Car parks which provide over 22,900 spaces, including 8,500 spaces for short stay, 3,800 spaces for business parking and 10,600 spaces for long stay parking.<sup>50</sup>

### **Cargo facilities**

- 2.23 The airport has 22 on-airport warehouses, including BA World Cargo.<sup>51</sup>
- 2.24 HAL has indicated that 64 per cent of the UK's air cargo is handled at Heathrow and that, in 2011, it handled 1.5m tonnes of cargo.<sup>52</sup>

## **Heathrow's traffic and customers**

### **Traffic trends**

- 2.25 In 2012, Heathrow had 84 airlines each serving more than 10,000 passengers, and was the busiest London airport in terms of passenger numbers.<sup>53</sup>

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<sup>47</sup> Heathrow airport guide, <http://www.heathrow-airport-guide.co.uk/transport.html>, (accessed 21 December 2012)

<sup>48</sup> Source: HAL

<sup>49</sup> Heathrow airport guide, <http://www.heathrow-airport-guide.co.uk/transport.html>, (accessed 21 December 2012)

<sup>50</sup> Source: HAL

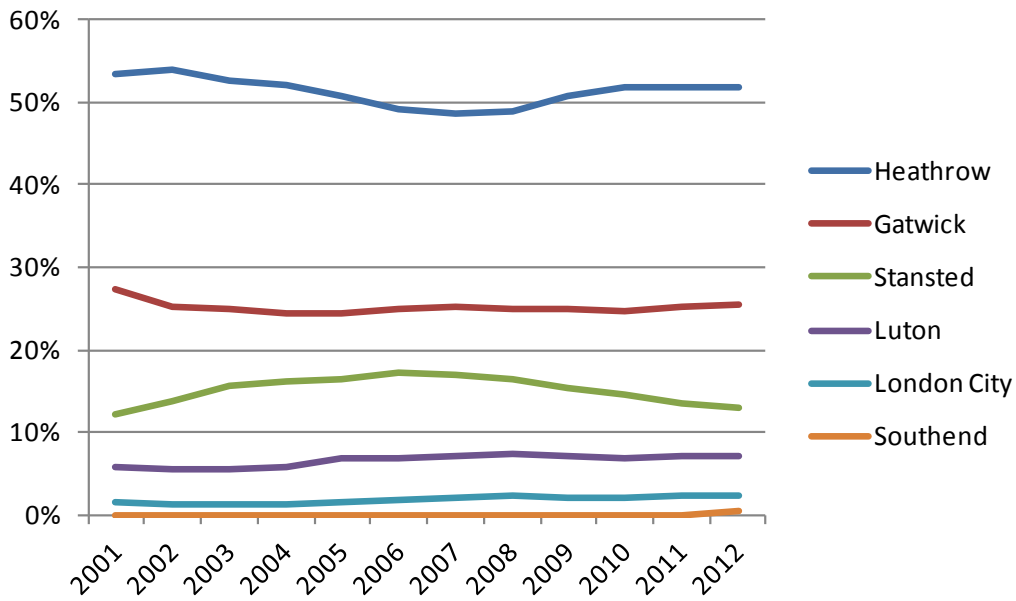
<sup>51</sup> Source: HAL

<sup>52</sup> Source: HAL

<sup>53</sup> CAA airport statistics

2.26 Figure 2.1 (below), shows that in 2012 the airport accommodated around 52 per cent of London’s passengers, compared to the 25 per cent accommodated by Gatwick and the 13 per cent accommodated by Stansted.

**Figure 2.1: London airports’ share of passengers of London airports**

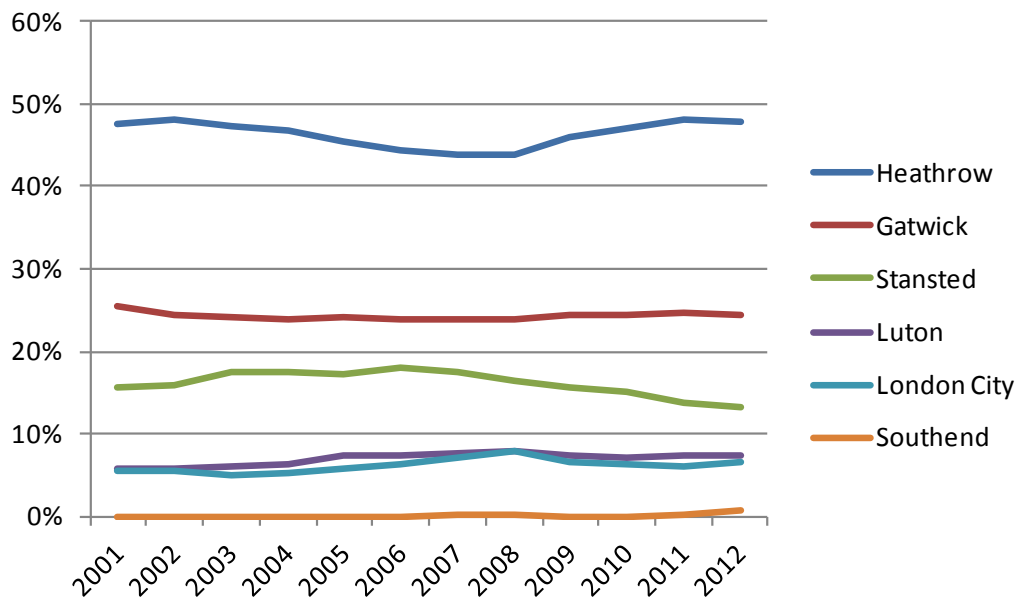


Source: CAA airport statistics.

2.27 Heathrow is also the largest London airport when measured by air transport movements (ATMs) (see Figure 2.2 below).

2.28 Figure 2.2 shows that in 2012 the airport accounted for around 48 per cent of London’s ATMs. This compares to the 24 per cent achieved by Gatwick and the 13 per cent achieved by Stansted.



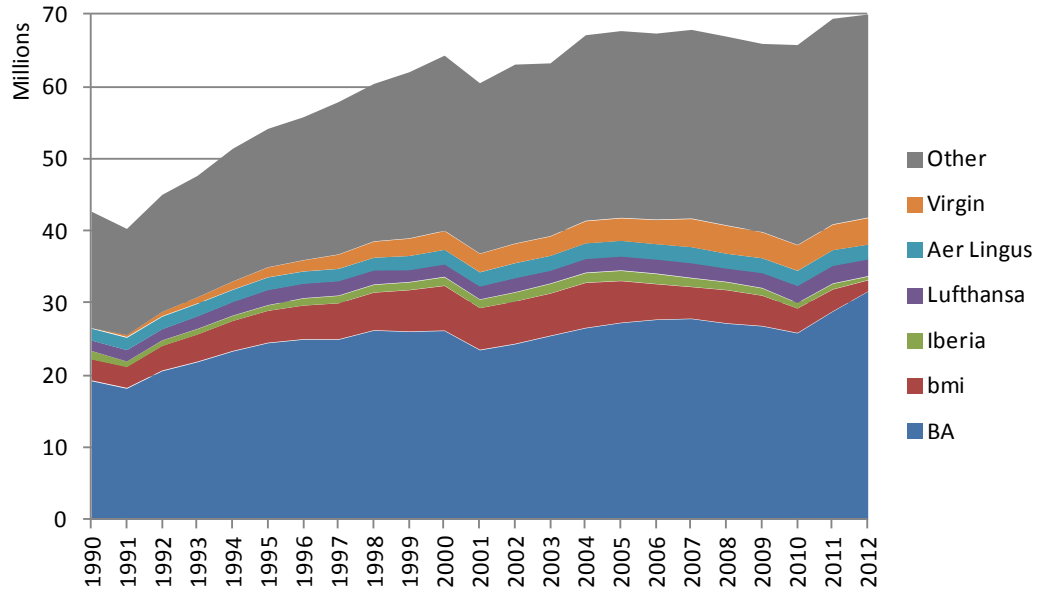
**Figure 2.2: London airports' share of ATMs**

Source: CAA airport statistics.

### Passenger airlines

2.29 In 2012, Heathrow served 70 million passengers (see Figure 2.3 below). In 2012, BA comprised 45 per cent of the airport's passenger traffic. Other airlines present at the airport in 2012 include Virgin Atlantic (Virgin), and a long list of non-UK carriers serving principally their home markets.

**Figure 2.3: Airline passenger numbers by passenger airline**



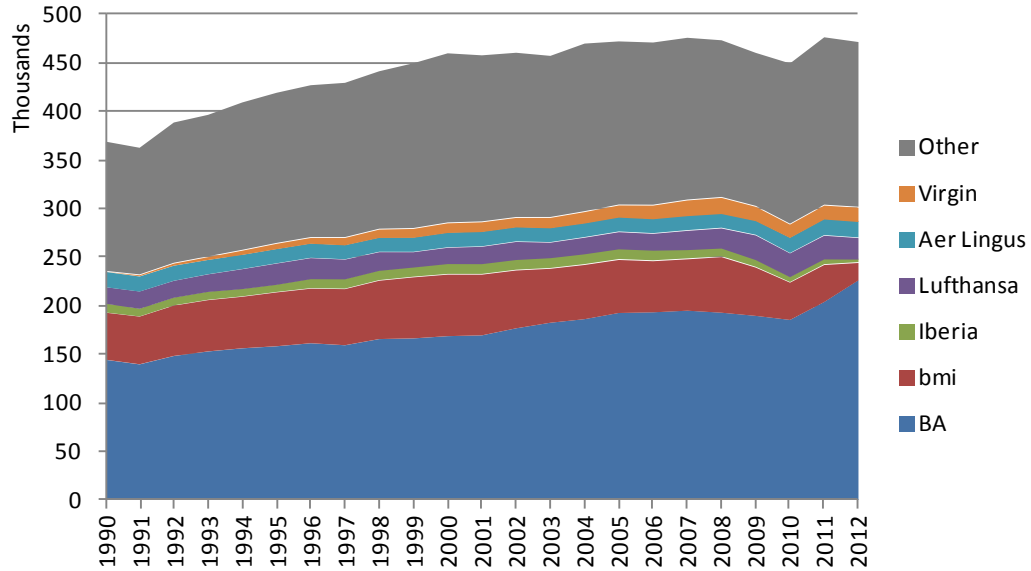
Source: CAA airport statistics.

2.30 The strong presence of BA at Heathrow is also highlighted by Figures 2.4 and 2.5 (below). In particular:

- Figure 2.4 shows that BA, bmi and Iberia together<sup>54</sup> represented the 53 per cent of ATMs at Heathrow with approximately 248 000 ATMs in 2012
- Figure 2.5 shows that BA and other Oneworld airlines represented 53 per cent of passenger traffic at Heathrow. This figure also shows that Star Alliance and SkyTeam flew 20 per cent and 7 per cent of passengers respectively.

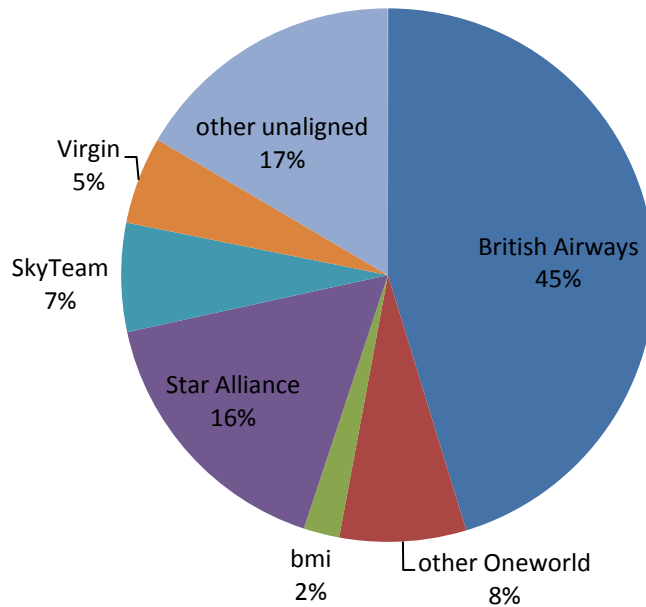
<sup>54</sup> International Airlines Group has now control over these takeoff and landing slots.

**Figure 2.4: ATMs by passenger airline**



Source: CAA airport statistics.

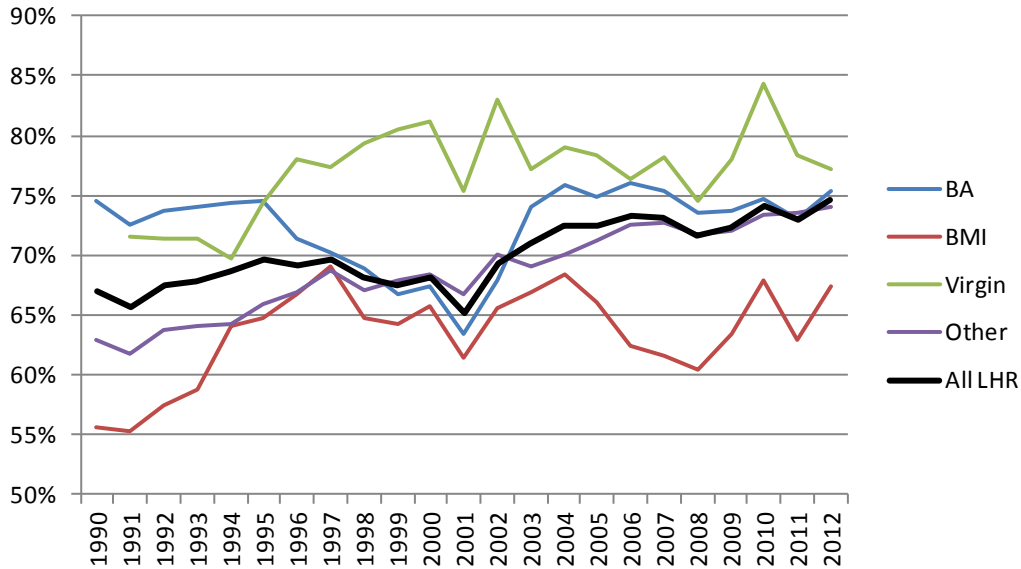
**Figure 2.5: Airline passenger numbers by passenger airline alliance, 2012**



Source: CAA airport statistics.

2.31 In 2012, the average load factor achieved by airlines at Heathrow is around 75 per cent, up from the 67 per cent seen in 1990 – see Figure 2.6 (below).

**Figure 2.6: Average load factors at Heathrow**



Source: CAA airport statistics.

2.32 The CAA notes that over the last five years, a period covering challenging macroeconomic conditions, HAL has been successful at sustaining traffic from passenger airlines relative to the performance of other airport operators' at other London airports. For example, between 2007 and 2012, Heathrow's passenger numbers increased by 3 per cent, while passenger numbers at other London airports fell by 10 per cent.

**Cargo airlines**

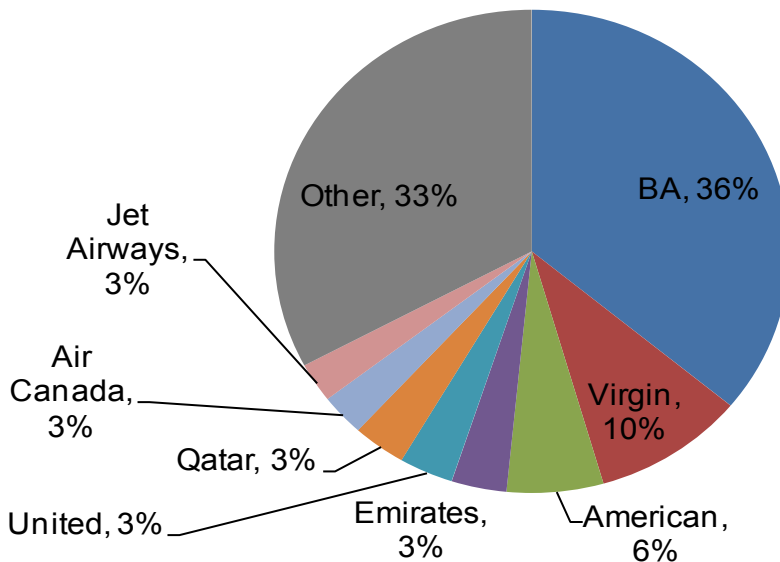
2.33 Heathrow has a number of cargo-only carriers operating out of it.<sup>55</sup> Based on 2012 data, there were almost 2, 400 cargo-only flights at Heathrow, which represents around 0.5 per cent of all flights. These flights were responsible for around 4.6 per cent of all cargo tonnage handled at the airport. However, the CAA understands that a number of these carriers used the airport in a one-off manner rather than as part of a regular service. Of the airlines identified to operate freighter flights, the majority of these flights were operated by European Air

<sup>55</sup> A cargo only carrier is, in general, an airline that specialises in the transportation of cargo (freight and/or mail) rather than passengers.

Transport – DHL (circa 1,500 flights). However, Cathay Pacific, Singapore Airlines and Korean Air also operated a number of freighter flights.

2.34 Based on 2012 data, around 95 per cent of cargo at Heathrow is carried bellyhold (i.e., onboard flights that also carry passengers). This bellyhold cargo, together with the freighter traffic, makes Heathrow the most important airport in terms of cargo tonnage in the UK, with 61 per cent of the volume.<sup>56</sup> Figure 2.7 (below) highlights Heathrow’s cargo tonnage by carrier.

**Figure 2.7: Cargo tonnage by carrier – Heathrow, 2012**



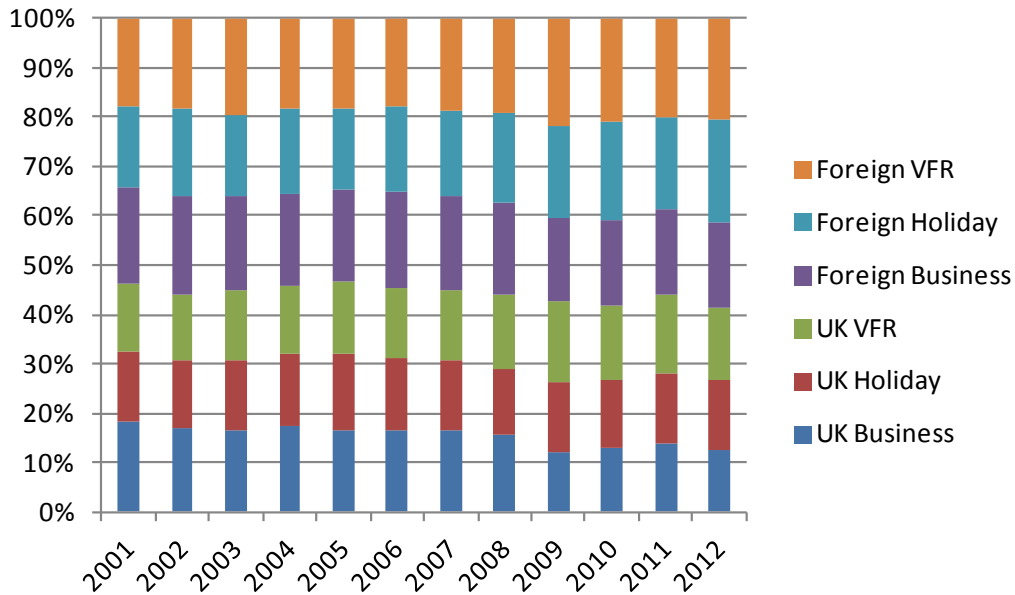
Source: CAA airport statistics.

**Passenger types**

2.35 Heathrow caters to all passenger types, with it having relatively stable shares of 30 per cent or more for the three major passenger segments – business travellers, passengers travelling for holidays and passengers visiting friends and relatives (VFR) – since 2001 (see Figure 2.8 below).

<sup>56</sup> The CAA notes that this compares with Gatwick with 4 per cent, East Midlands with 12 per cent and Stansted at 9 per cent. There are, however, differences in the type of carriers operating at each of these airports.

**Figure 2.8: Heathrow passenger types**



Source: CAA Passenger Survey.

2.36 Figure 2.8 shows that in 2012:

- 30 per cent of the passengers at Heathrow were using the airport for business;
- 35 per cent of the passengers at Heathrow were using it for holidays; and
- 35 per cent of the passengers at Heathrow were using it for VFR.

**The business model used at Heathrow**

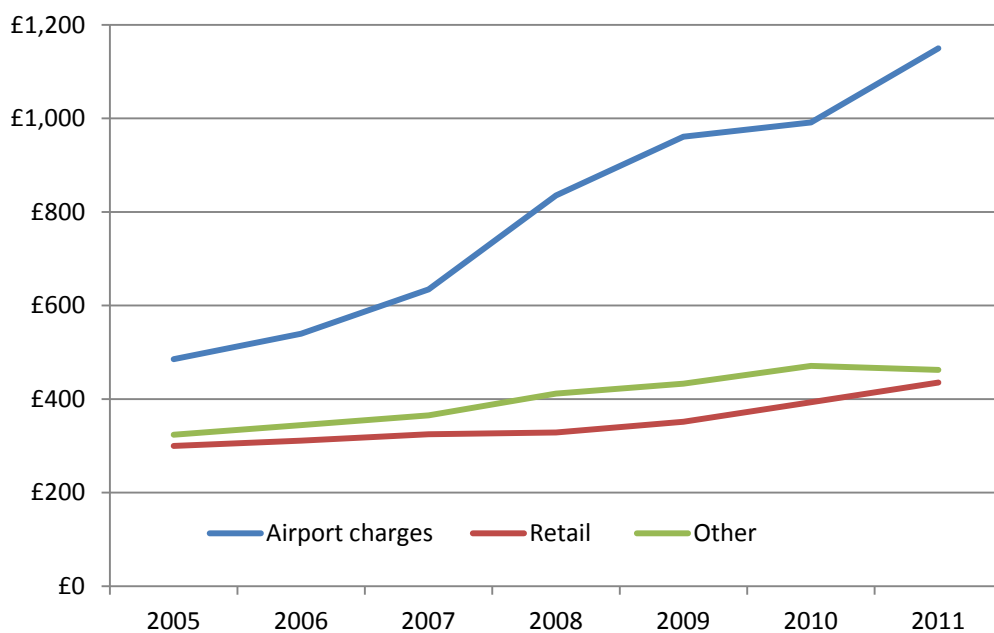
2.37 The CAA understands that HAL generates revenue from three main sources at Heathrow:

- airport charges, including charges on landing, charges on departing passengers and aircraft parking charges;
- commercial income, such as revenue from retail concessions (and associated retail revenue sharing arrangements), car parking and property; and

- other income, specifically income from non-regulated aeronautical charges (ie revenue from charges levied on airlines for other services, including the servicing of aircraft and the use of airport property and fuel).

2.38 Figure 2.9 (below) shows the various revenues that HAL has received over the 2005-2011 financial years.<sup>57</sup>

**Figure 2.9: Revenues 2005-2011, (£m)**



Source: Heathrow, Annual reports and financial statements

Note: 2005 and 2006 data is based on year ending 31 March reports, all other years represent year ending 31 December data.

2.39 The CAA notes that Heathrow is a designated airport that is subject to price controls and that the maximum airport charge that it is permitted to charge is based on the CAA's:

- assessment of an efficient level of costs;
- view on the appropriate return of capital to be allowed; and
- view on how the resulting price cap would facilitate competition between airports.

2.40 The CAA also notes that:

<sup>57</sup> This information is taken from HAL's Annual reports and financial statements.

- each airport is separately regulated, with price controls closely linked to the specific circumstances of the airport and the needs of the airlines and passengers at that airport; and
- through the 'single till' approach to regulation, users benefit from the co-funding of the airport's costs from unregulated commercial income (for example, retail and car parking revenues) generated at each airport, thereby providing scope for the airport charges to be reduced.

2.41 The actual airport charges that HAL sets for Heathrow are published in its 'Conditions of Use', which are available on the airport's website.<sup>58</sup> By considering these charges and passenger numbers (as well as the weight of planes and noise levels etc), an estimate of the revenue that can be generated at an airport can be calculated.

2.42 However, the CAA notes that the charges outlined in 'Conditions of Use' may not represent the charges that are actually paid by an airline. In particular, the CAA notes that an airport operator can enter into bilateral agreements with airlines which can result in lower charges being paid by airlines.

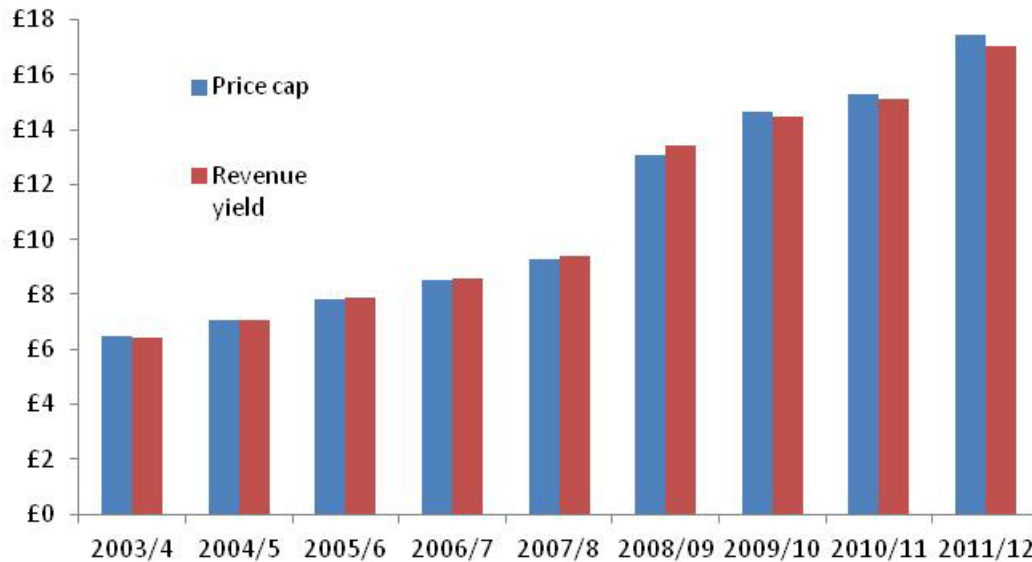
2.43 Figure 2.10 (below) illustrates the regulated price caps (or maximum airport charge) that were set at Heathrow as well as the revenue yields that HAL has achieved over the period 2003/04-2011/12.

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<sup>58</sup> See: <http://www.heathrowairport.com/about-us/partners-and-suppliers/conditions-of-use>, (accessed 20 May 2013)



**Figure 2.10: Aeronautical revenues and revenue yields (£ per passenger – current prices)**



Source: CAA analysis of regulatory returns

2.44 The CAA considers that Figure 2.10 shows that since at least 2003/04, HAL has set the airport charges for Heathrow at the regulated price cap. The CAA notes that evidence submitted by HAL (and other stakeholders) supports this view – see the discussion on negotiations in chapter 6.

### Airport charges

2.45 As outlined earlier, the airport charges at Heathrow are comprised of three types – charges on landing, departing passengers and aircraft parking – each of these is briefly explored below.

#### Charges on landing

2.46 The charge on landing is a charge for the landing of an aircraft that is based on the weight of the aircraft, including its contents, and noise (aircraft failing to meet set noise standards are subject to a higher charge). At Heathrow, a higher amount is also charged for flights landing in the night period.

### Charges on departing passengers

2.47 The charge on departing passengers is a charge that HAL imposes for each departing passenger. It is a charge that a passenger does not face directly as it is paid by the airline. The level of this charge is often not visible to the customer and can be bundled in the overall airfare, although this is not always the case.

2.48 As of 2009, HAL applied three different departing passenger charges based on the destination (and therefore the infrastructure and services) that the passenger was going to use. A rebate on these charges was, however, offered if the passenger left from a remote stand. The level of passenger charges at Heathrow in 2009/10 – 2010/11 is illustrated in Figure 2.11 (below).

**Figure 2.11: Charges on departing passengers 2009/10 – 2010/11**

£ per passenger	Domestic	International	International (Republic of Ireland)	Remote stand rebate
2009/10	12.41	21.22	16.06	3.50
2010/11	13.43	22.97	17.38	3.79

Source: Heathrow, Conditions of Use 2009/10–2012/13.

2.49 In 2011/12, HAL restructured its charges and, rather than distinguishing between domestic and international flights, adopted an approach that distinguishes between European and other destinations – see Figure 2.12 below.

**Figure 2.12: Charges on departing passengers 2011/12 – 2012/13**

£ per passenger	All passengers except transfer or transit passengers		Transfer or transit passengers		Remote stand rebate
	European destinations	Other destinations	European destinations	Other destinations	
2011/12	21.8	30.63	16.35	22.97	4.08
2012/13	24.55	34.49	18.41	25.87	4.59

Source: Heathrow, Conditions of Use 2009/10–2012/13.

### Aircraft parking charges

- 2.50 Aircraft parking charges are the charges that HAL imposes for the parking of aircraft at Heathrow which, in general, is based on an aircraft's weight and the duration of stay.<sup>59</sup>
- 2.51 Figures 2.13 and 2.14 (below) highlight both the level of charges that HAL has imposed at different times for the period 2009/10 to 2012/13 as well as how HAL has modified its charges over this period.

**Figure 2.13: Airport parking charges 2009/10 – 2011/12**

	Charges per quarter hour or part thereof (£)	
	Fixed element	Per metric tonne
2009/10	7.08	0.113
2010/11	7.08	0.113
2011/12	3.38	0.053

Source: Heathrow, Conditions of Use.

Note: In 2009/10 and 2010/11 there was peak premium associated with landing between 0700 and 1229 UTC (GMT), 1 April to 31 October. Parking during these times would see each minute count as three minutes. In 2011/12, parking was free between the hours of 2200 and 0559 UTC (GMT) from 1 April to 31 March. In 2011/12, parking was free between the hours of 2200 and 0559 UTC (GMT) from 1 April to 31 March. However parking between 07:00 and 12:29 UTC (GMT), 1 April to 31 October, saw each minute count as three minutes.

**Figure 2.14: Airport parking charges 2012/13**

	Free period (mins)	Charge per 15 minutes or part thereof after the free period (£)
Wide bodied aircraft	90	34.95
Narrow bodied aircraft	30	14.56

Source: Heathrow, Conditions of Use.

Note: Parking is free between the hours of 2200 and 0559 UTC (GMT) from 1 April to 31 March. Parking charges are applied from Chocks On to Chocks Off.

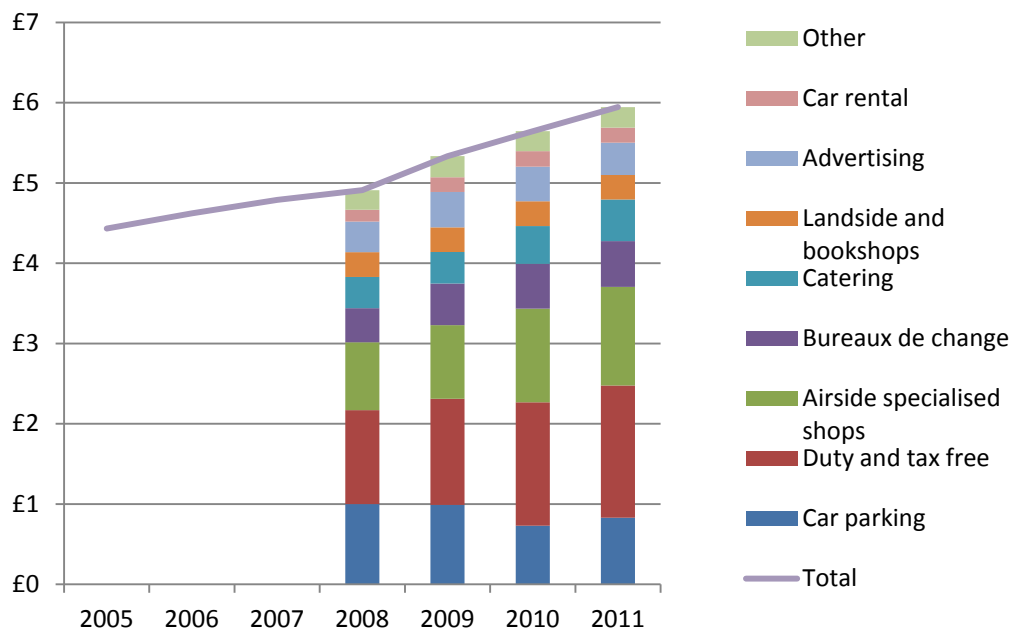
<sup>59</sup> The Conditions of Use that apply at Heathrow are available at: <http://www.heathrowairport.com/about-us/partners-and-suppliers/conditions-of-use>, (accessed 20 May 2013)

## Commercial income

2.52 As noted earlier, HAL also generates revenue from a number of commercial activities, including car parking, various (airside and landside) retail outlets and catering.

2.53 The revenue per passenger that HAL has generated from these sources over the period 2005 to 2011 is illustrated in Figure 2.15 below.<sup>60</sup>

**Figure 2.15: Commercial revenue per passenger, 2005 – 2011**



Source: Heathrow, Financial Statements.

Note: A detailed split of the different commercial streams is not available over 2005-07.

2.54 Figure 2.15 shows (among other things) that:

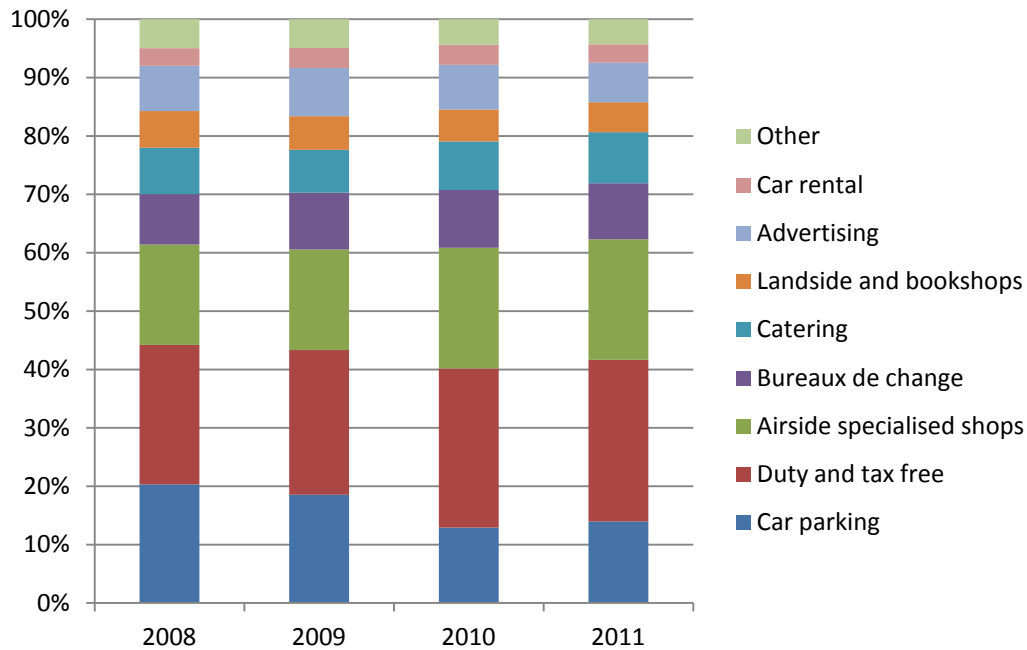
- Total retail revenue per passenger has increased from £4.43 to £5.95 over the period 2005-2011.
- 'Duty and tax free shopping' and 'airside specialised shopping' experienced relatively strong growth over the period 2008-2011.

<sup>60</sup> When considering this figure it is important to note that the granularity of information contained within the accounts changed over time, with greater granularity available from 2008.

- All other commercial revenues per passengers grew modestly or were stable over 2008-2011, with the exception of car parking, which experienced a slight decline.

2.55 Another way of examining the changes in revenue that HAL has generated since 2008 can be seen by reference to Figure 2.16 below.

**Figure 2.16: Sources of commercial revenue, 2008-2011**



Source: Heathrow, Financial Statements.

2.56 Figure 2.16 shows, on a percentage basis, the various sources of HAL's commercial revenue. In particular, it shows (consistent with Figure 2.15):

- the growing contribution from 'duty and tax free shopping' and 'airside specialised shops', which together represented around 49 per cent of total revenue in 2011, up from the 41 per cent seen in 2008; and

2.57 the declining contribution from car parking, which represented around 14 per cent of total revenue in 2011, down from the 20 per cent seen in 2008.

## CHAPTER 3

# Analytical framework for the HAL market power assessment

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## Introduction

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- 3.1 This chapter sets out the approach that the CAA has taken in its analysis, under sections 6 and 7 of the Act, for the assessment of HAL's market power and the application of the market power test to the airport area at Heathrow.
- 3.2 The CAA notes that a key component of this is the market definition. This is relevant, not just for assessing whether HAL, as the main operator of Heathrow, has SMP for the purposes of test A but also for assessing under test B whether there is a risk of abuse of such a position. Both of those tests are applied by reference to the relevant market, i.e. a market for one or more types of airport operation services within the airport area.
- 3.3 This chapter does not repeat the guidance that the CAA has developed for the assessment of market power of airports (the Guidelines)<sup>61</sup> nor the applicable OFT and European Commission guidance, to which the CAA must have regard under section 1(10) of the Act<sup>62</sup>. Rather, it highlights, as appropriate, key propositions that apply specifically within the context of the HAL market power assessment.
- 3.4 This chapter is structured as follows:
- Section 1 considers the following issues relating to market definition.

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<sup>61</sup> The CAA's "Guidance on the assessment of airport market power" (hereby referred to as the "Guidelines") dated April 2011 can be accessed via the CAA's website:

<http://www.caa.co.uk/docs/5/Final%20Competition%20Assessment%20Guidelines%20-%20FINAL.pdf>

<sup>62</sup> See the OFT's Competition Law Guideline on Market Definition, dated December 2004 ("OFT 403") and the European Commission's Notice on the definition of relevant market for the purposes of Community competition law (OJ 97 C 372 p.3) ("EC Market Definition Notice").

- Section 2 considers issues relating assessing market power.

## Section 1: Market definition

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- 3.5 The Guidelines set out the assumptions and approach taken in the process of market definition. In particular, and similarly to the OFT and the European Commission (EC), the CAA does not regard market definition as an end in itself, but rather as an economic framework within which to analyse the competitive effects in order to support and inform the CAA's regulatory policy.<sup>63</sup>
- 3.6 Market definition is a useful tool for identifying, in a systematic way, the competitive constraints which the relevant operator faces in the market and whether those constraints prevent it from operating independently of effective competitive pressure<sup>64</sup>. There may, however, be characteristics of the airport sector that make it difficult to define the market precisely. As explained in the Guidelines, the market power assessment should seek to analyse all the competitive constraints faced by HAL in the round, regardless of whether they arise from within or outside the relevant market or markets, as defined in Chapter 4<sup>65</sup>.
- 3.7 The exercise of market definition consists, in essence, of identifying the effective alternative sources of supply for the customers of the relevant operator, in terms of the products or services supplied and their geographical location<sup>66</sup>.
- 3.8 The CAA notes that the Guidelines state that, wherever feasible, the hypothetical monopolist test should be adopted as a useful starting point for defining the relevant market<sup>67</sup>. This involves starting with the narrowest possible bundle of products or services and the smallest

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<sup>63</sup> CAA, Guidelines, paragraphs 3.3 and 3.4

<sup>64</sup> EC Market Definition Notice, paragraph 2

<sup>65</sup> CAA, Guidelines, paragraph 3.5. This is consistent with the approach adopted in the Competition Commission's report on the supply of airport services by BAA in the UK 19 March 2009 ("CC's 2009 BAA Report"), paragraphs 2.48-2.49

<sup>66</sup> EC Market Definition Notice, paragraphs 7-9 and 13 and Guidelines, paragraphs 3.6-3.9

<sup>67</sup> CAA, Guidelines, paragraphs 3.10 to 3.12; OFT 403, paragraphs 2.5 - 2.13 and EC Market Definition Notice, paragraphs 15-19

geographical area (normally those supplied by the operator in question) and assessing customers' switching reactions to a small but sustainable non-transitory increase in price (SSNIP), generally considered as being five to ten per cent. If the price increase is unprofitable due to customers switching away to substitute products/services and areas, the test is repeated by widening the set of products/services and geographic area to include substitutes until the price increase is profitable. What is then left is the narrowest set of products/services and geographic area over which a hypothetical monopolist could profitably sustain prices five to ten per cent above competitive levels.

### Limitations of the SSNIP test

- 3.9 Although the SSNIP test is a useful starting point, the CAA notes that it is not infallible. As the OFT observes, the test assumes that the hypothetical monopolist is not subject to economic regulation that might affect its pricing behaviour; it also assumes that competitors' pricing strategies are those of a profit maximising firm in a competitive market. In addition, there may be other external considerations that might affect the uniformity and/or the profitability of the price increase<sup>68</sup>.
- 3.10 The SSNIP test is also less than ideal for assessing the current level of competition in some markets, since it is intended to be carried out by reference to the competitive price level.<sup>69</sup> Its utility is limited where the prevailing price levels observed in the market are not reflective of the competitive price. For example:

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<sup>68</sup> OFT 403, paragraph 2.10-2.11 and 5.4-5.6. See also CAA, Guidelines, paragraphs 3.24-3.25

<sup>69</sup> The CAA notes that in merge cases the hypothetical monopolist test is conducted from prevailing prices. OFT and CC, Merger Assessment Guidelines, A joint publication of the Competition Commission and the Office of Fair Trading, OFT1254/CC2(Revised), September 2010, paragraph 5.2.12.



- It may be that the current price level is already above the competitive price level due to market distortions, such as the presence of a profit maximising monopolist. In such cases, it would appear that the company could not viably sustain a SSNIP over the relevant timeframe as its customers would switch to alternative products/services. However, this only arises because the price has already been increased above the competitive level. In such circumstances, it would be wrong to conclude that the comparator products/services limit the firm's ability to exercise market power. The comparator products should not be included in the relevant market otherwise the application of the SSNIP test would lead to an erroneously wide market definition<sup>70</sup>.
- Likewise, the prevailing prices could be below the competitive level. Here, customers would not switch to substitute products or services in response to a price rise, leading to a narrower market being defined.<sup>71</sup> Caution must be exercised, for example, when considering evidence of switching patterns as this may not be a reliable guide as to what would happen in an effectively competitive market<sup>72</sup>. The possibility that the market analysis may be distorted by certain factors will need to be accounted for when the evidence is considered in the round.

3.11 As such, and as noted in the Guidelines, it is, therefore, rarely possible to apply the SSNIP test in a precise manner due to data and evidential restrictions.<sup>73</sup>

3.12 Given the particular circumstances relating to the historical regulation of HAL and Heathrow, the CAA has been unable to carry out a formal SSNIP test. However, it has gathered a range of evidence, including catchment area analysis, passenger surveys, documentary evidence and the views of airlines and relevant airport operators on substitutability. This has been interpreted within the hypothetical monopolist framework.

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<sup>70</sup> The Cellophane fallacy referred to at OFT 403, paragraph 5.5

<sup>71</sup> The CAA considers the competitive price in chapter 4.

<sup>72</sup> CAA, Guidelines, paragraphs 3.15 to 3.16

<sup>73</sup> CAA, Guidelines, paragraph 3.13. See also the CC's 2009 BAA Report, paragraph 2.1

## Interdependence of demand from different user groups

- 3.13 The Guidelines state that airports can be viewed as platforms in a multi-sided market. It recommends that, where there is good evidence that airport operators take account of the interdependent demands of different user groups and levy different charges for different services to different users, account should be taken of any interactions and interdependencies between the various activities that the airport operator undertakes. The extent to which common (one-sided) market definition methods need amending will depend on the strength of the interrelationships between the various activities, and whether these form a genuine platform that brings together consumers, and other service providers as different "sides" of the market.<sup>74</sup>
- 3.14 There are a number of issues that the CAA considers relevant to whether the process of market definition for HAL can be carried out primarily using conventional market definition methods. In particular, it must be determined whether treating the relationship between airlines, their passengers and cargo as a vertical one is appropriate, or whether such methods should be modified significantly to take into account the possible role of an airport as a multi-sided platform.
- 3.15 The CAA notes that the key characteristics of a multi-sided market in the context of airports have been set out in a paper prepared by David Starkie and George Yarrow for the CAA in 2010:<sup>75</sup>
- the airport is the platform; it can be viewed as having multiple revenue streams (and associated cost), some of which are highly inter-related, including via network effects;
  - airlines and passengers are the two main groups that use the platform;
  - an airport is more attractive to passengers the greater the number of airline services (more routes, higher frequencies, better connections) offered to and from that airport;
  - an airport is more attractive to airlines the greater the number of passengers who might use that airport;

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<sup>74</sup> CAA, Guidelines, paragraphs 3.18 and 3.21

<sup>75</sup> Starkie and Yarrow, 'Market definition in the airports sector' at <http://www.caa.co.uk/docs/5/ergdocs/MarketDefAirports.pdf>, p. 13

- in matching airlines to passengers, the airport takes account of the different demand conditions – on the one hand, the airline’s demand for the access to the airport and its facilities and, on the other, the demand of the passenger for services from the airport; and
  - if the airport operator is itself the provider of commercial services to passengers (retailing, car parks etc.), or has revenue sharing agreements included in its leases with commercial service providers, then the airport operator has a revenue stream from each of these two groups and has to consider two sets of prices
- 3.16 The CAA considers that, broadly, the arguments outlined above fall into three categories:
- the existence of network effects;
  - marketing activities carried out by the airport operator to attract passengers and airlines separately to the airport; and
  - the existence of a stream of commercial revenue driven by passenger volumes.
- 3.17 The CAA considers that, at Heathrow, there are currently significant network effects that are derived from FSCs (of which BA is the largest) using Heathrow as the base for a hub operation. The externalities arising from the network are such that HAL is able to use this as a key selling point when considering new entrants to the airport.<sup>76</sup> The airlines are then able to deliver the ability to their passengers to connect in an integrated manner with other airlines at the airport where they have such agreements in place.
- 3.18 The economics of an airline hub are such that additional demand for air transport service connections from transfer passengers support routes that may not have been provided on a standard O&D basis providing greater choice for surface passengers wishing to travel from that airport. For example, passengers that fly from Hyderabad via London to New York, may support the operation of the Hyderabad to London routes, which provides the route as an O&D route for surface passengers whose demand alone may not have made the route viable. Likewise, the routes and frequency that the network offers is

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<sup>76</sup> Source: HAL

likely to make the airport more, or less, attractive as a departure point for bellyhold cargo.

- 3.19 However, HAL strategy papers<sup>77</sup> have stated that it does not target additional passengers directly but, rather, does so through their interaction with airlines. HAL has stated that:

*“we win business by persuading airlines to put routes from our airports. There is very, very little leverage that we can put, or encouragement, incentive that we can put directly to a customer. What we do is to persuade airlines to base their aircraft at our airports rather than someone else’s airport. That is the nature of the competition that we live running an airport.” And: “There is not much that we can do to incentivise a passenger to choose one airport versus another. The landing charge is a relatively small proportion of the total. Probably his transport costs from wherever he lives to the airport are going to be far bigger than any differences. What we do is to compete [for] airlines to have them fly from our airports”.*<sup>78</sup>

- 3.20 Further, the CAA notes that the airport operator has a limited direct commercial relationship with passengers, other than through charges for its car parks or access to the operator’s forecourt. In addition, to the extent that an airline decides to pass on any increase in airport charges, this is only visible to the passenger through an increase in airfares imposed by the airline.
- 3.21 Documentary evidence from HAL shows that their marketing to passengers is aimed at those that have already booked to fly, aimed initially at maximising revenue gained from car parking and retail operations.<sup>79</sup> This is likely to have long-term impacts on brand development and encouraging passengers to return to the airport. However, Heathrow does not appear to advertise specifically to attract new passengers to the airport.
- 3.22 These points suggest that HAL currently does little in the way of matching airlines to passengers. Despite its direct advertising to passengers, HAL's focus appears to be on gaining airlines which then

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<sup>77</sup> Source: HAL

<sup>78</sup> Source: HAL

<sup>79</sup> Source: HAL

generate passengers.<sup>80</sup>

- 3.23 Notwithstanding the above, the CAA recognises the existence of “complementarities” between aeronautical and non-aeronautical revenue of the type identified by Yarrow and Starkie. By reducing passenger volumes, an increase in aeronautical charges may reduce revenues derived from commercial services. In principle, an airport operator may take this into account in its pricing decisions for aeronautical services.<sup>81</sup>
- 3.24 The strength of these complementarities will depend on the extent to which the non-aeronautical revenue generated by the airport operator is linked to passenger volume and on the amount of revenue the airport operator generates from aeronautical services relative to non-aeronautical services. It will also depend on the extent to which the airport operator’s pricing decisions, in relation to aeronautical services, take account of the revenue potential for non-aeronautical services. This will be taken into account when assessing the impact of a small increase in airport charges on profitability later. However, the CAA notes:
- Historically HAL has priced up to its regulatory price cap and has suggested that excess demand at Heathrow might imply that the current price is below the market clearing price.<sup>82</sup>
  - The CAA has seen no evidence that the airport operator’s pricing decisions for aeronautical services are made taking into account the potential impact on commercial income.
- 3.25 Taking the evidence in the round, the CAA considers that HAL exhibits in practice some of the characteristics of a multi-sided platform. However, the CAA considers that the main relationship is vertical in nature, whereby, the airport in the upstream market provides a key facilities input to airlines operating in the downstream air transport market. Accordingly, the CAA proposes to adopt a conventional approach based on derived demand in a vertical relationship.

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<sup>80</sup> Source: HAL

<sup>81</sup> The CAA is aware that competitive airports typically behave in this way.

<sup>82</sup> Source: HAL response Initial Views

## The role of airline and passenger switching in vertical derived demand analysis

- 3.26 As explained in more detail in Chapter 4, the relevant product market comprises all those products or services that are interchangeable or substitutable by the customer by reason of their characteristics, price and intended use<sup>83</sup>. The CAA will look at demand side substitutability for each user group, whilst accounting for interactions between the different groups, to see whether services to each user group constitute a distinct product market<sup>84</sup>.
- 3.27 To assess derived demand the CAA notes that it needs to consider the direct and indirect impact on the demand for airport services. The derived demand process is illustrated as follows:
- Following an increase in airport charges, the airline makes the initial response, broadly, either to absorb the cost increase or to pass it on to its passengers and/or to switch some services to another airport. Should it remove some capacity, there will be a direct effect on the volume of passengers travelling through the airport, provided that the removal of this capacity does not trigger entry or expansion by another airline.<sup>85</sup> Assuming that the airline maintains the same level of capacity at the airport and passes the price increase onto its passengers, the passengers become indirectly exposed to the airport operator's pricing decision. To the extent that a similar flight is available at another airport, the passengers may then decide to switch to that airport in response to the price rise, thus affecting the level of derived demand.
- 3.28 The CAA considers that its market definition analysis should start with an evaluation of airlines' views of the substitutability of other airports for Heathrow and, where possible, an evaluation of evidence on airlines' actual switching behaviour.
- 3.29 Airlines' requirements regarding an airport's infrastructure are likely to differ according to their business model and the type of services they

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<sup>83</sup> CAA, Guidelines, paragraphs 3.7 and 3.27 et seq.

<sup>84</sup> CAA, Guidelines, paragraph 3.29-3.33

<sup>85</sup> The CAA considers that given the excess demand at Heathrow it is likely that any slots vacated by an airline would be readily filled by another carrier. This is discussed in more detail in chapter 5.

offer. In turn, the business model and services may dictate the type of aircraft used which might require special airport facilities<sup>86</sup>. The Guidelines emphasise that the nature and magnitude of airlines' switching costs will depend upon a number of factors and are an important aspect of the overall competition assessment<sup>87</sup>. An airline's ability to switch is not just relevant for the product market definition, but also the definition of the relevant geographic market<sup>88</sup>.

3.30 The product market definition will be affected by the ability and willingness of passengers to switch between airports. The ability of passengers to respond to a price increase imposed by the airport operator is derived as they are only exposed to the airport's price increase after the airline's initial response. The ability and willingness of passengers to switch will depend, in part, on the extent to which they regard services at different airports as reasonably close substitutes, and the costs they face in switching demand, to the next best alternative<sup>89</sup>. An important factor will be the availability of suitable alternative flights to the same destination, as well as the willingness of passengers to "follow" an airline to an alternative airport.

3.31 The Guidelines also highlight the importance of passenger switching for geographic market definition stating:

*"The CAA considers that passenger switching is likely to be a significant focus of geographic market definition. However, it may also be important to consider the interdependencies with, or feedback effects from, the airport's other user groups.*

*Whilst geographic market definition might be focused on the potential for passengers to switch between airports, it will also be important to ensure that the ability of airlines to switch away from an airport – potentially to a relatively distant airport – is included within the wider assessment of competitive constraints... Assessing the likelihood that airlines and passengers take these choices, and the impact this would have on the airport in question, is at the core not only of the market definition but also of the assessment of the strength of competitive*

<sup>86</sup> CAA, Guidelines, paragraph 3.41

<sup>87</sup> CAA, Guidelines, paragraph 3.42

<sup>88</sup> CAA, Guidelines, paragraph 3.65

<sup>89</sup> CAA, Guidelines, paragraphs 3.34

*constraints an airport is facing".*<sup>90</sup>

- 3.32 In common with other authorities carrying out such analysis,<sup>91</sup> the CAA has sought to understand passengers' likelihood to switch in response to a price rise. It has done this using passenger surveys and catchment area analysis.
- 3.33 However, as part of the analysis of derived demand, the CAA considers that in making decisions as to whether to switch or discontinue a service in response to a price rise at an airport, an airline could be expected to have taken account of the likely behaviour of their passengers in the downstream market and, in particular, their willingness to use other airports. The CAA therefore considers that it is possible to assume that passengers' propensity to switch in response to a price rise by the airport operator has, to some extent, been internalised in the airline's decision-making process.
- 3.34 Consequently, where an airline's decision-making process in this respect is supported with primary evidence, e.g. an analysis of catchment overlaps developed for airports' and airlines' internal purposes, the CAA has attached weight to that evidence when delineating the boundaries of the geographic market. The CAA has complemented such evidence with interviews with a number of airlines and airport operators.
- 3.35 The CAA notes, however, that airlines' propensity to switch may not be fully aligned with that of passengers as they face different switching costs and constraints. Further, relying solely on existing airlines' views and evidence may be too static a view of the market. The CAA has therefore complemented airline and airport evidence with findings from its own research and analysis of passenger behaviour.
- 3.36 That said, analysis in the Initial Views<sup>92</sup> on the cost structure of airlines suggested that for FSCs airport charges account for up to ten per cent of their cost base.<sup>93</sup> This suggests that a five to

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<sup>90</sup> CAA, Guidelines, paragraphs 3.60 and 3.61

<sup>91</sup> See for example the CC's 2009 report into BAA.

<sup>92</sup> CAA, Initial Views, 2.78

<sup>93</sup> LCC and Charter airlines do not operate out of Heathrow and therefore we limit the discussion to that of Full Service Carriers.



ten per cent increase in airport charges to the airline, if passed on fully to passengers, may only translate, at most (in the case of FSCs), into less than one per cent increase in charges to the passenger.

- 3.37 In addition, considering that passengers' choice of airports is part of a wider decision-making process of air transportation services, whether for business or leisure. The impact of airport pricing on passengers is likely to be significantly lessened as it forms one component of a bundle of goods<sup>94</sup>. The CAA's 'minded to' view is, therefore, that passenger responses to an airport SSNIP are likely to be muted.

### Supply side substitution

- 3.38 As noted in the Guidelines<sup>95</sup> (and the OFT Guidelines<sup>96</sup>), supply side substitution, and the scope for potential competition, is a key part of the market definition analysis. The EC summarises supply side substitution as follows:

*"Supply-side substitutability may also be taken into account when definition market in those situation in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy. This means that suppliers are able to switch production to the relevant products and market them in the short term without incurring significant permanent changes in relative prices. When these conditions are met, the additional production that is put on the market will have a disciplinary effect on the behaviour of the companies involved. Such an impact in terms of effectiveness and immediacy is equivalent to the demand substitution effect".<sup>97</sup>*

- 3.39 The CAA considers that supply side substitution in the airports sector is likely to be limited. Although the CAA recognises that airport development may be motivated by competition or prospective competition between airports the CAA considers this to be a long-term market dynamic rather than a short to medium-term competitive response. Both new entry and expansion are unlikely to be sufficiently timely market responses to a SSNIP by an incumbent airport due to

<sup>94</sup> In this context a list, by no means exhaustive, that may be purchased includes surface access charges, flights, and hotels.

<sup>95</sup> CAA, Guidelines paragraphs 3.27, 3.56-3.58

<sup>96</sup> OFT 403 paragraphs 3.12-3.18 and 4.5

<sup>97</sup> EC Market Definition Notice, paragraph 20

planning legislation and the time required for the construction of facilities.

### Competition with other modes of transport

- 3.40 With regards to the substitutability of other transport modes the CAA refers to the finding of the CC98 which considered that the substitution opportunities were too weak to justify expanding the airport market to include surface access alternatives.
- 3.41 Given the limited number of passengers that fly on services from Heathrow that may be substitutable with surface journeys, and considering the CC's finding, the CAA did not think it worthwhile to consider this issue further in this assessment. The markets considered within this document reflect this thinking and are not widened to include surface journey alternatives.

### The focal product for market definition purposes

- 3.42 The CAA considers that it is important to consider what the focal product or service for the market definition should consist of. An airport is a complex organisation with a number of products, linked or otherwise. It may be more appropriate to analyse the focal product market in terms of a service bundle, rather than individual products or services.
- 3.43 The CAA considers that the new legislation provides a logical starting point for the process of product market definition. Section 3 of the Act prohibits an operator in a dominant airport area, at a dominant airport, from requiring the payment of charges in respect of airport operation services without a licence. An airport area will be dominant if the CAA has made a determination that the market power test in section 6 the Act is met in relation to that area.<sup>99</sup>
- 3.44 Section 66 of the Act states that an airport:

*“means an aerodrome within the meaning of the Civil Aviation Act 1982 together with other land, buildings and structures used for*

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<sup>98</sup> CC, BAA airports market investigation: A report on the supply of airport services by BAA in the UK, March 2009, paragraphs 2.5-2.12

<sup>99</sup> Section 5(1) Civil Aviation Act 2012. An airport will be dominant if all or part of its "core area" is in a dominant area.

<sup>100</sup> At section 105 of the Civil Aviation Act 1982 "aerodrome" means any area of land or water

*the purposes of— .*

*(a) the landing and taking off of aircraft at the aerodrome,*

*(b) the manoeuvring, parking or servicing<sup>101</sup> of aircraft between landing and take-off at the aerodrome,*

*(c) the arrival or departure of persons carried or to be carried as passengers by air transport services operating to or from the aerodrome, together with their baggage,*

*(d) the arrival or departure of cargo carried or to be carried by such service(s) the processing of such persons, baggage and cargo between their arrival and departure, and*

*(f) the arrival or departure of persons who work at the airport".<sup>102</sup>*

3.45 Supplementary provisions concerning the precise facilities included as part of the airport for performing those activities are contained in section 67.

3.46 The Act defines "airport operations services" in section 68 as:

*"services provided at an airport [as defined in section 66] for the purposes of –*

*(a) the landing and taking off of aircraft,*

*(b) the manoeuvring, parking or servicing of aircraft,*

*(c) the arrival or departure of passengers and their baggage,*

*(d) the arrival or departure of cargo,*

*(e) the processing of passengers, baggage or cargo between their arrival and departure, or*

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designed, equipped, set apart or commonly used for affording facilities for the landing and departure of aircraft and includes any area or space, whether on the ground, on the roof of a building or elsewhere, which is designed, equipped or set apart for affording facilities for the landing and departure of aircraft capable of descending or climbing vertically. In its narrowest interpretation an aerodrome can be consider as the runway'.

<sup>101</sup> Section 67 defines servicing as the supply of fuel and the repair, maintenance and overhaul of aircraft that land at the aerodrome.

<sup>102</sup> The definition of airport specifically excludes hotels (except those situated in a passenger terminal that is part of an airport), bus, tram and railway stations.

*(f) the arrival or departure of persons who work at the airport”.*

- 3.47 The definition of airport operations services does not include air transport services, air traffic services<sup>103</sup> or services provided in shops and other retail businesses.<sup>104</sup>
- 3.48 These definitions feed into section 6(1) of the Act which sets out the market power test that must be applied to an airport area. Under section 5(3), an airport area is defined as *"an area that consists of or forms part of an airport"*.
- 3.49 The market power test will be met by the airport area if the three cumulative tests, A to C, are met by the relevant operator of the airport area at that time (the *"market power test"*). In particular, section 6(3) sets out "test A" i.e. whether the relevant operator has, or is likely to acquire, substantial market power (SMP). Section 6(3), read in conjunction with section 6(6) and 6(7), requires that that assessment must be made by reference to a market for one or more airport operation services which are provided in the airport area or, where appropriate, the *"core area"*.<sup>105</sup>
- 3.50 The core area is defined in section 5(4) as follows:
- “(a) the land, buildings and other structures used for the purposes of the landing, taking off, manoeuvring, parking and servicing of aircraft at the airport,*
- (b) the passenger terminals, and*
- (c) the cargo processing areas”.*
- 3.51 Based on the above, the CAA therefore considers that the initial focal product is likely to consist of one or more of the airport operational services defined in section 68, supplied in the area defined in section 5(4).

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<sup>103</sup> Although air traffic services (ATS) are excluded as an airport operation service the CAA note that 68(b) "manoeuvring...of aircraft" is consistent with the operation of aerodrome ATS. The CAA interprets this to be the provision of the infrastructure and the tendering for an ATS provider at the airport.

<sup>104</sup> Section 68(4)

<sup>105</sup> Section 6(7) provides that, where the airport area includes all or part of the core area, the SMP test will be applied by reference to a market for airport operation services provided in the core area.

## Section 2: Market power

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- 3.52 Market power is the ability to profitably sustain prices above the competitive level, or restrict output or quality below competitive levels. The assessment of market power involves an analysis of the competitive constraints faced by the operator to see whether they are strong enough to prevent it from harming the process of competition<sup>106</sup>. Market power is not an absolute term but a matter of degree which varies according to the individual circumstances of the case.
- 3.53 The CAA notes that market shares are one of several indicators of market power (see chapter 6 for other indicators that the CAA has examined).
- 3.54 The Guidelines indicate that evidence on the market structure and market shares is commonly used in competition assessments and that the CAA would expect to undertake such analysis.<sup>107</sup> Market power is more likely to exist if an operator has persistently high market share over time compared with its nearest rivals.<sup>108</sup>
- 3.55 However, the Guidelines also note that market shares are not sufficient in isolation to determine the intensity of competition in the relevant market as they are too static to shed light on the dynamics of the market. In particular:
- The difficulties in defining the market precisely might limit the reliance that could be placed on any given measure of market shares as an indicator of market power. In these circumstances, it may be necessary to assess the competitive constraints directly, taking account of constraints from inside and outside the relevant market.

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<sup>106</sup> The OFT's Competition Law Guideline on Assessment of Market Power December 2004 ("OFT 415"), paragraphs 3.1-3.3

<sup>107</sup> CAA, Guidelines, paragraph 4.1

<sup>108</sup> CAA, Guidelines, paragraph 4.2 and OFT 415, paragraphs 4.2-4.3

- There are aspects of airport markets that may reduce the reliability of market shares as an indicator of market power. In particular, the differentiated nature of airports, both in terms of their facilities and services, but also in terms of their location and the differing degrees of their interdependent demand, can reduce the reliability of market shares as an indicator of market power.<sup>109</sup>

3.56 In the CC's 2009 BAA Report, the CC recognised the limitations of market share calculations in the context of the supply of airport services. Specifically, the CC noted:

- the importance of geographical location for airport competition means that there is a continuum of substitution possibilities depending on distance and other airport characteristics; and
- any market definition beyond a single airport is, to an extent, arbitrary and the assessment of market shares is unlikely to be a useful tool in itself for measuring airport market power.<sup>110</sup>

3.57 In the case of London airports, there are additional reasons why market shares may not be a reliable measure of the level of market power of airports, including:

- Long term capacity constraints at Heathrow airport and, to a lesser extent, at Gatwick airport. As stated by the OFT in its guidance, where competitors are unable to increase output substantially because of capacity constraints, "*the undertaking would be in a stronger position to increase prices above competitive levels than an otherwise identical undertaking with a similar market share operating in a market where its competitors were not close to full capacity*".<sup>111</sup>

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<sup>109</sup> CAA, Guidance on the assessment of airport market power, April 2011, paragraphs 4.5 – 4.7

<sup>110</sup> CC 2009, BAA airports market investigation, A report on the supply of airport services by BAA in the UK, p. 36

<sup>111</sup> OFT, Assessment of market power, Understanding competition law, paragraph 4.4

- Common ownership of the three largest airports (Heathrow, Gatwick and Stansted) for a considerable period of time under BAA. For example, BAA might not have operated or marketed its airports as competitors for one another. Instead, it may have targeted each of its London airports at specific markets, thereby distorting market shares. While the sale of Gatwick airport may have reduced this concern, the sale of Stansted airport, which has completed only recently, in January 2012, is not expected to be able to sufficiently change its proposition in the short-term to mitigate the possible rigidities that arose from the historic joint ownership.
- The level of substitutability of airports for different airlines, can be influenced by (among other issues) infrastructure requirements, capacity constraints, strategic reasons and costs.
- The London Air Traffic Distribution Rules (TDR) that came into effect in 1991. Under the Act, the Secretary of State for Transport has the power to make such rules which distribute traffic between airports in a "system".<sup>112</sup> In 2009, the CC noted that BAA considered that the original purpose of the TDRs was to ensure priority was given in peak hour slots to passenger services at Heathrow and Gatwick.<sup>113</sup>

3.58 Notwithstanding these concerns, the CAA has calculated market shares for HAL by reference to the market definition set out in chapter 4, based on the available evidence.

3.59 In addition, given the limited reliance that can be placed on market shares as an indicator of market power, the CAA also had regard to other relevant market features, including buyer power, barriers to entry and expansion.<sup>114</sup> It has also supplemented that analysis with other indicators of market power relating to the operator's behaviour and performance, including profitability measures, quality of service, efficiency and engagement with airlines and the impact of regulation

<sup>112</sup> Article 19 of Regulation (EC) 1008/2008 gives member states the power to put in place TDRs, provided they do not discriminate on grounds of nationality.

<sup>113</sup> CC 2009, The London Air Traffic Distribution Rules, available at: [http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep\\_pub/reports/2009/fulltext/545\\_6\\_2.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2009/fulltext/545_6_2.pdf), p. A6(2)-1

<sup>114</sup> CAA, Guidelines 4.4 and Chapters 5-7 and OFT 415 Chapter 5

to date<sup>115</sup>. The market definition is presented in chapter 4, with the CAA's analysis of market share data following in chapter 5.

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<sup>115</sup> CAA, Guidelines, paragraphs 7.4 - 7.10 and OFT 415, paragraphs 6.5-6.7



## CHAPTER 4

# Market Definition

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### Background

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- 4.1 This chapter considers the product market definition for services supplied by HAL. This chapter is in 5 sections.
- Section 1 considers the current price level at Heathrow and the implications for the analysis, which is normally conducted from the competitive price,
  - Section 2 considers formally the product market definition for the market(s) in which HAL operates,
  - Section 3 considers the geographic,
  - Section 4 considers temporal market definition; and
  - Section 5 concludes on market definition

### Section1: The competitive price level at Heathrow

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- 4.2 As set out in the analytical framework chapter, the SSNIP test for market definition should be undertaken from the competitive price level. This is important for several reasons:
- the hypothetical monopolist or “SSNIP” test for market definition is predicated on an assumption that the airport operator is charging a competitive price;
  - the purpose of the market power assessment is to ascertain whether the operator can profitably sustain prices above the competitive level over time; and
  - the risk of supra-competitive prices being imposed in the absence of a licence is relevant for assessing the effectiveness of competition law under test B as well as the cost/benefit analysis of regulation via a licence in test C.
- 4.3 The Guidelines explain that caution must be exercised in determining

the relevant market and assessing market power where prevailing prices, for some reason, are not in line with the competitive price. For example:

- if prices are above the competitive level there is scope that an overly wide market definition results (“the Cellophane Fallacy”<sup>116</sup>); and
- if prices are below the competitive price (“Reverse Cellophane Fallacy”<sup>117</sup>):
  - Airports that may otherwise be considered as substitutes for Heathrow at the competitive price might not be considered as alternatives by airlines and passengers. For example, if Heathrow was under-priced relative its competitors, airlines (and consequently passengers) may be less likely to switch away in light of a five to ten per cent price increase as Heathrow may still represent good value. This might lead to the relevant market being defined too narrowly.
  - HAL’s pricing behaviour (and other behaviour, such as that related to service quality or investment), may suggest that it has a greater degree of market power than it actually does. For example, under this scenario, an airport may be less inclined to negotiate with airlines or to respond to switching threats by lowering prices because it can easily “backfill” vacated slots.

4.4 In its Initial Views with regards to the pricing at Heathrow the CAA stated that:

*"The CAA has not found it necessary to undertake a detailed assessment of the prevailing price level at Heathrow in order to reach its initial views on the airport's market position, for a number of reasons. First, some reliance can be placed on the price cap at Heathrow, which ensures that prices are not significantly above competitive levels, and certainly not at levels reflecting monopoly pricing. Second, the CAA's conclusions for Heathrow, whilst drawing on switching evidence, do not rely on factors that would be affected – to a significant degree – by the prevailing price level differing from the*

<sup>116</sup> United States v E.I. du Pont de Nemours & Co. (1956) 351 U.S.377; 76 S. Ct. 994; L. Ed 1264

<sup>117</sup> For a good example, see the Aberdeen Journals case (CAT case no. 1009/1/1/02 and OFT case CE/1217-02).

*competitive level. Finally, there is a degree of consistency in the overall evidence about Heathrow's market power that provides a degree of comfort that the conclusions have not been affected by any difference between the prevailing and competitive price levels."*<sup>118</sup>

4.5 In response to the Initial Views, HAL has indicated:

- 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.

4.6 Since the release of the Initial Views a number of other stakeholders have commented on the prices at Heathrow. In particular, these suggest that HAL is relatively expensive, that it does not offer any discounts to its prices and that there has been some significant price increases over the last ten years.

4.7 For example, Emirates has noted that "*LHR's pricing was high and always up to the price cap*".<sup>119</sup> It also noted:

*"LHR was more expensive [than Gatwick] as passenger service charges are higher".*<sup>120</sup>

And

*It noted it broadly uses the same facilities/products at LHR as at LGW (including connecting passenger facilities); the main difference being*

<sup>118</sup> CAA, Initial Views paragraph 2.25

<sup>119</sup> Source: Emirates

<sup>120</sup> Source: Emirates

*they are a better quality/newer at LGW.*<sup>121</sup>

4.8 Aer Lingus has noted:

*HAL's charges are extremely high and keep increasing at an exponential rate, as well as other costs that it has to contend with such as fixed charges for ground handlers, engineering costs and a CIP lounge.*<sup>122</sup>

And

*It pays the standard airport charges in the Conditions of Use and is not aware of any discounts on tariff price.*<sup>123</sup>

And

*"in any open marketing environment, no organisation could sustain an increase in charges like LHR's (✂). All of these all recent annual increases are all unsustainable in an open market environment."*<sup>124</sup>

4.9 Lufthansa has also indicated that it pays tariff aeronautical charges at Heathrow and that:

*Due to the airport charges development (increases in rates and structural changes) Lufthansa experienced an increase of +127% of its average (fix and variable) costs since 2007.*<sup>125</sup>

4.10 [✂] has indicated that it 'pays list price' at Heathrow.<sup>126</sup>

4.11 The CAA also notes that another stakeholder has, however, suggested that prices at Heathrow may be too low. In particular, Birmingham Airport has indicated:

*Heathrow's charges are significantly below the competitive level and should be more on par with charges at Haneda and Narita.*<sup>127</sup>

4.12 The representations made by airlines following the Initial Views

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<sup>121</sup> Source: Emirates

<sup>122</sup> Source: Aer Lingus

<sup>123</sup> Source: Aer Lingus

<sup>124</sup> Source: Aer Lingus

<sup>125</sup> Source: Lufthansa

<sup>126</sup> Source: [✂]

<sup>127</sup> Source: Birmingham Airport (BIAL)

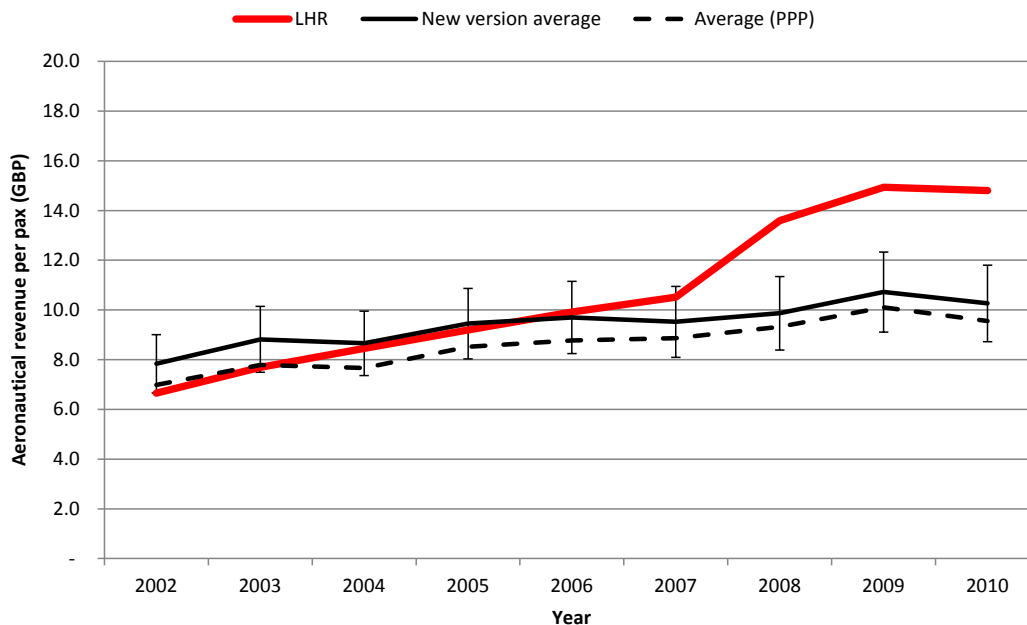
suggest that HAL may be over charging. However representations made by other airport operators suggest that HAL maybe under charging.

- 4.13 Since the publication of its Initial Views, and to further inform its understanding of the potential range of prices that might be considered to be competitive, the CAA commissioned Leigh Fisher to undertake work on benchmarking airport charges at Heathrow, Gatwick and Stansted, against suitable comparator airports, which, where possible, were operating in a competitive market.
- 4.14 The CAA considers that this work can help inform the discussion of the competitive price at Heathrow. Leigh Fisher's approach was to identify a set of suitable comparators for each airport based on a set of criteria (such as catchment size and traffic mix). Suitable criteria and comparators were discussed with airlines and airport stakeholders.
- 4.15 Leigh Fisher's analysis shows, as illustrated by Figure XX, that HAL's aeronautical revenue per passenger has, since 2008, been significantly above the average secured by comparable airports: as of 2010, around five pounds higher.<sup>128</sup> Leigh Fisher estimated that the margin of error of the analysis was +/- five to ten per cent.

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<sup>128</sup> The analysis also shows that HAL's aeronautical revenue per passenger were roughly in line with the average of comparable airports over the period 2002 to 2007.

**Figure 4.1: HAL's aeronautical revenue per passenger compared to the basket average**



Source: Leigh Fisher

Notes: comparator airports included Charles De Gaulle, Amsterdam Schiphol, Milan Malpensa, Istanbul Ataturk, Frankfurt Main, and London Gatwick

- 4.16 Leigh Fisher also undertook comparisons of total revenues and aeronautical tariffs. Based on the analysis undertaken, tariffs show a similar picture to that shown in Figure 4.1, although Leigh Fisher notes a number of factors, such as discounting, are capable of affecting the tariff comparison.
- 4.17 Total revenue per passenger at Heathrow has been consistently above that of its comparator set. This may be informative given that charges at Heathrow are regulated on a single till; however the substitutability between aeronautical and non-aeronautical charges is likely to be limited.
- 4.18 There is an important distinction to be made between aeronautical and non-aeronautical charges. In an unregulated environment, airport operators will have an incentive to maximise non-aeronautical revenues as this will allow them to maximise the overall revenues and profits of the airport. In a RAB based framework, the airport operator will also have a strong incentive to outperform regulatory assumptions regarding non-aeronautical revenue during the control period.

However, these incentives may be muted compared to an unregulated environment as the regulator will remove any outperformance at the end of the control period and thus reduce incentives for outperformance in the latter years of a control period. In addition, the regulated operator might have an incentive to underperform towards the end of the control period on non-aeronautical revenues, as this would maximise the scope for outperformance and reducing the pressure placed on management in the following price control period.

- 4.19 Given these potential distortions to incentives under regulation, the CAA considers that comparing aeronautical revenues at Heathrow with other airport operators is more informative than comparing operators by total revenues or non-aeronautical revenues as both regulated and non-regulated airports have similar incentives to maximise aeronautical revenues.<sup>129</sup>
- 4.20 Overall this analysis appears to show that HAL's aeronautical charges are above those of comparator airport operators. This is likely to be the case even when considering a margin of error present within the analysis.
- 4.21 As noted by HAL in its response to the Initial Views, there is presently a level of excess demand at Heathrow,<sup>130</sup> largely due to the capacity constraints at the airport. Under normal circumstances, where such a constraint exists, it would be expected that additional capacity would be developed (in the form of new entry or expansion by existing operators) to satisfy the additional demand. In instances where the constraint is caused by natural phenomena, such that expansion is not possible, it would be expected that prices would rise to rationalise the demand for the airport. However, Heathrow is capacity constrained as a matter of public policy at least for the foreseeable future.<sup>131</sup>
- 4.22 Similar to its position in the Initial Views, the CAA considers that the

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<sup>129</sup> This distinction is consistent with the approach adopted by the CC in the 2009 BAA Report, paragraphs 2.29-2.30.

<sup>130</sup> HAL, Response to the CAA's consultation on the Initial Competition Assessment, March 2012

<sup>131</sup> The current government has introduced a moratorium on the development of runway capacity at Heathrow, Gatwick and Stansted. see:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/78977/coalition\\_programme\\_for\\_government.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/78977/coalition_programme_for_government.pdf)

current price as enforced by regulation is likely to represent a long-term pricing position that is reflective of cost plus a reasonable rate of return given the risk of the investment. It is likely that, given the excess demand and capacity constraints, prices are below the market clearing price. However, that is not to say the current short-term market clearing price would be the price that would prevail, in the absence of the artificial capacity constraint, at an airport facing effective competition. Indeed the CAA considers that the regulated price is likely to be a fairer indication of the price in a non-constrained (hypothetically competitive) context.

- 4.23 Given that HAL appears to currently charge above the level of comparator airports, the nature of the capacity constraint it faces, and the nature of the regulation HAL faces, the CAA considers that it is appropriate to conduct the analysis based on current prices for the purposes of this assessment.
- 4.24 The CAA note that conducting a SSNIP from prevailing prices is adopted for market analysis in merger control.<sup>132</sup> Further, within other industries, such as telecoms, where the European Commission has provided additional guidelines for the assessment of market power.<sup>133</sup> The guidelines make it clear that where the regulated price is cost-based, it is reasonable to treat it as the competitive price level and hence as the benchmark for the SSNIP test.

*“In principle, the ‘hypothetical monopolist test’ is relevant only with regard to products or services, the price of which is freely determined and not subject to regulation. Thus, the working assumption will be that current prevailing prices are set at competitive levels. If, however, a service or product is offered at a regulated, cost-based price, then such price is presumed, in the absence of indications to the contrary, to be set at what would otherwise be a competitive level and should therefore be taken as the starting point for applying the ‘hypothetical*

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<sup>132</sup> The CAA notes that in merge cases the hypothetical monopolist test is conducted from prevailing prices. OFT and CC, Merger Assessment Guidelines, A joint publication of the Competition Commission and the Office of Fair Trading, OFT1254/CC2(Revised), September 2010, paragraph 5.2.12.

<sup>133</sup> The CAA notes that there are regulatory requirements in Telecoms for NRA to undertake market reviews of the telecoms sector on a regular basis due to requirements to only maintain regulation where operators have significant market power.



*monopolist test...*"<sup>134</sup>

- 4.25 These precedents give the CAA additional comfort that it has adopted the appropriate approach with regards to pricing at Heathrow.

## Section 2: The relevant product market(s)

- 4.26 This section considers the definition of the product market(s) in which HAL operates.
- 4.27 As defined in both European Commission<sup>135</sup> and the OFT<sup>136</sup> guidance, a relevant product market comprises all those products and/or services that are regarded as interchangeable or substitutable by the consumer by reason of the products' characteristics, their prices and their intended use. This section first examines what is an appropriate bundle of services with a focus on services provided in the 'core area' of the airport as defined in the Act.<sup>137</sup> It then considers possible product market segmentations.

### The service bundle

- 4.28 HAL provides a number of services to airlines, passengers, and a range of other companies (groundhandlers, concessionaires etc.) for the use of the infrastructure at Heathrow.<sup>138</sup> However, HAL's primary function is to provide access to the infrastructure of Heathrow for the operation of aircraft and processing of passengers and cargo.
- 4.29 Given how the Act sets out the market power test by reference to a market for airport operation services, and given that an airport can only be found to be dominant if the market power test is met for services provided within the core area, the CAA considers that the airport operation services provided in the core area of the airport is the most logical place from which to start defining the product market.

<sup>134</sup> EC, Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services, (2002/C 165/03, 11-7-2002)

<sup>135</sup> Commission market definition notice, paragraph 7

<sup>136</sup> OFT 403, paragraph 2.5

<sup>137</sup> Section 5(4)

<sup>138</sup> Details on the services that HAL provide can be found in chapter 2 {Background chapter}.

- 4.30 The CAA notes that, under this approach, the product market would cover airport operation services that could be generally described as aeronautical services and the provision of facilities for retail activities. It would, however, exclude the provision of facilities for car parking and other commercial activities such as the provision of office space to airlines.
- 4.31 The CAA considers that the aeronautical services provided by HAL at Heathrow are likely to consist of at least:
- the use of the runway and taxiways;
  - aerodrome Air Traffic Control ("ATC");<sup>139</sup>
  - aircraft parking;
  - ramp handling services;
  - fuel and oil handling;
  - the provision of facilities for aircraft maintenance; and
  - the provision of infrastructure needed for the provision of other airside and landside groundhandling services.<sup>140</sup>
- 4.32 In addition, the CAA considers that aeronautical services will include:
- the provision of facilities for check-in;
  - baggage handling;

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<sup>139</sup> Aircraft landing at Heathrow will only face charges from the airport operator for the aerodrome element of ATC. The approach service is provided by NERL Plc as part of the London terminal manoeuvring area (LTMA) and charged directly to airlines operating in this space. At airports outside of the LTMA, the approach service would be included within this bundle of activities. It should be noted, however, that the Act formally excludes ATS as defined in the Transport Act 2000 from airport operations services. The CAA also notes that the ability to land and manoeuvre aircraft at and around an airport is a key service that airport operators are required to provide as part of its services to airlines. In the UK these services are currently contracted by the airport operator with an air navigation service provider in a liberalised market. It is then up to the airport operator how they recover this cost in a similar manner to any other costs incurred: it is not a 'pass through' cost.

<sup>140</sup> The CAA notes that ramp handling services, fuel and oil handling, and aircraft maintenance are groundhandling services as defined in Directive 96/67/EC. Groundhandling services are often provided by the airlines or to the airlines by third parties. However, the groundhandlers pay fees to the airport operator relating to the use of and access to infrastructure. In these cases the airport charges would still affect the airline through the charges levied on the groundhandlers.

- security screening;
- facilities for holding passengers between arriving at the airport and departure on the aircraft ("Holding passenger facilities");
- facilities for the processing of airline staff arriving and departing the airport;<sup>141</sup> ("Airline staff processing facilities"); and
- the transit of passengers to and from the aircraft (in the case of a passenger airline) ("passenger transit facilities") and the provision of facilities for the processing of cargo (in the case of an aircraft carrying cargo, either in bellyhold or as a cargo-only flight) ("Cargo processing facilities").

4.33 The CAA considers that:

- these services are likely to form the key bundle of services that an airline would require to operate from an airport;
- an airline would be required to bear the costs of all of these services to provide air transport services;<sup>142</sup> and
- in deciding whether to land at an airport, an airline would take account of the total bundle of charges rather than focusing on any one charge in isolation (even though services may be priced individually by the airport operator to reflect different cost drivers).

4.34 Given the above discussion, the CAA considers that it is therefore appropriate to treat the basket of services outlined in paragraphs 4.34 to 4.35 as a single product. The CAA notes that this is consistent with information provided by airlines regarding the factors taken into account in making their initial choice of airport. For example, *'Wizz Air has stated that it considers costs holistically including aeronautical charges, the charges of groundhandling agencies, and more widely opportunities with commercial agreements with travel agents'*.<sup>143</sup>

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<sup>141</sup> It is of noted that given the legislative definitions staff may never "arrive" at an airport if they do not enter through a passenger terminal, pass the forecourt of such a terminal, or use a qualifying car park. Nevertheless the CAA considers that staff access costs would be a consideration as part of an airline's decision to operate from that airport.

<sup>142</sup> Air transport services are defined in the CA Act as "a service for the carriage by air of passengers or cargo to or from an airport".

<sup>143</sup> Source: Wizz Air

## Market Segments

- 4.35 In the Initial Views the CAA highlighted the ways in which the markets that HAL operates in could be segmented with respect to its product offer. In particular, the CAA considers the following possible market segmentations:
- airline business model;
  - based and inbound airlines;
  - route destination; and
  - cargo operations.
- 4.36 This section considers each of these issues in turn, where necessary developing the discussion the CAA presented in the Initial Views.

### Airline business model

- 4.37 This section considers the available evidence on whether it is appropriate to segregate and define separate markets based on the supply and demand of airport operations services, according to the airline business models.
- 4.38 In the Initial Views, the CAA observed that:
- "Whilst all airlines require the same basic bundle of aeronautical and non-aeronautical infrastructure and infrastructure services from Heathrow, individual airlines' requirements are likely to differ according to their business model and the type of service they offer. These differing requirements are likely to affect the choices available to different airlines and the airports with which Heathrow competes, with the choices faced by the airport's marginal airlines being most informative regarding competitive constraints".<sup>144</sup>*
- 4.39 As the most prevalent airline business model operating at Heathrow is that of FSCs<sup>145</sup>, the CAA recognises that it is particularly important to consider their requirements in defining the product bundle.
- 4.40 Cathay Pacific has stated the broad requirements of their FSC model to operate profitably:

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<sup>144</sup> CAA, Initial Views, paragraph 2.34

<sup>145</sup> In marketing material HAL has stated that 99% of air transport services are provided by FSCs.

[X].<sup>146</sup>

- 4.41 Cathay Pacific has also indicated, with respect to transfer passengers that:

*"Connecting passengers do contribute to Cathay Pacific's load factors at Heathrow. Though the destinations of the connecting passengers vary, but as a hub carrier what works for Cathay Pacific at Hong Kong airport also works at Heathrow. In terms of infrastructure for connecting passengers, Cathay Pacific notes that it is important to transfer passengers through an airport as quickly as possible, ideally within an hour. An effective baggage transfer mechanism between terminals is also required. Additional operations within a terminal itself can assist the flow of transfer passenger traffic. A hub partner airline would also be required at the airport".<sup>147</sup>*

- 4.42 Delta has also highlighted the importance of the three revenue elements outlined above for the viability of their services.<sup>148</sup>

- 4.43 Based on this information, in particular presentations from BA, the CAA has represented the role of the three elements of the FSC business model in the stylised figure below (figure 4.2).

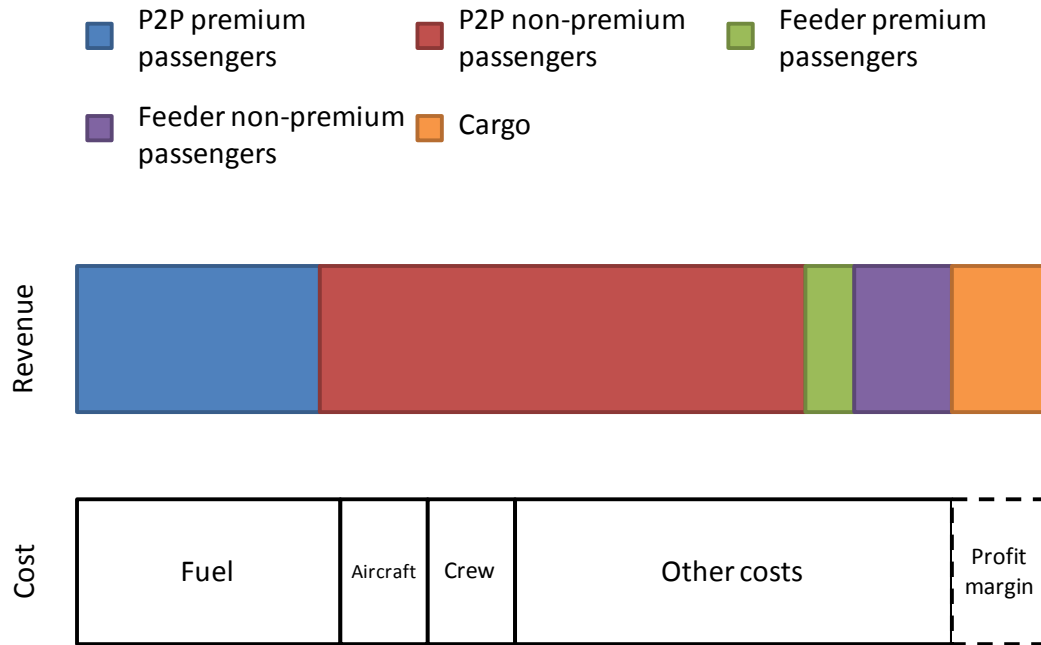
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<sup>146</sup> Source: Cathay Pacific

<sup>147</sup> Source: Cathay Pacific

<sup>148</sup> Sources: Delta

**Figure 4.2: Stylised example of the costs and revenues faced by a long haul flight**



Source: CAA adapted from BA presentation

- 4.44 Lufthansa, which operates short haul services from Heathrow, also noted that cargo is important to its short-haul operations from Heathrow to its Frankfurt and Munich hubs; this is in spite of the comparatively limited bellyhold capacity on its A320 aircraft.<sup>149</sup>
- 4.45 Based on the evidence outlined above, the CAA considers that FSCs operate a level of service differentiation towards their passengers with at least two distinct groupings; economy, and premium class. It is also clear that cargo and feeder traffic are important factors in operating a profitable service.
- 4.46 Evidence submitted by HAL shows its marketing approach to prospective airlines, which the CAA considers is consistent with the evidence on the wider service bundle advocated by the airlines. HAL markets itself on a number of aspects including aviation connectivity for feeder traffic and its cargo proposition.<sup>150</sup>
- 4.47 With respect to feeder traffic, the CAA notes that some airlines, such

<sup>149</sup> Source: Lufthansa

<sup>150</sup> Source: HAL

as BA or Lufthansa, provide the majority of their own network. Other airlines such as Virgin, operate using code share agreements that allow passengers to transfer from other carriers such as Flybe. However, regardless of how an airline secures feeder traffic, it requires airport facilities to allow passengers and baggage to be transferred in an integrated manner.

- 4.48 The CAA considers that there is a key interdependence between feeder and long haul operations. Specifically, the CAA considers that this highlights that regardless of whether individual routes require connecting traffic to remain viable, FSCs demand that these services be available at the airports from which they operate as this represents a key aspect of their product.
- 4.49 The CAA considers, based on the evidence available, that to meet these operational needs FSCs are likely to require:
- access to additional airport infrastructure to allow for facilities such as lounges and priority security lanes for premium passengers ("premium passenger facilities"); and
  - airport facilities to transfer connecting passengers and their associated baggage between aircraft without the passengers leaving the airport, such as a transfer baggage system ("Integrated transfer facilities").

#### **Based and inbound carriers**

- 4.50 In the Initial Views, the CAA discussed whether based and inbound carriers had different demands for airport infrastructure.<sup>151</sup> In particular, the CAA noted that:

*"... based and inbound network carriers have similar minimum infrastructure requirements. Indeed, these infrastructure requirements are extensive, in that they require the airport to accommodate surface and connecting passengers (and their bags), bellyhold cargo shipments, and support the airlines in providing a range of premium services to their passengers".*<sup>152</sup>

- 4.51 The CAA also highlighted the additional reliance that based carriers may have on transfer traffic at Heathrow. However, the CAA

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<sup>151</sup> CAA, Initial Views paragraphs 2.34-2.44

<sup>152</sup> CAA, Initial Views paragraphs 2.38

concluded that it was likely that both based and inbound carriers demanded the same bundle of services from the airport.

4.52 Given the evidence outlined in the discussion on the airline business model (above), which appears to be consistent for both based and inbound carriers, the CAA considers that there is no need to segment the relevant market by based and inbound carriers. That said, the CAA recognises that:

- based carriers may face different switching costs to inbound carriers; and
- there may be other factors that may impact differently on the ability of based and inbound carriers to discipline the airport.

4.53 These issues are discussed in more detail in chapter 5.

#### **Route destination**

4.54 In the Initial Views, the CAA highlighted that HAL had differential charging by destination and by transfer and terminating passengers. In particular, the CAA noted:

*"European vs Non-European – [HAL] differentiates its departing passenger charges according to whether the flight is to a “European” or “Other” destination, charging less for passengers travelling to European destinations. This broadly translates into a differentiation between short and long-haul operations.*

*Terminating vs Transfer – [HAL]'s charges are structured in a way that means that charges to transfer/transit passengers are lower than those levied on originating/terminating passengers".<sup>153</sup>*

4.55 The Initial Views also indicated that the CAA considered with regard to the European vs non-European charging that:<sup>154</sup>

- the European and non-European charging structure could be suggestive of separate markets, in that it broadly relates to long-haul and short-haul services; and

<sup>153</sup> CAA, Initial Views paragraph 2.51. The CAA note that in HAL's latest conditions of use the differential charging still exists.

<sup>154</sup> CAA, Initial Views paragraph 2.58



- there would be difficulties faced by airlines in switching between short-haul and long-haul routes as a short-run response to price changes.
- 4.56 The CAA did not conclude on this issue in the Initial Views as, at the time, it was not considered necessary for the assessment of market power. The CAA currently does not consider that it is necessary to move from this position.<sup>155</sup>
- 4.57 However, as per the Initial Views, the CAA considers that networked airlines are likely to be less concerned with individual route profitability but rather an assessment of the network as a whole.<sup>156</sup> The CAA considers that, when assessing the development and profitability of its operations, a networked airline may rationally operate individually unprofitable feeder routes to support the profitability of its long-haul services. This is likely to increase the overall network value and the profitability of the operation. In particular, the CAA considers that the network effects are likely to lessen the differentiation in airlines by haul.
- 4.58 On the other hand, the CAA considers that airlines that provide only short haul services into a hub airport would be more likely to focus on individual route profitability. These airlines would be more likely to be sensitive to rises in charges, which would reduce the viability of these short-haul operations. However, a number of these airlines, such as Lufthansa, feed services into their own alliance hub airports or operate code share agreements providing feeder traffic into the networked or point to point long haul airlines. The CAA considers how different types of carrier might constrain HAL from increasing airport charges in chapter 5.
- 4.59 With respect to transfer and terminating passenger charges, the CAA notes in the Initial Views it concluded that:
- "Heathrow currently differentiates between carriers based on the proportion of their passengers who are connecting, by varying its passenger charges. Although this could be profit-maximising behaviour, for example by incentivising the carriage of connecting passengers, the fact that airlines transport both surface and*

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<sup>155</sup> CAA, Initial Views paragraph 2.63

<sup>156</sup> CAA, Initial Views paragraph 2.54

*connecting passengers on their services would not support a segmentation of the product market according these passenger categories".<sup>157</sup>*

*"The fact that the majority of airlines operating at Heathrow operate services with a mix of connecting and surface passengers means that it is not useful – for the current assessment – to distinguish between the supply of services to point-to-point and networked carriers".<sup>158</sup>*

- 4.60 The evidence that the CAA has been presented with by the airlines indicates that they require a bundle of services in order to operate their services. This bundle includes facilities for both surface and transfer passengers. Therefore, based on the analysis that the CAA has undertaken since the Initial Views, the CAA continues to consider this is the case.

### **Cargo Operations**

- 4.61 The Guidelines highlight the need to consider the differing demands of passengers and cargo for airport facilities when defining markets.<sup>159</sup> In assessing the evidence from both a supply and demand perspective, it appears that there is good reason to segregate the market in terms of facilities required for passengers and those required for cargo as they require separate processes and infrastructure. For example a passenger is, in the main, able to navigate an airport from arrival to departure on the aircraft with limited help, while cargo cannot.
- 4.62 As set out in the Initial Views, cargo is a significant activity at Heathrow.<sup>160</sup> The majority of cargo that is shipped via Heathrow is done so via the bellyhold of passenger aircraft,<sup>161</sup> so the cargo shipped from Heathrow is linked to the flow of passengers. As the evidence from airlines confirms (discussed above), bellyhold cargo provides a key contribution to the provision of the passenger air transport services operated out of Heathrow. The evidence shows that FSCs demand the provision of cargo facilities as part of the product

<sup>157</sup> CAA, Initial Views Paragraph 2.59

<sup>158</sup> CAA, Initial Views paragraph 2.63

<sup>159</sup> CAA, Guidelines, paragraphs 3.30 and 3.43-47

<sup>160</sup> CAA, Initial View paragraphs 2.141-2.144

<sup>161</sup> In 2012 some 1.5 million tonnes of cargo was shipped from Heathrow of which 95% was done so in the bellyhold of passenger aircraft. CAA Airport statistic, 2012.

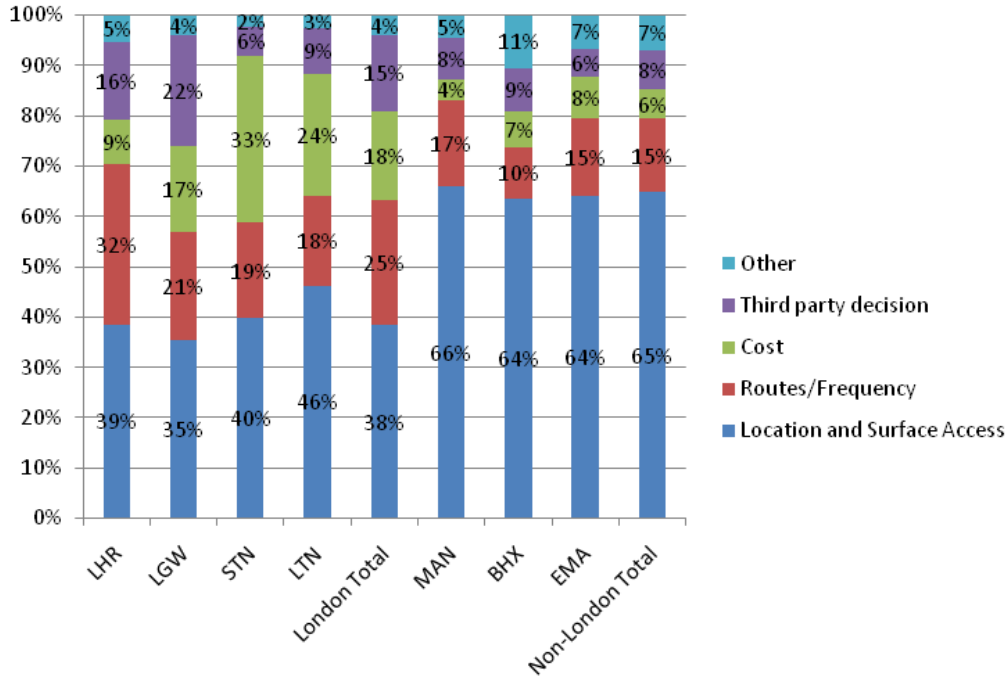
they purchase from the airport.

- 4.63 Given this link with the provision of services to FSCs the CAA does not consider there is merit in developing an independent market definition for cargo with respect to Heathrow. The CAA, therefore, does not consider further cargo separately within the analysis presented in this document.

### **Passenger segmentation**

- 4.64 There are a number of segmentations of the passenger base that could be considered as candidates for segmenting the product market for airport operational services. These include:
- surface and transfer passengers; and
  - business, leisure and VFR passengers.
- 4.65 Figure 4.3 shows passengers' reasons for their airport choice which could be considered as aspects of the airport product for passengers. It shows location and surface access is the primary driver, followed by routes/frequency of services. For Heathrow, a third-party decision (such as, by an employer) was the third most cited reason of choice.

**Figure 4.3: Reasons for airport choice**



Source: CAA Passenger Survey Working paper November 2011

4.66 The reasons for airport choice are in the main outside of the influence of the airport over the short to medium term, for example, location of and surface access to the airport after construction. To some extent, surface access can be altered. However this, it can take a considerable time period of time for any modifications to come on-stream, or may be part of wider government initiatives such as the Crossrail project which will link into Heathrow.<sup>162</sup> Although the airport does have some influence on costs to passengers through airport charges, as noted in chapter 6, these are a small part of the overall fare. Routes/frequency (and to a certain extent third-party decision where it is a business account) can only be impacted indirectly by the airport's engagement with airlines.

4.67 The CAA's current consideration is that, with the possible exception of transfer passengers, where there is differential charging, it would not be possible for an airport to identify with accuracy differing passenger groups, nor to prevent arbitrage by passengers that would eliminate

<sup>162</sup> The development of Crossrail began in 2001 receiving full support from Parliament in 2008. When Crossrail opens in 2018 it is set to bring four trains an hour to Heathrow airport. See: <http://www.crossrail.co.uk/> (accessed 2 April 2013).

any possibilities of price discrimination.

- 4.68 However, in aggregate, passengers demand influences the services offered by airlines which, in turn, impacts on the airline's demand for airport operational services. Through the purchase of an airfare passengers also self-select and reveal information about their preferences, on which an airport may be able to discriminate through charges on airlines.
- 4.69 The CAA does not, therefore, consider it is appropriate to segregate the product market by passenger groups. The CAA considers passenger switching in more detail with regards to the geographic market where passengers switching between similar services at different airports is likely to impact the geographic scope of the market.

#### **Supply side substitution**

- 4.70 As well as considering issues of demand substitution, the CAA considers that it needs to consider issues relating to the supply of services by airport operators. Supply-side substitutability relates to the ability of an alternative airport operator to enter the market at short notice and provide services in competition with the current provider(s) without incurring substantial sunk costs.<sup>163</sup> Alternatively, rather than new entry, an existing airport operator could expand or develop its current offering to compete with HAL. If alternative operators can effectively provide additional capacity in the short-term (i.e. less than one year), that may effectively discipline any attempt by HAL's to increase airport charges.
- 4.71 In principle, there are a number of ways in which supply-side substitution could occur, including:
- conversion of a military airfield to civilian use;
  - investment in infrastructure at a current general aviation airport to allow the use of commercial passenger flights; and
  - a commercial airport improving its current infrastructure to accommodate larger aircraft.

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<sup>163</sup> The CAA refers here to sunk costs specifically as costs incurred in entering the market that are not recoverable on market exit.

- 4.72 The CAA notes, however, that the amount of investment needed in any of these scenarios (and any other) will depend on a number of factors, as there are many constraints on the type and volume of traffic that an airport can handle.
- 4.73 To illustrate this point, the CAA focuses on one of the main factors that affects the ability of airlines to operate from particular airports: runway length. Long-haul services, for example, tend to be operated with larger aircraft than those used by short-haul operators, and therefore require longer runways for take-off and landing.
- 4.74 The CAA notes that with two runways over 3,600m in length, HAL is able to offer services to all currently available commercial passenger aircraft at Heathrow. Similar services can also be offered at Gatwick and Stansted airports as they have runways of a suitable length. However, nearby airports such as Luton and London City are restricted in terms of the type of operations they can support due to runway length. For example London Luton Airport Operations Limited (LLAOL) told the CAA that *“The [Luton] runway of approximately 2km in length largely precludes long-haul traffic from operating.<sup>164</sup> The model is based on high frequency; short sector (mostly 2 hours and a couple of 5/6hours)”*.<sup>165</sup>
- 4.75 Virgin, a FSC, has also highlighted a number of supply side issues that limit the scope for it to operate long-haul services at other (regional) airports:

*“Many regional airports do not have runways that can accommodate long-haul aircraft. ... which means that, we could not operate services using our current fleet without altering the passenger payload and/or the cargo carrying capabilities.*

*Many regional airports do not have the terminal capacity or suitable facilities to operate regular long-haul services. For example, due to the high passenger density, check-in desks and immigration services need to be designed for the high volume of passengers which need to be processed in a condensed space of time. We operate our aircraft in*

<sup>164</sup> With aircraft currently in services, however as aircraft technology moves forward this may not be the case. For example the B787 requires shorter runway distances other long haul aircraft

<sup>165</sup> Source: LLAOL. Luton has since stated that with recent improvements to aircraft technology, new aircraft such as the B787 which have shorter take off distances, could potentially facilitate long haul aircraft

*a high density configuration of up to 451 seats. To compete effectively as a full-service airline, we require airport facilities to accommodate particular service standards including separate designated, differential queue standards and the use of business class lounges, as well as facilities for transfer passengers.*

*Many regional airports have insufficient airside facilities to handle wide-body aircraft used for long-haul routes. For example, we prefer to use contact stands with direct airbridge access on to the aircraft".<sup>166</sup>*

- 4.76 The CAA notes that while Heathrow, Gatwick and Stansted all have the infrastructure required to provide these facilities; Stansted does not currently provide these services to any airline.
- 4.77 The CAA also notes that investment in a runway extension (or other airport infrastructure) can be a complex and resource intensive exercise. While the precise costs and practicalities of any such developments are likely to depend on the particular location of the airport and the technical nature of the project, some of the challenges associated with such a project may include:
- significant capital and resource cost for the airport operator;
  - local and possible national planning restrictions;<sup>167</sup> and
  - potentially physical restrictions that are site specific.
- 4.78 The CAA considers it is likely that substantial investment costs involved in supply-side substitution would be of a level that would rule it out as a short-term response to direct airport competition. Due to planning restrictions and other constraints, entry or expansion is not reasonably likely to occur within one year. The CAA therefore considers that supply side substitution does not lead to a different product market to that which can be served from the existing infrastructure.

### Conclusion on product market definition

- 4.79 The product market in which HAL operates is driven by the demands

<sup>166</sup> Source: LLAOL. Luton has since stated that with recent improvements to aircraft technology, new aircraft such as the B787 which have shorter take off distances, could potentially facilitate long haul aircraft.

<sup>167</sup> For example, there is currently a government moratorium on airport expansion at Heathrow, Gatwick and Stansted.

on airport infrastructure of the FSCs and the feeder business model. Evidence suggests that, for the effective operation of its business model, FSCs and feeder airlines require facilities that allow them to cater for premium and transfer passengers and processing of bellyhold cargo.

4.80 On the evidence outlined above, the CAA is minded to consider, based on the demand characteristics from airlines and the limited opportunities for supply side substitution by airport operators in a reasonable time horizon, that the focal product market should be defined as consisting of the aeronautical services provided to FSCs and feeder airlines, including, but not limited to:

- the use of the runway and taxiways;
- aerodrome ATC;
- aircraft parking;
- ramp handling services;
- fuel and oil handling;
- aircraft maintenance facilities;
- infrastructure for airside and landside groundhandling services;
- check-in, baggage handling and security screening facilities;
- passenger holding facilities;
- airline staff processing facilities;
- passenger transit facilities;
- bellyhold cargo processing facilities;
- premium passenger facilities; and
- integrated transfer facilities for passengers and baggage between flights.

4.81 The CAA does not consider that there is sufficient evidence to suggest a further segmentation of the market by the based, long/short-haul or transfer characteristics of an airline's business model nor by reference to distinct passenger groups.



## Retail and car parks ("RCP")

- 4.82 This section briefly outlines the CAA's approach to the airport operational services that are not included in the market definition above. These include the services outlined in section 68(3)(b)-(c) of the Act.
- "(b) facilities for car parking, and  
(c) facilities for shops and other retail businesses."*<sup>168</sup>
- 4.83 In relation to the provision of facilities for retail and car park (RCP) activities, the CAA would need to be assured that the services in the FSCs and feeder airline aeronautical services market and RCP services are interdependent<sup>169</sup> for them to be in the same market.
- 4.84 The CAA notes that, although retail services would not be needed if the airport did not operate, in principle, an airport could operate without the provision of facilities for retail activities.
- 4.85 The CAA also notes that, although some passengers may take into account the retail offering and/or prices of products sold at the airport when making a decision on the airline/airport with which they choose to fly, evidence suggests that this varies across different passenger groups, and expectations vary by airport.<sup>170</sup> To phrase it another way, 'all shoppers are fliers, but not all fliers shop'.
- 4.86 The CAA considers that, in practice, the price for retail activities is unlikely to significantly affect passengers' choice of an airline or airport. Further, in considering how to respond to an increase in rent and/or change to other terms of their contracts, concessionaires' decisions are likely to be independent from decisions made by airlines in relation to aeronautical services.

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<sup>168</sup> Section 68(3)

<sup>169</sup> In this context the CAA defined interdependent such that an increase (decrease) in the price to one set of customers impacts on the demand from another set of customers and vice versa. It is not enough for the pricing on just one side of the market to impact on the other, interdependence requires reciprocation.

<sup>170</sup> "Understanding Airport Passenger Experience", Independent Social Research on behalf of the DfT, March 2009:

<http://webarchive.nationalarchives.gov.uk/+http://www.dft.gov.uk/pgr/aviation/airports/reviewregulationairports/understandingexperience.pdf>; Consumer Research, Accent for CAA, May 2011: <http://www.caa.co.uk/docs/2107/2131ConsumerResearch06122011.pdf>

- 4.87 The CAA's current view is that, in examining the existence and extent of HAL's market power; it is likely to be more appropriate to define a separate market for the provision of facilities for retail activities that is distinct from that of the aeronautical product market. This is consistent with the approach adopted by the CC to RCP.<sup>171</sup>
- 4.88 At this stage, for the purpose of the market power assessment, the CAA does not consider it is necessary to define this distinct market in more detail.

### Section 3: Geographic Market Definition

- 4.89 This section considers the geographic market definition for the product identified in the previous section. The first section considers first evidence from the airport on their views on the market, and second it considers the view of the airlines. Finally, this section considers relevant passenger analysis.
- 4.90 The geographic market comprises the area in which the undertakings concerned are involved in the supply of products or services and in which the conditions of competition are sufficiently homogeneous.<sup>172</sup> This area can be distinguished from neighbouring areas because the conditions of competition are appreciably different.
- 4.91 It is important to note that, as airports serve a number of different users, there may be different relevant geographic markets for different user groups of users.<sup>173</sup>
- 4.92 As explained in chapter 3, the assessment of competitive constraints for geographic market definition will include an analysis of the ability of airlines to switch away from an airport as well as the potential for passengers to switch between airports.
- 4.93 In the Initial Views, the CAA considered the following in relation to the scope of the geographic market for services from Heathrow:

*"Heathrow's geographic market being no wider than Heathrow and, for some services, Gatwick when based network carriers are considered*

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<sup>171</sup> CC (2009) report paragraph 2.41

<sup>172</sup> CAA, Guidelines, paragraph 3.8 and EC Market Definition Notice, paragraph 8

<sup>173</sup> CAA, Guidelines, paragraph 3.59

*but further afield when considering Heathrow's inbound carriers".<sup>174</sup>*

- 4.94 The analysis that the CAA has conducted since its Initial Views has led it to take a different view of the focal product and the segmentation of the product market to that presented in the Initial Views. Therefore, HAL's and the airlines' responses to the Initial Views on the geographic scope of the market need to be assessed in light of the CAA's revised view of the product market.

### **Airport Operators' views**

- 4.95 This section presents the views and evidence received from airports with regards to the geographic market definition.
- 4.96 HAL has made the following representations with regards to the markets in which it operates in response to the CAA's initial views Initial Views:

*"Heathrow is the UK's only hub airport and competes with other hubs airports in Europe. Although the CAA goes some way to recognising this, ultimately the analysis falls short of concluding that Heathrow is at least partially constrained by the effectiveness of competition from other hub airports.*

...

*To define Heathrow as a market runs the risk of ignoring that 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.*

*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 ... different charges are currently raised against O&D (surface) and transfer (connecting) passengers. Crucially,*

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<sup>174</sup> CAA, Initial Views Gatwick paragraph 2.190

*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 ... were undertaken for O&D (surface) 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".<sup>175</sup>*

- 4.97 Within its response to the CAA's Initial Views HAL presented some regression analysis for the determinants of demand for long-haul passengers. The analysis indicated that Heathrow's demand is different from that of Gatwick but similar to the European hub airports (Schiphol, Charles De Gaulle and Frankfurt). HAL concluded:

*"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*

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<sup>175</sup> HAL, Response to the CAA's consultation on the Initial Competition Assessment, March 2012

services)".<sup>176</sup>

- 4.98 HAL also presented analysis on the effectiveness of competition in the transfer market segment, which the CAA considers in the Passenger analysis below.
- 4.99 Evidence submitted by HAL on its marketing approach for prospective inbound airlines provides additional indications as to HAL's consideration of the market.<sup>177</sup> The material focuses on Heathrow's connection with London, describing London as a leading world city. There is also a strong focus on the transfer opportunities at Heathrow. With the transfer opportunities HAL compares the connectivity at Heathrow with that of Gatwick<sup>178</sup> (and Manchester for European connections).<sup>179</sup> With regards Gatwick HAL notes that:
- 99% of air transport services from Heathrow are delivered by FSCs compared to 36% at Gatwick;
  - the average fare at Heathrow is three times higher; and
  - the yield at Heathrow is 30% higher.
- 4.100 In its marketing to prospective airlines HAL does not present a detailed comparison between the Heathrow offer and that of other European hub airports. It notes the following points:<sup>180</sup>
- Heathrow has the highest proportion of flag carriers and services provided by FSCs of Europe's major hubs;
  - the average fare is two times higher than at other European hubs; and
  - twice as many passengers travel in a premium cabin compared to other European hubs.
- 4.101 Birmingham International Airport Limited (BIAL) considered that it faced competition from HAL. BIAL considered that HAL currently charges below the competitive level and that it would benefit in terms

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<sup>176</sup> HAL, Response to the CAA's consultation on the Initial Competition Assessment, March 2012

<sup>177</sup> Source: HAL

<sup>178</sup> Source: HAL

<sup>179</sup> Source: HAL

<sup>180</sup> Source: HAL

of long-haul development were HAL to charge a higher price. BIAL noted the difference between the Birmingham and Heathrow offer down to location. BIAL noted that HAL's main selling point was proximity to London that allowed airlines to provide and fill a first class cabin. BIAL noted that there is sufficient demand at Birmingham to fill business class, but not first class.<sup>181</sup>

- 4.102 GAL considers that it competes with a number of airports within the UK especially those in the South East, namely Heathrow, Luton, Stansted and London City. GAL noted that the market is:

*".. at least a broad 'south east of England' market in which Gatwick competes with Heathrow, Luton, Stansted and London City airports".*<sup>182</sup>

- 4.103 HAL's representation shows clearly the possible markets in which it operates. HAL appears to consider that O&D and transfer passengers represent different markets for the purposes of airport operation services, highlighting its current practice in differentiated charging. For O&D passengers, HAL entertains the idea that the market could include other airports in the South East, but does not appear to consider that this is the case. HAL's regression analysis suggests that HAL is not in the same market as other UK airports. HAL clearly considers it competes with European hubs for transfer passengers; however, again it is imprecise as to the geographic limits of the market.<sup>183</sup>

- 4.104 The evidence from HAL indicates that the services offered from Heathrow are generally of a higher specification than at other airports in the South East or the European hubs, with a high proportion of air transport services provided by FSCs. The evidence from HAL also indicates that HAL uses access to London as a key selling point and the ability of airlines to gain higher fares on average at Heathrow than at other airports. This is clearly the case with Gatwick where HAL states that Heathrow fares are three times the level of those at Gatwick and produce 30% higher yields.<sup>184</sup>

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<sup>181</sup> Source: Birmingham Airport (BIAL)

<sup>182</sup> Source: GAL

<sup>183</sup> The CAA considers the Alternative Hubs below.

<sup>184</sup> Source: HAL

- 4.105 Both the BIAL and GAL representations suggest that they consider that they compete with HAL for at least some traffic. The CAA considers that it is possible that these airports face some level of constraint from HAL. However, the weight of the evidence from the airlines (presented in the following section) suggests that any such constraints are likely to be asymmetric. Although HAL may act as a constraint to the pricing behaviour at other airports, such other airports, including Birmingham and Gatwick, do not appear to constrain HAL's behaviour.
- 4.106 The CAA considers that the airport evidence suggests that the market may be wider than that indicated by the airline evidence. However, it also shows that Heathrow provides airlines with significant additional benefits over other airports. This is likely to increase the barriers of switching away from Heathrow for airlines currently operating from the airport.

### Airline Evidence

- 4.107 This section considers the airlines' evidence. The first two sections consider airline views. The CAA considers the evidence by based and inbound carriers, in case they have different views, before drawing the analysis together. The section then considers airline switching and route overlap before drawing a summary of the airline evidence.

#### Based Carriers

- 4.108 BA considers that there are significant switching costs in their operation which may make the movement of marginal traffic between airports unfeasible.<sup>185</sup> In particular, BA has noted:

*"It is clearly not viable to move our LHR operation, for a number of reasons, including the lack of sufficient hub capacity in the London market area. Similarly, our Gatwick operation has [X] short-haul aircraft and [X] long-haul aircraft. We do not believe that there is an airport suitable for our services and passengers with the capacity to absorb this size of operation in the London market area".<sup>186</sup>*

- 4.109 In addition, BA has indicated that it considers that the market is limited by its client base, and that it needs to offer services from airports that

<sup>185</sup> The CAA interprets this to mean the switching of marginal routes to airports at which BA does not currently operate.

<sup>186</sup> Source: BA

are closely located to its premium passengers. In particular, it has indicated:

*"Although British Airways regards the London area as a single market, our premium customers are not equally distributed across the south east.*

*Our analysis of [redacted].*

*Our analysis also shows that the further away from the three London Airports that BA serves these premium passengers are, then the [redacted].... We see London area as a single market BUT [...] the areas extending to [redacted] have the greatest number of high value customers, this implies that were we to consider moving traffic away from LGW or LHR then we would have to rebase it one of the airports in the South or East of the South East or risk losing premium traffic. Or alternatively we could only move our non-premium traffic, which again would risk incurring heavy fixed costs for [redacted].*

*In any event, the location of LHR and LGW and our established premium customers with their propensity to travel, severely limits our ability to move traffic from LHR and LGW".<sup>187</sup>*

- 4.110 Although BA states that it considers there is a London-wide market, their submissions and evidence appear to suggest that while Gatwick may compete with Heathrow for some of their routes, there is no substitutability between those airports and the other neighbouring London airports given the location of BA's passenger base
- 4.111 The limited substitutability between Gatwick and Heathrow is supported by Virgin's response to the CAA's Initial Views, where it stated that:
- "whilst [the CAA analysis] suggests that Gatwick appears to compete with Heathrow for long-haul leisure destinations, this competition will in reality be limited by available capacity at Heathrow which acts as a barrier to entry".<sup>188</sup>*
- 4.112 In further submissions, in response to questions on the substitutability of Heathrow for Gatwick, Virgin also noted that:

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<sup>187</sup> Source: BA

<sup>188</sup> Virgin Response to Initial Views, 22 March 2012.



*"It is Virgin Atlantic's experience that Gatwick fails to act as a suitable substitute for Heathrow, but to a large extent Heathrow may be a competitor to Gatwick. Particularly amongst business passengers, Heathrow acts as an appropriate substitute for Gatwick due to its demographic profile, greater access, convenience, timesaving and route availability. For leisure passengers there is evidence that a degree of competition exists between the airports, however this should not be exaggerated.*

*... it is Virgin Atlantic's belief that if we were able to move all services that we currently operate from Gatwick to Heathrow virtually all current passenger traffic would transfer with these services i.e. Heathrow is almost a 100% substitute for Gatwick traffic.*

*...If Virgin Atlantic were able to move services from Gatwick to Heathrow, the services would retain current levels of transfer traffic. Indeed, Virgin Atlantic would expect that the number of transfer passengers of any services moved to Heathrow would increase, due to its greater transfer potential. This further exemplifies the ability of Heathrow to act as a commercially appropriate substitute for Gatwick. When Virgin Atlantic has previously switched services from Gatwick to Heathrow, it experienced a positive effect on yields*

*Capacity constraints are a key limitation on substitution. Virgin Atlantic would want to move more of its services to Heathrow, but has been unable to do so because of a lack of runway slots".<sup>189</sup>*

- 4.113 Virgin has also supplied the CAA with quantitative analysis which suggests that [§<].<sup>190</sup> This evidence supports the CAA's analysis that Heathrow provides an asymmetric constraint to Gatwick.

*Further, Virgin has noted that it operates effectively separate fleets for its business operations at Heathrow and its leisure routes (flights from Gatwick, Manchester and Glasgow). The Heathrow fleet consists of aircraft with between 33 and 45 Upper Class seats, whereas the leisure fleet uses aircraft with around 14 Upper Class seats.<sup>191</sup>*

- 4.114 The Virgin evidence shows more segregation in the operations between Heathrow and the rest of the airlines' operations. For

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<sup>189</sup> Source: Virgin

<sup>190</sup> Source: Virgin

<sup>191</sup> Source: Virgin

instance, Virgin would face additional costs in refitting aircraft to serve routes from the differing airports. The evidence suggests most strongly suggests that Gatwick is not a substitute for Heathrow as the financial performance of services out of Gatwick is inferior to those out of Heathrow. This evidence supports the CAA's analysis that Heathrow merely provides an asymmetric constraint to Gatwick.

- 4.115 The CAA considers that the evidence from the based airlines indicates that the market is no wider than Heathrow.

### **Inbound carriers**

- 4.116 Aer Lingus operates 43 movements into Heathrow per day and also operates ten movements per day into Gatwick. When commenting on its strategy it noted that London is a very important part of its demand profile and that London has many airports.<sup>192</sup>
- 4.117 Aer Lingus noted that Heathrow is effectively the hub airport and Gatwick is a point-to-point and leisure airport. Heathrow's hub status is important to Aer Lingus for connectivity, whereas this is less of a concern at Gatwick. Its decision to operate from both Heathrow and Gatwick is based on a number of criteria including:<sup>193</sup>
- the need to extract the widest coverage it can into the London area in terms of the deployment of aircraft in order to satisfy point-to-point and to keep up with demand; and
  - it also needs to recognise and cater for their respective catchments and their unique demand profiles due to geographic location.
- 4.118 Air Malta, an unaligned airline, flies from Heathrow, Gatwick and Manchester to Malta. Initially, *Air Malta operated exclusively from Heathrow, but due to limited availability of slots, which meant it could not grow further, it commenced operations from Gatwick. Air Malta also noted that if there was a significant expansion of capacity at Heathrow, it would add capacity, however at this stage it was not sure whether this would be at the expense of Gatwick (i.e. removing its frequency from Gatwick altogether).*<sup>194</sup>
- 4.119 In addition, *Air Malta indicated that the main difference between*

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<sup>192</sup> Source: Aer Lingus

<sup>193</sup> Source: Aer Lingus

<sup>194</sup> Source: Air Malta

*Heathrow and Gatwick is the level of connectivity:*<sup>195</sup>

- *the level of connectivity at Gatwick is much more limited than at Heathrow (i.e. far fewer transatlantic flights);*
- *if it uses Heathrow, it can not only can connect to the UK, but internationally as well (to important markets in the US, Canada, Australia, Japan etc.); and*
- *its passengers prefer Heathrow.*

4.120 Cathay Pacific, which operates daily services from Heathrow to Hong Kong has stated that:

*It is the hub airport of the UK. Cathay Pacific works with its 'hub partner' BA in the One World Alliance, to allow passengers flying to Heathrow not only to reach London but also to reach other destinations in the UK and in Europe using its hub partner British Airways. From a Cathay Pacific perspective, in the UK, Heathrow is very much the obvious and only place to which to fly due to the proper hub-and-spoke operation at the airport. Although Gatwick has recently improved, Heathrow remains the preferred airport for passengers flying out of London. Heathrow is well-connected into the centre of London. It first started flying to London in the 1980s into Gatwick, but its passengers made it clear that they prefer Heathrow and Cathay Pacific switched when they got the opportunity.*<sup>196</sup>

4.121 Delta, an American carrier operating between Heathrow and a number of cities in the USA, has recently stopped its services from Gatwick and moved them to Heathrow. When questioned about the move Delta indicated:

*Many corporate companies are in the central London area and Heathrow is better placed to serve these pax due to the good transport links (such as the Heathrow Express), hotels and other facilities etc. Heathrow is the preferred London airport; it is where business passengers are. Gatwick is a great airport with great facilities and good links with the Gatwick Express, but Heathrow is closer and perceived to be the London airport.*<sup>197</sup>

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<sup>195</sup> Source: Air Malta

<sup>196</sup> Source: Cathay Pacific

<sup>197</sup> Source: Delta

4.122 Further, Delta stated that:

*There is a long history of competition evaluation between Heathrow and Gatwick in ascertaining whether they are substitutable, and this has found that they are not. The overwhelming conclusion is that business travellers prefer Heathrow which is why it is prepared to absorb large leasing costs in order to operate from there. Furthermore, as it has a relatively small footprint, it would be quite awkward to operate from two airports.*<sup>198</sup>

4.123 Emirates operates services from Dubai to the UK out of Heathrow but also, as well as from Birmingham, Gatwick, Glasgow, Manchester and Newcastle.<sup>199</sup> *It has noted that its regional operations are not substitutable with those in London. In considering the substitution of Heathrow for Gatwick, Emirates has suggested that:*<sup>200</sup>

- *Heathrow and Gatwick appeal to separate markets but to the extent that they are substitutes, this appears to be one-way.*
- There is a geographic and market distinction between Gatwick and Heathrow in that they serve different catchments and markets.
- There is a huge catchment overlap between Gatwick and Heathrow (i.e. areas such as Guildford), but Gatwick serves a separate market: serving the south coast is its “winning card” as this is where Emirates consider that the core population resides.
- Heathrow has significant inbound carrier traffic feed and is business-focused. Heathrow has higher yields due to the better concentration of business passengers and better connectivity to the USA, Canada and Europe. On the other hand, Gatwick is a UK originating airport for Emirates (with 65 to 70 per cent of its passengers connecting onwards at Dubai) and is leisure-focused.

4.124 Lufthansa, which operates from Heathrow and provides limited services from Gatwick, considers that each airport is a market in itself for the airport’s core catchment. In respect to its Heathrow operation Lufthansa has noted that London is seen as “the place to be” for its customers as London and Heathrow are synonymous. It would not

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<sup>198</sup> Source: Delta

<sup>199</sup> Rout Map Emirates.com (accessed 13 Feb 2013).

<sup>200</sup> Source: Emirates

move away from Heathrow due to the considerable switching costs involved and the presence of the Star Alliance at Heathrow. Heathrow's advantages include the convenience of its access links into central London and the rest of the UK (the inter-modality), which is preferred by both business and leisure passengers. The high frequency of operations is to provide feeder traffic to its hubs at Frankfurt and Munich, as well as to serve the significant point-to-point demand available from Heathrow.<sup>201</sup>

- 4.125 The CAA considers that the evidence from inbound operators suggests that the market should be no wider than Heathrow. Although a number of the airlines have stated that they operate from Gatwick and other UK airports, it appears that Heathrow has a particularly strong brand for business travel and a network of airlines that drives connectivity. The advantage of this would be lost in a move from Heathrow.

#### **Airline switching from Gatwick to Heathrow**

- 4.126 This section considers the evidence on actual airline switching that has been observed to and from Heathrow. Considering the actual switching that has taken place provides us with a view of the market dynamics that are currently apparent within the market and of substitutability between airports.
- October 2009, BA closed a number of services from Gatwick and switched some further services back to Heathrow.<sup>202</sup>
  - May 2011<sup>2011</sup>, Qatar Airways pulls out of Gatwick for Heathrow.<sup>203</sup>
  - April 2012<sup>2012</sup>, Delta pulls out of Gatwick for Heathrow.<sup>204</sup>

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<sup>201</sup> Source: Lufthansa

<sup>202</sup> Source: GAL, Airport competition: Competing to grow and become London's airport of choice, An initial submission from Gatwick airport to inform the CAA's review of airport competition, Q5-050-LGW05, November 2011

<sup>203</sup> Source: GAL, Airport competition: Competing to grow and become London's airport of choice, An initial submission from Gatwick airport to inform the CAA's review of airport competition, Q5-050-LGW05, November 2011

<sup>204</sup> Source: GAL

- From March 2013<sup>205</sup>, US Airways switching their Charlotte service from Gatwick to Heathrow.<sup>205</sup>

4.127 Where possible the CAA has attempted to ascertain the motivations behind the observed switching behaviour. Delta recently switched its operations from Gatwick to Heathrow. The reasons for this move are detailed in paragraph 4.124. The key motivation for Delta's switch has been to secure passenger demand. The CAA considers that the move was not undertaken due to changes in the relative price or quality of the airport services provided at either airport. Indeed, Delta has commented on the quality of the Gatwick facilities:

*Gatwick is a great airport with great facilities and good links with the Gatwick Express, but Heathrow is closer and perceived to be the London airport.*<sup>206</sup>

4.128 This evidence shows switching from Gatwick to Heathrow, but not vice versa, which is consistent with the existence of asymmetric constraints between Gatwick and Heathrow. Although Heathrow may be a substitute for Gatwick, Gatwick appears to impose little constraint on Heathrow. Additionally, the CAA notes that it is not aware of any airline switching services out of Heathrow as an attempt to discipline airport charging. It is of further interest that this switching has taken place against a backdrop of an average price rise of RPI+7.5 per cent by HAL (see chapter 2) and a much lower price rises by GAL<sup>207</sup>. It is now costs almost twice as much per passenger at Heathrow compared to Gatwick.

### Route overlap

4.129 As with catchment analysis route overlaps may provide an indication of the possible substitute airports available for passengers. Analysis from the Initial Views showed that of the short-haul city pairs served from London in 2010, 86 per cent of the cities served from Heathrow were also served from another London airport.<sup>208</sup> Of the long-haul city pairs only 17 per cent of cities served from Heathrow were served by

<sup>205</sup> Source: GAL, Airport competition: Competing to grow and become London's airport of choice, An initial submission from Gatwick airport to inform the CAA's review of airport competition, Q5-050-LGW05, November 2011

<sup>206</sup> Source: Delta

<sup>207</sup> CAA, Gatwick Market Power Assessment Chapter 4

<sup>208</sup> CAA, Initial Views Table 13

other London airports.<sup>209</sup>

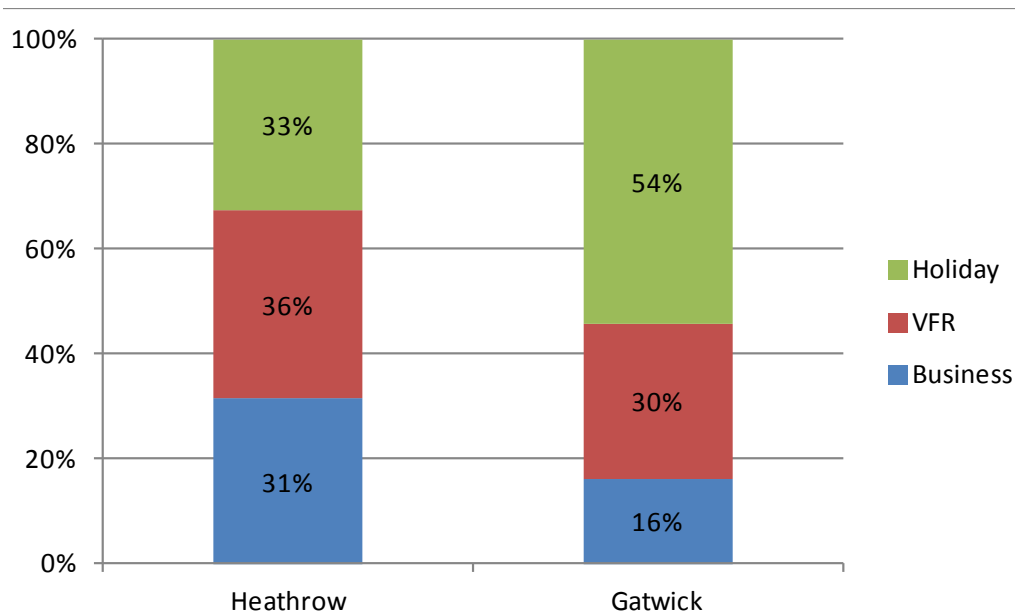
- 4.130 The CAA considers that the route overlap can be indicative of the choice that passengers may have. However, the analysis in isolation does not take into account passenger preferences for particular airlines or the price and time sensitivities of passengers. Rather, it highlights the theoretical maximum potential for passenger switching for passengers demanding long-haul services.
- 4.131 The route planning of individual airlines, where they serve neighbouring airports such as Heathrow and Gatwick, is likely to provide greater insight into airport market dynamics. The CAA considers it likely that, where airports are substitutable and serve the same market, there would be low overlap in the routes provided by an airline. By contrast, high route overlap by an airline may suggest that it sees each airport as serving different markets.
- 4.132 However, the submissions by airlines operating at both Heathrow and Gatwick clearly suggest that they serve distinct markets. In this context, although the data shows that Virgin had no overlapping routes in summer 2011, their representations above clearly state that they do not consider Heathrow and Gatwick to be substitutes. Similarly, evidence was presented by BA, which had only 25 per cent overlap in summer 2011, and for Emirates, which had 100 per cent route overlap.

#### **Summary of the evidence from FSCs and feeder airlines**

- 4.133 The airline evidence presented above shows a strong preference for airlines to operate out of Heathrow. However, Gatwick has been mentioned and has been, or is, used for some services by the airlines that are present at Heathrow. The evidence from these airlines suggests that they consider these airports as serving different markets. The views show Heathrow as being key to the airlines' networks as it allows them to serve business/premium passengers, whereas Gatwick is positioned as a leisure offering. Data on passengers' reasons for travel support this to be the view (Figure 4.4). The differences between the airports are highlighted starkly by Virgin, which operates differing fleets for its Gatwick and Heathrow operations.

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<sup>209</sup> CAA, Initial Views Table 14

**Figure 4.4: Passengers reasons for travel**

Source: CAA passenger survey 2011

- 4.134 The evidence indicates that Gatwick imposes a limited constraint on HAL's behaviour. Despite the difficulties in accessing appropriate slots at Heathrow (discussed in more detail in chapter 5) airlines would be willing to switch from Gatwick to Heathrow but for the lack of capacity at the latter. The majority of airlines have suggested that it would be beneficial for them to do so, based on a number of factors, including passenger numbers and profitability, despite significantly higher charges imposed by HAL. The observed switching is predominantly from Gatwick to Heathrow and therefore supports the view that Gatwick poses a limited constraint on HAL's behaviour.
- 4.135 Based on the evidence available, the CAA considers that airlines currently operating at Heathrow would be unlikely to switch sufficient capacity away from the airport to render a SSNIP test unprofitable. Therefore, the CAA considers that the airline evidence suggests a market which is focused on aeronautical services for FSCs and associated feeder airlines from Heathrow.

### Passenger analysis

- 4.136 This section considers the evidence available on passengers' demand for airport services and its implications for geographic market definition. As noted in chapter 3 the CAA considers that airlines



internalise, to some degree, the passenger preferences and broad demand. This section reviews the evidence available on passengers to assess whether independent passenger analysis supports the representation made by the airlines.

### **Catchment analysis**

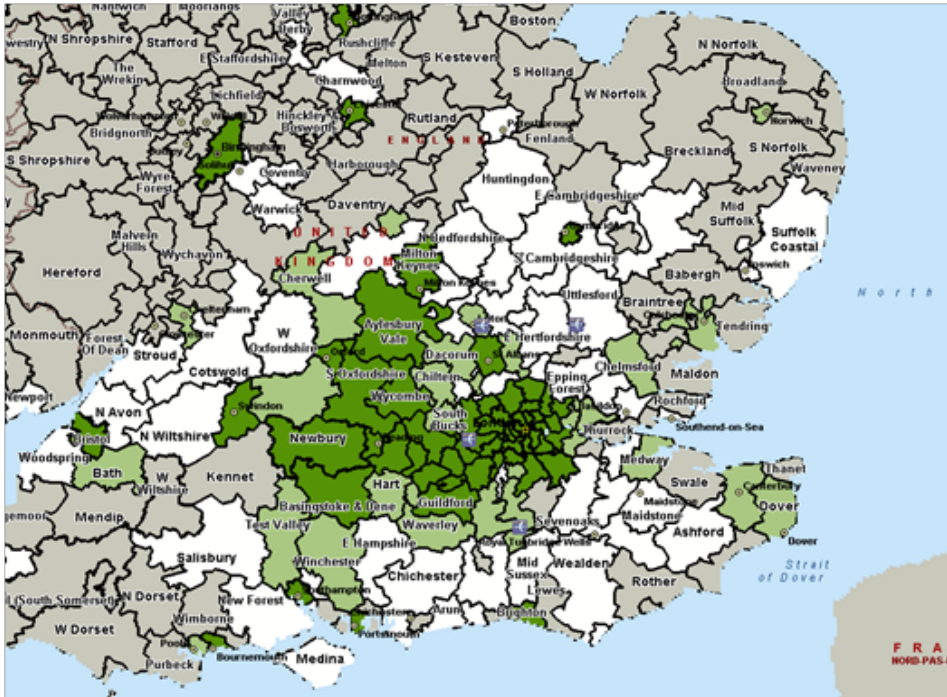
- 4.137 This section considers the analysis of airport catchment areas and draws from the CAA's catchment working paper published in 2011. Catchment analysis can provide useful evidence regarding an airport's passenger base. It is a way of estimating the geographic area from which a large proportion of an airport's outbound passengers originate. The size of catchment areas and overlaps between catchment areas of neighbouring airports could provide useful evidence of the potential competition (if any) between the various airports.
- 4.138 In 2011, the CAA conducted catchment analysis for the four largest London airports: Heathrow, Gatwick, Stansted and Luton. As noted in the CAA's working paper, catchment analysis can provide useful evidence regarding an airport's passenger base. The size of catchment areas and overlaps between catchment areas<sup>210</sup> of neighbouring airports could provide useful evidence of the potential competition between these airports. It is, therefore, a useful tool in aiding the understanding of possible geographic markets. It does not however provide price sensitivities of the passenger base as it only considers the location of passengers and the travel times that they may face and may therefore, may overestimate the competitive constraint arising from passengers' ability to switch.
- 4.139 There are difficulties with assessing the impact of prices on passengers' choice of airport since different services offered by different airlines at different airports will vary in perceived quality and the average fare may be significantly different. It is hard to compare flights from Heathrow with those from Gatwick or Stansted as it is impossible to identify whether price differentials are due to a different passenger mix or, location premium or perceived quality.
- 4.140 Heathrow's catchment is focused on central London and the regions

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<sup>210</sup> It should be noted that the overlaps presented from catchment areas are to some degree impacted by the travel time selected, as travel time increases so will overlap. To limit the impact of this the CAA has considered a number of possible travel times and historic passenger behaviour.

to the west of London, but extends to a wide area, including much of the South East, East Anglia, the Midlands and to the West. Figure 4.5 shows Heathrow's catchment area.

**Figure 4.5: Heathrow overall historical usage catchment area**



Notes: shading shows cumulative proportion of passengers; Dark green – 70%; Light green – 80%; White – 90% of passengers

Source: CAA Catchment area analysis working paper, October 2011

**Figure 4.6: Heathrow historical catchment area overlap**

Overlaps	Districts	Proportion of passengers at HAL
LHR/	17	6%
LHR/LGW	21	10%
LHR/STN/	1	0%
LHR/LTN	5	2%
LHR/LGW/STN	7	2%
LHR/LGW/LTN	8	7%
LHR/STN/LTN	7	4%
LHR/LGW/STN/LTN	28	48%
Total LHR catchment	94	79%
Out of Catchment		21%
Total		100%

Source: CAA Catchment area analysis working paper October 2011

Notes: Districts refer to UK planning districts; they are ranked by reference to the amount of passengers that used the airport and originated from or visited the district. An upper limit of 80 per cent of the airports passengers was taken

- 4.141 Figure 4.6 shows how the historical catchment of Heathrow translates into overlaps. Only six per cent of Heathrow's passengers were drawn from some 17 districts where there was no overlap with another London airport. The great majority of passengers came from districts where at least one other airport has drawn passengers.
- 4.142 The catchment area analysis shows the potential for competition amongst airports. Only six per cent of passengers originated from a district served only by Heathrow; the majority of passengers at Heathrow have historically come from areas that are served by at least one other London airport. The airport draws a number of passengers from Birmingham, Bristol, Norwich and Southampton, where there are airports that are not included within this analysis. The inclusion of these airports would therefore likely increase the overlap observed.

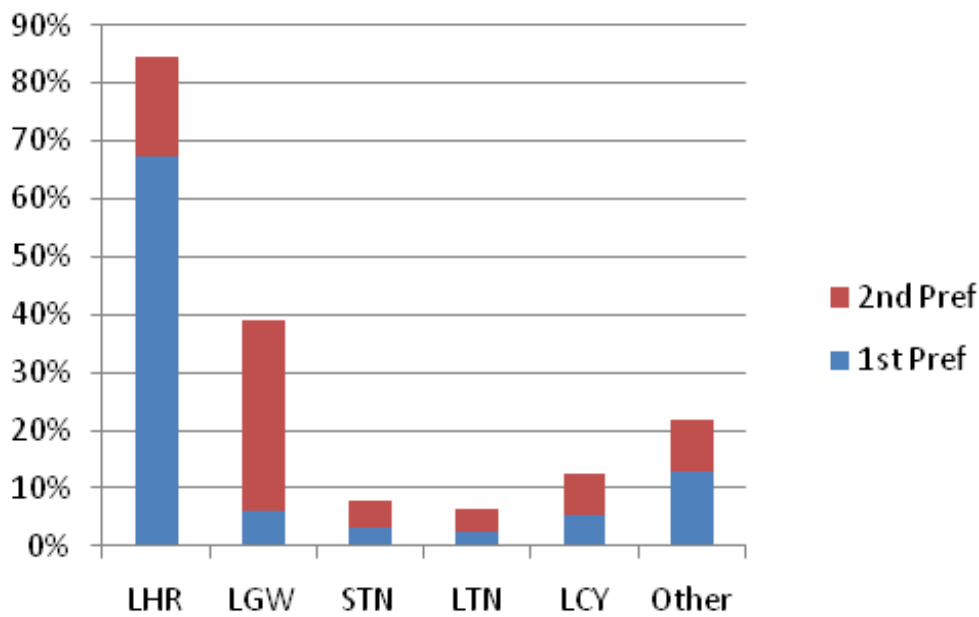
### Passenger preferences

- 4.143 Passenger preferences are clearly relevant to the potential for competition between airports. As noted in chapter 3, passengers' responses to airport pricing are likely to be muted, because airport

charges form a low proportion of the overall airfare. Further, it must be noted that the CAA is unable to disentangle the degree to which the reflection of airport choice in the data is actually driven by passengers' airline preference. For example, a stated preference to travel from Heathrow may be a result of a preference to fly BA; similarly, a preference to travel from Stansted may be the result of a preference to fly with Ryanair.

4.144 In late 2011, the CAA produced a working paper on passenger preferences for airports within the South East. From this from which certain relevant insights can be identified about passenger behaviour.

**Figure 4.7: First and second preference airports for short haul passengers flying from Heathrow**

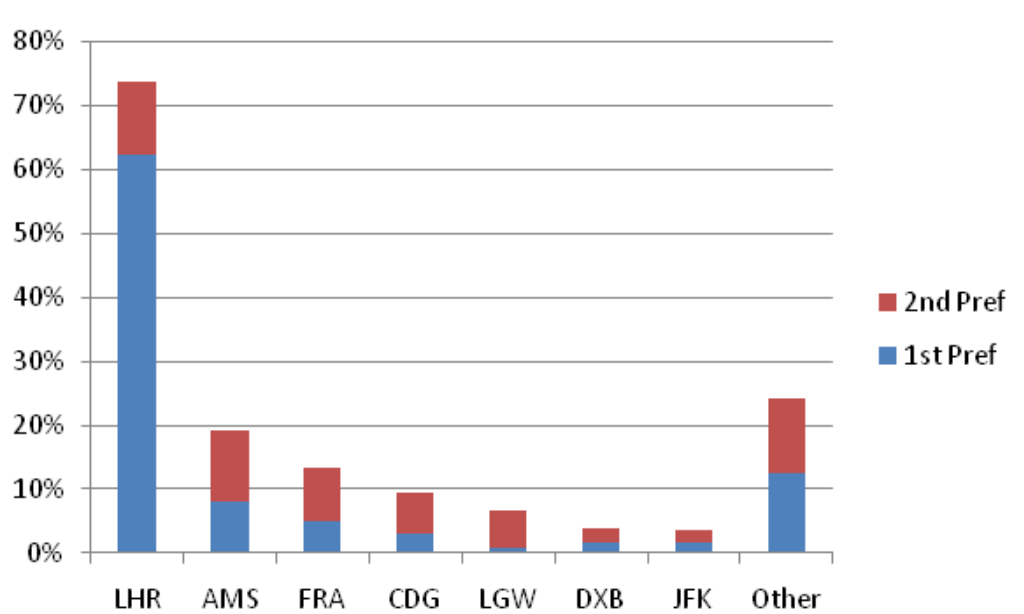


Source: CAA Passenger Survey Working paper November 2011

4.145 Figure 4.7 shows passengers stated preference for airport use for short-haul flights. The figure shows that passengers flying from Heathrow have a strong first preference for flying from Heathrow, with 67 per cent of respondents stating this. Six per cent of passengers flying from Heathrow cited Gatwick as their first preference airport. Each of the remaining London airports as a first preference is below five per cent. Gatwick is cited as second preference by around 35 per cent of Heathrow's short-haul passengers, while around 15 per cent stated that they were using Heathrow as their second preference.

4.146 The passenger survey also considered connecting passengers at Heathrow as a separate passenger group. Figure 4.8 shows a strong (62 per cent) first preference for connecting passengers at Heathrow to transfer at that Heathrow. Amsterdam Schiphol airport is next highest first preference for passengers connecting at Heathrow, at a little under ten per cent, with each of the remaining named airports having less than five per cent of passengers reporting them as their first preference.

**Figure 4.8: First and second preference airports for connecting passengers at Heathrow**



Source: CAA Passenger Survey Working paper November 2011

4.147 The passenger preference evidence suggests that passengers value the location of the airport and route availability, as both of these factor highly in the reasons for airport choice. Likewise, passengers seem to express a strong preference for the airport from which they are flying. For the vast majority of those flying from Heathrow, Heathrow appears to be their airport of preference. The working paper<sup>211</sup> shows that the preference to fly from Heathrow is greater than other London airports, and that there is a much smaller proportion of passengers flying from Heathrow that would prefer to fly from another airport. The CAA considers that this evidence suggests that passengers may, in theory, choose to fly from a number of the London airports. However,

<sup>211</sup> CAA Passenger Survey Working paper, November 2011

passengers clearly have strong preferences for particular airports, especially for Heathrow.

### **Alternative hub airports**

- 4.148 This section discusses whether alternative hub airports should be included in the geographic market.
- 4.149 In the Initial Views, the CAA considered that the geographical market definition could likely be analysed by the substitution possibilities available to surface and connecting passengers. Surface passengers' substitution possibilities could be defined within the scope of the catchment analysis while connecting passengers might substitute to other hubs in European and further afield.<sup>212</sup>
- 4.150 The CAA notes that HAL has made similar representations and has indicated that it considers that it competes with other European hubs.<sup>213</sup>
- "Whilst Heathrow remains capacity constrained, our position as a global hub is in jeopardy and efforts need to be made to slow the inevitable decline in hub status. Heathrow competes with its competitors in Europe and, to a growing extent, the Middle East to connect passengers to all corners of the globe".<sup>214</sup>*
- 4.151 As part of its response to the Initial Views, HAL has submitted evidence to support its view on competition between hub airports. The analysis presented looks at where passengers connect when flying from UK regional airports<sup>215</sup> flying to China, India and the USA. The analysis identifies Amsterdam Schiphol, Charles De Gaulle, and Frankfurt as hubbing alternatives in both 2005 and 2009. The analysis shows HAL losing volume share in China and India but a small gain in passengers connecting to the USA. Heathrow observed that:
- "...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*

<sup>212</sup> CAA, Initial Views Paragraph 2.139 - 2.140

<sup>213</sup> HAL, Response to the CAA's consultation on the Initial Competition Assessment, March 2012

<sup>214</sup> Source: HAL

<sup>215</sup> The airports consisted of Manchester, Aberdeen, Edinburgh, Glasgow, Inverness, Newcastle and Prestwick

*likely to be another European hub, not an alternative UK airport. [and] 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".*<sup>216</sup>

- 4.152 The CAA notes that the data from which the analysis was conducted comes from the CAA survey data for 2005 and 2009. More up to date data will not be available until the 2013 survey results are available.<sup>217</sup>
- 4.153 However the CAA notes that there are limitations to this analysis such that it is insufficient for the CAA to draw conclusions about the geographical market. The limitations include:
- connecting passengers from UK regional airports forms only a small proportion of total connecting traffic at Heathrow;
  - the data available does not cover passengers that originate from non-UK airports and the connections that they make;
  - the analysis only considers volumes of passengers; it does not consider price, time, or airline route availability;
  - changes in Heathrow's share of passengers may be due to the severity of the capacity constraints it faces compared to other airports; and
  - the analysis does not follow from any structured consideration of the appropriate scope of the market; rather it considers the closest hub airports. The analysis is sensitive to the range of hubs included. For example CAA analysis suggests that some 13% of total connecting passengers from the regions flying to North America connected through New York Newark in 2009 (43% at Heathrow).
- 4.154 Given the evidence presented by the airlines, notably BA and Virgin who operate hub operations from Heathrow (see paragraphs 4.111 to

<sup>216</sup> HAL, Response to the CAA's consultation on the Initial Competition Assessment, March 2012

<sup>217</sup> The structure of the CAA survey is such that regional airports in the UK are sampled on a rolling basis for the set of airports used in HAL analysis (see footnote 76) they are sampled every four years. The latest data is therefore 2009, 2013 will be the next available data point for this analysis

4.118), it would not appear to be a rational decision for them to relocate their operation to an alternative 'hub' airport in response to airport pricing, given the significant costs involved<sup>218</sup>, the loss of access to the local catchment, and the possibility of a competitor taking over the routes vacated.

4.155 Given the CAA's view on the likelihood of a hub airline being able to switch, competitive constraints between hubs would likely arise more directly through passenger choices. However, the CAA considers that the following issues affect the ability of connecting passengers to respond to changes in airport charges which would limit the degree of competition possible.

3. The CAA considers, therefore, that airport charges are less likely to be directly passed through to the passenger in the overall fare:
  - As noted in chapter 3 the impact of an airport SSNIP in FSCs and associated feeder airline fares is likely be at most around one per cent. With a connecting passenger fare, the CAA considers that the fact that there are at least three airports' charges within the bundle reduces the impact on the overall fare on the connecting airport performing a SSNIP.
  - Linked to the level of airport charges with regard to the overall fare the CAA notes comments from BA where, in deciding to pass through a pricing increase, its ability to do so would depend, in part, on what the market could bear.<sup>219</sup> This suggests that FSC airlines tend to price to the market rather than on a simple cost plus basis.
  - Further, the CAA also notes airlines' ability to price discriminate across passenger groups.
4. The CAA considers that the presence of airline alliances is likely to limit the passenger competition between connecting airports. The CAA notes that the three alliances Oneworld,<sup>220</sup> Sky Team<sup>221</sup> and

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<sup>218</sup> See chapter 5 which discusses barriers to switching for full service carriers

<sup>219</sup> Source: BA

<sup>220</sup> See: <http://www.oneworld.com/ffp/earning-and-redeeming-miles/> (accessed 18 March 2013)

<sup>221</sup> See: <http://www.skyteam.com/en/Why-SkyTeam/Frequent-Flyer-Program/> (accessed 18 March 2013)



the Star Alliance<sup>222</sup> all have frequent flyer programmes that can be operated in an integrated manner. As such, a passenger that is member of such frequent flyer schemes may limit their airline choice and consequently the corresponding hubs which are available.

5. The CAA notes that to some extent airlines specialise in serving specific markets. Often this is driven by history. For example, BA at Heathrow has strong connections going at Heathrow for transatlantic flights and also to Hong Kong both of which have strong historical ties to the UK. Similarly, Iberia, operating from Madrid has strong connections into South America. This is likely to bias passenger choice given the greater frequency to certain destinations that is likely to make connection with a given airline more attractive than its competitors.
6. Similar to the historical development of specialisation is the development of routes by travelling the shortest distance. Given the cost of fuel within an airline's costs, it is unlikely to be able to compete on routes where it would have to fly a significantly longer distance incurring additional fuel cost over its competitors' ability to offer a connecting service. HAL has noted that Heathrow's geographical location gives it an advantage in connecting some passenger flows, most notably Europe to North America and India to North America.<sup>223</sup>

4.156 The CAA therefore considers that, despite the apparent choices available to connecting passengers, i.e. in the number of accessible hubs, it has been unable to find significant evidence to lead it to consider a market that is wider than Heathrow based on competition from other hub airports. The evidence that the CAA has been able to obtain indicates that, at the airline level, there is likely to be a number of discrete markets for particular route pairs. These may involve connections over a number of hubs (and/or direct routes). Each of these hubs may compete with the other hubs operating in such markets to some degree. But, this falls short of the level of constraint necessary to suggest that such hubs constrain each other's pricing overall.

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<sup>222</sup> See: <http://www.staralliance.com/en/benefits/earn-and-redeem/> (accessed 18 March 2013)

<sup>223</sup> Source: HAL

### Price Elasticity of demand and critical loss analysis

- 4.157 The CAA has not been able to obtain credible evidence on which to establish representative price elasticity of demand (PED) for the passengers at Heathrow. For GAL and STAL, the CAA has been able to use DfT's NAPALM modelling and other sources to provide estimates. However, given the level of connecting passengers at Heathrow, the evidence available does not provide sufficiently robust figures as it focuses on surface passengers.
- 4.158 In chapter 5 on competitive constraints, the CAA has conducted a critical loss assessment and attempted to ascertain the likely number of airlines and associated passengers that could be considered marginal at Heathrow. For this, the CAA has selected a number of criteria which are likely to indicate lower switching costs for airlines. The cumulative criteria considered were:
- an airline operating inbound services, due to the small infrastructure costs at the airport;
  - its services carry less than ten per cent connecting passengers on their services, which suggests that the services could be sustainable from a point-to-point airport; and
  - the airline is not aligned to a particular airline alliance, which should reduce the level of switching costs resulting from the presence of strategic partners.
- 4.159 From the analysis, the CAA considers that HAL would need to lose between 2.6 million and 5 million passengers if faced with a five to ten per cent price rise. Given the excess demand for slot capacity at Heathrow, these figures are likely to be lower bound estimates of the required level of switching, as new entrants or expansion from other incumbent airlines is likely to “back-fill” any capacity that becomes available. Back-filling of vacated slots will reduce the impact of switching by any particular airline. However, the estimate of marginal airlines suggests that only 1.9 million passengers would likely be induced to switch. Therefore, the CAA considers that HAL would be able to profitably sustain a five to ten per cent SSNIP for its services.

### Conclusion on Geographic markets

- 4.160 The evidence presented by the airports and airlines is unclear as to the exact geographical limits of the market.

- 4.161 Other airports operators, such as GAL and BIAL, consider that Heathrow imposes a competitive constraint on their business. However, such constraint would appear to be asymmetrical. The evidence also suggests that Heathrow is not constrained by other London airports but is, rather, a market to itself.
- 4.162 The evidence presented by airlines suggests that regional airports serve a different market.
- 4.163 The passenger analysis highlights the significant potential choice which is, in theory, available to passengers in terms of airports and routes within Heathrow's catchment area. However, passengers' preferences appear to be strongly focussed on Heathrow for both long and short haul services.
- 4.164 With regards to competition from other hub airports, the CAA currently considers that the evidence available is insufficient to identify a market that is wider than Heathrow. The CAA has identified a number of factors that are likely to limit the potential for competition between hub airports.
- 4.165 The CAA is minded to consider that the geographic market in which HAL operates consists of aeronautical services provided from Heathrow. The CAA notes that differing passenger segments such as surface and transfer passengers face differing supply factors and this will be reflected within the constraints discussion.

## 4. Temporal markets

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- 4.166 In its Initial Views, the CAA considered the possibility that the market definition should recognise differing demand characteristics at different times of the year.<sup>224</sup>
- 4.167 The CAA recognises that there are different demand patterns in the winter and summer seasons, both in terms of the routes operated and the absolute number of passengers wanting to fly. In the collection of evidence for the market power assessments, the CAA has seen evidence that a number of airlines change their routes (for example to serve the ski resorts) and others redeploy their aircraft to serve

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<sup>224</sup> CAA, Initial Views

different markets. Thomson Airways<sup>225</sup> noted that during the winter season, where there is lower demand in the UK for its services, it has leased its aircraft to companies that provide 'winter sun' holidays from Canada. Similarly Thomas Cook<sup>226</sup> stated that during the winter months its aircraft operate on routes from Scandinavia to 'winter sun' destinations.

- 4.168 The CAA notes that declared capacity at Heathrow varies with both the time of day and the season.<sup>227</sup> For summer 2013 Heathrow has a declared capacity of 9,530<sup>228</sup> weekly movements. This compares to 9,296<sup>229</sup> for winter 2012. Similarly across the day departures capacity for summer 2013 between 07:00 and 08:00 is 43 movements where as between 19:00 and 20:00 declared capacity is 38 movements.<sup>230</sup>
- 4.169 However, the CAA does not consider that these changes affect the inherent competitive structure of the market between the seasons to the extent that the analysis would benefit from segmenting the market in this way. The CAA has also not seen evidence to suggest that passengers become more price sensitive between seasons.
- 4.170 The CAA considers that this is especially the case for Heathrow where, as figures 4.9 and 4.10 show, Heathrow is effectively full for the majority of hours of the day and majority of days for the year. Outturn air traffic movements (ATMs) are at least 83% of declared capacity in the winter and 86% in the summer. On average 94% of capacity was utilised in the 2011/12 winter season. In the summer season this rose to 97%.

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<sup>225</sup> Source: Thomson Airways

<sup>226</sup> Source: Thomas Cook

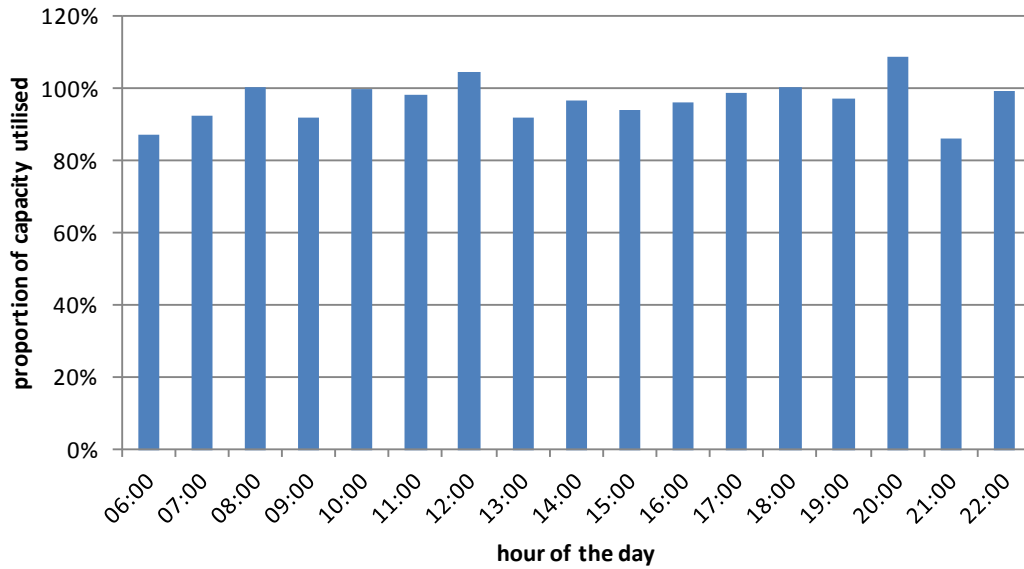
<sup>227</sup> Source: HAL

<sup>228</sup> Source: HAL

<sup>229</sup> Source: HAL

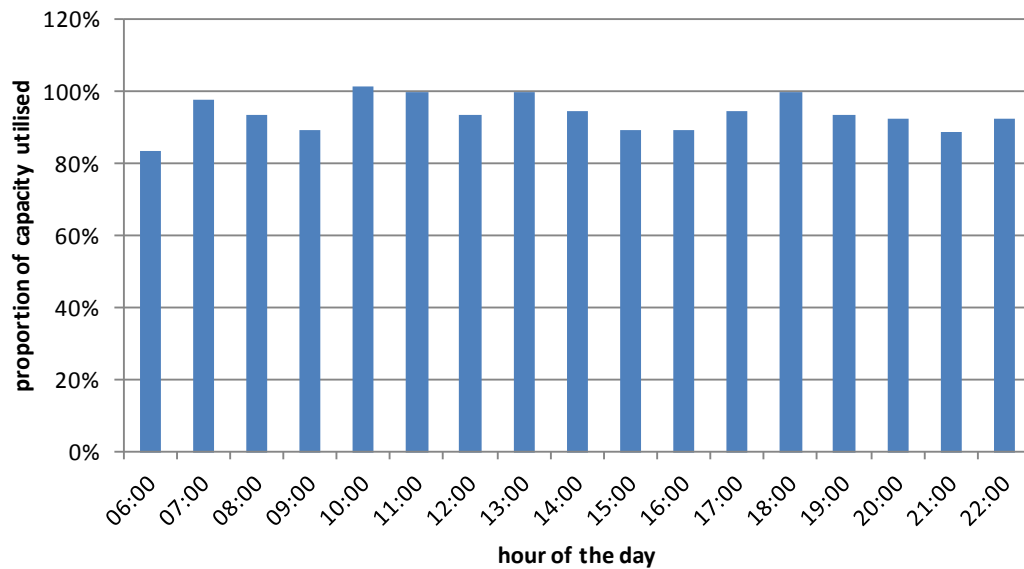
<sup>230</sup> Source: HAL

**Figure 4.9: Average capacity utilisation at Heathrow for 2011 summer season**



Source: CAA Aviation Statistics and ACL data

**Figure 4.10: Average capacity utilisation at Heathrow for 2011/12 winter season**



Source: CAA Aviation Statistics and ACL data

4.171 Further, it could be argued that, given the comparatively high proportion of business passengers using Heathrow, there is likely to be greater demand for regular year round operations from the airlines

serving these passengers.

- 4.172 The CAA therefore considers it is inappropriate to define differing markets for services at Heathrow with regards to either time of day or season.

## 5. Conclusions on market definition

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- 4.173 In terms of the product market definition, the CAA has identified a bundle service for airport operational services to FSCs and feeder carriers. The CAA considers that this is unlikely to be further differentiated either by the seasonality of the industry or by the airline business model or passenger type.
- 4.174 The evidence presented in relation to the geographic market suggests the market is focussed on the provision of services at Heathrow. Although the CAA notes that there may be some degree of competitive constraint from other airports, its consideration is that these are not sufficient to widen the market definition.
- 4.175 Bringing together the two parts of the analysis, the CAA considers that HAL operates in one market consisting of the provision of aeronautical services to FSCs and feeder airlines at Heathrow airport. Those services include, but are not limited to:
- the use of the runway and taxiways;
  - aerodrome ATC;
  - aircraft parking;
  - ramp handling services;
  - fuel and oil handling;
  - aircraft maintenance facilities ;
  - infrastructure for airside and landside groundhandling services;
  - check-in, baggage handling and security screening facilities;
  - passenger holding facilities;
  - airline staff processing facilities;

- passenger transit facilities;
- bellyhold cargo processing facilities;
- premium passenger facilities; and
- integrated transfer facilities for passengers and baggage between flights.

4.176 In the rest of this assessment, the CAA will refer to the relevant market as the "Heathrow FSCs and feeder market".

## CHAPTER 5

# Competitive constraints – airlines

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## Section 1: Introduction

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- 5.1 As part of its assessment of market power, the CAA will need to identify the existence and the potential strength of the competitive constraints<sup>231</sup> faced by HAL to establish whether or not it is subject to effective competition.
- 5.2 This chapter attempts to analyse the likely reactions to an attempt by HAL to restrict output, increase prices supra-competitively and/or reduce quality at Heathrow below the competitive levels<sup>232</sup>. It will therefore also look at barriers to entry and expansion and the extent of potential competition. More specifically, this chapter examines the mechanisms and ability of FSCs and feeder airliners, and indirectly their passengers, to discipline HAL if it looked to exercise market power.
- 5.3 As outlined in the Analytical Framework (chapter 3), the CAA takes the approach of analysing airport competition in terms of a vertical relationship between, in order, the airport operator, the airline and the passengers. Consequently, passenger demand for airport operation services is treated as derived demand because their demand for airport services is derived from their demand for air travel. Chapter 4 on market definition analyses the preferences of both surface and connecting passengers and the extent to which they might act as a constraint.
- 5.4 The viability of different strategies for airlines to reduce or remove marginal services (those most sensitive to the price increase) are analysed to establish whether airline switching would be of sufficient scale to constrain HAL sufficiently as to make a five to ten per cent price increase unprofitable. This analysis also takes account of the

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<sup>231</sup> The OFT describes competitive constraints as ‘market factors that prevent an undertaking from profitably sustaining prices above competitive levels’: see OFT 415, paragraph 1.2 and DG COMP’s Discussion Paper on the application of Article 82 to Exclusionary Abuses, paragraph 2.4.

<sup>232</sup> A discussion of the competitive price at Gatwick is at Chapter 3.



potential switching costs faced by airlines; their ability to exert countervailing buyer power; and the implications of capacity constraints and future passenger demand forecasts.

5.5 This chapter is structured as follows:

- Section 2 considers the types of switching available to airlines at the margin to constrain the airport in light of a price increase, and whether these could be a realistic response.
- Section 3 considers the required scale of switching to constrain a five to ten per cent price increase.
- Section 4 analyses the switching costs that might be faced by airlines when switching away marginal services.
- Section 5 considers whether airlines at Heathrow might be in a position to constrain HAL's pricing by exerting countervailing buyer power.
- Section 6, based on the analysis in sections 4 and 5, derives an estimate of the scale of marginal demand for HAL's services and compares it to the critical loss calculations in section 3 to establish whether switching might be sufficient to constrain HAL's pricing.
- Section 7 examines the capacity constraints at Heathrow, and potential implications of future demand growth.
- Section 8 concludes as to the potential competitive constraints that airlines might impose on HAL.

## Section 2: Potential options for airline switching

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- 5.6 This section considers the different ways by which FSCs and feeder airlines may constrain HAL in a competitive market by switching marginal aircraft or services away from the airport.
- 5.7 To impose a competitive constraint on Heathrow by switching, the level of switching of marginal aircraft or services following a price increase – or fall in service quality or investment – must be sufficiently large to make a price increase unprofitable for the airport operator.
- 5.8 In theory, there are several ways by which an airline can try and discipline an airport:

- allocating volume growth to other airports, through starting new routes or increasing frequencies on routes operated;
- reducing the frequency of existing based or inbound services to and from the airport;
- grounding marginal aircraft during a particular traffic season; and
- moving based marginal aircraft to other bases, or opening a new base by relocating aircraft currently at the airport.

5.9 The feasibility and likelihood that airlines would, in practice, make use of these potential switching responses are now considered.

### Excess demand at Heathrow

5.10 Heathrow is already operating at near full capacity and cannot accommodate further volume growth in any event. There is also excess demand for arrival and departure slots during most times of day, as discussed in section 7. As a result, the CAA considers that any reduction in operations by incumbent airlines at Heathrow is likely to be replaced through new entrants or expansion by other incumbent airlines. This is likely to mitigate to a considerable extent the ability of FSCs to constrain HAL's pricing and behaviour, and consequently the viability of the types of switching considered below.

### Allocating new growth to other airports

5.11 Allocating volume growth to other airports requires an airline to have access to sufficient spare capacity at other airports across its network and/or at new airports, as well as sufficient aircraft and other relevant assets. However, this form of switching may not, by itself, lead to a reduction in the short run of an airline's existing services at Heathrow, which means that this strategy might not result in a significant constraint.

5.12 The extent to which this strategy is likely to constrain an airport will depend on the level of spare capacity at the airport and the balance between existing traffic and future growth. An airport that has significant spare capacity and is highly dependent on traffic growth is more likely to be constrained by such behaviour than an airport that already has a mature airline customer base and limited spare capacity, with lower prospects of incremental growth at the airport.

5.13 Heathrow is effectively at full capacity. Evidence suggests that airlines

that have split their operations at both Heathrow and Gatwick have done so in response to the lack of spare capacity at Heathrow. For example, a stakeholder has told the CAA:

*"Hypothetically, if it had sufficient slots at LHR, it would consider [redacted] and [redacted] However this [redacted]"*<sup>233</sup>

- 5.14 Similarly, Air Malta had to expand its services at Gatwick instead of Heathrow. Specifically, it said:

*"It used to only operate from LHR, but because of the limited availability of slots – which meant it could not grow further at LHR – the only place for them to go in London was LGW"*<sup>234</sup>

- 5.15 As discussed in chapter 6, the continual increase in airport charges at Heathrow indicates that the expansion at other London airports by airlines that operate at Heathrow has not constrained HAL's pricing. The CAA considers therefore that allocating new growth to other airports is unlikely to be an effective means of constraining HAL.

### Reducing frequencies on existing services

- 5.16 Reducing the frequency of existing routes to and from Heathrow might constrain an airport if the reduction is of a sufficient scale, although it could have implications for the quality of an airline's services, in that passengers may value higher levels of service frequency. This could involve reducing frequencies through the reduction of aircraft utilisation, or altering flight patterns.

### Reducing aircraft utilisation

- 5.17 FSCs typically consider the impact of modifying their short-haul and long-haul services, including reducing their frequency, on a network-wide basis. For example, in a 2010 presentation, BA said regarding the commencement of a Gatwick-Las Vegas service:

*"Our decisions had to be evaluated at the overall Network level"*<sup>235</sup>

Adding that:

*BA plans its network around 2 years ahead.*<sup>236</sup>

<sup>233</sup> Source: [redacted]

<sup>234</sup> Source: Air Malta

<sup>235</sup> Source: BA

- 5.18 BA also outlined the required number of frequencies for a full day of service, on both short-haul and long-haul routes:

*For a short-haul services to operate a full day, generally 3 slot pairs are required in a given day, one of which will be timed during peak hours.*<sup>237</sup>

And

*For long-haul routes, one slot pair per is required (assuming a daily service).*<sup>238</sup>

- 5.19 In addition, Cathay Pacific, an inbound FSC operating a spoke service to Hong Kong from Heathrow four times a day, said:

*[It] couldn't envisage that it would be so bad that it would have to stop operating all 4 flights. Instead it would scale down operations.*

- 5.20 However, it also noted that:

*Moving aircraft around is not an easy task and in terms of route planning, it is important to fit in as much flying time as possible (and minimise down-time).*<sup>239</sup>

- 5.21 The CAA considers that this implies that a switching response is not likely in light of a ten per cent increase in airport charges, but might eventually become a necessary action.

- 5.22 Regarding the minimum level of frequencies required for the viability of a route, Lufthansa told the CAA that:

*When asked whether there is a minimum number of frequencies that it had to operate to LHR, it added that it does look at this in terms of the contribution to the network result.*<sup>240</sup>

- 5.23 In 2007, Virgin commented on the level of increase in airport charges it would need to face before considering switching away:

*"If airport charges increased by 50% or 100% at Heathrow... Virgin*

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<sup>236</sup> Source: BA

<sup>237</sup> Source: BA

<sup>238</sup> Source: BA

<sup>239</sup> Source: Cathay Pacific

<sup>240</sup> Source: Lufthansa

*Atlantic would not necessarily respond to this increase by reducing the number of aircraft, frequency or aircraft size".<sup>241</sup>*

"[redacted]".<sup>242</sup>

5.24 The CAA considers that the evidence implies that reducing frequencies might be a viable way of responding to a price increase, although network-level considerations may make this response more costly than continuing to operate the current frequency and service and simply absorbing the price increase.

5.25 However, the CAA also notes that it is unclear from the evidence that switching would result – or at least to a sufficient scale – from a ten per cent increase in airport charges. For example, a stakeholder told the CAA that

*In light of a 10 per cent price increase at LGW, its first reaction would be [redacted] and [redacted], as well as find ways to [redacted].<sup>243</sup>*

5.26 Although this comment was made in relation to Gatwick, the CAA considers that it is also applicable to Heathrow.

### **Modifying flight patterns**

5.27 Another option to reduce aircraft utilisation could be to modify an aircraft's flight pattern, for example from "back and forth" to a W or triangular pattern that reduces the number of sectors flown from Heathrow. A number of FSCs operating short-haul sectors commented on the potential use of W and triangular patterns.

### **Short-haul routes**

5.28 BA told the CAA that:

*It does not operate any W patterns.*

*The introduction of W patterns would require additional assets, if BA was to maintain the total amount of Gatwick flying (it would have to buy or lease more aircraft), it would also need to consider market presence, operational costs and infrastructure.*

<sup>241</sup> Source: CC BAA Investigation, Annex 3.5, Airline responses on substitutes for BAA London airports and price reductions at these airports (Annex 3.5), page 65

<sup>242</sup> Source: Virgin

<sup>243</sup> Source: [redacted]

*Starting W patterns would also involve additional point-to-point flights between non-base airports, as well as expensive night stops at these airports. E.g. for any one night stop additional crews and hotel costs are incurred.*<sup>244</sup>

- 5.29 This evidence was also consistent with that provided by Aer Lingus, who stated that:
- 5.30 *The feasibility of reducing frequencies through the use of W Patterns would be difficult as they could increase costs, and are inefficient and complex.*<sup>245</sup>
- 5.31 In addition, evidence from Aer Lingus shows that they reduced the size of their aircraft at Heathrow, following continual price increases. However, this does not appear to be a realistic response to a ten per cent price increase.<sup>246</sup>
- 5.32 On the basis of this evidence, the CAA considers that modifying flight patterns is unlikely to be a realistic means of switching away from Heathrow in light of a ten per cent price increase.

### Long-haul routes

- 5.33 In contrast to short-haul services, aircraft on long-haul routes typically perform a “back and forth” pattern across the week between its base airport and various destinations, also taking in scheduled engineering, as BA show regarding the utilisation of various B777s in figure 7.1. The difference in utilisation pattern is primarily influenced by the longer sector length of long-haul flights.

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<sup>244</sup> Source: BA

<sup>245</sup> Source: Aer Lingus

<sup>246</sup> Source: Aer Lingus

**Figure 5.1: Examples of flight patterns for B777s – British Airways**

	Tue 17 Jun 09	Wed 18 Jun 09	Thu 19 Jun 09	Fri 20 Jun 09
BA 77Y -1	BA194 L H R	BA193 D F W	BA192 L H R	BA197 I A H
BA 77Y -2	BA52 S E A	BA103 L H R	BA102 L H R	BA103 Y Y C
BA 77Y -3	ENGINEERING			
BA 77Y -4	ENGINEERING L H R	BA173 J F K	BA172 L H R	BA193 D F W

Source: BA

5.34 BA also told the CAA that:

*Its long-haul fleet is fully utilised all year round as aircraft are expensive assets which need to be used in order to make a profit.*<sup>247</sup>

5.35 As a result, the CAA considers that there may be less flexibility to reduce long-haul aircraft utilisation than short-haul services. This means that modifying long-haul flight patterns is unlikely to be a viable switching response in light of a ten per cent price increase.

5.36 The CAA considers that the use of alternative flight patterns is unlikely to be considered as a viable means of modifying services to constrain the airport in light of a price increase.

### Grounding marginal aircraft

5.37 For based carriers at Heathrow, a more extreme form of reducing frequencies is for airlines to ground (i.e. fully reduce the utilisation of an aircraft) a number of marginal aircraft. There is some precedent for based FSCs grounding aircraft, as BA did in winter 2009 in response to falling profitability<sup>248</sup>, suggesting that grounding aircraft is a possible response to a price increase.

5.38 BA has also told the CAA that the grounding of aircraft resulted from an price increase in excess of ten per cent:

*There were also significant changes to short-haul and long-haul operations due to the economic crisis and recession, the increase in fuel and the high passenger charges (Q5) where Gatwick airlines*

<sup>247</sup> Source: BA

<sup>248</sup> <http://www.guardian.co.uk/business/2009/jul/31/ba-loss-airline-industry-gloom> accessed February 2013 <http://www.flightglobal.com/news/articles/british-airways-to-ground-16-747s-and-757s-for-winter-326904/> (accessed February 2013)

*faced a 56% increase in prices:*

*Its short-haul fleet of 34 based aircraft was reduced to [8].*

*It also had to ground its 757 fleet.<sup>249</sup>*

- 5.39 Virgin has told the CAA that, except for this example, it does not generally ground aircraft:

*VAA says that it has not tended to ground aircraft, except in 2008/09 during the recession and at Heathrow (3 grounded aircraft)*

*but that generally*

*grounding aircraft would not be a realistic response to 10 per cent price increase.<sup>250</sup>*

- 5.40 Overall, the CAA considers that grounding aircraft does not appear to be a realistic means of switching away in light of a five to ten per cent price increase.

### Switching based aircraft

- 5.41 Switching marginal aircraft based at Heathrow is a means for an airline to fully remove based capacity to constrain HAL. In theory, airlines might be able to switch aircraft to existing or new bases.

#### Switching marginal aircraft to existing bases

- 5.42 The two based FSCs at Heathrow, BA and Virgin, also operate smaller bases at Gatwick.<sup>251</sup> The proximity of these bases would suggest that switching marginal aircraft between the two airports might involve relatively low switching costs for physically relocating the aircraft.

- 5.43 In its 2007 response to the CC Statement of Issues for the BAA airports market investigation, BA said:

*"For BA, with its global hub at Heathrow, few services can be moved by Heathrow and other airports. BA's services at Heathrow generate revenues not only by carrying point to point passengers but also by increasing the number of passengers on other BA routes. That is,*

<sup>249</sup> Source: BA

<sup>250</sup> Source: Virgin

<sup>251</sup> Virgin also has a base at Manchester airport.



*BA's Heathrow services give rise to network effects which increase economic efficiency and benefit consumers. Nonetheless, BA does occasionally switch from Heathrow to Gatwick due to congestion, lack of capacity and the high cost operating environment at Heathrow".<sup>252</sup>*

**5.44** The CAA considers that this means that it is generally uneconomic for BA to move services out of Heathrow since network efficiencies would largely be lost.

5.45 As cited above, BA has made similar points on the importance of overall network planning.

5.46 Virgin told the CAA in contemplating a move from Gatwick to Heathrow:

*In order to move aircraft from LGW to LHR, it would not incur significant costs of physically relocating the aircraft.<sup>253</sup>*

5.47 Although the airline would also face:

*"However, there would be costs in acquiring slots and reconfiguring the aircraft from leisure configuration (circa 14 Upper Class seats) to a business configuration (33-45 Upper Class seats) to meet the demand profile of the routes at LHR.*

*In addition, the operating costs at both airports would increase (decrease) with the addition (withdrawal) of aircraft".<sup>254</sup>*

5.48 The CAA considers that the converse is also likely to hold, when switching services away from Heathrow.

5.49 However, evidence also suggests that relocating marginal aircraft to Gatwick would not be a viable option for airlines operating from Heathrow, as these airports are not substitutable. For example, Virgin told the CC in 2007 that:

*"It is Virgin's experience that Gatwick fails to act as a suitable substitute for Heathrow, but to a large extent Heathrow may be a*

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<sup>252</sup> Source: BA Statement of Issues response 29 October 2007, paragraph 2.4, please see: [http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/inquiry/ref2007/airports/pdf/issues\\_statement\\_response\\_ba.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/inquiry/ref2007/airports/pdf/issues_statement_response_ba.pdf)

<sup>253</sup> Source: Virgin

<sup>254</sup> Source: Virgin

*competitor to Gatwick”.*<sup>255</sup>

5.50 Similarly, Delta told the CC in 2007:

*“LHR is the preferred choice for most Delta customers and LGW the second choice...LHR would be a reasonable substitute for substantially all passengers [Delta] currently services with its LGW services, and would be a preferred alternative by most of those passengers. (The reverse is not true. LGW is not necessarily an adequate substitute for some passengers, particularly time-sensitive business passengers, who evidence a strong preference for LHR service.)”.*<sup>256</sup>

5.51 For based FSCs at Heathrow, it is clear that while physically relocating an aircraft to an existing base entails relatively low switching costs, there are strategic and economic factors which deter airlines from moving aircraft away from Heathrow. Even if airlines were to make use of an alternative base at Gatwick, this would not be a substitute for their presence at Heathrow as there is no viable substitute airport in the relevant market to which these aircraft might be switched. This is in part due to the strategic importance of Heathrow to FSCs, as discussed in section 4. In addition, as discussed in section 6, Gatwick is largely capacity constrained. Any switching is likely to be nominal, infrequent, and of insufficient scale to make a five to ten per cent price increase unprofitable.

### **Switching marginal aircraft to a new base**

5.52 While switching between existing bases appears to be viable means of switching away from Heathrow,<sup>68</sup> relocating aircraft to a new base is less likely to be a possible response to a price increase. BA has told the CAA that:

*“When an aircraft is based at an airport, it incurs a range of significant costs. For example there are engineering requirements which would require the establishment of an engineering base. The aircraft would need crew: flight, cabin and ground, which would require the establishment of a crew base. And then there would also be the costs*

<sup>255</sup> Source: CC BAA Investigation, Annex 3.5, Airline responses to substitutes for BAA London airports and price reductions at these airports (Annex 3)

<sup>256</sup> Source: CC BAA Investigation, Annex 3.5, Airline responses to substitutes for BAA London airports and price reductions at these airports (Annex 3)

*of disruption involving the changing of schedules and the marketing costs of establishing a brand presence at a new airfield. These costs are all large and relatively fixed, and even if they were borne, would be borne for a single aircraft which would be a sub-scale and inefficient operation. Given the scale of these costs, we do not believe that it would be viable to move a single aircraft”.*<sup>257</sup>

- 5.53 The CAA considers that this argument is also likely to apply to moving a small number of aircraft to a new base, as this scale of switching would be insufficient for the new base to achieve its minimum efficient scale and would be likely to involve unrealistic costs to constrain a ten per cent price increase.

## Conclusion

- 5.54 This section has considered the viability of switching options available to airlines at Heathrow in light of a ten per cent increase in airport charges. The first option involved allocating new growth to other airports. However, as Heathrow is operating at capacity, the allocation of new growth is unlikely to have an effect on HAL's pricing. Further, excess demand at Heathrow is likely to mean that as capacity becomes available from marginal airline switching, it will be back-filled by new entrants or expanding incumbent airlines. This will mitigate the effects of any type of marginal airline switching.
- 5.55 The second possible type of switching is the reducing frequencies, either through reducing aircraft utilisation or modifying flight patterns. While this appears to be a viable response to a ten per cent price increase, the CAA considers that the scale of such switching is unlikely to be sufficient to constrain a price increase. This is because the cost of reducing aircraft utilisation is likely to outweigh the benefits of trying to impose a constraint.
- 5.56 The third and fourth options involve grounding and switching based marginal aircraft away from Heathrow. As there are no viable substitute airports in the relevant market, the scope for FSCs to relocate aircraft is likely to be very limited. The considerable costs of opening a new base is also likely to prohibit this type of switching.
- 5.57 More generally, the CAA considers that it is unclear from FSC evidence that switching would occur, or at least switching of a

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<sup>257</sup> Source: BA

sufficient scale, following a ten per cent price increase. Instead, FSCs could absorb the price increase in the short run, possibly passing through the increase in the longer term. However, continual and cumulative price increases might lead to certain, most likely inbound, FSCs switching away in some form, although this does not appear to have materialised to a significant degree.

- 5.58 Overall, the CAA therefore considers that the reduction of frequencies operated to and from Heathrow is likely to be only realistic means available to based and inbound airlines to switch marginal services away from Heathrow. However, the scale of such switching in light of a ten per cent price increase is unlikely to be sufficient to constrain HAL. The required scale of switching is now considered.

### Section 3: Scale of switching required

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- 5.59 This section presents estimates of the scale of reduction of frequencies that would be required to make a five and a ten per cent price increase (a SSNIP) unprofitable for HAL. This is also known as critical loss analysis, and is compared in section 6 to an estimate of the scale of "actual" switching away from Heathrow that might occur to reach a view as to whether it is likely to constrain a price increase by HAL.

#### Methodology and assumptions

- 5.60 Critical loss analysis examines the level of passenger demand reduction and flight/aircraft withdrawal by airlines that would be required for an airport charge increase to be unprofitable for the airport operator. The analysis considers a small but significant non-transitory increase in prices of five per cent and ten per cent.
- 5.61 The analysis examines the impact of an increase in aeronautical revenue on top of HAL's current total revenue per passenger, which includes non-aeronautical (commercial) revenue. Due to the vertical nature of the relationships between the airport operator, airline and passengers, and as the CAA is developing its 'minded to' position with regards to HAL for the provision of airport operation services to airlines, the following critical loss analysis focuses on increases in charges to airlines. However, the analysis takes into account the potential loss to HAL of both the aeronautical and non-aeronautical

revenue for each passenger switching away.

- 5.62 The analysis uses regulatory accounts information for 2011/12 and takes into account the impact of a change in charges on operating costs and commercial revenues. The analysis makes the following assumptions:
- Operating cost elasticity with respect to output of 0.5 based on analysis undertaken by Steer Davies Gleave (SDG) as part of the Stansted airport (Stansted) mid-quinquennium review, using a sample of airports.<sup>258</sup> An alternative elasticity of 0.3 has been used based on work undertaken by the CC as part of the STAL Q5 review.<sup>259</sup>
  - Non-aeronautical revenue variability assumptions are shown in Figure 5.2. For the purposes of this analysis aeronautical revenue from non passenger aircraft is included with non-aeronautical revenue as non-passenger traffic is assumed not to vary with passenger traffic.<sup>260</sup> Rail Revenue is assumed to vary with passenger traffic.

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<sup>258</sup> SDG, Stansted airport: Review of operating expenditure and investment consultation (Annex D): Mid-term Q5, May 2012, p. 57. This document can be accessed at:

<http://www.caa.co.uk/docs/5/SDGStanstedReport.pdf>. The elasticity is quoted as 0.44 but increases to 0.5 in periods with declining traffic. As an increase in charges is likely to lead to a decline in traffic the elasticity of 0.5 has been used. This elasticity was derived from a large sample of airports and can be considered appropriate for HAL.

<sup>259</sup> CC, Annex 5 of Appendix H, Stansted Airport Ltd: Q5 price control review. This document can be accessed at [http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep\\_pub/reports/2008/fulltext/539ah.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2008/fulltext/539ah.pdf)

<sup>260</sup> The basis for this assumption is that the loss of one passenger should not affect, for example, the bellyhold cargo tonnage carried on the same aircraft.

**Figure 5.2: Non aeronautical revenue variability assumptions**

Non-aeronautical revenue category	2011/12 revenue (£m)	Proportion variable	Variable revenues (£m)
Other traffic related	12.1	0%	0.0
Retail	421.8	100%	421.8
Property	131.1	0%	0.0
Rail	113.2	100%	113.2
Other	217.3	50%	108.7
Non-passenger traffic	4.7	0%	0.0
Total	900.2	72%	643.7

Source: HAL Regulatory Accounts for the year ended 31 March 2012 and CAA analysis

### Critical loss of passengers

- 5.63 Table 2 shows the critical loss analysis. The analysis shows that a five to ten per cent increase in aeronautical charges will increase aeronautical revenue from an average of £16.75 per passenger (the price cap for 2011/12) to £17.58 and £18.42 per passenger respectively for a five to ten per cent increase. For the same number of passengers, this results in total aeronautical revenue increasing by £59 and £117 million.
- 5.64 Based on this, and taking into account the potential reduction in operating costs and loss of non-aeronautical revenue from lower passenger numbers, gives a critical loss of passengers of 2.61 to 2.99 million for a five per cent increase in aeronautical charges, and 5.03 to 5.73 million for a ten per cent increase. This is the reduction in passengers required for the aeronautical charge increase to be unprofitable for the airport operator.
- 5.65 These calculations assume that the loss of traffic would not be "back-filled" by any excess demand for operating from Heathrow. However, this is not a reasonable assumption as Heathrow is currently operating at capacity, with a significant degree of excess demand. The critical elasticity estimates presented below are therefore likely to be lower bound estimates, as the existence of "back-fill" would increase the required traffic sensitivity to an increase in price. The consequences of this are discussed in the remainder of this chapter.

**Figure 5.3: Critical loss in terms of passengers (£million)**

	Increase in aeronautical revenue	
	5%	10%
<b>SSNIP increment</b>		
Background data		
Passengers (mppa)	70.099	70.099
Aeronautical Revenue	1173.9	1173.9
Non Aeronautical Revenue	900.2	900.2
Total Revenue	2074.1	2074.1
Operating Costs	1001.0	1001.0
Aeronautical Revenue per Passenger (£ per pax)	16.75	16.75
Non Aeronautical Revenue per Passenger (£ per pax)	12.84	12.84
Variability of non aero revenue	72%	72%
Total Revenue per Passenger (£ per pax)	29.59	29.59
Operating Costs per Passenger (£ per pax)	14.28	14.28
<b>After price increase</b>		
Aeronautical Revenue per Passenger (£ per pax)	17.58	18.42
Non Aeronautical Revenue per Passenger (£ per pax)	12.84	12.84
Total Revenue per Passenger (£ per pax)	30.43	31.26
Increase in Revenue (£m)	58.70	117.39
Critical loss (mppa) (SDG opex elasticity)	2.991	5.737
Critical loss (mppa) (CC opex elasticity)	2.611	5.034

Source: HAL regulatory accounts 2011/12 and CAA calculations

### Critical elasticity

5.66 Based on the above critical loss figures, the implied "critical" elasticity can be derived. This estimates the proportion of passengers that would need to switch away to make a 10 per cent increase<sup>261</sup> in airport charges unprofitable for HAL. As with the critical loss estimates, the existence of excess demand means that the critical elasticity estimates are likely to be lower bound estimates, as "back-

<sup>261</sup> This analysis can be applied to any price increase.

fill" could mitigate the constraint imposed from switching by incumbent airlines.

5.67 Figure 5.4 shows the implied demand elasticity from the change in passenger numbers.<sup>262</sup> The reduction in passengers implies that if the airport charge elasticity is between 0.72 and 0.85 then the airport operator cannot profitably increase charges. This means that, for a 10 per cent increase in airport charges, between approximately 7 and 8.5 per cent passengers of passengers would be required to switch away in order to constrain HAL's price increase.

**Figure 5.4: Passenger demand elasticity required to render SSNIP unprofitable**

SSNIP increment	Increase in aeronautical revenue	
	5%	10%
Critical loss (mppa) (SDG opex elasticity)	2.991	5.737
Critical loss (mppa) (CC opex elasticity)	2.611	5.034
Change in passengers SDG	4.3%	8.2%
Change in passengers CC	3.7%	7.2%
Implied elasticity SDG opex elasticity	0.85	0.82
Implied elasticity CC opex elasticity	0.74	0.72

Source: HAL regulatory accounts 2011/12 and CAA calculations

5.68 Table 4 below converts the critical loss in passenger numbers calculated above and converts it in to flights per annum and daily slot pair equivalents. This conversion takes the weighted average number of passengers per flights at Heathrow in 2012 as 205<sup>263</sup>. Overall, this implies that based airlines at Heathrow would need to withdraw the equivalent of 18,000 to 39,000 flights per annum. This translates to between 17 and 38 daily slot pairs to make a small but significant price increase unprofitable for HAL.

<sup>262</sup> The demand elasticity is the percentage change in the quantity demanded divided by the percentage change in price.

<sup>263</sup> Weighted average constructed on the basis of the Summer 2012 ACL start of season report, page 8



**Figure 5.5: Implied passenger, flight and aircraft loss required to render SSNIP unprofitable**

Critical Loss	5% – CC Opex Elasticity	5% – SDG Opex Elasticity	10% – CC Opex Elasticity	10% – SDG Opex Elasticity
Passengers (mppa)	2.611	2.991	5.034	5.737
Flights per annum	12,708	14,558	24,501	27,923
"Slot Pairs"	17	20	34	38

Source: CAA Calculations

5.69 Following a consideration of the switching costs facing airlines at Heathrow and their ability to exert countervailing buyer power, the critical loss estimates presented in this section will be compared in section 6 to estimates – based on identifying characteristics of marginal airlines – of the likely size of marginal airlines that might switch away from Heathrow following a ten per cent price increase.

## Section 4: Switching costs

5.70 Examining the switching costs and the ability of marginal service provided by FSCs, both based and inbound, and feeder airlines can be useful in helping to understand the ability of airlines to constrain HAL's pricing and other competitive behaviour. In this section the CAA examines switching costs and ability of airlines to switch marginal aircraft away from Heathrow as well as the practical considerations involved in any exercise of the ability to switch. In particular, this section:

- highlights the different costs that may be incurred with grounding and/or switching;
- summarises the categories of switching costs that an airline may face;
- explores how switching costs apply to based and inbound FSCs and feeder airlines; and
- explores the strategic costs that an airline may incur in switching.

5.71 The CAA notes, however, that switching costs alone will not solely determine the level of switching that may occur – other issues,

including capacity constraints and the ability of HAL to "back-fill" any available slots, also play an important role and it is for that reason that some of these issues are discussed in this chapter.

5.72 The categories of switching costs potentially faced by an airline were described in detail in the CC's 2009 BAA airports market investigation. They are summarised below:

- *Cost of physical relocation*: these are one-off costs incurred when re-basing aircraft, which could include relocating flight crew if the airport to which the aircraft is rebased is a considerable distance from the current airport. There may also be ground staff redundancy or recruitment expenses. If an aircraft is being relocated to an airport where the airline has existing operations, these costs may well be smaller than if it were opening a new base, in which case some additional start-up expenses might be incurred.
- *Long-term commitments*: an airline might have a multi-year contract with an airport where the charges it pays are linked to the volume of passengers it carries. There could also be long-term arrangements for maintenance facilities. Full or partial switching of aircraft or services could well break these agreements, and the benefits of these agreements would need to be considered against the offer at an airport to which the airline may switch.
- *Loss of economies of scale*: switching away one or more aircraft from a base could result in the loss of economies of scale at that particular airport as the size of the airline's operations is reduced. However, this switching cost might be offset by the creation of economies of scale at the airport to which the aircraft is (are) being relocated, or may not be significant if the aircraft switching occurs between two or more sizeable bases.

- *Market effects*: these include transitory costs of switching aircraft to substitute airports. Marketing costs can be incurred for new routes, and the lower yields in the first year(s) of a route's operation as the yields reach maturity. These costs could be offset to an extent by the airport to which the aircraft is (are) relocated offering discounts to new airlines or for the operation of new routes. In addition, these costs may be smaller if the aircraft and routes are moved to airports that are proximate to the original airport, and whose catchment area(s) overlap with it. However, there may be longer-term market effects resulting in lower yields, even on mature routes, which could occur from operating routes from airports whose location is less attractive or where the airline faces more direct competition.
- *Network effects*: network effects can occur at an airport where the number of airlines or routes offered increases the number of passengers choosing to fly from the airport, which in turn can make the airport more attractive to other airlines. Switching away from an airport, in particular to a smaller airport, might result in the airline losing the benefits of these network effects. However, the strength of these effects varies on a case-by-case basis. In the case of FSCs and associated feeder traffic, the loss of sufficiently thick connecting passenger feed can be an important switching cost as the carrier might require this to supplement surface passenger demand to make a service viable.
- *Capacity constraints*: capacity constraints at airports that are seen as substitutable by an airport's incumbent airlines can reduce the threat and likelihood of airline switching as airlines might be less able to relocate aircraft in a profitable way and on a sufficient scale to constrain the airport. These capacity constraints can occur from a lack of suitable runway slots, aircraft parking stands capacity, and/or terminal capacity. The implications of capacity constraints are considered in section 7.
- *Sunk costs*: these are irrecoverable costs resulting from an airline's investment in infrastructure and facilities at an airport, either through purchase or leasing. Where the assets are owned by the airline, the initial investment costs might be to an extent recoverable through the sale of the assets, thereby reducing the size of the sunk costs.

5.73 The different types of switching costs outlined above are likely to

affect airlines operating to and from Heathrow differently according to their business model and the nature of their operations.

### CAA Initial Views

- 5.74 In its Initial Views for market power assessment of Heathrow, the CAA said that the analysis of passenger airline switching costs suggests that, although the willingness and ability to switch away from Heathrow varies according to the nature of an airline's operations, carriers reliant on connecting passengers and the network effects at the airport would be likely to face very significant switching costs.
- 5.75 Based network carriers at Heathrow need to operate both short-haul "feeder" routes and long-haul routes from the airport, and so would have a very limited scope to switch any of their services to another airport due to the loss in revenue not only from the route itself but from the impact on overall network profitability, as discussed in section 2. Other based and inbound carriers at Heathrow, such as Virgin, also rely on connecting passenger traffic to increase their load factors, and on the network effects in part created by the strong presence of airline alliances. Additionally, routes operated from Heathrow benefit both from additional passenger yield from premium (non-economy) tickets and from bellyhold cargo.
- 5.76 These route-related switching costs combine with the significant infrastructure investments made by the based carriers at the airport to suggest that these airlines are unlikely to be operating many of the 'marginal' services at the airport.
- 5.77 Whilst the majority of airlines operating from Heathrow depend on a significant proportion of connecting passengers, some inbound carriers do not rely on connecting passengers. These airlines, such as those with less than ten per cent of their passengers connecting at Heathrow, would appear to be the carriers facing the lowest switching costs. Consequently, these carriers may constitute the marginal airlines at Heathrow<sup>264</sup>, but do not appear to be sufficiently large to represent an effective discipline on the airport, as discussed in section 6.

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<sup>264</sup> Airlines with a high individual share of connecting passengers equating to relatively small numbers of passengers would still rely on connecting feed for their services, though they may be marginal from the airport's business point-of-view.

### HAL's arguments

5.78 In its response to the CAA's Initial Views, HAL has made a number of points regarding switching costs faced by airlines operating from Heathrow.

- *"...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".<sup>265</sup>*

5.79 The CAA notes that the revenue earned by an airline through the sale of its slot pair(s) would in theory compensate it for the loss of future expected profits from ceasing to operate these slots. However, the sale value of slots would not then additionally compensate the airline for any other switching costs it might incur in switching away from Heathrow.

- *"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-intuitive".<sup>266</sup>*

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<sup>265</sup> Source: HAL

<sup>266</sup> Source: HAL Response to Initial Views

- 5.80 The CAA notes that the analysis of airline switching costs is not directly related to the analysis of passenger switching. Chapter 4 considers the characteristics of Heathrow's passengers. The impact of airline switching – and indirectly passenger switching – is considered when comparing the critical and actual loss estimates in section 6.
- *"We note also the CAA's reference to airlines being unable or unwilling to switch 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".<sup>267</sup>*
- 5.81 The CAA notes that the fact that airlines earn higher yields at Heathrow than at other London airports, such as Gatwick, is not inconsistent with a view that HAL is in a position to leverage its market power. For example, Heathrow being a unique hub airport in the UK can mean that airlines can increase airfares relative to other UK airports. At the same time, as airlines might not be able viably to switch away from Heathrow, this could enable HAL to exercise its degree of 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".<sup>268</sup>*
- 5.82 This is incorrect. In the Initial Views, the CAA estimated that marginal airlines – with less than ten per cent of connecting passengers and not aligned to an airline alliance – might account for approximately 1.6 million passengers. This analysis is expanded upon in section 6.

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<sup>267</sup> Source: HAL Response to Initial Views

<sup>268</sup> Source : HAL Response to Initial Views

## Costs of physically relocating marginal services

5.83 This section sets out the evidence received by the CAA regarding the infrastructure costs of airlines at Heathrow that would need to be replicated if they were to switch away a large part or their entire operations. While these can be significant, it is the switching costs for marginal aircraft and services which will be important in determining the ability of airlines to switch away in light of a price increase.

5.84 BA and Virgin, the two based FSCs at Heathrow, operate their largest bases at Heathrow. They have provided evidence to the CAA regarding the scale of their infrastructure costs at the airport.

5.85 In its response to the CC's Statement of Issues for the BAA airports market investigation, BA indicated that its infrastructure costs are quite significant:

*"Heathrow is the only airport in the South East able to provide hub and spoke infrastructure. For this reason, BA cannot switch its hub and spoke operation to another airport. Moreover, BA has sunk very large investments at Heathrow: to re-provide BA's Heathrow maintenance facilities elsewhere would cost about £1 billion; BA has invested some £800 million in its new world cargo terminal, in bespoke facilities in terminal 5 and in its Heathrow-based corporate headquarters (including its global operations centre) in the last 10 years. It is, and will continue to be a captive customer of BAA at Heathrow in so far as these services are concerned".*<sup>269</sup>

*In addition, on the basis of evidence from British Airways, the CAA estimates that the airline incurs approximately [8<].*<sup>270</sup>

5.86 Virgin, in its 2007 response to the CC's questionnaire for its BAA Airports Market Investigation also stated that there were a number of infrastructure costs that it incurs at Heathrow:

*"At Heathrow, Virgin Atlantic operates a significant base, which includes maintenance facilities, hangar, flight staff facilities, office accommodation, Upper Class lounge for departures (Clubhouse) and*

<sup>269</sup> Source: BA Statement of Issues Response, October 2007, Paragraph 2.3

[http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/inquiry/ref2007/airports/pdf/issues\\_statement\\_response\\_ba.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/inquiry/ref2007/airports/pdf/issues_statement_response_ba.pdf)

<sup>270</sup> Source BA

*arrivals (Revivals) and a dedicated drive through service".*<sup>271</sup>

5.87 Depending on the size of their operation, inbound carriers also have infrastructure at Heathrow, although on a more limited scale.

5.88 For example, Lufthansa told the CAA that their costs at Heathrow include:

*"office space and check-in desk rental".*<sup>272</sup>

Adding that

*"LH infrastructure (fixed) costs at LGW and LHR are [X] compared to [X] but [X] in comparison with [X]; they including office space and check-in desk rental".*<sup>273</sup>

5.89 Aer Lingus told the CAA that it seeks to minimise its infrastructure costs at Heathrow. Specifically:

*LHR's charges are extremely high and keep increasing at an exponential rate, as well as other costs that it has to contend with such as fixed charges for ground handlers, engineering costs and a CIP lounge. It noted that it tried to minimise its footprint and expense.*<sup>274</sup>

5.90 The infrastructure costs discussed above would not necessarily be switching costs for relocating or reducing marginal services as opposed to exiting the Heathrow market altogether. While there may be costs in scaling down operations for both based and inbound carriers, these are unlikely to be prohibitive. Indeed, Virgin told the CAA that:

*"In addition, the operating costs at [Gatwick and Heathrow] would increase (decrease) with the addition (withdrawal) of aircraft".*<sup>275</sup>

5.91 Similarly, Aer Lingus said:

*There is an element of scaling in costs associated with increasing the*

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<sup>271</sup> Source: Virgin

<sup>272</sup> Source: Lufthansa

<sup>273</sup> Source: Lufthansa

<sup>274</sup> Source: Aer Lingus

<sup>275</sup> Source: Virgin



*number of aircraft at an airport, though no step-change in costs.*<sup>276</sup>

- 5.92 Instead, airlines are likely to face other switching costs when switching away marginal services, as the remainder of this section discusses.

### Slots switching costs

- 5.93 With the exception of allocating growth to new airports, each type of switching discussed in section 1 would involve an airline reducing the number of ATMs it operated from the airport. This means that an airline would then hold one unused slot pair for each frequency it removed. Since the intention of such switching would be to constrain the airport by making its price increase unprofitable, the airline would be unlikely to re-use the slot pair, as this would negate the constraint resulting from the initial reduction in service.<sup>277</sup>
- 5.94 Heathrow has historically been and is currently subject to capacity constraints to the point where, according to the Summer 2013 ACL start of season report, there is on average seven per cent excess demand for slots at the airport across the 'peak week'.<sup>278</sup> According to the current EU slot regulations<sup>279</sup>, a slot series that is used less than 80 per cent of the time would need to be released (though this is unlikely given the considerable monetary value attached to each slot pair), sold or leased to another airline on the secondary slot market.<sup>280</sup>

### Selling slots

- 5.95 In an efficient secondary slot market, the sale price for slots would reflect the full economic value – including opportunity cost<sup>281</sup> – of the slot pair. In such cases, as slot prices have not fallen over time at Heathrow, an airline's investment in a slot pair as an entry cost will have been recovered from the proceeds of its resale, which means

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<sup>276</sup> Source: Aer Lingus

<sup>277</sup> While replacing the switched service with one which is a smaller source of revenue per passenger to the airport would still negatively affect the profitability of the price increase, the impact would be considerably less than when an airline would not replace the service at all.

<sup>278</sup> This is the week selected by ACL as the typically busiest week in the traffic season. As this is stated demand, it is also likely to be an underestimate as airlines are unlikely to request Heathrow slots if they know there are none or very few available.

<sup>279</sup> These are currently subject to review by the European Commission.

<sup>280</sup> In cases where the airline was leasing the slot pair, it would be returned to the lessor.

<sup>281</sup> This would include the expected discounted future profits from operating from Heathrow.

that the slot value would not be a sunk cost.<sup>282</sup>

5.96 Emirates has told the CAA that:

*It views slots at LHR as assets and part of the reason for staying at the airport, and that its recent partnership with Qantas is an illustration of how it can grow at Heathrow.*<sup>283</sup>

5.97 Delta told the CAA that:

*Slots come on the market very rarely at LHR and when they do they are expensive. Therefore, without its joint venture partner, it would not have been able to come in at the level it currently operates – without the VAA transaction it would not be able to expand at LHR.*

and that

*The benefits of operating at LHR, outweighs the cost of purchasing these slots and other business opportunities from other airports.*<sup>284</sup>

5.98 The existence of a secondary slot market would suggest that the value of slots should not, in theory, constitute a switching cost or a sunk cost, as slot pairs would be expected to be sold at a price incorporating the opportunity costs of foregoing their use. However, the extent to which airlines might perceive slot pairs as assets and the illiquidity of the secondary slot market might dissuade them from selling their slot pair(s), as it might be difficult to acquire slots to re-enter at a future date. For this reason, an airline might consider the grandfather rights<sup>285</sup> available on slots at Heathrow – a severely capacity constrained hub airport unique in the UK – as an important switching cost.

5.99 In its BAA airports market investigation, the CC said that:

*"The secondary market is in our view illiquid, as illustrated by a large apparent increase in Heathrow secondary market values of transatlantic slots occurring when demand for such slots increased following the Open Skies agreement (which enabled additional airlines*

<sup>282</sup> In fact, an airline selling a slot it acquired 20 years ago is likely to make a significant profit.

<sup>283</sup> Source: Emirates

<sup>284</sup> Source: Delta

<sup>285</sup> Grandfather rights allow an existing user of a slot to continue using it. The current allocation of most slots is based on grandfather rights.

*to operate transatlantic services from Heathrow). The need to acquire slots on the illiquid secondary market may make it difficult for airlines to acquire a suitable portfolio of slots at another airport matching that which the airline already has at its existing airport and hence difficult to switch services between the two airports".<sup>286</sup>*

- 5.100 The illiquidity is likely to be due in large part to the strategic incentives faced by an incumbent airline to retain a slot pair or to restrict its resale or lease to strategic partners. This suggests that airlines – and particularly unaligned airlines – perceive the sale of a slot pair at Heathrow to be an irreversible decision and that, while it should realise the economic value of the slot in its resale value, the high re-entry slot purchase costs (at least equal to the value of the sale for a similarly-time slot) coupled with the illiquidity of the secondary market (i.e. the uncertainty of future acquisition) create a substantial switching cost.<sup>287</sup>

### **Leasing slots**

- 5.101 Leasing the slots to a strategic partner could significantly reduce the costs of reducing services from Heathrow as the lessor airline would retain grandfather rights.<sup>288</sup> The leasing of slots between two airlines typically involves a slot transfer accompanied by a commercial contract between the lessor and lessee. This allows the leasing airline to reduce its services to whatever extent it requires – ranging from ceasing to operate one slot pair to ending its entire operation to and from Heathrow - over a stipulated period. For example, an airline might stop serving Heathrow by leasing its entire slot portfolio to partner airlines, and recommencing flights at the expiry of the lease period. The CAA considers that the ability to lease slots to other airlines, while retaining grandfather rights, would significantly reduce any slot-related switching costs for airlines switching away marginal services.

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<sup>286</sup> Source: CC BAA Investigation, Annex 3.1 Cost to airlines of switching airports, paragraph 29 [http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep\\_pub/reports/2009/fulltext/545\\_3\\_1.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2009/fulltext/545_3_1.pdf)

<sup>287</sup> Related to this is the necessity to maximise aircraft utilisation: if a slot pair is relinquished, the aircraft that would have operated it would need to be redeployed. The network planning implications of this can be a considerable cost.

<sup>288</sup> Assuming the lessee operates the slots at least 80 per cent of the time, as otherwise the lessor would still lose its grandfather rights.

## Network benefits and strategic partners

5.102 Airlines at Heathrow tend to operate hub-and-spoke services, either using the airport as their hub or as an airport from which to operate inbound spoke services to their domestic hub(s). The resulting network of airlines and destinations serving the airports means that there are significant network effects at the airport. The principal factors creating these network benefits are the connecting passenger flows and the presence of strategic partner airlines. This section considers these in turn to determine how far they could constrain switching for airlines at Heathrow.

### Connecting passengers

5.103 Generally, connecting passengers can supplement surface passenger demand to increase an airline's load factor. The available connecting passenger feed at an airport can be important to a route's profitability.

5.104 BA noted that connecting passenger feed increases its network revenue:

*"BA's services at Heathrow generate revenues not only by carrying point to point passengers but also by increasing the number of passengers on other BA routes. That is, BA's Heathrow services give rise to network effects which increase economic efficiency and benefit consumers".<sup>289</sup>*

5.105 Virgin has told the CAA that it considers the impact of connecting passenger feed on the profitability of its routes:

*[X]. We achieve high load factors by attracting the largest possible combination of:*

- *domestic point-to-point passengers (mixture of business, leisure and VFR);*
- *domestic connecting passengers;*
- *international transfer traffic; and*

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<sup>289</sup> Source: BA Response to Statement of Issues, October 2007, paragraph 2.4

[http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/inquiry/ref2007/airports/pdf/issues\\_statement\\_response\\_ba.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/inquiry/ref2007/airports/pdf/issues_statement_response_ba.pdf)

- *cargo*".<sup>290</sup>

5.106 Cathay Pacific, which operates spoke services between Heathrow and its hub in Hong Kong, has told the CAA that it also benefits, to an extent, from connecting passenger feed at Heathrow:

*Connecting passengers do contribute to CP's load factors at LHR. Though the destinations of the connecting passengers vary, but as a hub carrier what works for CP at HKG also works at LHR.*<sup>291</sup>

5.107 Similarly, Emirates, which operates inbound into its Dubai hub, has told the CAA that:

*Its operations to London are vital and are built around the connectivity of the "universally recognised" LHR hub.*<sup>292</sup>

5.108 Figure 5.6 lists the twenty airlines that carried the most connecting passengers at Heathrow in 2011, accounting for approximately 92 per cent of all connecting passengers at the airport. The importance of connecting passengers to an airline's operations can be seen to vary according to its business model and its alliance membership.

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<sup>290</sup> Source: Virgin

<sup>291</sup> Source: Cathay Pacific

<sup>292</sup> Source: Emirates

**Figure 5.6: Top 20 airlines in terms of connecting passengers at Heathrow, 2011**

Airline	Connecting	Total LHR passengers	Connectors as % of airlines' traffic	% of LHR connecting passengers	Alliance
British Airways	14,320,576	28,859,529	49.6%	60.3%	oneworld
bmi british midland	1,261,708	2,984,404	42.3%	5.3%	Star
American Airlines	831,956	2,019,573	41.2%	3.5%	oneworld
Aer Lingus Irish Airlines	767,077	2,196,652	34.9%	3.2%	unaligned
Virgin Atlantic Airways	757,362	3,536,386	21.4%	3.2%	unaligned
Air Canada	646,185	1,474,634	43.8%	2.7%	Star
Qantas Airways	438,429	942,528	46.5%	1.8%	oneworld
SAS Scandinavian Airlines	320,601	1,502,357	21.3%	1.3%	Star
Deutsche Lufthansa	294,822	2,482,612	11.9%	1.2%	Star
Cathay Pacific Airways	277,188	885,017	31.3%	1.2%	oneworld
United Airlines	250,692	1,247,829	20.1%	1.1%	Star
Jet Airways (India)	218,013	588,958	37.0%	0.9%	unaligned
South African Airways	165,398	396,174	41.7%	0.7%	Star
Swiss International Air Lines	160,122	963,843	16.6%	0.7%	Star
Singapore Airlines	158,931	708,210	22.4%	0.7%	Star
Iraqi Airways	155,634	737,437	21.1%	0.7%	unaligned
Emirates	152,804	1,314,945	11.6%	0.6%	unaligned
Air New Zealand	136,248	364,558	37.4%	0.6%	Star
Finnair	132,657	333,497	39.8%	0.6%	oneworld
Gulf Air	127,941	265,566	48.2%	0.5%	unaligned

Source: CAA Passenger Survey

Note: CAA airport statistics include both self-connecting and connecting passengers. These figures may slightly over-estimate the actual proportions of inter- or intra-lining passengers.

5.109 BA, which bases its global hub operations at Heathrow, carries approximately 50 per cent (approximately 14 million) connecting passengers in terms of its total traffic. This represents nearly 60 per cent of the airport's total of approximately 24 million connecting passengers in 2011. Further, BA with its Oneworld alliance partners carry upwards of 65 per cent of Heathrow's connecting passengers, which reflects the fact that Oneworld is the "home alliance" at the airport.

5.110 Airlines that are members of the Star and SkyTeam alliances operate either short-haul or long-haul services between Heathrow and their respective home hub airports.<sup>293</sup> Star Alliance (excluding bmi) and Sky Team respectively carry 11 and one per cent of Heathrow's connecting passengers. However, while they represent a small

<sup>293</sup> These airlines would generally carry a larger proportion of connecting passengers at their respective hubs.

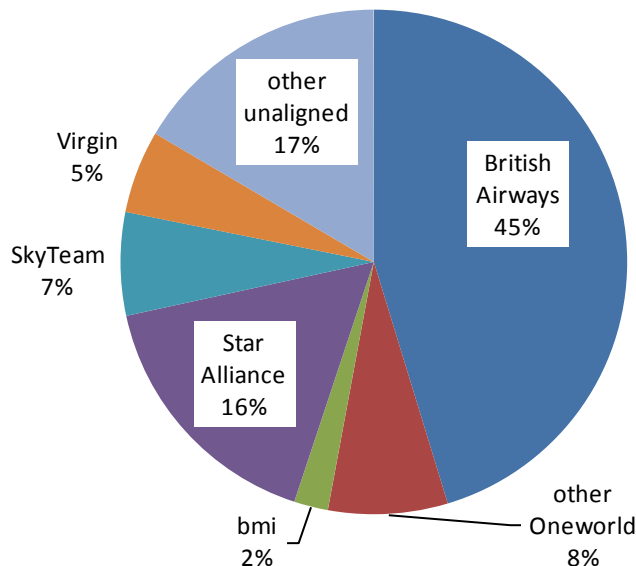
proportion of the airport's connecting passengers, these account for at least 11 per cent of passengers for the airlines in the above table. Unaligned carriers collectively account for approximately five per cent of the airport's connecting passengers. This suggests that, on the whole, the loss of connecting passengers would be an important switching cost for the majority of based and inbound carriers at Heathrow.

### **The presence of strategic partner airlines**

- 5.111 In addition to, or aside from, alliance membership, an airline might also have a number of agreements with other airlines. These can include:
- code-sharing agreements, where an airline reciprocally allows the other airline's passengers to travel on its aircraft (its "metal");
  - interlining agreements, where an airline reciprocally allows another airline's passengers to connect onto its services; or
  - joint ventures.
- 5.112 Losing the benefits that this brings can constitute a considerable switching cost for switching marginal services away from Heathrow.

### **Alliance membership**

- 5.113 Figure 5.7 shows the share of total passengers by airline alliance in 2011. As the CAA said in its Initial Views, it is clear that alliance membership is an important facilitating factor in taking advantage of network effects, which suggests that moving to an airport with fewer partner airlines would increase an airline's switching costs due to the loss of (at least a degree of) these network effects.

**Figure 5.7: Share of passengers of airline alliances, 2012**

Source: CAA airport statistics

5.114 Evidence from FSCs highlights the importance to the connectivity of their services of having alliance partners at Heathrow.

5.115 For example, American Airlines, a member of Oneworld, told the CC in 2007 that:

*"...given the value our customers place on being able to connect to British Airways flights, it is unlikely that we could shift a significant amount of service unless British Airways also moves services..."*<sup>294</sup>

5.116 United Airlines, a member of Star Alliance, told the CC in 2007 that:

*"United's alliance partners have extensive operations to/from Heathrow, thereby providing United with greater on-line connectivity and commercial opportunities [than other BAA airports]"*<sup>295</sup>

5.117 While this comment was made when bmi was still part of the Star Alliance, the CAA considers that this is still likely to hold: as Figure 5.7 shows, Star Alliance still has a 20 per cent passenger share at

<sup>294</sup> CC BAA Investigation, Annex 3.5, Airline responses on substitutes for BAA London airports and price reductions at these airports (Annex 3)

<sup>295</sup> CC BAA Investigation, Annex 3.5, Airline responses on substitutes for BAA London airports and price reductions at these airports (Annex 3)



Heathrow.

- 5.118 Similarly, Lufthansa, a major member of Star Alliance, highlighted the importance of alliance membership:

*Given the Star Alliance presence at LHR and the collective relocation of the alliance into Terminal 2, LH is unlikely to consider switching away from Heathrow.*<sup>296</sup>

- 5.119 Delta, a member of SkyTeam, told the CAA that:

*From a cost perspective, [the Sky Team alliance] allows it to regroup with its partners more naturally. It can use the Sky Team lounges at LHR to a much greater extent than it could as an individual carrier. As a result, its customers benefit greatly from the partnership.*<sup>297</sup>

### Other partnership agreements

- 5.120 The above analysis focused on the benefits of alliance membership. However, not all airlines are part of an alliance. For example, Emirates, noted that:

[redacted].<sup>298</sup>

- 5.121 Air Malta told the CAA that it chose not to become a member of an alliance:

*It is not a member of any major airline alliances but does code share with various airlines. It chooses to do so because it is a smaller player and needs to cooperate with the main alliances and keep its options open.*<sup>299</sup>

- 5.122 FSCs also tend to have similar agreements with partner airlines to take advantage of network effects without, or in addition to, joining an alliance. For example, airlines can sign code-sharing, interlining and other similar agreements with other airlines to allow passengers to connect to or fly on their partner airlines' services. Consequently, if an airline reliant on connecting passenger feed were to relocate marginal aircraft or services to an airport from which its partner airlines (or other airlines with similar services with which it could replicate its current

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<sup>296</sup> Source: Lufthansa

<sup>297</sup> Source: Delta

<sup>298</sup> Source: Emirates

<sup>299</sup> Source: Air Malta

agreements<sup>300</sup>) do not operate, it might not have sufficient feeder traffic to make its services viable.

5.123 For example, one of HAL's internal documents discussed the advantages of the prospective Delta/Virgin joint venture:

[REDACTED]:

- [REDACTED]
- [REDACTED]
- [REDACTED].<sup>301</sup>

5.124 Air Canada, a member of Star Alliance, told the CC in 2007 that:

*"Air Canada has strategic commercial partnerships with several other airlines operating at London Heathrow airport. An eventual move would risk these partnerships which provide mandatory support to Air Canada's traffic".*<sup>302</sup>

### Summary

5.125 Overall, for most airlines there are important network benefits available at Heathrow that are derived from the considerable connecting passenger traffic and the presence of partner airlines. These are likely to generate substantial switching costs. These factors typically play an important role in ensuring that the load factors on individual flights reach their required levels to make the route profitable. Removing marginal services could then affect an airline's profits in three ways:

- the loss of revenue from operating the route itself;
- the loss of the route's contribution to the airline's network; and
- the loss of profits for its partner airlines, as it may share in some of their revenue under a code share or interlining agreement.

5.126 However, as the CAA set out in its Initial Views, 18 out of Heathrow's 93 airlines in 2010 carried less than ten per cent connecting

<sup>300</sup> The costs involved in doing this are in themselves switching costs.

<sup>301</sup> Source: HAL

<sup>302</sup> Source: CC BAA Investigation, Annex 3.5, Airline responses on substitutes for BAA London airports and price reductions at these airports (Annex 3)

passengers on their services.<sup>303</sup> For these airlines, it is unlikely that the loss of connecting passengers would be a significant switching cost. These airlines account for approximately 3.9 million (six per cent) of Heathrow's passengers. Of these, airlines accounting for approximately 1.9 million are not aligned to alliance. An analysis of HAL's marginal airlines (and indirectly passengers), and how far they might constrain HAL, is set out in section 6.

### Cargo-related switching costs

5.127 Heathrow airport has the largest share of air cargo tonnage in the UK, with 61 per cent of air cargo being processed through the airport. Nearly all (more than 99 per cent) is carried in the bellyhold of passenger aircraft. As a result of the concentration of air cargo, and the cargo community, around Heathrow, the loss of cargo-related revenue from switching away could be an important switching cost for both based and inbound airlines.

5.128 BA told the CC in 2007 that it had significant cargo infrastructure at Heathrow:

*"...invested some £800 million in its new world cargo terminal".<sup>304</sup>*

5.129 In addition, Virgin stated that cargo revenue was also a consideration when assessing route profitability:

*"[&]. We achieve high load factors by attracting the largest possible combination of:*

- *domestic point-to-point passengers (mixture of business, leisure and VFR);*
- *domestic connecting passengers;*
- *international transfer traffic; and*
- *cargo".<sup>305</sup>*

5.130 Similarly, Delta, inbound into Heathrow, told the CAA: *cargo is*

<sup>303</sup> CAA Initial Views, Table 12, Page 77

<sup>304</sup> Source: BA Response to Issues Statement by CC 29 Oct 2007m paragraph 2.3

[http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/inquiry/ref2007/airports/pdf/issues\\_statement\\_response\\_ba.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/inquiry/ref2007/airports/pdf/issues_statement_response_ba.pdf)

<sup>305</sup> Source: Virgin

*critically important to its operations and the expansion into LHR has been good for this part of its business.*<sup>306</sup>

- 5.131 Air Malta told the CAA: *a loss in cargo revenue would make its routes less profitable, as it is incremental revenue. This is particularly for LHR, as cargo is more important than at LGW.*

*LHR: for example, it transports tuna to Japan and various electronics to Asia through direct connections at LHR. This level of connectivity would not be possible at other airports.*<sup>307</sup>

- 5.132 Cathay Pacific, also inbound, told the CAA that it also operates freighter flights:

*"It operates 3 freighter aircraft per week LHR and HKG in the winter and 3 per week in the summer. This is due to the sheer volume of cargo but also the nature of some of the cargo".*<sup>308</sup>

- 5.133 Similarly, Emirates told the CAA that it operates:

*"A weekly freight flight from Heathrow:*<sup>309</sup>

*Most freight goes to LHR and very little goes to LGW. There is a difficulty in persuading agents to move to LGW or STN. It noted that this illustrates the way these airports had been positioned by previous [Gatwick] owners (BAA)".*<sup>310</sup>

*When asked whether revenue from bellyhold is an add-on or pivotal to the profitability of its passenger flights, it noted that it is an add-on but it still plays a very important role (especially with new trade routes, for example between China and West Africa).*<sup>311</sup>

However,

*It also noted that if cargo revenue was reduced, its passenger services from London would still be sustainable and profitable.*<sup>312</sup>

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<sup>306</sup> Source: Delta

<sup>307</sup> Source: Air Malta

<sup>308</sup> Source: Cathay Pacific

<sup>309</sup> Source: Emirates

<sup>310</sup> Source: Emirates

<sup>311</sup> Source: Emirates

<sup>312</sup> Source: Emirates

- 5.134 Overall, the carriage of air cargo can be an important source of revenue to passenger airlines at Heathrow. While it may not be a pivotal switching cost – relative to the other switching costs discussed above – in an airline's decision to switch away marginal services, the loss of revenue from air cargo can be an incremental switching cost that might influence an airline's decision.

### Strategic constraints

- 5.135 In addition to the “traditional” switching costs tied to operations at the airport, airlines at Heathrow may face strategic switching costs in switching between London airports, or to other non-London airports in the UK or in continental Europe. This is an issue that the CAA did not explore in the Initial Views document but is an issue that the CAA's subsequent analysis suggests is a relatively important factor in an airline's decision to switch.

#### The strategic importance of London

- 5.136 The reasons for the strategic importance of London in airlines' networks vary according to their business model. For the based FSCs, BA and Virgin have historical bases in London; the three bases of BA are Heathrow, Gatwick and London City<sup>313</sup>, while Virgin's aircraft are concentrated at Heathrow and Gatwick. Indeed, Virgin has highlighted the importance of London to its operations:

*“Operating from Heathrow and Gatwick is vital to our operation and business strategy”.*<sup>314</sup>

- 5.137 Inbound airlines, operating on a based or inbound basis to other European airports, have made similar statements to the CAA.

- 5.138 Aer Lingus has told the CAA that:

*London is a very important part of its demand profile and London has many airports.*<sup>315</sup>

- 5.139 In addition, Air Malta has told the CAA that:

*The UK is its main market and its London routes are its prime routes*

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<sup>313</sup> Source: BA

<sup>314</sup> Source: Virgin

<sup>315</sup> Source: Aer Lingus

*in its network.*<sup>316</sup>

5.140 Lufthansa told the CAA that:

*LHR is one of the most important airports to LH outside of Germany. This is primarily due to the historically strong economic relationship between London and Germany.*<sup>317</sup>

5.141 Emirates, which also operates to and from other points in the UK and Europe, added:

*Its operations to London are vital and are built around the connectivity of the “universally recognised” LHR hub:*

*These start in London and connect to points throughout the Emirates network including Australia, Asia and India sub-continent. It noted London is so appealing because it is where the world wants to travel to and London is a huge magnet for the whole world in terms of retail, culture etc.*<sup>318</sup>

5.142 Delta operates into hubs at Paris CDG, Schiphol, Prague, and Rome. While the airline told the CAA that:

*LHR is not at present a great connecting airport to Europe for Delta, only to the US.*<sup>319</sup>

5.143 It added that London was important to its operations:

*It also services all the other major European business markets but, in terms of volume, London remains the most important market from a transatlantic perspective.*<sup>320</sup>

5.144 Similarly, Cathay Pacific said that:

*In Europe, it flies to Paris, Amsterdam, Frankfurt, Milan, Rome and Moscow.*<sup>321</sup>

And

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<sup>316</sup> Source: Air Malta

<sup>317</sup> Source: Lufthansa

<sup>318</sup> Source: Emirates

<sup>319</sup> Source: Delta

<sup>320</sup> Source: Delta

<sup>321</sup> Source: Cathay Pacific

*It is a wide-bodied operator that runs four non-stop flights between HKG and LHR.*<sup>322</sup>

- 5.145 And it serves London for three main reasons that drive route revenue, which in turn is central to profitability:

*HKG has links to London in three ways:*

- a. Flying London-Hong Kong provides a link between two financial centres*
- b. There are passengers who have family links at either end of the route*
- c. There is also tourist traffic.*<sup>323</sup>

This suggests that the demand for the airline to fly between Hong Kong and London is strong at both ends of the route.

- 5.146 The CAA considers that the strategic importance of operating to and from London, for both based and inbound carriers, is a considerable switching constraint against relocating to non-London airports in the UK and other airports in Europe.

### **The strategic importance of Heathrow**

- 5.147 In defining the relevant market in chapter 4, the CAA considered that the market was no wider than Heathrow. This suggests that no other London airport is a suitable substitute for Heathrow.
- 5.148 Indeed, HAL's marketing material to airlines says that Heathrow is the "strategic choice for airlines", citing:
- *"Gateway to the UK: 79% of the UK's long-haul scheduled flights operate from Heathrow*
  - *Prestige: 79% of Heathrow's airlines are flag carriers, 99% of services are provided by full service carriers*
    - *Highest proportion of flag carriers and services provided by full service carriers at Europe's major hubs*
    - *Just 36% of Gatwick's services are provided by full service carriers*

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<sup>322</sup> Source: Cathay Pacific

<sup>323</sup> Source: Cathay Pacific

- *High yields:*
  - *Average fare 2x higher than at other European hubs*
  - *Average fare 3x higher than at Gatwick, yield 30% higher*
  - *Average fare 2x higher than at Manchester, yield nearly 40% higher*
  - *Twice as many passengers travel in a premium cabin compared to other European hubs*
  - *36% of passengers travel on business, 30% VFR and 34% leisure*
- *High loads:*
  - *Long-haul SF%: 81%*
  - *Long-haul passengers/flight:*
- *Interline connections:*
  - *30% of passengers transfer to another flight".<sup>324</sup>*

5.149 Airlines at Heathrow are consistent in their view of the strategic importance of the airport to their operations. Air Malta told the CAA that Heathrow is essential to its network:

*It cannot see itself leaving LHR because the airport is its main link to the UK and other markets.<sup>325</sup>*

and

*LHR would be the last airport it would leave in its network.<sup>326</sup>*

5.150 BA describes Heathrow as having the following characteristics:

- *“longhaul hub,*
- *transfer feed to balance UK demand and support longhaul frequency,*
- *alliance hub”.<sup>327</sup>*

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<sup>324</sup> Source: HAL

<sup>325</sup> Source: Air Malta

<sup>326</sup> Source: Air Malta



And that it has:

*"its global hub at Heathrow".*

- 5.151 Cathay Pacific told the CAA that Heathrow is important to its network for two reasons:

*"1. [Heathrow] is the hub airport of the UK. CP works with its 'hub partner' BA in the One World Alliance, to allow passengers flying to LHR not only to reach London but also to reach other destinations in the UK and in Europe using its hub partner British Airways. In the UK, LHR is very much the obvious and only place to which to fly due to the proper hub-and-spoke operation at the airport.*

*2. Although LGW has recently improved, LHR remains the preferred airport for passengers flying out of London. LHR is well-connected into the centre of London. It first started flying to London in the 1980s into LGW, but its pax made it clear that they prefer LHR and CP switched when they got the opportunity.*

*For the two reasons above, LHR and London are synonymous for Cathay Pacific".*<sup>328</sup>

- 5.152 Similarly, Delta also told the CAA that:

*Its strategy at LHR is to ensure that it has the right level of coverage into the number one business market across the Atlantic as well as complementing its European business strategy of tapping into major hubs.*

*LHR is a key part of that strategy; it is trying to create a global footprint and London is the part that was weakest and that is now developing.*<sup>329</sup>

- 5.153 Emirates also told the CAA that:

*If LHR had always had four runways it would never have needed to look at Gatwick.*<sup>330</sup>

- 5.154 Lufthansa also highlighted the importance of Heathrow:

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<sup>327</sup> Source: BA

<sup>328</sup> Source: Cathay Pacific

<sup>329</sup> Source: Delta

<sup>330</sup> Source: Emirates

*London is seen as "the place to be" for LH's customers.*

*For a great part of LH's customers, London and LHR are synonymous.*

*LHR's advantages include the convenience of its access links into central London and the rest of the UK (the inter-modality), which is preferred by both business and leisure passengers.<sup>331</sup>*

- 5.155 Overall, the CAA considers that operating to London is typically of significant strategic importance to their operations for both based and inbound carriers. In particular, the evidence strongly suggests that it is strategically important for airlines to operate to and from Heathrow specifically, particularly as it the unique hub airport in London and in the UK. This is due to a number of factors, including the network benefits and strong passenger demand in London and in inbound carriers' domestic hub airport catchment areas.

## Conclusion

- 5.156 This section has analysed the different types of switching costs that airlines may face at Heathrow when switching away marginal services. In terms of physically relocating services, the cost of replicating airlines' infrastructure at Heathrow would not necessarily be switching costs for relocating or reducing marginal services across existing bases. While there may be costs in scaling down operations for both based and inbound carriers, these are unlikely to be sufficient to prevent airlines from reducing the number of aircraft at the margin. Instead, airlines are likely to face other switching costs.
- 5.157 While the secondary slot market and the tightening capacity constraints mean that the cost of slot acquisition can be recovered, the illiquidity of this market may in some cases constitute a switching cost. However, the ability of airlines to lease slots mitigates this and significantly reduces the slot-related switching costs.
- 5.158 The network benefits derived from connecting passenger feed and the presence of strategic partner airlines cannot be found at another London or UK airport. This switching cost is particularly high for partner airlines of BA, the home hub carrier, while airlines in other alliances or unaligned carriers might face a slightly lower but still

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<sup>331</sup> Source: Lufthansa

significant switching cost from the loss of network benefits. A small number of airlines with little connecting traffic and few partner airlines might be more able to switch away. The potential loss of cargo revenue may be an incremental switching cost for certain airlines, as the feed of cargo at Heathrow is the largest in the UK, due to the concentration of the air cargo community around Heathrow. Airlines are also likely to have sunk costs from marketing and other related costs from promoting its services.

- 5.159 In addition to "traditional" switching costs, airlines at Heathrow have told the CAA that operating to and from London, and Heathrow in particular, is of strategic importance to their business model. The impact on their profitability as a result of switching away from Heathrow would be likely to outweigh considerably any longer term benefits of constraining a price increase at the airport.

## Section 5: Countervailing buyer power

- 5.160 In this section, the CAA considers the ability of FSCs to constrain an airport operator's significant market power by leveraging the importance of its operations to the airport during negotiations, by credibly threatening to switch away marginal services.

### CAA's Initial Views

- 5.161 It is unlikely that these based carriers – or any other airlines at Heathrow – enjoy countervailing buyer power, in part due to the excess demand for slots at the airport, which means that any significant reduction in one airline's use of the airport will prompt other airlines to expand to use the available capacity. HAL is therefore able to "back-fill" slots as they become available and the excess demand will replace the departing airline's capacity.

### Assessing the level of countervailing buyer power

- 5.162 As stated in OFT guidance,<sup>332</sup> countervailing buyer power is "most commonly found in industries where buyers and suppliers negotiate, in which case buyer power can be thought of as the degree of bargaining strength in negotiations." This guidance further states that

<sup>332</sup> Source: OFT Assessment of market power guideline (OFT415)

“size is not sufficient for buyer power. Buyer power requires the buyer to have choice.” This means that, to have a degree of buyer power, an airline would typically need to be a significant proportion of a particular airport operator’s business and have a number of substitute airports to which it could credibly switch in response to the airport’s behaviour. The airline also needs to be well informed about alternative sources of supply and could readily, and at little cost to itself, switch substantial business from one airport to another while continuing to meet its needs or else, sponsor new entry through an alternative supplier relatively quickly and without incurring substantial sunk costs.<sup>333</sup>

- 5.163 As discussed in more detail in chapter 6, evidence received from airlines present at Heathrow by the CAA is clear that they pay the tariff rate of aeronautical charges, as stipulated in the Conditions of Use, and do not receive discounts on airport charges. The CAA has seen no evidence of negotiations or contracts between HAL and any airline with regard to aeronautical charges. On this basis, there would not appear to be any negotiations during which an airline could potentially exert any countervailing buyer power.
- 5.164 An overarching point to the assessment of competitive constraints from airlines and consequently the discussion of countervailing buyer power is the fact that Heathrow faces excess demand for its slot capacity and can easily "back-fill" any available capacity. This means that airlines switching marginal services or aircraft away from the airport are likely to be replaced with airlines waiting for the opportunity to expand or begin operations at the airport. This situation is not confined to smaller players but applies equally to the large airlines.
- 5.165 Figure 5.8 shows that, of the ten largest airlines at the airport in terms of total passengers, only two airlines account for five per cent or more of Heathrow's total passengers in 2011, with BA (42 per cent) having a substantially larger share than Virgin (five per cent). Heathrow passengers account for nearly 80 per cent of BA's total passengers, and also 66 per cent of Virgin's total and 22 per cent of Aer Lingus' passengers across their respective networks. This suggests that the airport tends to be more important to the airlines than the airlines are to the airport.

**Figure 5.8: Top 10 airlines: Relative importance of airline and airport**

<sup>333</sup> OFT 415, paragraph 6.2

### operations, 2011<sup>334</sup>

Airline Name	% of total passengers	% of total airline pax	Revenue per pax £
British Airways	42%	77%	22.43
Virgin Atlantic	5%	66%	27.73
Lufthansa	4%	4%	20.16
American Airlines	3%	3%	26.13
Aer Lingus	3%	22%	18.16
Air Canada	2%	4%	25.34
Scandinavian SAS Airlines	2%	6%	22.32
Emirates	2%	4%	25.54
United Airlines	2%	1%	26.34
Delta	2%	1%	20.36

Sources: CAA passenger survey and airline websites, HAL evidence

5.166 HAL argued in its response to the CAA's Initial Views that:

*"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".<sup>335</sup>*

5.167 The CAA notes that BA is a notable exception, in terms of passenger shares, as it accounts for 45 per cent of Heathrow's passengers. This share rises to 53 per cent for the Oneworld alliance, for which BA is the domestic hub carrier. However, the CAA considers, based on the available evidence, in particular on switching costs, that BA would not have a realistic choice of substitute airport with which to threaten to switch away a substantial amount of its based aircraft.

5.168 The airlines with smaller shares of passengers might have a choice of alternative airports to which they could threaten to switch away. However, the constraint on HAL of an individual airline switching its marginal operations is not generally – with the notable exception of BA – likely to be significant. The main reasons for this are that individual airlines usually have small shares of total traffic and that "back-fill" would be likely to mitigate the impact of airline switching.

5.169 HAL also noted that the differences in revenue per passenger are a relevant metric in assessing countervailing buyer power. It stated:

*"...the CAA might also consider the relative revenues/incomes as an*

<sup>334</sup> BA total excludes bmi.

<sup>335</sup> Source: HAL Response to Initial Views page 17

*appropriate measure*".<sup>336</sup>

- 5.170 The last column in Figure 5.8 sets out the total revenue per passenger, with the income in all but one case being over £20 per passenger and at most approximately £28. The relative similarity of revenue per passenger might suggest that in many cases, HAL could be indifferent between acquiring revenue from one airline or another. For example, although BA has the largest share of passengers, it might not be in a position to credibly threaten to switch away if HAL were in a position to compensate for the decrease in BA's operations with an increase in passengers from an airline giving a greater revenue per passenger.<sup>337</sup>
- 5.171 The CAA considers that the excess demand, coupled with the factors discussed above, means that it is highly unlikely that any airline at Heathrow has the ability credibly to threaten to switch away marginal services from the airport in order to constrain HAL's pricing or behaviour.
- 5.172 In addition, the CAA asked airlines about their potential response to a ten per cent price increase. The vast majority of respondents said that they would absorb the higher charge or pass it on to passengers in fares but would not consider reducing their ATMs or switching aircraft to another airport.
- 5.173 For example, with regards to its Gatwick operations, BA told the CAA that:
- Over the last 10 years, it should have increased its prices by [X] to cover price increases, but managed to have an increase of only [Y], as the market would have not supported higher fare increases.*<sup>338</sup>
- 5.174 BA told the CC in 2007 that
- "In summary, some of the hypothetical increase in airport charges at Heathrow would probably be passed on to [long haul] passengers in*

<sup>336</sup> Source: HAL Response to Initial Views page 18

<sup>337</sup> At a minimum, the revenue per passenger from the airline filling the gap left by BA's operations would need to mitigate sufficiently the loss of BA passengers to the point where a price increase is not constrained. The back-fill from excess demand would be an additional mitigating factor of the impact on HAL's profits from an airline exercising a degree of countervailing buyer power.

<sup>338</sup> Source: BA

*terms of higher prices. This applies in particular to point to point passengers".*<sup>339</sup>

- 5.175 Cathay Pacific said that it would have to pass on increases in airport charges:

*It lost money in first half year, so absorbing costs isn't feasible.*<sup>340</sup>

*It must be able to pass on the cost of production (i.e. of operating a seat) to the passenger, with enough revenue left to derive a profit.*<sup>341</sup>

- 5.176 Similarly, Air Malta said that:

*It would probably have to take it into account in its pricing.*<sup>342</sup>

- 5.177 Delta told the CAA that:

*If you are asking whether we would move to LGW or STN if LHR overcharged us, the answer is no.*

*We do not have negotiating powers with LHR, we have to pay what they ask and we have to be at LHR to capture our key business sector.*<sup>343</sup>

- 5.178 Aer Lingus told the CAA that HAL has increased prices over the past 5 years. Specifically:

*In any open marketing environment, no organisation could sustain a year-on-year increase in charges like LHR's ([&lt;]). All of these all recent annual increases are all unsustainable in an open market environment.*

*The source or origin is that the lack of an open market is exploited by the increase in LHR's charges which has been forced on to the travelling public and other airport users like airlines.*<sup>344</sup>

Adding that:

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<sup>339</sup> Source: CC BAA Investigation, Annex 3.5, Airline responses on substitutes for BAA London airports and price reduction. [http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep\\_pub/reports/2009/fulltext/545\\_3\\_5.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2009/fulltext/545_3_5.pdf)

<sup>340</sup> Source: Cathay Pacific

<sup>341</sup> Source: Cathay Pacific

<sup>342</sup> Source: Air Malta

<sup>343</sup> Source: Delta

<sup>344</sup> Source: Aer Lingus

*The fact that it has had to downsize aircraft (A321 to A319s) as it is transporting few pax per slots is evidence that something is broken. LHR's inability to curtail these costs in a contributing factor, as this has increased significantly Aer Lingus' cost base at LHR.*<sup>345</sup>

5.179 Emirates told the CAA that:

*In regards to pricing, it noted that although charges have increased year on year, it hadn't left LHR and had grown its operation. However, it did note that LHR's pricing was high and always up to the cap.*<sup>346</sup>

5.180 Lufthansa told the CAA that:

*LH fare pricing is not directly based on the costs it faces. Rather, it is based on the prices the market will bear.*

*This means that airlines tend to absorb cost increases, until the market level prices increases.*<sup>347</sup>

5.181 Air Canada told the CC in 2007 that:

*"Even a 10 per cent increase in airport charges at London Heathrow airport would be considerable enough to have a significant impact on the profit performance of our operations, either directly as the increase is absorbed by Air Canada, or indirectly as the increase is passed on to consumers and reduces demand".*<sup>348</sup>

5.182 Taking the above evidence together with the statements by airlines that the CAA has spoken that they pay the tariff aeronautical charges stipulated in the airport's Conditions of Use, the CAA considers that it clearly confirms that airlines are highly unlikely to have countervailing buyer power to constrain HAL's pricing or behaviour.

## Conclusion

5.183 Except for BA and Virgin, no other airline accounts for over five per cent of Heathrow's passenger traffic. The revenue per

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<sup>345</sup> Source: Aer Lingus

<sup>346</sup> Source: Emirates

<sup>347</sup> Source: Lufthansa

<sup>348</sup> Source: CC BAA Investigation, Annex 3.5, Airline responses on substitutes for BAA London airports and price reductions at these airports (Annex 3), page 50

[http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep\\_pub/reports/2009/fulltext/545\\_3\\_5.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2009/fulltext/545_3_5.pdf)



passenger is relatively similar across airlines.

- 5.184 While Heathrow represents a considerable share of traffic for a small number of airlines (BA, VAA, and Aer Lingus), the airport has a relatively small share of most airlines' total passenger traffic. This would suggest that the airlines could have buyer power. However, the considerable strategic importance of operating from London and Heathrow, as well as the significant network effects at the airport, mean that airlines are unlikely to have significant choice to switch away.
- 5.185 Indeed, the excess demand for slots means that any released slots are likely to be backfilled by airlines waiting to enter or expand operations.
- 5.186 In addition, the fact that the airport does not offer discounts on airport charges and the statements that airlines need to absorb (or in some cases pass on) the cost increases are supplementary evidence that suggests that airlines are highly unlikely to have countervailing buyer power to be able to constrain the airport by credibly threatening to switch away from the airport.

## **Section 6: Comparing the likely scale of switching against the required scale of marginal airline switching**

- 5.187 In section 3, it was estimated that more than five million passengers would need to switch away from Heathrow airport in order to make a ten per cent price increase (a SSNIP) unprofitable for HAL.<sup>349</sup> In the discussion of switching costs in section 4, the CAA identified a number of characteristics that are likely to describe HAL's marginal airlines (i.e. those most likely to switch away from the airport in light of a ten per cent price increase).
- 5.188 These characteristics are likely to include:
- Inbound services, due to the small infrastructure costs at the airport;

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<sup>349</sup> The estimated critical loss for a 5 per cent price increase was between 2.5 to 3 million passengers.

- Carrying less than ten per cent connecting passengers on their services, which suggests that the services could be sustainable from a point-to-point airport; and
- Not aligned to a particular airline alliance, which should reduce the level of switching costs resulting from the presence of strategic partners.

- 5.189 Airlines which can be described using all three of these characteristics appear more likely to be able and willingly to switch away from Heathrow. That is, they would be most likely to be HAL's marginal airlines. Although this estimate is fairly rudimentary, it allows a comparison of potential marginal switching against the critical loss figures set out in section 3.
- 5.190 According to this methodology, the marginal airlines at Heathrow are likely to represent approximately 1.9 million passengers. Figure 5.9 presents the details of this estimate. The airlines listed are those carrying less than ten per cent connecting passengers on their flights. The red highlighting indicates carriers that are not members of one of the three global airline alliances.

**Figure 5.9: Summary of marginal airlines, 2011**

Airline	Surface passengers	Connecting passengers	Total passengers	% of connecting passengers	Unaligned
Biman Bangladesh Airlines	73,920	8,101	82,021	9.9%	x
Air France	608,646	66,361	675,007	9.8%	
Arik Air	109,537	11,723	121,260	9.7%	x
Turkish Airlines	509,287	49,815	559,102	8.9%	
KLM	701,117	66,320	767,437	8.6%	
Etihad Airways	462,823	43,234	506,057	8.5%	x
Aegean Airlines	381,479	33,993	415,472	8.2%	
Delta Air Lines	1,101,098	97,573	1,198,671	8.1%	
Air Astana	17,438	1,491	18,929	7.9%	x
Alitalia Linee Aeree Italiane	773,475	58,643	832,118	7.0%	
Contact Air	91,928	6,749	98,677	6.8%	
Vueling Airlines	246,477	14,036	260,513	5.4%	x
Royal Brunei Airlines	164,500	8,243	172,743	4.8%	x
Air Botnia (Blue1)	91,085	4,288	95,373	4.5%	x
Air Seychelles	13,135	545	13,680	4.0%	x
Aeroflot Russian Airlines	237,340	7,788	245,128	3.2%	
Tunis Air	43,523	1,267	44,790	2.8%	x
Pakistan International Airlines	287,051	8,220	295,271	2.8%	x
Uzbekistan Airways	22,743	501	23,244	2.2%	x
All charters	53,800	747	54,547	1.4%	x
Air China	144,653	-	144,653	0.0%	
Azerbaijan Airlines	16,673	-	16,673	0.0%	x
EVA Airways*	188,837	-	188,837	0.0%	x
Syrian Arab Airlines	14,757	-	14,757	0.0%	x
Total			1,908,695		

Source: CAA Passenger survey

Note: EVA Airways to join Star Alliance in 2013

5.191 The estimate of 1.9 million passengers is below the critical loss value of approximately 5 million passengers for a ten per cent price increase. It is also below the critical loss for a five per cent price increase of just over 2.6m (as shown in figure 5.10).<sup>350</sup> This suggests that such price increases would be profitable for HAL as the switching in response would be insufficient to constrain the airport operator's pricing. Further, the excess demand at Heathrow is likely to mean that any airline switching could be replaced by new entrants or expanding incumbent airlines. This is likely to mitigate the constraint from airline (and, indirectly, passenger) switching. Overall, this means that the estimated actual loss of traffic is smaller than the lower bound estimate of required switching to constrain a five and a ten per cent price increase.

<sup>350</sup> These are the estimates with the lower required critical loss.

**Figure 5.10: Comparison of critical and "actual" loss**

Critical loss	5% – CC Opex elasticity	10% – CC Opex elasticity	Estimate of marginal airlines
Passengers (mppa)	2.611	5.034	1.909
Flights per annum	12,708	24,501	9,311
"Slot pairs"	17	34	13

- 5.192 The estimate in this section is subject to a number of caveats. First, the figure was not derived by applying a price increase, but rather on the basis of airline characteristics that can most reasonably be considered to be descriptive of marginal airlines.
- 5.193 Second, airlines that are not aligned to an alliance may still face significant switching costs from the presence of partner airlines through the existence of code-sharing and interlining agreements. For example, Vueling is unaligned and carried only approximately five per cent connecting passengers. However, it has an interlining agreement with BA.<sup>351</sup> The benefits it derives from this agreement are likely to be of significant strategic importance and likely to reduce the likelihood of the airline switching away from Heathrow. As a result, it is possible that the 1.9 million could be an overestimate of the level of switching. However, this analysis can serve as an approximate indication of the more price sensitive airline customers at Heathrow and so inform the analysis of the likely source and scale of marginal switching. In fact, as illustrated in chapter 6, continual airport charge increases since 2005 in both nominal and real terms has not resulted in significant airline switching. While the effects of the contemporaneous economic recession cannot be clearly separated from the effects the price increases at Heathrow, it remains the case that airport charges increased during this period. This suggests that HAL might be able to increase charges by, for example, another ten per cent.
- 5.194 Overall, the CAA considers that switching by Heathrow's marginal airlines is unlikely to be sufficient to constrain HAL's pricing.

<sup>351</sup> <http://www.vueling.com/en/we-are-vueling/press-room/press-releases/corporate/vueling-flights-from-el-prat-barcelona-to-connect-with-british-airways-broad-network/> accessed April 2013

- 5.195 Furthermore, although these marginal airlines might switch away in light of a price increase, the extent to which this would constrain HAL is likely to be considerably affected by "back-fill" that might materialise from excess demand. Capacity and demand at Heathrow is considered in section 7.

## Section 7: Capacity constraints, barriers to entry and expansion, and future demand forecasts

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- 5.196 As explained above in the Analytical Framework (Chapter 3), market shares alone cannot indicate the dynamic competitive pressure exerted by existing competitors to expand their services or that by potential competitors to enter the relevant market. Barriers to expansion or entry are an important part of any market power analysis.<sup>352</sup> In the UK, there are legal barriers to airport expansion in the form of government planning and policy regarding airport development, economic barriers in the form of sunk costs and economies of scale and scarcity of capacity in the form of limited runway slots and terminal facilities.
- 5.197 This section considers how the availability of (or scarcity of) spare capacity at Heathrow and/or at other airports can affect actual and/or potential competition between airports, in the form of new entry or expansion. Capacity constraints at substitute airports can significantly affect the scope that airlines have in switching away from an airport. They can also affect the incentives and ability of an airport (such as Heathrow) to attract airline passenger growth, either from incumbent or new entrant airlines.

### CAA's Initial Views

- 5.198 In its Initial Views, the CAA noted that the balance between demand and available capacity was a significant factor that impacts upon HAL's incentive to compete to attract additional airlines and routes. In addition, the relatively constrained position of Gatwick – which for many airlines would be the only credible potential alternative to using Heathrow – means that capacity constraints limit the potential for airline switching to limit Heathrow's market power.

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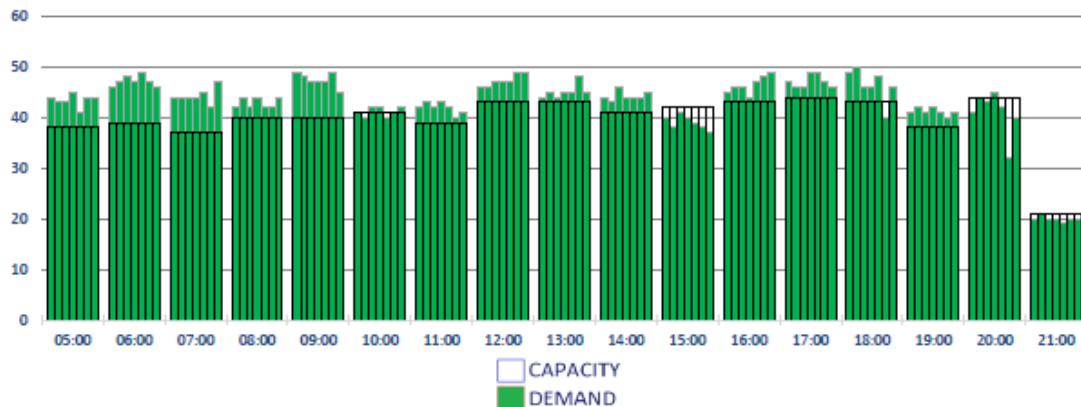
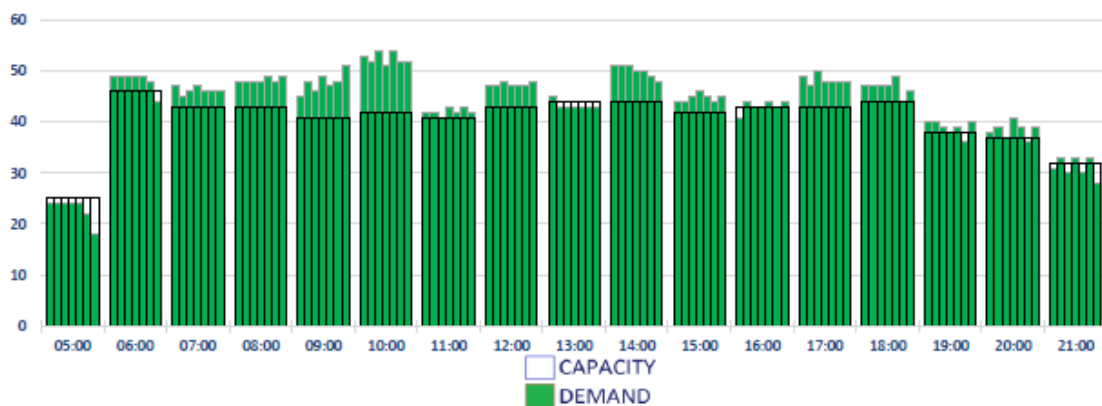
<sup>352</sup> Guidelines, paragraphs 5.1-5.12

## Capacity constraints

- 5.199 Based on the relevant market defined in chapter 4 and the airline switching costs discussed earlier in this chapter, it appears that airlines have very limited scope to switch away from Heathrow in light of a small but significant price increase.
- 5.200 Heathrow is the only hub airport in London and in the UK. In 2011, 69.4 million passengers travelled through Heathrow airport, amounting to 476,295 air transport movements which were close to its movement cap of 480,000. This translates to a rate of over 99 per cent capacity utilisation. This movement cap is unlikely to be lifted in the short to medium, in particular because mixed mode operations are prohibited.<sup>353</sup>
- 5.201 Heathrow effectively operating at capacity, at a price below the market-clearing level, leads to excess demand for slots at the airport. Figure 5.11 illustrates the demand for arrival and departure slots relative to the declared capacity limits. A similar pattern of excess demand can be seen in the winter traffic seasons.
- 5.202 The graphs show that there is excess demand for slots at Heathrow, for either (or both) arrivals and departures, at nearly all time of day. Taking together arrival and departure slot demand over the sample week, there is on average 107 per cent demand. However, demand for a particular hour can exceed capacity by as much as 25 per cent. Where demand can be accommodated for arrivals (departures) but not departures (arrivals), this is likely to reflect that a certain hour on a given day is more appropriately timed for one kind of airline operation. For example, airlines require slots in the hour of 0500 and 0559 UTC more often for early morning arrivals than departures.

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<sup>353</sup> Mixed mode operation of the runways would allow both runways to be used simultaneously for a mix of arrivals and departures, increasing their capacity.

**Figure 5.11: Slot demand at Heathrow, Summer 2013****RUNWAY MOVEMENT DEMAND - ARRIVALS**Peak Week Movements per Hour - All times UTC  
Demand At Initial Submission**RUNWAY MOVEMENT DEMAND - DEPARTURES**Peak Week Movements per Hour - All times UTC  
Demand At Initial Submission

Source: ACL Start of Season report 2013

**Barriers to entry and expansion**

5.203 In this section, the CAA briefly outlines what it said in the Initial Views on barriers to entry and expansion by other airports and the actual evidence of entry or expansion.

5.204 In the Initial Views, the CAA noted that:

- competitive constraints can arise from entry and/or expansion of airports in the relevant market(s);
- the impact of this form of competitive constraint will be limited by the magnitude of barriers to airport entry and expansion; and

- in the context of the airports in London and the South East of England, and in the UK more generally, the likelihood of new entry the short to medium term is very low.<sup>354</sup>
- 5.205 Since the publication of the Initial Views, the CAA has considered the scope for entry and expansion of other airports in more detail, as additional alternative airports could have a significant effect on decisions made by stakeholders. The CAA's thoughts on this issue are outlined below.
- 5.206 The Guidelines note that barriers to entry in airport markets are particularly high and that expansion of existing airports is more likely to represent a competitive constraint on existing airports than the threat of entry by an entirely new airport.<sup>355</sup> New airports can sometimes enter the market, but the investment and lead times involved in new entry are likely to significantly limit the impact of this form of competitive constraint.<sup>356</sup>
- 5.207 Expansion and/or entry by existing aerodromes, and/or the threat thereof, may represent a source of competitive constraint. However, as in the case of a new airport, the cost and timescales involved in expanding to accommodate sufficient switching may still be too great to constrain HAL's prices in the short to medium term.

### Evidence of actual entry or expansion

- 5.208 One way to understand the nature of barriers to entry and expansion is to consider the history of entry and expansion in the market. As outlined in the Initial Views, there is very limited evidence of significant entry or expansion in the relevant markets. However, there are two recent examples of expansion in the form of Southend and the recent announcement of Luton's intention to increase capacity:

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<sup>354</sup> CAA, Initial Views, p. 90

<sup>355</sup> The Guidelines are available on the CAA's website:

<http://www.caa.co.uk/docs/5/Final%20Competition%20Assessment%20Guidelines%20-%20FINAL.pdf>

<sup>356</sup> For example, Robin Hood Doncaster Sheffield airport opened in April 2005, and London City Airport opened in 1988.



- In April 2012, easyJet opened based operations at Southend airport. Although Southend airport constitutes entry on a relatively small scale and does not compete with Heathrow, the airport currently has plans to expand to handle two million passengers by 2020.<sup>357</sup>
- Luton airport's Masterplan sets out a plan to increase capacity at the airport from 10.3 mppa in 2013 to 18 mppa by 2030, including a forecast increase in traffic up to 12.1 mppa by 2019.<sup>358</sup>

5.209 The CAA notes that the Government has currently put a hold on the expansion of the London airports and that the Davies Commission is not expected to bring out an interim report until the end of 2013, with a full report in summer 2015. The CAA also considers that any change in government policy following the release of the Davies Commission final report is likely to take some time to be implemented and that any significant capacity expansion is not expected until 2025, outside the timeframe that the CAA is considering as part of this market power assessment.

### Demand forecasts and future capacity constraints

5.210 The way in which capacity constraints at London airports are expected to evolve in the short to medium term has implications for the dynamic assessment of the market power of HAL. The CAA notes that this issue was not explored in much detail in the Initial Views.

5.211 The CAA has considered the DfT's 2012 Aviation Demand Forecasts. These forecasts state that:

*"In the central forecast, the five largest South East airports are forecast to be full by 2030. However, the high and low demand scenarios underline the uncertainty around this conclusion. With the range of demand used they could be full as soon as 2025 (the high case) or take until 2040 (the low case). Heathrow had effectively reached capacity in 2011 and it is forecast to remain at capacity in all scenarios. In the high and central demand cases, a number of other airports are expected to reach capacity over the forecast period*

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<sup>357</sup> Source: Southend Airport

<sup>358</sup> For more information see: <http://www.london-luton.co.uk/en/content/8/1171/Masterplan.html>

*including Birmingham, Bristol, East Midlands and Manchester”.*<sup>359</sup>

5.212 The CAA also notes that DfT’s constrained forecasts make a number of assumptions, including:

- No new runways are built in the UK. The CAA considers this to be reasonable for forecasts at least up to 2020, as the Davies Commission is scheduled to report in 2015 and there would a lag in capacity becoming available following this decision;
- Schemes already in the planning system and airport masterplans are implemented by 2020;
- Incremental growth to full potential long-term capacity by 2030 taking into account the airports’ own longer term plans, physical site constraints and up to 13 per cent capacity gain (where possible) through operational and technological improvements;
- Terminal capacity increased incrementally to service additional runway capacity; and
- No changes after 2030.

5.213 Based on those assumptions, DfT’s Aviation Forecasts confirm that Heathrow is already effectively full. The forecasts also estimate that Gatwick, which is already capacity constrained during some periods of the day, will reach 100 per cent utilisation by 2020, and London airports overall will have 86 per cent utilisation.<sup>360</sup> This is illustrated in Figure 5.12 below.

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<sup>359</sup> DfT Aviation Forecasts 2012 p8:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/70259/aviation-forecasts.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/70259/aviation-forecasts.pdf)

<sup>360</sup> The CAA notes that DfT’s 2012 constrained forecasts are lower than the forecasts that it produced in 2011. However, the CAA considers that the evidence clearly suggests that capacity constraints will tighten in the short to medium term up to at least 2020, as no new runway capacity is currently expected before that date.

**Figure 5.12: DfT's runway capacity forecasts**

<b>Table 5.7: UK airports runway capacity used, 2010-2050, 'max use' capacity scenario (central forecast)</b>					
<b>Airport</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>
Heathrow	99%	100%	100%	100%	100%
Gatwick	90%	100%	100%	100%	100%
Stansted	58%	69%	100%	100%	100%
Luton	59%	60%	100%	100%	100%
London City	56%	87%	100%	100%	100%
Southend		42%	100%	100%	100%
<b>London</b>	<b>81%</b>	<b>86%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
Manchester	49%	57%	55%	58%	100%
Birmingham	45%	56%	79%	100%	100%
Bristol	35%	38%	37%	100%	100%
East Midlands	22%	17%	20%	43%	100%
Southampton	27%	36%	52%	100%	100%
Other modelled	22%	24%	28%	33%	43%
<b>National</b>	<b>39%</b>	<b>43%</b>	<b>50%</b>	<b>54%</b>	<b>63%</b>

100% = runway or terminal capacity exceeded, other %s refer to runway usage.  
Mainland UK airports only.

Source: DfT Aviation Forecasts 2012

- 5.214 In addition, the analysis suggests that Gatwick (and Stansted) may benefit from “spill” of international destinations from Heathrow up to 2030 – see figure 5.13 below.

**Figure 5.13: DfT's projected aircraft spill to Gatwick (and Stansted)**

<b>Table 5.8 : Modelled international destinations served at selected UK airports, 2011, 2030 &amp; 2050, central demand</b>			
	<b>All types of carrier</b>		
	<b>2011*</b>	<b>2030</b>	<b>2050</b>
Heathrow	135	136	121
Gatwick	79	86	83
Stansted	56	74	68
Luton	26	42	31
London City	17	22	14
Southend	0	5	4
<b>London**</b>	<b>178</b>	<b>212</b>	<b>230</b>
Manchester	40	65	105
Birmingham	21	40	67
Glasgow	6	6	12
Edinburgh	11	20	31
Newcastle	6	8	17
Belfast International	1	9	16
Bristol	13	28	41
Liverpool	15	23	35
East Midlands	7	9	54
Other modelled airports	22	49	79
<b>Total**</b>	<b>178</b>	<b>215</b>	<b>242</b>

\* 2011 is modelled. Modelled numbers will vary slightly from observed patterns because they represent a full year of operation: observed data will include seasonal services and new start-ups or routes withdrawn during the course of the year.

\*\*Total different destinations available, not sum of individual airport destinations

Source: DfT Aviation Forecasts 2012

5.215 Overall, it is clear that capacity constraints at Heathrow are likely to increase up to at least 2020, and probably beyond. As the only hub airport in London and the UK, the CAA considers that competitive constraints faced by HAL from London or other UK airports is unlikely to strengthen, and could in fact weaken, in the short to medium term. This is also likely to further weak HAL's incentives to attract new airline business. HAL would then have even greater pricing power towards airlines seeking to operate from a hub airport to serve London and the UK. In addition, it is unclear, after the excess demand is accommodated following any capacity expansion, whether there would remain sufficient spare capacity at Heathrow to significantly affect the airport's market position.<sup>131</sup>

## Section 8: Conclusion

5.216 This chapter has analysed the type and size of competitive constraints that HAL might face from airlines at Heathrow switching away from the airport in order to make a ten per cent price increase unprofitable. Following a consideration of the different potential types of switching,

airlines at Heathrow are most likely to be able to switch away from Heathrow by reducing frequencies.

- 5.217 In terms of physically relocating services, the infrastructure costs faced by airlines would not necessarily be switching costs for relocating or reducing marginal services. While there may be costs in scaling down operations for both based and inbound carriers, these are unlikely to be prohibitive. Instead, airlines are likely to face other switching costs.
- 5.218 While the secondary slot market and the tightening capacity constraints mean that the cost of slot acquisition can be recovered, the illiquidity of this market may in some cases constitute a switching cost. However, the ability of airlines to lease slots mitigates this and significantly reduces the slot-related switching costs.
- 5.219 The network benefits derived from connecting passenger feed and the presence of strategic partner airlines cannot be found at another London or UK airport. This switching cost is particularly high for partner airlines of BA, the home hub carrier, while airlines in other alliances or unaligned carriers might face a slightly lower but still significant switching cost from the loss of network benefits. A small number of airlines with little connecting traffic and few partner airlines might be more able to switch away. The potential loss of cargo revenue may be an incremental switching cost for certain airlines, as the feed of cargo at Heathrow is the largest in the UK, due to the concentration of the air cargo community around Heathrow.
- 5.220 In addition to "traditional" switching costs, airlines at Heathrow have told the CAA that operating to and from London and Heathrow in particular is of strategic importance to their business model. The impact of their profitability of switching away from Heathrow would be likely to outweigh considerably any longer term benefits of constraining a price increase at the airport.
- 5.221 The evidence is clear that it is highly unlikely for any of Heathrow's airlines to have countervailing buyer power. While airlines generally have – with the exception of BA – a relatively small share of the airport's passengers, they also lack the choice of substitutable airports. More fundamentally, the fact that airlines, without exception, pay tariff rate on aeronautical charges strongly suggests that there exists very little scope for negotiations during which airlines might

exert countervailing buyer power. This is probably in large part due to excess demand for slots, as this means that any switching would be likely to be filled by new entrants or expansion by other incumbent airlines, and also the significant switching costs involved in switching away marginal services.

- 5.222 Furthermore, a comparison of an estimate of the size of marginal airline traffic at Heathrow against the critical loss estimates suggests that the scale of actual switching is likely to be insufficient to constrain even a five per cent price increase by HAL.
- 5.223 Capacity constraints at Heathrow – combined with the fact that it is the UK's only hub airport – mean that it has little significant incentive to attract new entrant airlines, although this is further considered in chapter 6. DfT forecasts suggests that capacity constraints will increase at Heathrow over the short to medium term. Further, with the Davies Commission only reporting final proposals in 2015, it is highly unlikely that any new capacity will be available before 2020 at the earliest. It is also unclear, after the excess demand is accommodated, whether there would remain sufficient new capacity at Heathrow to significantly affect the airport's market position.
- 5.224 Overall, the CAA is minded to consider that the degree of airline switching is highly likely to be insufficient to constrain HAL in raising prices by ten per cent, and above this level. Further, based on future demand forecasts, HAL's position is likely to be at least maintained in the short to medium term.

## CHAPTER 6

# Indicators of market power

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### Background

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- 6.1 The examination of indicators of market power can provide insight into the performance and behaviour of an airport. The CAA recognises that while individual indicators of market power may each suggest slightly different outcomes, when considered as a whole, they can be useful in helping to determine whether an airport has SMP.
- 6.2 There are a number of indicators of market power and this chapter considers:
- market shares;
  - profitability measures;
  - quality of service;
  - efficiency;
  - pricing; and
  - engagement with airlines and commercial negotiation.
- 6.3 In interpreting evidence relating to the behaviour or performance of HAL, the CAA recognises that Heathrow is subject to economic regulation and that HAL's behaviour is therefore likely to be influenced to a certain extent.
- 6.4 The CAA notes that this section draws upon, where appropriate:
- HAL's perception of Heathrow's current and future market position, as reflected in its internal papers; and
  - a CAA working paper on empirical methods for assessing the behaviour, performance and profitability of airports.<sup>361</sup>

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<sup>361</sup> This working paper is available at:

[http://www.caa.co.uk/docs/78/ERG\\_Working\\_paper\\_Performance\\_and\\_Behaviour-26-11-10\\_FINAL.pdf](http://www.caa.co.uk/docs/78/ERG_Working_paper_Performance_and_Behaviour-26-11-10_FINAL.pdf)

## Market shares

6.5 The Guidelines indicate that evidence on the market structure and market shares is commonly used in competition assessments.<sup>362</sup>

6.6 In the Initial Views, the CAA explored the issue of market shares in some depth and concluded that:

*Overall, the degree of market power enjoyed by the airport in markets for connecting traffic appears most likely to arise from the relatively limited options available to the airlines at Heathrow that fly connecting passengers, from the linkages between connecting passengers and the very strong position that the airport enjoys in long-haul markets, rather than arising by virtue of Heathrow's size in this market.*<sup>363</sup>

6.7 In response to the Initial Views, HAL noted (among other issues) that:

- The CAA appears to focus largely on the long-haul market segment and that it has not explicitly defined long-haul as a relevant economic market. It considered that references to Heathrow's dominance based on this particular analysis may be misplaced.
- References to the proportion of ATMs are misplaced as Heathrow has little, if any, control on the absolute number or their allocation.
- 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 Heathrow would then presumably have a lower absolute share.<sup>364</sup>

6.8 Since the release of the Initial Views, the CAA has considered stakeholders' responses to the Initial Views and has undertaken

<sup>362</sup> The Guidelines are available at:

<http://www.caaf.co.uk/docs/5/Final%20Competition%20Assessment%20Guidelines%20-%20FINAL.pdf>. The CAA also notes that the OFT's Competition Law Guideline on Market Definition, dated December 2004 ("OFT 403") and the European Commission's Notice on the definition of relevant market for the purposes of Community competition law (OJ 97 C 372 p.3) ("EC Market Definition Notice" are also useful references.

<sup>363</sup> CAA, Initial Views, p. 10

<sup>364</sup> HAL, Response to the CAA's consultation on the Initial Competition Assessment, 26 March 2012, Final Draft, page 16



further analysis on the markets that HAL operates in. As outlined in chapter 4, the CAA considers that HAL operates in one market consisting of the provision of aeronautical services to FSCs and feeder airlines at Heathrow.

- 6.9 The CAA also notes that there are a number of difficulties associated with using market share analysis to inform market power assessments and that these were outlined in chapter 3. Notwithstanding these concerns, the CAA has calculated market shares for HAL by reference to the markets that it operates in (see chapter 4).
- 6.10 The CAA notes that the evidence it has considered, including evidence from discussions with stakeholders, suggests there are insufficient competitive constraints on HAL from other UK airport operators and from other (overseas) hub airport operators to suggest that the market should be defined wider than this.
- 6.11 HAL therefore has 100 per cent of the market irrespective of whether it is measured by passenger numbers or ATMs.
- 6.12 The CAA considers that this share of the market (100 per cent) would support a presumption of dominance. However, the CAA notes that market shares are not always a conclusive indicator of the level of market power of airports. These results must therefore be read with that qualification in mind.

### Profitability measures

- 6.13 As noted in the introduction, Heathrow is subject to economic regulation and HAL's behaviour is therefore likely to be constrained to a certain extent. The CAA notes, however, that the Office of Fair Trading (OFT), has indicated that:

*it is feasible that regulation of the average price or profit level across several markets supplied by an undertaking may still allow for the undertaking profitably to sustain prices above competitive levels in one (or more) of these markets and/or engage in exclusionary behaviour of various kinds.*<sup>365</sup>

- 6.14 The CAA also notes that in the Initial Views it stated that Heathrow is subject to price cap regulation, which is designed to prevent airport operators from earning supra-normal returns in the long run.

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<sup>365</sup> OFT, [http://www.of.gov.uk/shared\\_of/business\\_leafllets/ca98\\_guidelines/oft415.pdf](http://www.of.gov.uk/shared_of/business_leafllets/ca98_guidelines/oft415.pdf), p. 26

Consequently, analysis of the financial performance of these airports is unlikely to provide strong evidence about their market position, particularly if the airports choose to set their prices at, or near to, the allowed price cap.<sup>366</sup>

- 6.15 In response to the Initial Views, HAL (and other stakeholders) did not express any concerns with the approach that the CAA adopted with respect to profitability.<sup>367</sup>
- 6.16 The CAA therefore continues to consider that analysis of the financial performance of HAL is unlikely to provide strong evidence about its market position.
- 6.17 The CAA does, however, recognise that there are a number of issues associated with profitability – namely efficiency, service quality and pricing – which, if examined, may be more useful in informing an assessment of market power.
- 6.18 That said, the CAA recognises that Heathrow is a regulated airport and that as such, difficulties will remain in interpreting efficiency, service quality and pricing. In particular, it may be difficult to establish to what extent improvements in efficiency and service quality are driven by economic regulation or by competitive constraints.

### Service quality

- 6.19 In unregulated markets, the presence of market power can lead to reductions in the quality offered to consumers relative to that supplied in a competitive market. The CAA recognises that economic regulation can complicate the relationship between the level of service provided and the degree of market power held by an airport operator. In particular, the CAA recognises that the level of service quality of designated airports might be an outcome of regulation rather than of market power or competitive pressures, which can reduce the degree to which any analysis of service quality might provide a reliable

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<sup>366</sup> CAA, Initial Views, p. 99

<sup>367</sup> HAL did, however, note that individual commercial services may operate in a separate market from, for example, off-site car parking and retail markets, but that this would not significantly affect the assessment of market power in relation to the primary markets (airport charges). Source: HAL, Response to the CAA's consultation on the Initial Competition Assessment, 26 March 2012, Final Draft, p. 10. <sup>368</sup> The CAA notes that the imposition of service quality regulation in Q4 was due to dissatisfaction with the service quality being achieved at the airport.

indicator of market power.<sup>368</sup>

- 6.20 In the Initial Views, the CAA examined the issue of service quality and noted that:
- Heathrow is at or slightly above the target levels for the measure of service quality.<sup>369</sup>
  - Due to the imposition of service quality targets by economic regulation, it is not necessarily possible to reach a clear conclusion about Heathrow's service quality and the implications with regards to its market power. That is, service quality performance may reflect a response to the price control incentives, rather than being a sign of competitive pressure.<sup>370</sup>
- 6.21 HAL's response to the Initial Views did not explore the issue of service quality, which suggests that it had no concern with the analysis that was undertaken by the CAA.
- 6.22 Service quality was also not raised by the majority of stakeholders that the CAA engaged with. One of the few comments that the CAA did receive on this issue suggests that although there was scope for improvement, the quality at the airport was reasonable. Specifically, Emirates noted that it:
- broadly uses the same facilities/products at LHR as at LGW (including connecting passenger facilities); the main difference being they are a better quality/newer at LGW [and that LHR] struggles to maintain these assets to the same standard as LGW.*<sup>371</sup>
- 6.23 Since the publication of the Initial Views, the CAA has considered the issue of service quality in more detail and notes:
- The Service Quality Rebate (SQR) scheme was introduced in Q4 to identify the service standards that airlines could expect in return for charges paid. Where performance fell below certain pre-determined standards, the airport operator was liable to repay a portion of the charges levied to the airlines.

<sup>368</sup> The CAA notes that the imposition of service quality regulation in Q4 was due to dissatisfaction with the service quality being achieved at the airport.

<sup>369</sup> CAA, Initial Views, p. 98

<sup>370</sup> CAA, Initial Views, p. 98

<sup>371</sup> Source: Emirates

- The scheme was expanded for Q5 to include nearly 20 measures<sup>372</sup>, some of which relate directly to passenger satisfaction, others indirectly, through the delivery of services to airlines which in turn promote efficient and reliable operations at the airport.

6.24 The CAA also notes that:

- during Q5, the total level of airport charges at risk was approximately seven per cent per annum spread across the various elements within the scheme; and
- HAL had the opportunity to earn “bonuses” where certain elements out-performed their targets. The maximum aggregate bonus HAL could earn per the Q5 decision was just over two per cent per annum.

6.25 To better understand the performance of the individual elements within the SQR scheme, the CAA has considered the breakdown of total rebates and bonuses by the various elements – see Figure 7.1 below.

6.26 Figure 6.1 indicates that:

- the number of elements in the scheme generating rebates have fallen over the period, despite the level of overall rebate rising from 2010/11;<sup>373</sup> and
- bonuses earned have risen over the quinquennium.<sup>374</sup>

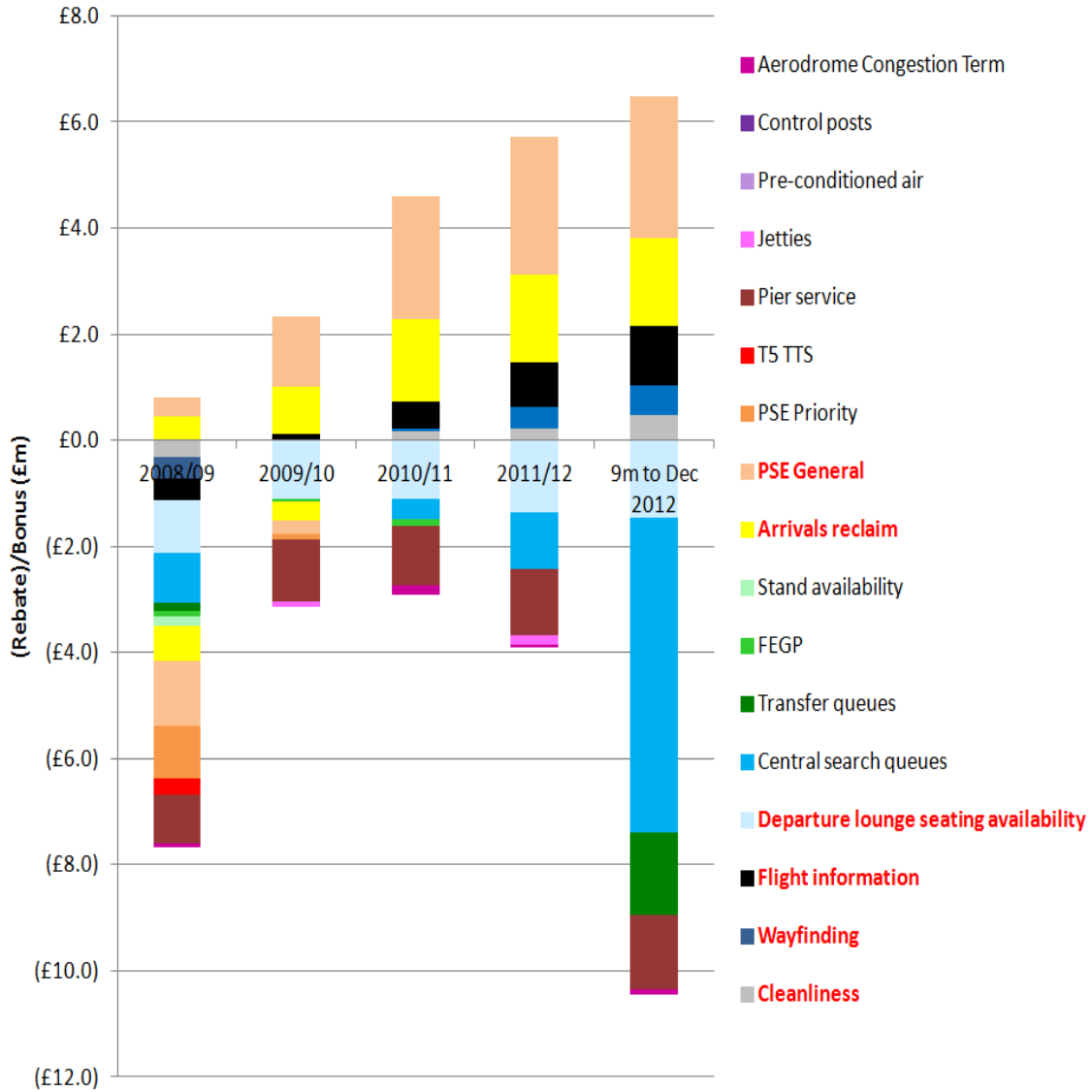
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<sup>372</sup> CAA, Annex H: Economic Regulation of Heathrow and Gatwick Airports 2008-2013 – CAA Decision.

<sup>373</sup> The CAA notes that the increases in rebate arise from security queue failures, and the magnitude of the rebate is proportional to the number of passengers in the terminal of failure (thus, for example, a failure to meet the standard in Terminal 5 leads to a larger rebate than a failure in Terminal 1).

<sup>374</sup> The elements on which bonuses can be generated are a subset of the full suite of elements, and are labelled in red on the legend. The largest bonuses have been earned from the asset availability measures on passenger sensitive equipment (general) and arrivals baggage reclaim.

**Figure 6.1: Q5 SQR and Bonus Performance**

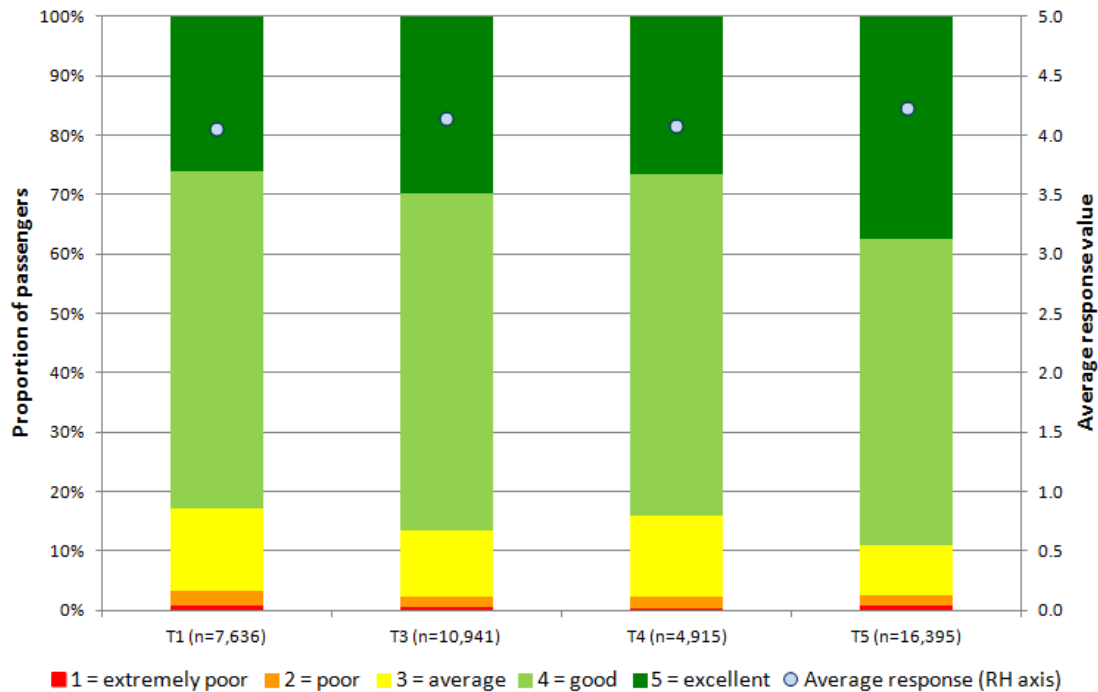


Source: Q5 Service Quality Performance, Heathrow Airport, Full Business Plan – Part E

Note: Elements labelled in red are eligible for bonus payments

6.27 In July 2012, the CAA also added a question to its Departing Passenger Survey which asked passengers to rate their overall experience in the airport terminal. The question is structured in an identical fashion to Heathrow's own QSM question.<sup>375</sup>

<sup>375</sup> The CAA notes that this question will continue to be asked and over time will become a useful dataset which will enable users to identify trends in satisfaction and use a comparator to other data sources.

**Figure 6.2: Passenger satisfaction at Heathrow Airport, 2012**

Source: CAA Passenger Survey, provisional results 2012

Note: Responses to the question, "How would you rate your overall experience in the airport terminal today?"

- 6.28 The provisional results for 2012 indicate that the majority of passengers rate their experience as “good” or “excellent”, although there are variations between terminals.
- 6.29 The CAA also carried out a further one-off survey in winter 2012/13 at the designated airports ("CAA Q6 Research") to collect more evidence on the relative experiences of arrivals, connectors and departures; and to investigate passenger perceptions of queue times at various points in the passenger journey. This survey found:
- although still high, the lowest level of satisfaction was recorded amongst connecting passengers;
  - across all processes covered (check-in, security, baggage reclaim, immigration), the majority of passengers had a perceived queue time that was quicker than that which they deemed to be reasonable. However, the lowest of these proportions was for security queue times for transfer passengers; and

- there was no evidence to suggest a need for significant improvement in the overall passenger experience for Q6.
- 6.30 The CAA notes that discussions with HAL and the airlines into their own research insights indicated a broad consistency with the results above.
- 6.31 Having considered evidence from a range of sources, including from stakeholders, the CAA considers that the view it outlined in the Initial Views is still appropriate. In particular, the CAA considers that:
- passengers are reasonably satisfied with the service quality at the airport;
  - Heathrow appears to be at or slightly above the target levels for the measure of service quality; and
  - due to the imposition of service quality targets by economic regulation, it is not necessarily possible to reach a clear conclusion about the service quality seen at Heathrow and the implications with regards to HAL's market power. That is, service quality performance may reflect a response to the price control incentives, rather than being a sign of competitive pressure.
- 6.32 The CAA also notes that the level of service quality experienced at Heathrow may reflect the level and the efficiency of the capex and opex incurred by HAL. It therefore considers that an examination of the relative efficiency of this expenditure would be useful in helping to inform the CAA's 'minded to' view on the market power for HAL (see next section).

## Efficiency

- 6.33 The CAA considers that the analysis of relative cost efficiency might provide useful evidence to identify whether an airport operator is performing in a way that might be expected in a well-functioning market. It also considers that care must be taken to understand the underlying causes of any identified inefficiency, and whether there is evidence to suggest that relatively poor performance is transitory or can be explained by factors that do not relate to market power, for example the effect of regulatory incentives.<sup>376</sup>

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<sup>376</sup> CAA, Empirical methods for assessing behaviour, performance and profitability of airports, p.

- 6.34 In the Initial Views, the CAA did not explore the issue of efficiency in any detail.
- 6.35 HAL and the vast majority of other stakeholders did not raise the issue of efficiency in their responses to the Initial Views or in discussions the CAA had with them. One stakeholder (Aer Lingus) that did raise concerns with the efficiency of the airport noted:
- [HAL] don't see the need to be more aggressive in costing.*<sup>377</sup>
- 6.36 And
- It doesn't understand why Heathrow doesn't see the need to curtail its costs in order to derive more revenue and drive demand.*<sup>378</sup>
- 6.37 Since the publication of the Initial Views, as part of its preparation for Q6, the CAA engaged a number of consultants to examine opex efficiency at Heathrow. The CAA considers that this evidence provides some insight into the efficiency of the airport.
- 6.38 The CAA notes that the results from these studies suggest that there is evidence of inefficiency in several areas. The CAA considers that this may suggest that HAL may not be facing sufficiently strong competitive pressures. This evidence on inefficiency at the airport is summarised in the following points:
- Benchmarking evidence<sup>379</sup> shows that HAL's opex per passenger is very high relative to the sample average, and higher than several other comparable large hub airports such as Hong Kong, Atlanta and Amsterdam Schiphol.
  - The CAA's own benchmarking evidence also shows that adjusted opex per passenger at Heathrow has risen significantly faster than the sample average since 2000, suggesting a relative decline in efficiency.

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<sup>377</sup> Source: Aer Lingus

<sup>378</sup> Source: Aer Lingus

<sup>379</sup> These studies include: (1) Air Transport Research Society 2011 Airport Benchmarking Report; (2) Leigh Fisher 2011 Airport Benchmarking Report; (3) Booz Allen 2012 European Airport Benchmarking Report commissioned by HAL; and (4) Steer Davies Gleave 2012 Stansted Mid Q Review Report commissioned by the CAA and (5) the CAA's own benchmarking analysis.



- The IDS Employment cost benchmarking study found evidence of inefficiency in several areas related to wage and pension costs, including:
  - Wage growth at HAL between 2006 and 2012 was 1.6 per cent above the average across the wider economy.
  - There is some evidence of grade drift across staff groups leading to a "virtual de-population of the lower grades", for example there are now three Leading Fire Fighters for every Fire Fighter.
  - Based on a three month sample (June to August 2012), the estimated absence rate at HAL was 7.6 days per employee per year. This is higher than the industry average of 6.8 days.
  - Overall the study estimated that employee total cash reward at HAL was between ten per cent and 21 per cent higher than benchmarks.
  - Analysis of the Defined Benefit and Defined Contribution pension schemes indicates that both schemes were significantly higher than benchmarks.

6.39 With respect to capex efficiency, the CAA notes that, compared to opex, any assessment of capex is relatively more difficult as the actual schemes taken forward by an airport operator during a control period tend to change from that envisaged at the time of the price control.

6.40 That said, the CAA notes that in 2010 it appointed C&B to carry out a mid-Q assessment of capital efficiency and consultation at the airport. In summary, C&B concluded that:

- shortcomings in the pre-Q5 planning process had impacted on the robustness of the development strategy in the first two years;
- the airport operator had developed a comprehensive process for managing risk at project and portfolio level;
- further work was required in the approach to benchmarking against external reference points; and
- there was insufficient clarity on the treatment of inflation.

6.41 Towards the end of 2012 the CAA also appointed ASA to provide, for Q5, a transparent assessment of capital efficiency at Heathrow, taking

into account the criteria established by the CAA for Q5 and the conclusions of C&B at the mid-Q review.

- 6.42 ASA's principal finding was that most projects generally progressed well in terms of budget and schedule. The inefficiencies identified were primarily around a failure of the procurement process to adequately demonstrate value for money; multiple problems encountered in Terminal 3 Integrated Baggage (T3IB) project; and one minor issue with Terminal 5C. Inefficiencies in this context were where a failure of process or poor judgement or use of resources occurred which was primarily due to HAL decision-making rather than external factors. ASA estimated these inefficiencies at £29.6 million in outturn prices.<sup>380</sup>
- 6.43 The CAA notes that airlines provided material to ASA on other alleged forms of inefficiencies. This material was provided late in January 2013 and ASA was not able to undertake any form of quality assurance of the material provided or comment on the general validity of such claims in the context of its report. However, the alleged additional inefficiencies claimed by the airlines are primarily around extra capital and operating costs arising from the delays to T3IB and incurred primarily in Terminal 3 and building 139.<sup>381</sup>
- 6.44 The CAA notes that the issue of efficiency at the airport, including going forward into Q6 is explored in much more detail in the Q6 initial proposals.
- 6.45 Based on the evidence outlined above, the CAA considers that there remain a number of areas of inefficiency at HAL. In particular, the CAA notes that it, and a number of independent consultants, have considered HAL's performance and have found a number of areas of inefficiency.<sup>382</sup> For example, the CAA notes that:

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<sup>380</sup> In particular, the detailed review conducted by ASA found that T3IB had a number of serious shortcomings, and that on a reasonably conservative basis, there was a capital inefficiency incurred of £19.5 million. The CAA also notes ASA's finding that a further capital inefficiency of £10.1 million was incurred in Q5 due mainly to procurement inefficiencies. Source: CAA, Economic regulation at Heathrow from April 2014: initial proposals, pp. 222-224.

<sup>381</sup> CAA, Economic regulation at Heathrow from April 2014: initial proposals, p. 223.

<sup>382</sup> The CAA notes, for example, that several pieces of opex benchmarking evidence that it examined had been adjusted through various processes to attempt to normalise the indicator. Comparisons between airports are then made using the metric of opex / pax to adjust for airport

- its own benchmarking evidence shows that adjusted opex per passenger at Heathrow has risen significantly faster than the sample average since 2000;
- there is inefficiency in several areas related to wage and pension costs; and
- there are a number of capex shortcomings, in particular with respect to:
  - the T3IB project, where on a reasonably conservative basis, there was a capital inefficiency incurred of £19.5 million; and
  - procurement inefficiencies.

6.46 The CAA also notes that it has seen no evidence that competitive constraints have driven the efficiency initiatives that HAL has pursued.<sup>383</sup>

## Pricing

6.47 The issue of pricing is largely discussed in chapter 4. However, the CAA notes that:

- Figure 2.10 (chapter 2), shows that:
  - HAL has set its tariffs close to the cap over the period 2003/04-20011/12; and
  - the small difference between the actual revenue yield and the yield based on published charges indicates that the impact of any bilateral airline deals is small in comparison to overall charges.

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size.

<sup>383</sup> See the CAA's working paper, 'Empirical methods for assessing behaviour, performance and profitability of airports', which states that an airport with SMP may face insufficient competitive pressures to drive up operating efficiency.

- It commissioned Leigh Fisher to undertake work on benchmarking airport charges at Heathrow against suitable comparator airports, which where possible, were operating in a competitive market. Leigh Fisher's analysis shows that HAL's aeronautical revenue per passenger has, since 2008, been significantly above the average secured by comparable airports and as of 2010, around £5 higher.<sup>384</sup>

### Engagement with airlines

6.48 In the Guidelines, the CAA stated that an airport operator's conduct and the effects of such conduct could be a useful indicator of market power.

6.49 In the Initial Views, the CAA examined how HAL had engaged with airlines and noted (among other factors) that:

- *Airlines have been consistent in describing the lack of consultation or engagement towards them by Heathrow, citing both the airport charges consultation process and changes made to the conditions of use. In the BAA airports market investigation, the Competition Commission considers in detail the nature and processes of BAA's consultation with airlines.*<sup>385</sup>

6.50 In response to the Initial Views, HAL did not explicitly raise concerns with the CAA discussion on this issue but noted a number of concerns with the related issue of countervailing buyer power (see chapter 5). In particular, HAL indicated (among other issues), that:

- the CAA's view that airlines are effectively more reliant on Heathrow (than Heathrow is on the airlines), *'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'*.<sup>386</sup>

<sup>384</sup> The analysis also shows that HAL's aeronautical revenue per passenger were roughly in line with the average of comparable airports over the period 2002 to 2007.

<sup>385</sup>

CAA, Initial Views, p.

<sup>386</sup> HAL, Response to the CAA's consultation on the Initial Competition Assessment, 26 March 2012, Final Draft, p.17

- *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 ATMs). More importantly, the CAA might also consider the relative revenues/incomes as an appropriate measure.*<sup>387</sup>
- *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.*<sup>388</sup>

6.51 Since the publication of the Initial Views, the CAA has considered a range of additional evidence from both HAL and from airlines to further develop its thinking on this issue.<sup>389</sup> Additional material the CAA has considered includes:

- various strategy documents, including papers discussing potential and actual strategies for encouraging growth at the airport;
- marketing and promotional material, including presentations to airlines considering launching new routes; and
- discussions / teleconferences with a range of airlines, including airlines who are currently at Heathrow.

6.52 The CAA considers that various strategy papers that HAL has submitted to the CAA suggest that HAL:

- *Is looking to strengthen the hub operations at Heathrow and that it does this by determining which routes (and which airlines) would facilitate this. In particular, HAL has indicated that it will 'Target quality airlines which will contribute to Heathrow's network strength'.*<sup>390</sup>

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<sup>387</sup> HAL, Response to the CAA's consultation on the Initial Competition Assessment, 26 March 2012, Final Draft, pp.17-18

<sup>388</sup> HAL, Response to the CAA's consultation on the Initial Competition Assessment, 26 March 2012, Final Draft, p.18

<sup>389</sup> The CAA notes that there are often limitations associated with this evidence as records of negotiations are often incomplete, as discussions often occur face to face / on the telephone and recordings and/or minutes are not kept.

<sup>390</sup> Source: HAL

- Will *'Offer support to gain entry, launch operations and grow'*.<sup>391</sup>
- Is looking to *'Become the UK's direct connection to the world and Europe's hub of choice by making every journey better'*.<sup>392</sup>

6.53 The CAA also considers that as part of its strategy, HAL has identified airlines that it considers may be hindering its ability to maximise its capacity by efficiently using its infrastructure (it has also identified possible means to address this, including consolidation of operations at the airport and/or encouragement to leave the airport). [redacted].<sup>393</sup>

6.54 The CAA notes that part of HAL's strategy in dealing with airlines appears to depend on [redacted]. Figure 6.3 below illustrates HAL's approach.

**Figure 6.3:**

[redacted]

Source: HAL

6.55 The CAA understands that around this time [redacted] Air Malta indicated:

*From its experience, it knows it is unlikely to receive anything from airports like LGW and even more so from LHR. ... The only time LHR requested a meeting with it 4 or 5 years ago, was to ask Air Malta to leave.*<sup>394</sup>

And:

*certain policies [that HAL has put in place] are trying to drive away and penalise these smaller operators.*<sup>395</sup>

6.56 A number of other stakeholders have also expressed concerns with HAL's approach to negotiations, with a number of them highlighting the lack of engagement and/or the absence of any negotiation with respect to aeronautical charges. For example, Aer Lingus noted that:

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<sup>391</sup> Source: HAL

<sup>392</sup> Source: HAL

<sup>393</sup> Source: HAL

<sup>394</sup> Source: Air Malta

<sup>395</sup> Source: Air Malta

- *the lack of an open market is exploited by the increase in LHR's charges which has been forced on to the travelling public and other airport users like airlines.*<sup>396</sup>

6.57 Another stakeholder (Airline Air Asia X) expressed the view that the airport operator seeks out those airlines that it wants and that it does not really respond to approaches. Specifically, it was noted that:

*LHR does not respond to the airlines that approach them. Instead, the airport seeks out the airlines it wants, based on a target for expanding the connectivity of a range of airlines to different countries.*<sup>397</sup>

6.58 And

*LHR tends to be a bit complacent, as they do not need to actively seek out customers.*<sup>398</sup>

6.59 Emirates noted that at "Routes" conferences, where airport operators pitch to airlines to win business, that *'LHR does not attend (or has a small delegation); whereas LGW and all other big airports do in numbers'*.<sup>399</sup>

6.60 Emirates also indicated that it considers that while HAL has consultations, it has already determined what the outcome will be. In particular, it indicated that:

*consultations at LHR were a tick box exercise and should be more effective, and it had never received any marketing support (it did note that there had been discussions, none of which materialised) [and ...] it pays the charges set out in LHR's Conditions of Use.*<sup>400</sup>

6.61 Another stakeholder (Delta) indicated:

*It does not have negotiating powers with LHR, we have to pay what they ask and we have to be at LHR to capture our key business sector.*<sup>401</sup>

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<sup>396</sup> Source: Aer Lingus

<sup>397</sup> Source: Air Asia X

<sup>398</sup> Source: Air Asia X

<sup>399</sup> Source: Emirates

<sup>400</sup> Source: Emirates

<sup>401</sup> Source: Delta

6.62 The CAA notes that it has also seen evidence that airlines have concerns with the consultation process associated with charges at the airport (as outlined in the Conditions of Use). That said, the CAA notes that it appears that HAL is willing to engage with stakeholders, including by holding bilateral meetings, to help address such concerns.

6.63 The willingness of HAL to hold extra meetings with its key stakeholders notwithstanding, the CAA considers that the evidence suggests that the scope for material change to the prices proposed in the Conditions of Use appears limited. The CAA notes, for example, that following consultation on the Airport Charges from 1 April 2012 that HAL indicated:

*We have considered all airline and airline representative body responses on our price proposals, which include comments expressed at the consultation meeting and through written responses. HAL has come to a decision that it will recover the forecast maximum allowable yield of £19.316.<sup>402</sup>*

6.64 In response to the airline criticism that, 'The increase in yield is unacceptable, why is HAL proposing to recover the forecast maximum allowable yield in one of the most difficult operating climates?', the CAA notes that HAL responded by noting:

*HAL has considered this request, but in light of HAL's £5 billion capital programme, HAL needs to fund its committed programme of spend.<sup>403</sup>*

6.65 Similarly, in April 2013, in response to a similar question to that outlined above, HAL indicated that:

*We have carefully considered all airline and airline representative body responses on our price proposals, which include all the comments expressed at the consultation meeting and written responses. HAL has come to a decision that it will recover the forecast maximum allowable yield of £21.664.<sup>404</sup>*

6.66 The CAA also notes that, in response to the airline statement 'the proposed price increase disregards the interests of passengers and

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<sup>402</sup> Source: HAL

<sup>403</sup> Source: HAL

<sup>404</sup> Source: HAL



*airlines, and HAL is obliged to reduce its costs and become more efficient', HAL indicated:*

*The Q5 capital programme is transforming the airport by improving facilities and services provided to passengers and airlines. The benefits of the capital programme can be seen through the significantly improved passenger satisfaction scores, which highlights the value this spend is providing. We strongly believe this capital spend is acting in the interests of passengers and airline customers. However, in many cases, this capital expenditure also results in additional fixed operating costs such as rates, utilities and maintenance.*

*The airline community has been actively involved in the Q6 constructive engagement process in particular in the “Opex, Opex Efficiency & NRC Q6 Working Group”. Through this working group a number of detailed discussions have taken place where HAL has highlighted both the initiatives that it has implemented in Q5 and those that are planned for Q6 to reduce its costs and improve its efficiency.<sup>405</sup>*

- 6.67 In addition, in response to the statement that *'the increase in yield is unacceptable, HAL must price below the cap as we are in one of the most difficult operating climates where all suppliers are holding or reducing prices'*, HAL indicated that:

*[it] has carefully considered this request, but in light of HAL's £5 billion capital programme, HAL must continue to fund its agreed committed programme of spend. This capital programme is essential to deliver HAL's vision to become “Europe's hub of choice and UK's direct connection to the world by making every journey better.”<sup>406</sup>*

- 6.68 The CAA considers that HAL's responses to various questions posed by airlines suggests that there is a lack of commercial negotiation with the airlines as a whole and that HAL's positions tend not to change notwithstanding it undertaking consultation processes. The CAA also notes that efficiency of an actual or proposed capex program is not the focus of this 'minded to' document, although the issue of efficiency is examined (see earlier discussion).

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<sup>405</sup> Source: HAL

<sup>406</sup> Source: HAL

- 6.69 The CAA also notes that strategy documents that HAL has provided the CAA suggests that growth will be delivered through a number of mechanisms but not through [REDACTED]. In particular, evidence from HAL states that [REDACTED].<sup>407</sup> Some of the tools that HAL does, however, use [REDACTED]. include:
- [REDACTED]
  - [REDACTED]
  - [REDACTED]
  - [REDACTED]
    - *Relationship with AC'*.<sup>408</sup>
- 6.70 Some [REDACTED].may however be possible for [REDACTED]. In particular, the CAA notes [REDACTED].
- [REDACTED]
  - [REDACTED]
  - [REDACTED]
  - [REDACTED].<sup>409</sup>
- 6.71 In addition, HAL has indicated that it could provide airlines:
- launch event assistance;
  - access to 'On-line, Twitter & Apps', which could enable an airline to promote special offers and fares;
  - opportunities in Heathrow Traveller magazine, which included competitions, advertising space and route-specific articles; and
  - in-terminal collateral, such as:
    - *'Collateral leaflets to be handed out in terminal*
    - *Promote new service*
    - *Assist with wayfinding and onward travel into London*

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<sup>407</sup> Source: HAL

<sup>408</sup> Source: HAL

<sup>409</sup> Source: HAL

- *Include retail offers appropriate to passenger mix*.<sup>410</sup>

- 6.72 The CAA notes, however, that based on the evidence that it has considered that the value of the marketing support potentially available to a new airline has not show much variation.<sup>411</sup>
- 6.73 Based on the evidence outlined above, including material submitted by HAL, the CAA considers that HAL largely sets the terms that an airline will receive and that the scope for negotiation is limited. In particular, the CAA considers that the high demand for slots at the airport ensures:
- that prices charged are at the cap [X]. As such, HAL has, in effect, adopted a take it or leave it approach;
  - there is some scope for [X], although this seems to comprise a [X]; and
  - there is such demand for airlines to operate at Heathrow that HAL can be selective as to what airlines it wants to pursue to develop its network [X].

### ‘Minded to’ conclusion on indicators of market power

- 6.74 When considered as a whole, the CAA considers that, on the balance of probability, the indicators of market power point strongly towards the airport having SMP. In addition, the CAA considers that going forward, not least due to improving economic conditions, tightening capacity across the London airports and excess demand at Heathrow, this situation is likely to continue for some time.
- 6.75 In coming to this view, the CAA recognises that relatively more weight can be given to some indicators compared to others. For example, at first glance the market share analysis suggests that HAL has a monopolistic presence with respect to all passenger aircraft operating at Heathrow. However, as noted, there are a number of limitations associated with market shares analysis.
- 6.76 With respect to HAL's financial performance, the CAA notes that Heathrow is a regulated airport. As such, the CAA considers that the financial performance of HAL is unlikely to provide strong evidence

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<sup>410</sup> Source: HAL

<sup>411</sup> The CAA notes that the presentations that it has considered include ones made to [X].

about HAL's market power.

- 6.77 With respect to service quality, the CAA notes that Heathrow is a regulated airport that is subject to a quality scheme. Therefore, quality outcomes are unlikely to provide strong evidence about HAL's market power. That said, the CAA notes that HAL's performance appears to be at or slightly above the target levels for the measure of service quality. The CAA also notes that the relatively high levels of service quality experienced at the airport may also, in part, reflect the efficiency (or otherwise) of the capex and opex incurred at the airport.
- 6.78 In terms of efficiency, the CAA notes that several independent studies have identified several areas where opex and capex inefficiency are present at the airport. Airlines have also complained about HAL's perceived inability to control its costs and the exponential charge increases that have been imposed on airlines and passengers. The CAA also notes that an airport operator with significant market power may face insufficient competitive pressures to drive up operating efficiency.
- 6.79 The indicators that the CAA considers carry relatively more weight when considering whether, on the balance of probability, an airport operator has or is likely to acquire SMP is price and the airport operator's approach to its negotiations.
- 6.80 With respect to price and negotiations, the CAA considers that the evidence suggests that:
- the scope for negotiation is relatively limited, with HAL rarely deviating from the terms outlined in its Conditions of Use (which are set close to the cap and have been so for some time); and
  - given the demand at the airport, HAL often selects which airline it wishes to operate at the airport and will help them achieve that goal.

## CHAPTER 7

# Conclusion of test A

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## The CAA's 'minded to' view

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- 7.1 The CAA's 'minded to' view is that HAL has, and is likely to continue to have, substantial market power (SMP) in the market consisting of the provision of aeronautical services to FSCs and associated feeder traffic airlines at Heathrow – the Heathrow FSC and feeder market.
- 7.2 The CAA has reached this view by considering the available evidence, including stakeholders' views, material submitted by HAL, material prepared by consultants engaged to assist the CAA, and its own analysis.
- 7.3 The CAA notes that this chapter does not look to duplicate, in whole, all the material that it outlined in previous chapters. Stakeholders interested in reading a more comprehensive examination of the issues are referred to earlier chapters. The CAA notes, however, that the structure of this chapter follows the order that issues were raised in this document – market definition, competitive constraints on HAL, critical loss and indicators of market power.

## Market definition

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- 7.4 The CAA notes that a necessary preliminary step in making a ('minded to') market power assessment is to define the relevant market(s) that is (are) to be assessed.
- 7.5 Following consideration of the evidence outlined in chapter 4, including information gathered from airlines and airport operators, the CAA's 'minded to' view is that HAL operates in one market – the Heathrow FSC and feeder market. This market consists of the provision of aeronautical services to FSCs and associated feeder traffic airlines at Heathrow.
- 7.6 In reaching this conclusion, the CAA has used the standard approach applied by regulators and competition authorities to define the market:

- In terms of the product market definition, the CAA has identified a bundle service for airport operational services to FSCs and associated feeder traffic airlines. The CAA considers this is unlikely to be further differentiated either by the seasonality of the industry or by the airline business model or passenger type.
- In terms of the geographic market, the evidence suggests that the market is focussed on the provision of services at Heathrow. Although the CAA notes that there may be some degree of competitive constraint from other airports (including Gatwick, which has been, or is, used for some services by airlines that are present at Heathrow and Stansted, and which has the required facilities), its consideration is that these are not sufficient to widen the market definition. In addition, the CAA notes that HAL's charges have increased substantially in recent years relative to those of alternative European hubs, which suggests that they have also not provided an effective constraint.

7.7 The CAA notes that in determining the appropriate market definition the methodology for analysing the substitutability of airports usually assumes that airport charges are at the competitive level. The CAA recognises, however, that HAL's charges may be below those that would be considered as a market clearing price due, in part, to current government policy which has restricted the development of runway capacity at Heathrow, Gatwick and Stansted. The CAA does not consider that its analysis of HAL's SMP would be overturned if its airport charges were substantially higher.

7.8 However, the CAA considers that the current prices at Heathrow are above the long-run price that would be achieved in the absence of capacity constraints. In particular, the CAA considers that evidence from benchmarking against comparator airports demonstrates that the current (regulated) price is above the competitive price.

## Competitive constraints on HAL

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7.9 The CAA has identified the existence and the potential strength of the competitive constraints within the relevant market to see whether it is subject to effective competition or not (chapter 5).

- 7.10 In particular, the CAA has sought to analyse the likely reactions both within and outside the market outlined above to any attempt by HAL to restrict output, increase prices above the competitive level (by around ten per cent) and/or reduce quality at Heathrow below competitive levels.
- 7.11 The CAA notes that one mechanism that airlines (and indirectly their passengers) can use to try and discipline an airport that has or is looking to exercise its market power is through switching their business to another airport (which could be in or out of the relevant market). The CAA has looked at the costs that an airline wishing to switch its business would be likely to incur.<sup>412</sup> However, other factors also need to be considered as part of the competitive constraint on HAL, including airlines' ability to exert countervailing buyer power and the implications of capacity constraints and future passenger demand forecasts.
- 7.12 Having considered the evidence available (see chapter 5), the CAA's 'minded to' view is that:
- the degree of airline switching is highly likely to be insufficient to constrain HAL in raising prices by ten per cent or more;
  - HAL is in a strong market position which is likely to amount to SMP; and
  - based on future demand forecasts, HAL's position is likely to be at least maintained in the short to medium term.
- 7.13 In coming to this 'minded to' view, the CAA notes that it found that airlines at Heathrow were most likely to be able constrain HAL's behaviour by reducing frequencies. In particular, the CAA found that while based and inbound carriers may face costs in scaling down their operations, these costs were unlikely to be prohibitive, and that they were much less than the costs they would face if they left the airport by selling or returning their slot.<sup>413</sup>

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<sup>412</sup> Switching costs cover a range of different costs, including the costs of relocating aircraft, crew and facilities to costs from lost revenue if an airline has to switch away from a preferred market.

<sup>413</sup> The CAA notes that while the secondary slot market and the tightening capacity constraints mean that the cost of slot acquisition can be recovered, the illiquidity of this market may in some cases constitute a switching cost. However, the ability of airlines to lease slots mitigates this and significantly reduces the slot-related switching costs.

- 7.14 However, the CAA also found that one of the key switching costs that an airline may incur if it left Heathrow would be the loss of network benefits derived from connecting passenger feed and the presence of strategic partner airlines (which cannot be found at other London or UK airports as Heathrow is the only hub airport in the UK).
- 7.15 The CAA also found that the potential loss of cargo revenue may be an incremental switching cost for certain airlines, as the feed of cargo at Heathrow is the largest in the UK, due to the concentration of the air cargo community around Heathrow.
- 7.16 The strategic importance of London, and Heathrow in particular, to the airlines operating at Heathrow also suggests that the impact on an airline's profitability from switching (away from Heathrow) is likely to considerably outweigh any longer term benefits associated with being able to access lower prices/better quality elsewhere.
- 7.17 The CAA considers that the evidence is clear in that it is unlikely that any of the airlines at Heathrow have countervailing buyer power. While most airlines at the airport, with the exception of BA, have a relative small share of the airport's passengers, they lack the choice of substitutable airports. With respect to BA, which accounts for a high proportion of HAL's business, the evidence suggests that there is a lack of credible alternative airports for it to switch.
- 7.18 Perhaps more importantly, the CAA notes that the evidence suggests that all airlines pay the tariff rate on aeronautical charges. This strongly suggests that there exists very little scope for negotiations during which airlines might exert countervailing buyer power. The CAA considers that this is, in part, largely due to excess demand for slots at the airport.
- 7.19 A comparison of an estimate of the size of marginal airline traffic at Heathrow against the critical loss estimates also suggests that the scale of actual switching is likely to be insufficient to constrain even a five per cent price increase in prices by HAL.
- 7.20 The CAA also considers that capacity constraints at Heathrow – combined with it being the UK's only hub airport – means that HAL has little incentive to attractive new entrant airlines.
- 7.21 Going forward, DfT's forecasts suggest that the capacity constraints at Heathrow will increase over the short to medium term. In addition, with



the Davies Commission only reporting final proposals in 2015, it is highly unlikely that any new capacity will be available before 2020 at the earliest. It is also unclear, after the excess demand is accommodated, whether there would remain sufficient new capacity at Heathrow to significantly affect the airport's market position.

## Critical loss

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- 7.22 The CAA has also undertaken critical loss analysis to determine the level of passenger demand reduction and flight/aircraft withdrawal by airlines that would be required for an airport charge increase to be unprofitable for HAL (chapter 5).
- 7.23 The CAA's analysis found that the reduction in passengers required for the aeronautical charge increase to be unprofitable for HAL was 2.6 to 3.0m, for a five per cent change in charges, and 5.0 to 5.7m for a ten per cent charge in charges (the range reflects different assumptions on operating expenditure elasticities).
- 7.24 The CAA then converted these passenger numbers into flights and found that based operators at Heathrow would need to withdraw the equivalent of between 18, 000 to 39, 000 flights per annum (or between 24 and 53 daily slot pairs to go unused) to make a small but significant price increase unprofitable for HAL.
- 7.25 Based on its analysis, the CAA therefore considers that that a significant number of slots would have to be vacated at Heathrow in order to make a price rise of five to ten per cent unprofitable. The CAA considers that it is therefore highly unlikely that the loss of slots would exceed the critical level in response to an increase in airport charges.

## Indicators of market power

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- 7.26 The CAA examined a number of indicators of market power to gain insight into the performance and behaviour of HAL (chapter 6).
- 7.27 Having examined the evidence on the indicators, the CAA considers that, on the balance of probability, HAL has SMP. Further, the CAA considers that going forward, not least due to improving economic

conditions, tightening capacity across the London airports and excess demand at Heathrow, this situation is likely to continue for some time.

- 7.28 In coming to this view, the CAA has given relatively more weight to evidence concerned with HAL's approach to its negotiations and price. In particular, the CAA considers that the evidence suggests that:
- the scope for airlines to negotiate with HAL is relatively limited, with HAL rarely deviating from the charges outlined in the Conditions of Use (which are set at levels at or near the regulated price cap and have been for some time); and
  - given the demand at the airport, HAL often selects which airline(s) it wishes to operate at the airport.
- 7.29 The CAA notes that as Heathrow is a regulated airport, HAL's financial performance is unlikely to provide strong evidence about market power. Similarly, as HAL is subject to a quality scheme, quality outcomes are unlikely to provide strong evidence about the airport's market power. That said, HAL's performance appears to be at or slightly above the target levels for the measure of service quality, although there is some variability across terminals (and the level of service quality may reflect the level and efficiency of the capital and operating expenditure incurred at the airport).
- 7.30 In terms of efficiency, the CAA notes that several independent studies have identified inefficiency at the airport and airlines have complained about HAL's perceived inability to control its costs, and the exponential charge increases that have been imposed on airlines and passengers.
- 7.31 The CAA also notes that market share analysis suggests that HAL has a monopolistic presence with respect to all passenger aircraft operating at the airport. However, the CAA recognises that there are a number of reasons why market shares may not be a reliable measure of market power of airports and these results must be read within that context.

## Conclusions on the 'minded to' assessment of test A

- 7.32 As outlined at the start of this chapter, the CAA is minded to conclude that HAL has SMP in the Heathrow FSC and associated feeder airline

market and will continue to do so for some time, including over the Q6 period.

- 7.33 The evidence suggests that the most likely sources of HAL's significant market power appears to be its good surface access option and its position as the operator of the UK's only hub airport, with associated network effects, including connecting passengers, strong demand and cargo. In addition, the strategic importance and attractiveness of London to the airlines at Heathrow, combined with the current and expected constraints in the London system, act to reduce the number and size of available alternatives to airlines.<sup>414</sup>
- 7.34 In addition, going forward, not least due to improving economic conditions, tightening capacity across the London airports and excess demand at Heathrow, the CAA considers that HAL's significant market power is likely to continue for some time.
- 7.35 The CAA invites comments on its 'minded to' conclusion on test A (and on any of the analysis outlined in this document) for HAL and requests that all submissions be received by **no later than 17:00 hours on 26 July 2013**.

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<sup>414</sup> The CAA notes that the government has currently put a hold on the expansion of the main London airports and that the Davies' Commission is not expected to bring out an interim report until the end of 2013, with a full report in summer 2015. The CAA considers that any change in government policy after the release of the Davies' Commission's final report may take some time to be implemented and that any significant capacity expansion would not be expected until 2025.

## SECOND PART: TEST B

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## CHAPTER 8

# The application of test B to HAL

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## Introduction

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- 8.1 This section sets out the CAA's initial consideration of the application of test B to HAL. It is in 5 sections.
- Section 1 considers the how test B sits within the legal framework of the Act.
  - Section 2 compares the types of abuse of substantial market power (SMP) that might be addressed under ex ante regulation compared with competition law.
  - For the narrower range of behaviour that would be consider an abuse under competition law, and, which the CAA considers are the most likely types of abuse that might be expected in the aviation sector, section 3 considers the relative efficacy of regulation via a licence and competition law.
  - Section 4 considers what lessons can be drawn from other industries where regulation might be an alternative to reliance on competition law.
  - Section 5 assesses the risk that HAL might abuse its SMP if it were to be deregulated.

## Section 1: Legal framework for test B

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- 8.2 Section 3 of the Civil Aviation Act 2012 ("the Act") prohibits the operator of a dominant area at a dominant airport from requiring payment of charges without a licence. In order to assess dominance, the CAA has to apply the market power test (MPT) in section 6(1) to the airport area, which will be met if the following three separate tests are satisfied:
- test A (section 6(3)): the relevant operator has, or is likely to acquire, SMP in the relevant market for airport operation services;

- test B (section 6(4)): that competition law does not provide sufficient protection against the risk that the relevant operator may engage in conduct that amounts to an abuse of that SMP; and
- test C (section 6(5)): the benefits of regulating the relevant operator by means of a licence outweigh the adverse effects.

- 8.3 Although test B is a separate test, it cannot be divorced from the wider regulatory context – i.e. that the CAA has already determined that the relevant operator has SMP in the relevant market. There is therefore a risk of abuse of that position in the relevant market. It is also a precursor to test C – i.e. it is only if *ex post* regulation via competition law is inadequate that the CAA should go on to consider the appropriateness of *ex ante* regulation via a licence.<sup>415</sup>
- 8.4 Further, as with all of the CAA's regulatory functions, the assessment of test B must be conducted in accordance with the CAA's "general duty" in section 1 of the Act. The CAA must apply test B "*in a manner which it considers will further the interests of users of air transport services regarding the range, availability, continuity, cost and quality of airport operation services*".<sup>416</sup> Further, in so doing, the CAA must, seek where appropriate to "*promote competition in the provision of airport operation services*".<sup>417</sup>
- 8.5 Importantly, for test B, the CAA must assess the adequacy of competition law from the perspective of "*users of air transport services*", which are defined in section 69(1) of the Act as passengers carried by the air transport service or a person who has a right in property carried by the service. Accordingly, when assessing the merits of competition law, the CAA has to further the interests of passengers and cargo owners, and not the interests of commercial passenger airlines or cargo airlines or other intermediary service providers, such as groundhandling providers, car parking or retail concessionaires.
- 8.6 The CAA's duties, in respect of furthering the interest of users of air

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<sup>415</sup> Although the tests can be considered cumulative, it is not set out as such in statute. The CAA may consider it appropriate in certain cases to consider the application of test C in the first instance in light of the regulatory principles set out in S.1(4) of the Act.

<sup>416</sup> S.1(1) of the Act

<sup>417</sup> S.1(2) of the Act

transport services and promoting competition under sections 1(1) and (2), are supplemented with the requirement to have regard to various matters set out in section 1(3) including the need to secure that all reasonable demands for airport operation services are met.

- 8.7 Lastly, in applying test B, the CAA must have regard to the regulatory principles in section 1(4) of the Act, namely that its regulatory activities should be transparent, accountable, proportionate and consistent and targeted only at cases where action is needed. It must also comply with its statutory duty under section 104 of the Act to avoid the imposition of unnecessary regulatory burdens on operators of dominant airports.

## Section 2: Aims of *ex ante* vs. *ex post* regulation

- 8.8 Test B directs the CAA to weigh the comparative merits of *ex post* regulation (through competition law) as an alternative to *ex ante* regulation via a licence. There are two dimensions to this:
- First, abuse of SMP may take in a wider range of behaviour than that defined by competition law. This is the subject of this section.
  - Second, for the narrower range of behaviour that has been defined as an abuse under competition law, *ex ante* and *ex post* regulation may differ in their efficacy. This is the subject of section 3.

### Promoting versus protecting competition

- 8.9 Broadly speaking *ex ante* regulation seeks the development of effective competition in the relevant market by fostering market entry and creating incentives for innovation and efficiency. As far as possible, it seeks to replicate the outcomes that are expected to be seen within an effectively competitive market.
- 8.10 On the other hand, *ex post* regulation is designed to protect the degree of competition that already exists within a market (which may not be perfect or effective). It does this (*inter alia*) through explicit prohibitions set out in the CA98 and Articles 101/102 TFEU, which discipline the actual or potentially abusive exercise of market power. Ofcom have characterised the differences in the following way:

*'Ex-post competition law is [. . .] unlikely within itself to bring about*

*effective competition, as it prohibits the abuse of dominance rather than the holding of a dominant position. In contrast, ex-ante regulation is normally needed to promote actively the development of competition. Ex-ante regulation attempts to reduce the level of market power in a market, thereby encouraging effective competition to become established’.*<sup>418</sup>

### Wider policy objectives of ex ante regulation

- 8.11 Further, the CAA considers that, from the relevant case law, *ex ante* regulation can be typically distinguished from *ex post* regulation on the basis that they typically have different (albeit overlapping) objectives. In *Deutsche Telekom* (Case T-271/03) the General Court found that National Regulatory Authorities (NRAs) “*operate under national law which may, as regards communications policy, have objectives which differ from those of Community competition law*”. More recently, the European Commission in *Telekomunikacja Polska* (Case COMP/39.525), noted the different policy objectives of the Polish *ex ante* regulatory regime for broadband access and EU competition law:

*“The aim of... [European competition law] is to preserve undistorted competition within the European Union, whereas the aim of... [the national regulation] encompasses other objectives such as “development and use of modern telecommunications infrastructure”, “maximum benefits for users in terms of choice, price and quality of telecommunications services” and “net neutrality”. In particular, while imposing access obligations the President of UKE has to ensure the balancing of the following broad criteria: ‘the interests of users of telecoms infrastructure’, ‘promotion of modern telecommunication services’, ‘public interest including protection of environment’, ‘the integrity of network and interoperability of services’ and ‘non-discriminatory access conditions’”.*

- 8.12 The European Commission concluded that the national regulatory regime and Community competition law were not designed to “*protect the same legal asset*” and that even if there was significant overlap in the subject matter, there were “*significantly different policy considerations at play and different emphases in the criteria for*

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<sup>418</sup> Ofcom (2012) Business Connectivity Market Review: Review of the retail leased lines, wholesale symmetric broadband origination and wholesale trunk segments markets, Annex 6: Regulatory Framework.



*remedy selection between the ex post and ex ante regimes to warrant the application of ex post competition rules.”*

- 8.13 *Ex ante* sector-specific national regulation typically pursues different albeit overlapping policy objectives to that of European competition law. In the context of test B the different policy objectives required are specified as protecting passengers and cargo owners from the effects of an abuse of significant market power that is not protected against by European and UK competition law.
- 8.14 Figure 8.1 below summarises the different features of *ex post* competition law and *ex ante* regulation.

**Figure 8.1: Features of ex post vs. ex ante regulation**

	Ex Post	Ex Ante
<b>Perspective</b>	Backwards-looking – i.e. relies on historical evidence of abuse that has occurred in an otherwise commercially competitive market.	Forwards-looking (insofar as prescribes or controls types of market behaviour regardless of particular circumstances, based on public policy priorities or market failures that are found to exist in the market and need to be remedied).
<b>Market Definition</b>	A relatively narrow view of product markets driven primarily by demand-side substitutability is normally adopted.	Markets are likely to be defined in broader terms than under ex-post competition law. Supply-side substitution is equally as important as demand-side substitution in determination of the relevant market. In the context of airports, supply side substitution is unlikely to be a viable response.
<b>Focus</b>	On redress for past actions and prohibiting future actions of a similar nature.	Addressing market failures arising from a certain industry structure or history.
<b>Nature of remedies</b>	Results in remedies that are narrow in scope, essentially declaratory in nature and “neutral” in terms of broader implications for industry of the remedies sought in a specific piece of competition litigation.	Remedies generally are very specific in nature but general in scope affecting the majority of customers. Remedies are generally cost based assuming an efficient operator, they are defined in focus by the legislative context. With regards to airports this is in line with the CAA’s section 1 duties.

<b>Enforcement</b>	Through the Courts, the European Commission, the OFT (soon to be CMA), or other relevant designated national competition authority (in the case of airports the CAA).	Generally enforced through independent sector-specific regulators (who are most likely to be able to address complex technical detail and the economic disciplines which characterise a specific industry). In the case of airports the CAA.
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- 8.15 The CAA considers that Figure 8.1 indicates that *ex-ante* regulation is forward-focussed and aimed at remedying some existing market failure in the competitive landscape, as opposed to maintaining the *status quo* of healthy competition in the market.
- 8.16 The types of abuse of SMP that might be protected against by *ex ante* regulation that would not be entirely protected through competition law might be those that arise from market failures driven by the aviation industry structure, and historical features. These are likely to occur because of a particular market dynamic affecting wholesale relationships between competitors rather than because of the specific strategic practices of any given operator at the retail level of competition.
- 8.17 A wider range of remedies are available in the UK under part 4 of the Enterprise Act 2002 (Market Investigation References, or, MIRs) than is available under Articles 101 and 102 of the TFEU or the CA98. The CC can, at present, and the CMA, when it is established, will be able to impose behavioural and structural remedies that could be similar to those provided for under the Act. However, MIRs are intended to tackle adverse affects on competition arising from particular features of markets that restrict, distort or prevent competition. This was the case in CC MIR into the joint ownership of the airports in the South East of England and Scotland. The review considered the impacts of the joint ownership on competition not any particular behaviours of BAA. The MIR regime is not intended to address the individual conduct of firms. The conduct of individual undertakings is addressed through Articles 101 and 102 or the CA98.
- 8.18 Regardless of whether the statutory test for dominance under the Act is met, such that a licence is required under the national sector-specific regulation, it is clear from the European case law that *ex post*

competition rules would continue to apply and essentially “trump” *ex ante* sector-specific regulation. The parallel role of competition law is expressly reflected in the Act. Under s46 of the Act, before taking enforcement action under a regulatory licence, the CAA must consider whether it would be more appropriate to proceed under the CA98 and must not exercise those sectoral enforcement powers where it considers that CA98 is more appropriate.

### Section 3: Competition law

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8.19 This section considers the efficacy of *ex ante* regulation for behaviour that would be considered an abuse of SMP under competition law, compared with the enforcement of competition law.

- First the possibility that airlines or users might be able to enforce competition law by taking private actions is examined:
- Second, the most likely abuses of competition law by airports are identified
- Last, the advantages of addressing these abuses by means of a licence compared with competition law are explored.

8.20 Competition law is defined in the Act (section 6(9)) as follows:

*“In test B “competition law” means -*

*Articles 101 and 102 of the Treaty on the Functioning of the European Union (TFEU);*

*Part 1 of the Competition Act 1998; and*

*Part 4 of the Enterprise Act 2002 (market investigations)”.*

8.21 While Part 4 of the Enterprise Act is included, a market investigation under Part IV of the Enterprise Act 2002 is not designed to address conduct-based behaviour by individual businesses: rather it is designed to focus on remedying features of a market that have adverse effects on competition. The provisions of Articles 101 and 102 of the TFEU and the Competition Act 1998 are much more relevant to conduct. Those provisions include not just the CAA’s concurrent competition law enforcement powers under sections 60 to 63 of the Act but also the ability of interested third parties to bring private

actions before the courts to enforce directly Articles 101 and 102 and/or the CA98 provisions. These are considered next.

### **Private actions: Power of airlines and passengers to bring actions or complaints**

#### **Airlines**

8.22 Test B requires air transport users (rather than airlines) to be put at the heart of the assessment (see s.1 duty, section 6(5) test C from the perspective of air transport users and the definition of users in section 69(1) of the Act, paragraph 1.5 above). Evidence suggest however that claims are mainly taken forward by competitors rather than purchasers:

*“Most (but not all) damages actions in respect of harm from exclusionary conduct in member states have thus far been brought by competitors rather than by purchasers“.*<sup>419</sup>

8.23 Particularly where airline are able to pass on an increase in airport charges, they may have little incentive to take private actions that are in users' interests. As the interests of airlines and passengers are not necessarily aligned, it cannot be assumed that airlines will bring claims on the behalf of users as many factors are likely to be involved in the decision to commence complex litigation proceedings and airlines may not want to damage their commercial relationship with the dominant airport operator.

8.24 Stand alone<sup>420</sup> actions to enforce competition law are relatively infrequent in the UK. There is often insufficient incentive for an individual business to bring forward such actions due to the uncertainty of outcome and the benefits relative to the costs. Even under proposed reforms to enable opt-out class actions, there are many obstacles to obtaining redress for affected parties after a competition law infringement has been identified. They have been identified to include legal uncertainty, information asymmetry, burden of proof and evidential difficulties and importantly, the low expected

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<sup>419</sup> Komninos et al (2009), Quantifying antitrust damages: Towards non-binding guidance for courts, Study prepared for the European Commission Oxera.

<sup>420</sup> Stand alone actions is a claim brought where the alleged breach of competition law is not already the subject of an infringement decision by the European Commission, OFT or other national competition authority.

payoff to the party taking the action compared with the costs of litigation.

8.25 The CAA considers that there are risks in bringing private actions for an alleged breach of competition rules including:

- Cases before the EU and UK courts can take many years and injunctive relief in these types of cases is very rare.<sup>421</sup>
- Calculating damages is difficult, requiring the use of complex economic models and accountancy evidence for the purpose of quantification. For the purpose of showing loss, the judge's discretion in allowing "loss of profit claims" makes the value of the case uncertain. It could also be argued that where there is cost pass through the damage would fall on passengers and not the airlines, limiting the scope for the claim.
- The "loser pays" principle in the UK courts means that the claimants can be exposed to large financial risk - if they cannot establish a case, they may be required to pay the costs of the defendant (i.e. airport)<sup>422</sup>.

8.26 Against this, it must be recognised that airlines, in general, are large multinational entities that have sufficient financial resources such that they should be in a position to take forward cases that are in their commercial interest. Some airlines have pursued legal challenges against airports or competition authorities and were therefore not apparently deterred by the complexity or expense (Ryanair/ Aer Lingus/ Flybe etc.).

### Air transport service users

8.27 Standalone claims by consumers, in the absence of a decision by a competent competition authority, are rare. It is often difficult to define the relevant market and prove dominance without the powers of investigation available to the competent authority. As air transport users will not have access to confidential cost information, access to

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<sup>421</sup> The first case to award damages for breach of competition law in the UK was *Crehan* (*Inntrepreneur Pub Company and others v Crehan* [2006] UKHL 38), which took 10 years and was overturned in the House of Lords.

<sup>422</sup> The European Commission established a Green Paper in 2005 on the major obstacles, preventing victims from bringing damages in member states, and a White Paper in 2008, as well as a follow-up to the White and Green Papers with a Commission Work Programme in 2012.

relevant confidential files, and wider market data on which to establish a claim of abuse.<sup>423</sup>

- 8.28 Air transport users are indirect purchasers of airport services; they have no direct contract with the airport and therefore no contractual claim. In these circumstances, establishing a causal link between an increase in the charges by the airport and an increase in tariff faced by air transport users and the consequent loss to the user would be complex.
- 8.29 The level of individual damage is likely to be low for an individual user. Users are therefore less likely to bring individual claims, as they may not detect the abuse. Users are not always even aware of the existence of an infringement or of the extent of the losses they suffered due to this infringement.<sup>424</sup> Additionally, even if users are aware of the abuse, the costs, delays and burdens involved in taking such actions, are likely to be significant compared to the value of their individual claim.
- 8.30 There is the prospect of class claims or group representative action. Class actions have not proved easy or effective in the UK as a remedy for breaches of competition law. Which? (currently the only body empowered to bring class actions in this field) dedicated 20 per cent of its legal resource to a class action against sports retailer JJB Sports and incurred significant legal costs. Its view at the time was that it was not likely that it would undertake such a case again.<sup>425</sup> CAA therefore has significant concerns as to whether, in practice, standalone competition law claims will adequately protect passengers.
- 8.31 In summary, the CAA considers that addressing abuses of market power through private actions would be challenging and complex. This is a result not only of the complexity of evidence required in establishing excessive pricing, but also practical challenges resulting from collective action and the low level of damage to any individual user.

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<sup>423</sup> EC (2005), Green Paper - Damages actions for breach of the EC antitrust rules {SEC(2005) 1732}, COM/2005/0672 final

<sup>424</sup> EC DG COMP MEMO/08/216, dated: 03/04/2008

<sup>425</sup> Speech by Deborah Prince, Head of Legal Affairs, Which? at The Lawyer's antitrust litigation conference in 25-26 November 2008

- 8.32 The CAA considers that private enforcement of competition law by airlines and users would be ineffective in protecting users from an abuse of SMP by an airport. The rest of this chapter considers the relative effectiveness of regulation and competition law, assuming that enforcement of the latter would be by the relevant competition authority, that is, the CAA.

### Definition of abuse under competition law and relevance to airports sector

#### Definition of abuse

- 8.33 Under competition law, a dominant company has a special responsibility not to allow its conduct to impair undistorted competition in the relevant market<sup>426</sup>. It is not the position of dominance or SMP itself that is prohibited but the dominant undertaking using that position to prevent or distort effective competition in the market.
- 8.34 The European Court of Justice has defined the term “abuse” in the following way:
- "An objective concept relating to the behaviour of an undertaking in a dominant position which is such as to influence the structure of a market where, as a result of the very presence of the undertaking in question, the degree of competition is weakened and which, through recourse to methods different from those which condition normal competition in products or services on basis of the transaction of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition".*<sup>427</sup>
- 8.35 Section 6(8) of the Act provides:
- "For the purposes of test B conduct may, in particular, amount to an abuse of substantial market power if it is conduct described in section 18(2)(a) to (d) of the Competition Act 1998".*
- 8.36 Section 18(2)(a) to (d) of CA98 (more commonly known as “the Chapter II prohibition”) contains an illustrative list of exploitative and/or exclusionary behaviour that is capable of amounting to an abuse of a dominant market position:

<sup>426</sup> Case 322/81 *Michelin v Commission* [1983] ECR 3461, paragraph 57

<sup>427</sup> Case 85/76 *Hoffmann-La Roche* [1979] ECR 461

- directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions;
- limiting production, markets or technical development to the prejudice of consumers;
- applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;
- making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of the contracts.

- 8.37 This list is not exhaustive and the examples listed there have been supplemented by the case law developed by both domestic and European competition authorities and the courts.<sup>428</sup>
- 8.38 The actual scope of the special responsibility imposed on a dominant undertaking must be considered in the light of the specific circumstances of each case which show that competition has been weakened.<sup>429</sup> This means that the risk of abuse cannot be assessed in isolation from the features of the relevant market.
- 8.39 The essential objective of the Chapter II prohibition and its EU counterpart (Article 102 TFEU) is “the protection of competition on the market as a means of enhancing consumer welfare and ensuring an efficient allocation of resources... This means that it is competition, and not competitors as such, that is to be protected.”<sup>430</sup> The CAA regards the objective of competition law as being compatible with its general duty under section 1 of the Act - in so far as the CAA considers promoting competition is appropriate in furthering the interests of users.

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<sup>428</sup> See, for example, Case 6/72 *Continental Can* [1973] ECR 215, paragraph 26. In particular, the prohibition is not only aimed at practices which may cause damage to consumers directly, but also at those which are detrimental to them through their impact on an effective competition structure. Abuse may therefore occur if an undertaking in a dominant position strengthens such position in such a way that the degree of dominance reached substantially fetters competition.

<sup>429</sup> Case C-333/94 P *Tetra Pak v Commission* [1996] ECR I-5951, paragraph 24

<sup>430</sup> DG COMP Discussion Paper on the application of Article 82 EC to exclusionary abuses, paragraph 54.



### Abuses that have most relevance to airports

- 8.40 In order to assess whether competition law would adequately protect airport users, it is necessary to consider what types of abuse are most likely in the sector and how effectively they are addressed by competition law. There have been a number of cases taken at both a domestic and European level against airports.<sup>431</sup> This indicates that an airport is an undertaking for the purposes of competition law and they can be found to be dominant and abusive without any special dispensation. The case law illustrates that competition law has been successfully applied in what could broadly be considered as vertical exclusion cases, where the airport is active in the upstream market for airport operation services but also has a presence in the downstream market for air transport or other services. The defining feature of these cases is that they all involved the airport leveraging its market power to the advantage of either its own subsidiary in a downstream market or a closely aligned party.<sup>432</sup>
- 8.41 The CAA has not been able to establish that there have been any cases taken against airports in relation to:
- Exclusionary behaviour aimed at foreclosing markets for airport operation services to new market entrants.
  - Exploitative abuses relating to restrictions of output, excessive pricing or inferior quality abuses.
- 8.42 The CAA considers that for exclusionary behaviour there are likely to be sufficient precedents available from other industries including those that are similarly regulated (such as telecoms or utilities) which could be relied on as relevant authorities in challenging this type of behaviour by airports under the CA98 or Article 101/102 TFEU.
- 8.43 However, it is in relation to exploitative abuses that the CAA considers that there is the greatest likelihood of abuse occurring. Where airports have SMP, the most obvious outlet for that market power is to bring it to bear on their customers; a type of abuse that would affect users to

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<sup>431</sup> Commission decision 95/364/EC, Commission decision 1999/199/EC, Commission decision 1999/198/EC, Commission decision 98/513/EC; T-128/98, C-82/01 Commission decision 98/190/EC and Purple Parking & Anor v Heathrow Airport Limited [2011] EWHC 987 (Ch)

<sup>432</sup> The early European cases are typified by a strong single market imperative. These cases in the main consist of a state owned airport supporting state owned airlines.

the extent that it was passed on. For excessive pricing and exploitative service abuses the CAA considers that there is insufficient case law to provide sufficient legal certainty for successfully completing an investigation or private action alleging such abuses.

### Effectiveness of regulation and competition law in addressing abuses

- 8.44 For price-based abuses, there have been a number of cases taken forward, such that there is a degree of clarity relating to the test to be applied. In *United Brands*<sup>433</sup>, the lead case, the Court of Justice recognised that "*charging a price which is excessive because it has no reasonable relation to the economic value of the product supplied would be such an abuse*".
- 8.45 The court proposed a two part test; it should be shown that i) the price cost margin is excessive and ii) the price imposed is either unfair in itself, or when compared to competing products. However the decision did not provide bounds above which prices would be deemed excessive. This test has formed the framework in the assessment of excessive pricing in the cases that have followed.
- 8.46 The *United Brands* case highlights the key issue of determining the appropriate price against which to measure whether there is excessive pricing above that level. There are a number of issues that affect the accurate measurement of the appropriate price:<sup>434</sup>
- A key challenge is that firms normally record their costs in a format designed for financial presentation rather than economic evaluation. When assessing prices from an economic perspective the CAA is concerned with the marginal costs of production, which is not needed for standard accounting purposes. Therefore cost data from firms may need to undergo some form of transformation.

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<sup>433</sup> *United Brand v the Commission*, Case 27/76. The finding of abuse was not upheld on appeal for lack of evidence establishing excessive pricing against the legal test the court had articulated.

<sup>434</sup> Lyons B (2007), *The Paradox of the Exclusions of Exploitative Abuses*, in: Swedish Competition Authority (ed.), *The Pros and Cons of High Prices*, pp 65-87

- Where a firm supplies a number of products over a number of areas, such as an airport, there is an issue of cost allocation and cost recovery. There is no correct methodology for the allocation of common and sunk costs within a business. Based on two differing sets of clear and objective criteria the costs of a firm may look significantly different. For example airport costs derived from the perspective of passenger use may look different from those derived from the perspective of airline use but may both be based on a rational allocation.
- Finally, few products are charged on a basic unit cost. Costs are often dependent on volume or have multiple components. This is especially an issue at airports given the bundle of goods that are purchased by airlines. The nature of costs at an airport is such that there is a high fixed cost of provision therefore on a unit basis costs can decrease at a significant rate as volume rises.
- A further challenge is that competition law investigations into conduct necessarily focus on a point in time or at least a fixed period. Making a robust assessment of cost information in this context can be difficult. As it may not always be possible to gain robust information on past events.

8.47 In such a context a sectoral regulator operating a licence-based regime is more likely to be effective in overcoming the asymmetry of information. A sectoral regulator would have regular access to information and accounts that would allow it to assess the efficient level of airport operators' costs more effectively than a competition authority might when considering them on a case by case basis.

8.48 Another key issue that was raised in the United Brands case is that of total economic value. This can take in such matters as brand appeal based on attributes such as the reputation of the airport as a hub or as a holiday, business or low cost carrier airport. Similarly, an airport being situated by a major city provides additional value in terms of access for the airlines' target market. These components add up to the economic value of the service rather than the basic accounting value of the immediate costs of provision. Finding a credible value for these can prove difficult in practice.<sup>435</sup>

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<sup>435</sup> See *Scandlines Sverige AB v Port of Helsingborg* Commission Decision of 23 July 2004 [2006]

- 8.49 Another issue for the consideration of excessive pricing is the role of high prices in the competitive process. High prices can be part of the mechanism of a well functioning market where they encourage entry by equally (or more) efficient competitors and are eventually competed down to the competitive level. A core question is whether it is likely that, given the particular market dynamics, the high prices are likely to drive entry. Therefore an assessment of price over an appropriate time period rather than a simple consideration of the spot price are important. Further, prices play a role in rewarding investment and innovation, either of which can be damaged if the dominant firm considers it cannot gain the appropriate compensation. The market setting therefore plays an important and variable role in the assessment of excessive pricing. This can mean looking beyond whether a price represents covering costs plus a reasonable rate of return, and taking proper account of the wider market context.<sup>436</sup>
- 8.50 Finally, an issue that has been cited with regards to excessive pricing is the reluctance by competition authorities to prescribe clear upper limits for market prices. This stems in part from the lack of specialised knowledge of specific industries and in part due to a reluctance to set what would effectively be a form of price control. This has traditionally been viewed as a rather different activity from competition enforcement.<sup>437</sup> Given that the CAA will have concurrent powers as well as its responsibilities as the sector regulator, it does not consider that this should carry much weight in assessing the merits of competition law in the context of test B. Where appropriate, the CAA would be able to regulate prices if such a remedy was required as part of a regulatory decision made under competition law.
- 8.51 However, it will be important to consider whether the flexibility of a licensing regime may be better adapted to address the full sectoral implications of pricing issues or whether the imposition of fines and/or directions aimed at pricing conduct or price-focussed market investigation remedies are sufficient. To an extent, competition law

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4 CMLR 1224, paragraphs 241-242

<sup>436</sup> *AtTheRaces v British Horseracing Board* [2007] EWCA Civ 38, [2007] UKCLR 309 In the original hearing at the High Court excessive pricing was upheld, however it was quashed in the Court of Appeal

<sup>437</sup> OECD (2011), *Excessive Prices*, Background paper for Working Party No.2 on Competition and Regulation, url:<http://ssrn.com/abstract-1946779>

can still play a part, even where a licence is in place because of the CAA's duty under s.46 to only take licensing enforcement action where it is more appropriate than proceeding under the CA98.

- 8.52 The CAA notes that there have been some infringement decisions with regards to excessive pricing.<sup>438</sup> This highlights that competition law enforcement based on excessive pricing can be the appropriate way to address some types of commercial behaviour. However, although there is a legal test for excessive pricing, it can be difficult to apply in practice because proving elements such as “excessive” can be challenging. Therefore, the application of the relatively limited available competition law precedents for exploitative abuses, such as excessive pricing, is hard to predict. The CAA considers that, given this uncertainty, cases in this area carry greater risks of failure compared to more common abuses such as predatory pricing and margin squeeze.
- 8.53 The CAA is unaware of any competition law cases that have sought to correct an abuse where a dominant undertaking has exploited its SMP by supplying services of inferior quality compared to those that might be expected in a competitive market. The CAA considered that the issues identified with the assessment of an excessive pricing abuse would equally apply to an abuse of service quality. It is the CAA's consideration that an abuse based on service quality is likely to be more challenging to tackle through competition law compared to licence-based regulation, given the subjective nature of service quality.
- 8.54 It is important to consider the context in which the CAA would be exercising its powers under competition law. HAL could be said to operate at a “wholesale” level in the sense that the rates it sets will have an impact on the ultimate rates which the airlines charge to the passengers and cargo owners. The CAA considers that HAL could set excessive airport charges, which would affect passengers and cargo owners and which may not be capable of being remedied by competition law. The next section looks at how the balance between regulation and reliance on competition law has been addressed in

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<sup>438</sup> case 2001/893/EC; Napp Pharmaceuticals Holdings Limited and subsidiaries – OFT CA98/2/2001 decision upheld at appeal CAT/1001/1/1/01, and more recently case brought by the Italian Competition Authority against Roman and Milan airports.

other industries.

## Section 4: Lessons from other industries

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- 8.55 As part of its submission to the CAA, GAL submitted a report<sup>439</sup>, which seeks to draw lessons from other regulated and deregulated industries around the world and puts forward its view of their implications for the CAA in approaching licence regulation of GAL under the Act. The report was written on the basis of the CAA's market analysis presented in the Initial Views, rather than that presented in the test A section of this report. Further, the report appears to have been written on the basis that GAL will face price cap regulation. This section considers what this analysis implies for our assessment of test B for HAL.
- 8.56 The report draws on a number of examples in which, with the exception of UK ports, there is some level of economic regulation above that imposed by competition law alone. The report shows how, for certain industries, regulation has been progressively pulled back. Examples include UK retail energy and Scottish Water. However deregulation in these industries has generally been in the retail segments of these industries, which are akin to the market for air transportation in the aviation industry, rather than the markets for air operation services at airports.
- 8.57 The report also draws on evidence of regulation at Australian Airports which, despite having market power, face a light touch regulatory regime. Test B does not direct the CAA to comment on the form of regulation or the extent to which regulation that may be applied to an airport is intrusive. Its focus is on whether competition law will provide sufficient protection against the risks of the operator that has been found to have SMP abusing that SMP or whether some form of regulation is needed. The Australian example illustrates that there may be benefits to regulation at airports with market power that exceed those offered by competition law alone.
- 8.58 The industry of most relevance to test B, in the GAL report, is that of UK ports, which are largely unregulated, but the report rightly points

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<sup>439</sup>GAL, Sectoral examples of market power, regulation and deregulation and implication for Gatwick Airport: A report

out that there are a number of key similarities between sea ports and airports. However the CAA notes that there has historically been limited regulation of ports in the UK. As the London Economics report notes *the “UK Government takes a very hands-off approach”*. This is at odds with the approach that the UK Government has taken with regards to airports, where it has historically taken, and continues to take, an active role in aviation policy and the development of airport capacity.

- 8.59 The importance of the planning system for airports creates a level of uncertainty within the market. This is especially the case in the South East of England, where the government currently has a moratorium for expansion at the three largest airports. This affects both the likelihood and the timeframe for any expansion by an individual airport in the South East of England. The Davies Commission which is currently exploring potential solutions to airport capacity issues, which might serve as an alternative to investment being left to market forces. This is likely to override market-led capacity adjustment over a large proportion of the market. While market conditions may change so as to lessen concerns about constraints on competition, the CAA currently views this as important factor. It also takes into account that airports have a safeguard against ongoing regulation where there is a material change in circumstances, whereby they can ask for CAA to review their position by asking for a fresh market power determination under the Act.
- 8.60 Another notable difference is that the CAA has explicit duties under the Act to further the interests of air transport users. No such duty applies to any statutory body in relation to ports. As noted at the start of this chapter, the CAA’s primary duty needs to be taken as the guiding principle in our consideration of test B as it relates to airports.
- 8.61 A key difference between UK sea ports and airports is the level of passenger interaction. GAL’s report points out that sea ports focus more on cargo than on passengers. According to the trade body for UK ports, they carry around 30 million passenger a year and 530 million tonnes of cargo.<sup>440</sup> This compares to UK airports through which only 2.3 million tonnes of cargo moved and some 220 million

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<sup>440</sup> See <http://www.ukmajorports.org.uk/pages/industry-profile>, accessed 17 April 2013

passengers.<sup>441</sup>

- 8.62 It can be assumed that the majority of sea port users with rights in cargo similar to those at airports do not have any contact with the port through which their goods are shipped, therefore the majority of the transactions taking place are between the port and various cargo shippers. Those shipping cargo are also more likely to be businesses rather than individuals. Businesses are generally in a better position from which to consider litigation than private individuals. Passengers, on the other hand, have a significant contact with the airport/port as part of their purchase of air/sea transportation services. In the main they will also have purchased their service as a private individual. Passengers are therefore more directly exposed to possible abuses and face certain challenges in asserting their rights within the framework offered by competition law. Airlines are generally well resourced businesses and they may protect passengers using those resources when their interests are aligned. However, if passenger and airline interests are not aligned, the ability of passengers to influence airport decision making (particularly where the airlines have opted to support a decision) will be severely limited and competition law may not offer sufficient protection.
- 8.63 This raises the question of whether the provision of airport operation services to cargo owners should be regulated, given that cargo shippers by sea do not benefit from similar regulation. The CAA notes that the proportions of cargo versus passenger traffic as between ports and airports are not at all similar. Cargo owners using air, therefore, are in a different position to their maritime comparators, as they are using facilities whose primary focus is generally to serve passenger transport. The CAA considers that this is likely to affect the buyer power of cargo owners dealing with airports with SMP. For certain cargo types, access to an airport with sufficient proximity to London is critical for those seeking to serve those markets and they need to secure capacity in competition with passenger traffic. In this context, competition law may not be sufficient to address conduct that is directed against cargo owners. They may feel constrained in initiating and/or providing evidence to support investigations into the conduct of the airport with SMP or the market more generally. There is also the risk that if regulation were to be put in place, which was only

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<sup>441</sup> CAA Airport Statistics, 2012



directed at the protection of passenger interests, this could lead to unforeseen distortions to the detriment of cargo owners.

8.64 The CAA draws the following conclusions from other industries:

- Australian airports, despite the differing policy context, illustrate that where an airport has market power there is benefit in maintain regulation above provision in competition law
- UK ports although sharing similarities with airports have key difference, which limits the read across to airports. Ports are focussed on the provision of service to cargo operators, where as airports are passenger focussed:
  - The CAA has a primary duty to the users of airport services which in the main are individuals rather than companies. Therefore are likely to lack the resource and expertise needed to tackle abuses of SMP. No such obligation exists within the provision of seaport facilities.
  - Passengers, as individual users of airport services, are likely to face a greater exposure to possible abuse and be less able to combat any abuse than cargo operators.
  - Cargo owners, as individual users of airport services, are in a different position to their maritime counterparts as services provided to them are main a secondary activity to the provision of services to passengers. This is likely to have an impact on their relative buyer power.

## Section 5: Application of test B to HAL

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### Market characteristics

8.65 Airports, in part due to their nature as previously nationalised undertakings, have high and persistent entry barriers.<sup>442</sup> These barriers may result from a number of areas including:

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<sup>442</sup> Of the world's 30 busiest airports, 19 are state-owned. Europe, with a large number of airports, still maintains relatively strong airport regulation. Many of the privatised airports in Europe are in the UK. Since the BAA privatisation in 1986, there has been partial privatisation in Austria, Germany and Italy, and it is planned in other EU airports. It is estimated that only 20% of European airport operations are privately owned or public-private partnership.

- Government intervention; and
- Bi-lateral agreements.

### **Government intervention**

- 8.66 In a properly functioning market, prices would rise as capacity within a market contracts. High prices would stimulate entry into or expansion within the market. The addition of extra capacity would then erode the pricing power of the dominant market participants and prices would start to fall. Where there is an impediment to the functioning of the market such that entry or expansion is not possible, prices will continue to rise to the maximum extent that the market can bear.
- 8.67 All major infrastructure decisions within the UK have some degree of government involvement, whether through local councils' planning laws or by Central Government. Since 2003, there has been a case for airport expansion within the South East. Airports have attracted a particular level of intervention from Central Government especially within the South East where there is currently a moratorium on the expansion of airports, which restricts the available capacity.
- 8.68 The level of potential competition has increased due to the recent changes of ownership of Gatwick and Stansted, but even so, given the level of government intervention and the artificial nature of the impediments to competition and the artificial stimulation of excess demand, the CAA considers that this increases the likelihood of exploitative abuses taking place. The market mechanism that would lead the market to invest in new capacity is prevented from operating as a policy choice.

### **Bi-lateral agreements**

- 8.69 Historically, international flights have been governed by international air service agreements, which limited the level of competition at the airline level on specific routes. This has limited both the airlines, and also the airport from to and from which the airlines could fly.
- 8.70 The single skies initiative in Europe opened up intra-community flying allowing for the development of low cost airlines. Similarly, the open skies agreement with the US opened up flying from the UK to the US. The result of this was that airlines were able to exercise choice over which airports to serve in the UK, US and Europe.

- 8.71 However, there are still a number of countries with which bi-lateral agreements still pose restrictions. For example, the CAA was recently called on by the Secretary of State to adjudicate on capacity on the London to Moscow routes due to the exit of BMI. The CAA award the capacity to BA which continues to serve 21 services a week from Heathrow and to easyJet which can now serve up to 14 services a week to Moscow from Gatwick. No other UK registered airlines (or airlines operating in the UK, other than the Russian counter parts) are allowed to offer these routes from the UK.
- 8.72 These restrictions limit to some extent the competitive pressures that may be felt by airports. Airlines may not necessarily be able to take the commercial actions on operating certain routes that would serve to discipline its supplier on prices and/or quality.

#### **Degree of competition and extent of HAL's market power**

- 8.73 The CAA has found that HAL has significant market power in the provision of airport operation services to FSC and associated feeder traffic at Heathrow

#### **The risk of abuse**

- 8.74 Under test A of the MPT the CAA has indicated that it is minded to find that HAL has SMP, which is likely to pertain over the Q6 period.
- 8.75 As identified above, the CAA considers that the most likely abuses of HAL's SMP are those of an exploitative nature. These are likely to manifest as either excessive pricing or abuses through service quality reduction.
- 8.76 Excessive pricing is likely to be similar to the United Brands definition, with the airport setting charges that bear limited resemblance to the economic value of the service. This may arise as uniformly high charges or as targeted price discrimination. Given that the commercial arrangements between an airline and the airport are not transparent, the CAA considers that it is likely that such discriminatory abuses may go undetected or unenforced.
- 8.77 Abuses through service may arise as a reduction in the quality of service to air transport users. Currently, service quality is regulated and, as discussed in Chapter 7, recent surveys suggest that passengers are, in general, satisfied with the service they receive from HAL. It is unclear whether HAL's current service levels are

attributable to regulation rather than competitive pressure. However, given the airport's recent issue with resilience to adverse weather conditions, it may be more likely that any abuse may manifest itself in a lack of resilience.<sup>443</sup>

### **Detriment to the user of air transport services (Consumer Detriment)**

- 8.78 The CAA considers that the consumer detriment from HAL's market power is likely to take different forms.
- 8.79 Excessive prices are likely to be passed through to users in the long-term and are likely to have a direct impact on consumers' ability to travel. Although, individually, the amounts involved are likely to be limited over the passenger group, as a whole, these are likely to lead to significant sums. Passengers will either "take the hit" of the higher prices or decide not to fly at all.
- 8.80 Where the prices are not directly passed through to the passenger, this will have a direct impact on the profitability of the airline sector. This is likely to affect the ability of airlines to innovate their product offer and is also likely to reduce the viability of the routes offered. Ultimately, this would be likely to affect air transport users through a reduction in choice of airlines and the direct destinations available from the airport.
- 8.81 Likewise, it is expected that the ability to charge excessive prices by the airport may lead to degradation or stagnation in the services that the air transport users receive directly from the airport.

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<sup>443</sup> A number of reports have been published considering the impacts of severe weather resilience at UK airports including: The Quarmby report Oct & Dec 2010 (<http://transportwinterresilience.independent.gov.uk/>), the Transport Select Committee report May 2011. (<http://www.publications.parliament.uk/pa/cm201012/cmselect/cmtran/794/79402.htm>) the Begg report on Heathrow, March 2011. ([http://www.baa.com/static/BAA\\_Airports/Downloads/PDF/BeggReport220311\\_BAA.pdf](http://www.baa.com/static/BAA_Airports/Downloads/PDF/BeggReport220311_BAA.pdf)) CAA's reports ([http://www.caa.co.uk/docs/5/CAA%20review%20of%20snow%20disruption%20-%20Final%20Report%20-%20WEB%20VERSION%20\\_2\\_.pdf](http://www.caa.co.uk/docs/5/CAA%20review%20of%20snow%20disruption%20-%20Final%20Report%20-%20WEB%20VERSION%20_2_.pdf)) and (<http://www.caa.co.uk/docs/5/CAA%20Issues%20facing%20passengers%20during%20the%20snow%20disruption%20FINAL.pdf>).

## Conclusion

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8.82 Based on the above the CAA considers that it is likely that competition law alone will not be sufficient to prevent the risk of HAL abusing its market power in the relevant markets. The reasons for this view include:

- *Ex ante* regulation has a number of advantages over competition law in opening up markets to competition where there is a dominant incumbent.
- The application of the relatively limited available competition law precedents for exploitative abuses, such as excessive pricing, is hard to predict. CAA considers that, given this uncertainty, cases in this area carry greater risks of failure compared to more common abuses such as predatory pricing and margin squeeze.
- Private actions, especially by passengers are likely to be challenging and complex given the lack of a direct contractual relationship with the airport and the likely low level of damage experienced by an individual passenger.
- The remedies available to the regulator via its power to impose and modify conditions in a licence are more comprehensive and forward looking in terms of scope than those available under competition law.

# THIRD PART: TEST C

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## CHAPTER 9

# Test C

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### Section 1: Introduction

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- 9.1 This chapter sets out the CAA's assessment of test C of the market power test. It is set out as follows:
- Section 1: background;
  - Section 2: an assessment of the ACR and AGR impact on test C;
  - Section 3: an assessment of the impact of licence regulation on:
    - price;
    - efficiency;
    - service quality; and
    - investment.
  - Section 4: other potential benefits of licence regulation;
  - Section 5: direct costs;
  - Section 6: other potential distortive effects; and
  - Section 7 conclusion.
- 9.2 Where appropriate, this assessment draws on previous assessments of the de-designation of Stansted airport undertaken by the CAA in 2007<sup>444</sup> and DfT in 2008<sup>445</sup> as these considered many of the same issues raised by test C. However, it is important to emphasise that this assessment takes place under different legislation and under different circumstances, not least the particular market conditions in

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<sup>444</sup> De-designation of Manchester and Stansted airports for price control regulation: The CAA's advice to the Secretary of State, July 2007. This document can be accessed at: [http://www.caa.co.uk/docs/5/ergdocs/de-designation\\_advice.pdf](http://www.caa.co.uk/docs/5/ergdocs/de-designation_advice.pdf).

<sup>445</sup> DfT 2008, Decision on the regulatory status of Stansted Airport, This document can be accessed at: <http://webarchive.nationalarchives.gov.uk/20081231144027/http://www.dft.gov.uk/consultations/archive/2007/consulstatusstansted/decisionstanstedairport.pdf>.

which HAL operates.

## Test C

- 9.3 As set out in the Civil Aviation Act 2012 (the Act):
- “Test C is that, for users of air transport services, the benefits of regulating the relevant operator by means of a licence are likely to outweigh the adverse effects”.*<sup>446</sup>
- 9.4 The relevant operator is *“the person who is the operator of the airport area at the time the test is applied”.*<sup>447</sup>
- 9.5 Users of air transport services are defined in the Act as passengers or those with a right in cargo. This includes future users of such services.<sup>448</sup>
- 9.6 The application of test C necessarily follows the assessments for tests A<sup>449</sup> and B.<sup>450</sup> This document has already set out the CAA's view that these tests have been met in relation to HAL.
- 9.7 The assessment of test C considers whether the benefits to users of air transport services of regulatory requirements set out in a licence are likely to outweigh the adverse effects. If the CAA considers that this is not the case, HAL will not need to be regulated, but would only face such constraints as are presented by the prevailing market conditions. However, if the CAA considers test C is met in relation to HAL, it will require a licence in order to charge for its services.

## Initial views on test C

- 9.8 The CAA's initial views on test C were set out in the Q6 policy update document<sup>451</sup> and are repeated below.
- 9.9 The CAA acknowledged that it was difficult to reach a firm conclusion on test C in the absence of a clear package of measures developed

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<sup>446</sup> The Act Section 6(3)

<sup>447</sup> The Act Section 6(2)

<sup>448</sup> The Act Section 69 (1)-(2)

<sup>449</sup> whether the relevant operator has, or is likely to acquire substantial market power (SMP)

<sup>450</sup> whether or not competition law provides sufficient protection against the risk that the relevant operator may abuse that SMP

<sup>451</sup> Paragraphs 4.20 to 4.23 of Q6 Policy Update, CAA, May 2012. This document can be accessed at: <http://www.caa.co.uk/docs/5/Q6PolicyUpdate.pdf>.



for regulating each of the airports. However, the CAA considered that the Act<sup>452</sup> (and its licensing regime) would significantly help to improve the situation compared to current legislation because it would:

- enable key passenger priorities to be addressed, e.g. operational resilience;
- allow regulation to be more tailored to the circumstances of the airport and avoid the ‘one size fits all’ 5-year price cap approach under the Airports Act 1986 (AA86);
- allow more proportionate forms of regulation, such as price monitoring, and regulation to be time limited and more flexible;
- reduce potential investment distortions, for example by allowing a rolling capex programme and ‘at risk’ projects;
- allow variation in duration, with no need to necessarily follow a five-year price cap; and
- enable a review of issues arising within the price control period, not just once every five years.

9.10 Given its initial views on test A, and exploratory views on tests B and C, the CAA did not consider that any of the airports ought to be removed from economic regulation before April 2014. However, the CAA stated that it would continue to keep the situation under review and engage with stakeholders on the issues.

9.11 The CAA’s initial view on the market power test, overall, was that there was a strong case for continued economic regulation at Heathrow; although the CAA recognised the need to ensure the benefits for users of air transport services with continuing regulation are likely to outweigh the costs. This would influence the choice of regulatory approach.

9.12 In reviewing both tests A and B in detail (included within this document) the CAA now considers that HAL is likely to have passed both assessments.

9.13 In discussions on test C following the Q6 Policy Update, HAL indicated that it was concerned that the CAA take an appropriate

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<sup>452</sup> The Act was still a Bill at the time of the May 2012 Q6 Policy update.

approach when seeking to understand and measure the costs of regulation. HAL stated that any attempt to prove the counter-factual would be difficult and very likely to generate inaccurate views of potential market outcomes. It stated that while consideration should be given to the current-factual, e.g., the direct costs, it would be difficult for HAL, or the CAA, to provide definitive views on the likely course of the market absent regulation.<sup>453</sup>

- 9.14 In addition, HAL noted that in seeking to predict what might happen absent regulation, it would need to be clearly understood that all of the items are inter-related and dependent upon assumptions. For example, HAL's comments on pricing in the absence of regulation are a reflection of indicative thoughts relating to capex and other variables, views that could be significantly different given different assumptions around the direction of their market.<sup>454</sup>

## Approach

- 9.15 Since the publication of its initial views the CAA has considered its approach to test C in more detail.
- 9.16 The assessment of whether test C is met must, necessarily, rely on an assessment of whether licence regulation in general would have net benefits, rather than the impact of the individual licence conditions. This is because the logical order of the Act requires the CAA to make its formal MPD under section 7, and then to decide which conditions are necessary or expedient to protect against the risk of abuse of SMP, as well as any other conditions the CAA considers necessary or expedient to fulfil its duties under section 1. These latter conditions do not need to be related to the MPD.
- 9.17 The requirements of test C have to be fulfilled within the wider statutory framework and the CAA's general duties under the Act. Section 1 sets out the CAA's general duty to further the interests of users<sup>455</sup> of air transport services and to do so, where appropriate by promoting competition, having regard to a number of other requirements.

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<sup>453</sup> Source: HAL.

<sup>454</sup> Source: HAL.

<sup>455</sup> Users in this instance are passengers and those with an interest in cargo and include future users. In this document where it refers to passengers it also encompasses those with an interest in cargo and future users.

- 9.18 The CAA, for example, must have regard to the regulatory principles set out in section 1(5) as well as regard to the duty not to impose unnecessary regulatory burdens, as set out in section 104 of the Act. These provisions, in essence, build in a proportionality exercise to test C to ensure that *ex ante* regulation via a licence is only imposed where it is necessary, proportionate and targeted only at cases where action is needed.
- 9.19 The assessment of test C, therefore, considers the incremental benefits and costs of regulating an airport operator by way of a licence, which seeks, via appropriate conditions, to mitigate the risk of the abuse of SMP. In general, the abuse of SMP can arise in many areas, but for the purposes of test C, this assessment focuses on the areas that are most commonly recognised as affecting consumers interests:
- price;
  - efficiency (which impacts on future prices);
  - service quality, in terms of the range and level of services; and
  - investment, which in capital intensive industries such as aviation, can impact on future levels of service quality.
- 9.20 The assessment has also considered areas where specific additional concerns have been identified in relation to the behaviour of HAL, in particular to price discrimination and refusal to supply.
- 9.21 The assessment also considered whether users may benefit from other additional licence requirements that are not directly related to market power, but that the CAA may consider necessary to fulfil its duties under section 1, for example on operational resilience.<sup>456</sup>
- 9.22 Against the potential benefits, the assessment has considered the adverse effects of licence regulation in terms of:
- the direct costs to the CAA, which are paid for by the industry and are likely to be passed on to users in the form of higher charges;

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<sup>456</sup> See section 18 of the Act

- direct costs imposed on regulated operators (including, for example, manpower, accounting and other expenditure) which are likely to be passed onto airlines and ultimately, users; and
- the distortive effects such as:
  - management distraction, for example focusing on the regulator and maximising the potential benefit from a regulatory settlement rather than on the needs of customers;
  - distortions to incentives, for example it has been argued that a RAB based licence regulation can create over investment;
  - displacing a more commercial approach, for example in the absence of licence regulation the airport operator and airlines may enter into bilateral contracts;
  - distortions to competition more widely, for example if a licence regulation included a price cap set too low then this could distort competition and investment at other airports; and
  - other potential distortive effects, such as those on consumers, for example through regulation setting service quality standards higher than demanded by customers.

- 9.23 These potential effects need to be considered in the context of what would happen in the absence of licence regulation, namely, that the impact on consumers would be determined by market forces in a situation where the CAA has already reached a conclusion under test A, that the airport operator is likely to have SMP, and under test B, that competition law will not sufficiently address the risk of abuse of that SMP.
- 9.24 Test C entails a balancing exercise where the benefits are weighed against the adverse effects to ascertain whether licence regulation, as a whole, has net benefits. Consequently, the impacts of licence regulation have been assessed in aggregate rather than assessing the impact of individual measures.
- 9.25 The actual impact (i.e. the benefits of a licence less its adverse effects) of licence regulation will depend on the form of regulation. Different forms of regulation will address possible abuses of SMP differently and will have different potential adverse effects. However, the purpose of test C is to ensure that the CAA is satisfied that there is

a form of licence regulation that has net benefits compared to the situation where there is no licence regulation. The purpose is not to specify the precise form of licence measure that is most appropriate.<sup>457</sup> This assessment, therefore, does not require the CAA to set out in detail how precise licence conditions might operate but, rather, to consider whether key forms of licence regulation that might be applicable to HAL may have net benefits.

- 9.26 Where possible, the assessment has sought to quantify the impact of licence-based regulation. This is easier for some measures, such as the CAA's direct costs of RAB-based regulation, than others, such as the impact of future alternative forms of regulation where there are practical difficulties in defining the precise effects in the abstract, given that they are not currently in place. The assessment also has to take into account the incremental benefits and adverse effects of licence regulation over and above other forms of regulation that currently exist, most notably the Airport Charges Regulations 2011 (ACR) and Airports (Groundhandling) Regulations 1997 (AGR).

## Section 2: Assessment of the ACR and AGR impact on test C

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### Airport Charges Regulations

- 9.27 HAL will remain subject to the ACR regardless of whether they are removed from the licensing regime under the Act<sup>458,459</sup>. The ACR came into effect in November 2011 and implemented Directive 2009/12/EC of the European Parliament and of the Council of 11th March 2009 on airport charges (the directive) into the jurisdiction of England and Wales. The ACR provides airlines, but not passengers directly, with a number of protections, including the following

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<sup>457</sup> The CAA will set out its decision on the most appropriate form of regulation at each airport operator subject to licence regulation in January 2014.

<sup>458</sup> The airport charges directive can be found at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:070:0011:0016:EN:PDF>

<sup>459</sup> The airport charges regulations can be found at: [http://www.legislation.gov.uk/ukSI/2011/2491/pdfs/ukSI\\_20112491\\_en.pdf](http://www.legislation.gov.uk/ukSI/2011/2491/pdfs/ukSI_20112491_en.pdf)

requirements:<sup>460</sup>

- airport operators must consult annually with airlines on airport charges and service quality;<sup>461</sup>
- airport operators have to provide airlines with information about the overall cost structure and revenues relevant to charges;<sup>462</sup>
- four months' notice of changes to the system, level of airport charges or quality of service associated with an airport charge;<sup>463</sup>
- airport charges must not discriminate between airlines, but airport operators can vary charges based on relevant, objective, and transparent criteria;<sup>464</sup> and
- airport operators must consult airlines on major infrastructure projects.<sup>465</sup>

9.28 If an airline considers that an airport operator has breached one of these requirements, it can take action in the courts, to recover loss or damage, or complain to the CAA. If the CAA receives such a complaint it must investigate and can impose a compliance order on the airport operator and order any damage or loss be remedied.

9.29 There are, however, a number of reasons for considering that the ACR may not provide sufficient protection for passengers<sup>466</sup> and other users of Heathrow airport in a situation where HAL is found to have SMP:

1. The ACR does not require charges to be cost reflective. The ACR requires that where charges are differentiated between users, the reasons must be relevant, objective and transparent. Such a reason can include costs and quality of service but there is no requirement for this to be the underlying reason. Furthermore, the

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<sup>460</sup> The Regulations apply to airports with over 5m annual passengers. Heathrow, Gatwick and Stansted are all subject to the Regulations.

<sup>461</sup> Article 6 (1) of the directive, regulation 8 (1) of the regulations

<sup>462</sup> Article 7 (1) of the directive, regulation 8 (2) of the regulations

<sup>463</sup> Article 6 (2) of the directive, regulation 9 (1) of the regulations

<sup>464</sup> Article 3 of the directive, regulation 14 (3) of the regulations

<sup>465</sup> Article 8 of the directive, regulation 27 of the regulations

<sup>466</sup> Where we refer to passengers we also refer to current and future passengers and those with a right in cargo.

ACR does not seek to control the overall level of charges, only the differentiation of charges across users<sup>467</sup>. Consequently the ACR is unlikely to provide sufficient protection against the risk of excessive prices<sup>468</sup> for HAL given the degree of market power held by the airport operator;

2. The ACR is likely to provide limited incentives for the airport operator to be efficient. Recital (1) of the directive states that airports should endeavour to operate on a cost-efficient basis; the mechanism for how this should be achieved is not discussed. One way to incentivise greater efficiency is through the requirement for increased cost transparency<sup>469</sup>. Under the ACR the airport operator is required to provide details of the overall cost structure and details of costs associated with different airport charges. This information, however, is unlikely to be sufficiently detailed to allow airlines to robustly challenge the efficiency of airport costs and gain sufficient assurance where an airport operator has SMP, like HAL. Consequently, the ACR is likely to provide only limited incentives for HAL to be efficient;<sup>470</sup>
3. The ACR is also likely to provide limited incentives to provide an efficient level of service quality where an airport operator has SMP. The ACR requires the airport operator to consult on the

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<sup>467</sup> Paragraph 3.10 of the CAA's emerging thinking on ACD implementation states that licence regulation is able provide additional protection against anti-competitive behaviour above that provided by the ACD. The ACRs are not designed to be the mechanism by which regulation of pricing at airports with SMP is secured. The UK currently has a derogation on remedies under Article 6(5) of the ACD. This requires that there is a mandatory procedure under national law whereby the independent supervisory authority determines, in response to requests from interested parties, whether an airport is subject to effective competition. Whenever warranted on the basis of the review, airport charges or their maximum level are determined or approved by the independent supervisory authority (namely CAA). This derogation is applicable because CAA has the power carry out market power assessments and take appropriate regulatory action in relation to pricing in response to the findings. This was formerly delivered by s.40 of the Airports Act 1986 (as amended) and will in future be delivered by the regulatory regime set out in Part 1 of the Act.

<sup>468</sup> The ACR includes provisions for overall cost transparency, however there is no requirement for charges to be based on a single (or dual) till basis, or the appropriate level of profitability.

<sup>469</sup> Article 7 of the ACD and Article 8 of the ACR

<sup>470</sup> See paragraph 5.9 of CAA emerging thinking on ACD implementation, CAA, December 2010. This document can be accessed at:

<http://www.caa.co.uk/docs/5/ergdocs/20101207ACDEmergingThinking.pdf>

level of charges and, where appropriate, service quality. It also allows the airport operator and airlines to negotiate levels of service quality<sup>471</sup>. However, where an airport operator holds SMP, these negotiations may not approximate those that would be conducted in a competitive market and so the level of service quality and charges may not be efficient.

4. The ACR may provide some incentives to invest. The ACR requires an airport operator to consult on investment; however, there is no requirement on an airport operator to undertake an efficient level of investment. Consequently, where an airport operator has SMP, it may undertake investment inefficiently, as the costs can be passed on to users, or delay the required investment, reducing future service quality.
5. The ACR imposes a duty on the CAA to investigate whether any of the obligations in the ACR have been breached only where there has been a complaint by a person on whom airport charges are levied (that is, an airline) or another airport. While CAA could investigate, at its discretion, on a complaint from another party, such as an end user, it has no duty to do so.
6. The CAA can make a compliance order and can take action to enforce such an order. This can cover remedial action aimed at any person. However, it is likely to be difficult to make an order aimed directly at any losses sustained by users because of the challenge of identifying those affected and quantifying their losses. The more likely outcome would be a compliance order that contained remedial measures aimed at rectifying the losses caused to a qualifying complainant. This might, for example, be aimed at restoring any overcharging that occurred as a result of charges that were found to be discriminatory under the ACR.

9.30 The degree to which the ACR provides adequate protection to airlines will, to some extent, depend on the degree of market power found in relation to the airport. The CAA's assessment of test A concluded that, in relation to passenger traffic, HAL has substantial market power which is likely to be sufficient for it to raise prices above the competitive level and/or reduce service quality to airlines. Consequently, there may be a need for additional regulation, over and

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<sup>471</sup> Article 9 of the directive and Article 12 of the regulations



above the ACR, to provide adequate protection for both passengers and cargo owners. This would be consistent with the CAA's primary duty under the Act to further the interests of users of air transport services in the range, availability, continuity, cost and quality of airport operation services.

### Airports (Groundhandling) Regulations

- 9.31 The Airports (Groundhandling) Regulations SI 1997 (AGR) transpose the European Groundhandling Directive 96/67<sup>472</sup> into the jurisdiction of England and Wales. Groundhandling is defined in the Annex to the Directive and covers a number of activities, including check-in, handling baggage, cargo and mail, re-fuelling aircraft and transporting passengers and crew to aircraft.
- 9.32 Under the AGR, airport operators with more than 2 million passengers per annum cannot restrict the number of self-handling airlines or third-party groundhandlers that operate at the airport without a determination from the CAA. There are, currently, no restrictions on the number of handlers in the UK.
- 9.33 Where handlers use aircraft facilities, such as check-in desks, baggage belts and fuel hydrant systems, the airport operator must set its charges according to relevant, objective, transparent and non-discriminatory criteria. The CAA can investigate alleged breaches of the AGR following a complaint.
- 9.34 While the AGR provides some safeguards for users of groundhandling facilities in terms of consultation and equal treatment, the protection for passengers and cargo owners, as users of air transport services, is likely to be limited in a situation where the relevant airport operator has SMP. There is no formal requirement in the AGR for charges to be cost based.<sup>473</sup> The requirement under regulation 16(d) of the GHR that charges for ground-handling be set by reference to criteria that are non-discriminatory, relevant, objective and transparent, may potentially act as a constraint on pricing schemes that are not cost-

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<sup>472</sup> Council Directive 96/67/EC of 15 October 1996 on access to the Groundhandling market at Community airports, OJ L 272, 25.10.1996, p. 36–45

<sup>473</sup> According to the case-law to date, Reg 16, Airports (Groundhandling) Regulations, 1997 only requires that charges are based on transparent, objective, non-discriminatory and relevant criteria and calculated in an unbiased manner. However, in practice, complaints to the CAA under the GHRs have tended to focus on the cost reflectivity of charges.

reflective as it may be more difficult to prove that they satisfy the requirements of regulation 16(d). In practice, case law has tended to focus on the cost reflectivity of charges, in particular, in determining whether pricing may have been discriminatory. However, there is no absolute bar on pricing if an airport can point to criteria, other than costs, that do meet the relevant legal test. The protection against the risk of excessive or unfair pricing provided by the GHR may, therefore, be limited. More critically, groundhandling facilities are only a small part of overall airport operation services and so additional protection is likely to be required where an airport operator has SMP. As with the ACR, it may be difficult to provide direct relief for users.

### Section 3: Assessment of the impact of licence regulation

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9.35 This section assesses the impact of regulating Heathrow via a licence on price, efficiency, service quality and investment

#### Prices

9.36 The current regulatory framework sets a cap on the per passenger yield from airport charges (landing charges, parking charges and passenger terminal charges). Charges on non-passenger traffic (e.g. cargo) are required to be no more than those for the equivalent passenger aircraft. Discounts that were included in the published airport charges, for example for traffic growth, are included in price cap calculations. However, discounts that are negotiated between individual airlines and the airport operator are not included.

9.37 Since having an independent price cap, HAL has historically priced to the cap. To the CAA's knowledge, HAL has not agreed discounts outside published charges. There is also a premium on the value of landing slots at Heathrow (as discussed in chapter #). As HAL is pricing to the cap, and slot pairs are traded for considerable sums, the CAA considers that there is a reasonable expectation that, if the price cap were removed, HAL would seek to increase prices.

9.38 The key concern from test B on the applicability of competition law for disciplining dominant airports against abuse is the risk of excessive price. The concerns over excessive pricing are linked to the difficulties

with assessing whether prices are excessive and, therefore, the ability to successfully challenge any potential abuse.

- 9.39 Following a Monopolies and Mergers Commission public interest finding, the CAA imposed a transparency condition on HAL in 1991 that required it to provide information on costs and revenues for a number of specified activities that were not included within the price cap, which is limited to airport charges. The specified activities include, for example, check-in desk and baggage handling charges and staff car parking. The transparency condition was reinforced by statements made by the CAA at the Q5 review about the cost-reflectivity of these charges, which set an expectation that the CAA would consider at the Q6 review whether it should take account of any excess revenue from specified activities in the Q6 price control.
- 9.40 Check-in and other groundhandling charges are subject to the AGR.<sup>474</sup> With the possible exception of charges for bus and coach facilities, the specified activities come under the definition of airport operation services under the Act. Under test A, the CAA was minded to find that HAL had SMP in relation to the core airport area. This core area includes the runway and taxiways, airport air traffic control, aircraft parking, facilities for groundhandling and the minimum activities required for the processing of passengers at the airport. The specified activities cover services that are required by airlines, or others, using the core area, for example, staff ID passes, airside licences and airside parking, heating, utilities, staff car parking, cable routing and maintenance. Given that these services either cannot be avoided or would be very difficult to avoid by companies using the core airport area, as under test A, the CAA considers that HAL could abuse its market position over these specified activities.
- 9.41 The CAA considers that the provision of transparency conditions with regards to pricing that could be applied through licence regulation could provide additional benefits to users. Providing users with additional information that would enable them to assess the appropriateness of the level of charges for the specified activities, and indeed other services, will place them in a better position if concerns of excessive pricing arise.

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<sup>474</sup> It should be noted that these regulations have been successfully pursued twice by Ryanair to challenge Gatwick's check-in and baggage charges.

- 9.42 The CAA, for example, currently only allows 90 per cent of the costs of changes to security requirements to be passed on to airlines (subject to a deadband), to encourage the airport to implement changes to requirements efficiently. This serves to limit the range within which prices can rise, subject to changes in costs for new procedures. In a deregulated environment, it would be unlikely that HAL would face sufficient incentive to implement changes efficiently.
- 9.43 Licence regulation may, therefore, be a good way to limit excessive prices through either price caps, limitations on price rises as costs change or through the provision of additional information to users. However, there is a risk that the price cap is either set too high or too low.
- 9.44 The CAA has previously stated that the risk of the price cap being set too high could, to some extent, be mitigated by the presence of competition law,<sup>475</sup> although the limitations highlighted under test B still apply.
- 9.45 One of the key concerns in the earlier CAA analysis, and to some extent the DfT analysis on de-designation, was the risk that the CAA may set the price cap too low, distorting competitive and investment decisions at other airports. This may affect the development of the market over time, potentially to the detriment of consumers. It may also adversely affect airline locational decisions.
- 9.46 However, despite this, there appears little evidence that regulation of pricing by HAL, to date, has had a negative effect on other airports as significant investment is taking place in airports across the South East.
- LLAOL is advancing investment decisions and the airport has recently put forward a planning application to increase capacity to 18 million passengers per year;<sup>476,477</sup>

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<sup>475</sup> This is based on a CAA statement from 2007. In practice the presence of a high price control could make the case against excessive prices more difficult to make as competition authorities may be more reticent to find against an airport that was charging in accordance with a regulatory settlement. The potential for a competition law claim of excessive pricing to mitigate a high price may therefore be very low.

<sup>476</sup> [http://www.eplan.luton.gov.uk/plannet/documentstore/DC19512388-225-1\\_01\\_A.PDF](http://www.eplan.luton.gov.uk/plannet/documentstore/DC19512388-225-1_01_A.PDF)

<sup>477</sup> <http://www.luton.gov.uk/news/Pages/Planning-application-received-from-London-Luton-Airport->

- Stansted recently sold for a 10 per cent uplift on the notional RAB<sup>478</sup>, with the new owners stating that they have significant investment plans;<sup>479</sup>
- GAL has launched a review in the development of a second runway;<sup>480</sup> and
- In November 2012 BIAL broke ground on the construction of its runway extension.<sup>481</sup>

9.47 Given the provisional market power assessment in respect of GAL and STAL, the CAA currently considers that the operators of both these airports will be subject to some form of licence regulation and, consequently, prices at these airports will not be solely determined through competition. This further reduces the potential distortion of regulating prices at Heathrow.

9.48 Another issue resulting from regulating prices is that of the financeability of the airport. Although the CAA's duties and functions in relation to licensing under the Act can, in principle, be applied in a way that focuses largely on the need to limit prices, the CAA also needs to take account of its section 1 duties. This includes section 1(3)(a) which requires CAA to have regard to the need to ensure that each licence holder can finance the provision of airport operation services in the licence area. The CAA would, therefore, need to exercise care not to set prices such that the airport was not financeable based on what an efficient business would require to finance such activities.

9.49 However, to the extent that there is such a risk, it is likely to be substantially outweighed by the benefits of setting a price control through a licence. Further, the fact that under current regulation of HAL there have been no reported issues with the financeability of the airport also leads the CAA to conclude that the likelihood of this risk occurring is not significant.

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<sup>478</sup> PwC, April 2013, Cost of capital For UK Designated Airports: Paper on the split cost of capital and skewed returns – prepared to the Civil Aviation Authority,

<http://www.caa.co.uk/docs/78/Q6PwCCofCapitalSplitSkewed.pdf>, page 18

<sup>479</sup> <http://www.hertsandessexobserver.co.uk/News/Uttlesford/New-owners-celebrate-acquisition-of-Stansted-Airport-20130329112518.htm>

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See <http://www.gatwickairport.com/newrunway/>, accessed 10 April 2013

481 See <http://www.birminghamairport.co.uk/meta/news/2012/11/work-starts-on-birmingham-airports-runway-extension>

- 9.50 In 2007 the CAA argued that it might set a high price cap to avoid distorting competition and allow airlines to challenge prices if they considered them to be excessive. Airlines might do so even if the charges were below the price cap. Given the greater knowledge the CAA now has of the competitive price level, and the potential costs to users of allowing prices above the competitive level and the difficulties users may have in making a case on excessive charges if the airport operator was pricing within its regulatory cap, the CAA is unlikely to consider this approach to be appropriate for HAL in Q6.
- 9.51 In summary, the CAA considers that licence regulation could provide benefits over deregulation in terms of ensuring that prices charged are in the interest of the users of air transport services. While the CAA acknowledges that there are risks from a licensing regime, the CAA considers that these risks are likely to be far outweighed by the potential benefits.

## Efficiency

- 9.52 The current price cap regime provides incentives for HAL to be efficient by including efficiency in the individual building block assumptions that go into the price cap calculations. HAL has an incentive to outperform as it retains the gains from outperformance during the control period. Gains made earlier in the control period are retained longer and so the efficiency incentives diminish during the control period.
- 9.53 The CAA has reviewed a range of evidence related to HAL's operating and capital expenditure efficiency, including several opex benchmarking studies<sup>482</sup>. This evidence, which is described in the initial proposals, indicates that there is likely to be significant scope for improvements in opex efficiency. The evidence for this conclusion is summarised in the following points<sup>483</sup>:

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<sup>482</sup> These studies include: (1) Air Transport Research Society 2011 Airport Benchmarking Report; (2) Leigh Fisher 2011 Airport Benchmarking Report; (3) Booz Allen 2012 European Airport Benchmarking Report commissioned by HAL; and (4) Steer Davies Gleave 2012 Stansted Mid Q Review Report commissioned by the CAA and the CAA's own benchmarking analysis described in the Q6 initial proposals.

<sup>483</sup> The use of a variety of approaches to assess efficiency addresses a number of concerns with individual methods identified on pages 14 to 16 of Empirical methods for assessing behaviour, performance and profitability of airports, CAA, June 2011. This document can be accessed at:

- HAL's opex per passenger was up to twice as high as the average study samples and, typically, close to the top of the range;
- even taking account of factors such as higher levels of salaries, utility costs and long-haul passengers, HAL's operating costs were shown to be higher than benchmarks;<sup>484</sup>
- opex per passenger was higher than some other large hub airports such as Hong Kong, Atlanta and Amsterdam;
- the CAA's own benchmarking analysis indicates that HAL's opex per passenger has risen by around 34 per cent since 2000. In contrast the benchmark sample has fallen by 19 per cent.

9.54 In combination, these points suggest that there is likely to be scope for further efficiency savings by HAL.<sup>42</sup>

9.55 In addition to the benchmarking evidence described above, the CAA has commissioned several studies examining "bottom up" opex efficiency, largely based on the airports proposed business plans.<sup>485</sup> These studies are primarily intended to provide an assessment of the accuracy and reliability of the airports forward looking opex projections, but also provide some evidence of current inefficiency, for example:

- The employment benchmarking study found that staff at Heathrow are generously paid with total cash reward estimated to be between 10 per cent and 21per cent higher than benchmarks.
- HAL's pay settlements have been higher than those in the wider economy since 2005, with the single exception of 2009 when HAL had a pay freeze. In 2012 HAL's average pay settlement was 5.2 per cent, in comparison with an economy wide average of 2.8 per cent.

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<http://www.caa.co.uk/docs/5/Performance&BehaviourWP.pdf>.

<sup>484</sup> Booz Allen 2012 European Airport Benchmarking Report

<sup>485</sup> Scope for efficiency gains at Heathrow, Gatwick and Stansted airports, undertaken by CEPA. Assessment of maintenance and renewals costs at Heathrow, undertaken by Steer Davies Gleave. Review of other operating expenditure at Heathrow airport, undertaken by Steer Davies Gleave. Benchmarking employment costs: a research report for the CAA - Heathrow, undertaken by IDS Thomson Reuters. These reports have been published on the CAA's website:

<http://www.caa.co.uk/default.aspx?catid=78&pagetype=90&pageid=14279>.

- Defined benefit (DB) and defined contribution (DC) pension schemes are very generous in comparison with benchmarks. The DB and DC schemes require a contribution rate of 40 per cent and ten per cent respectively. This is significantly higher than benchmark rates for DB and DC schemes in the wider economy at 17 per cent and seven per cent respectively.
- There is some evidence of grade drift across the different staff groups with a "*virtual de-population of the lower grades with only the highest graded staff remaining*" in some areas. For example, there are three leading fire fighters for every fire fighter. The most significant movement has been the re-grading of security supervisors to the higher Service Team Leader position.

- 9.56 The Empirical Methods<sup>486</sup> states that, in principle, the analysis of relative cost-efficiency might provide useful evidence to identify whether an airport operator is performing in a way that would be expected in a well-functioning market. However, care must be taken to understand the underlying causes of any identified inefficiency and whether there is evidence to suggest that relatively poor performance is transitory or can be explained by factors that do not relate to market power. The Empirical Methods also recognises that operating efficiency may not be created by competitive pressure, but could be the result of regulatory incentives.
- 9.57 Given the scale of potential efficiencies identified in the initial proposals it is difficult to accept that HAL is currently operating at the same level of efficiency as a company in a fully competitive market. It therefore appears unlikely that, in the absence of some constraining mechanism via licence regulation that market pressure alone would lead to an improvement in efficiency. Given that the competitive pressure on HAL is not forecast to increase in Q6, the incremental benefits of licence regulation on efficiency are likely to persist.
- 9.58 Licence regulation can be an effective way of promoting operating and capital expenditure efficiency. The strength of efficiency incentives will depend on the type of licence regulation. Licence regulation can also create adverse effects, in particular through the distortion of incentives between opex and capex efficiency. In general, it appears that a

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<sup>486</sup> CAA, Empirical methods for assessing behaviour, performance and profitability of airports, June 2011, available at: <http://www.caa.co.uk/docs/5/Performance&BehaviourWP.pdf>



variety of forms of licence regulation could provide incentives for efficiency. A RAB approach provides incentives to outperform the regulatory settlement and a flexible RAB approach with core and development capex, may improve incentives for the planning and efficiency of capex.

- 9.59 The CAA acknowledges that the current regulatory framework can skew incentives for efficiency gains towards the start of the control period. Nevertheless the strength of the incentive for the airport to be efficient will depend on the level of the price cap. Where an airport has SMP, and if the price cap is set too low, there may be less of an incentive to be efficient as the airport will already be making reasonable profits<sup>487</sup>, particularly where such efficiency gains may be used by the regulator to set tighter price controls in the future.
- 9.60 Based on this analysis, and given the current and historic inefficiencies at Heathrow, a price cap under a licensing regime is likely to provide stronger efficiency incentives on the airport than those that it would face in a deregulated environment. Consequently, licence regulation is likely to have additional benefits in this area.

### Service quality

- 9.61 In line with the Empirical Methods guidelines,<sup>488</sup> the CAA has considered GAL's performance against both direct objective measurements, using the Q5 service quality incentive scheme, and qualitative assessment, through passenger satisfaction surveys such as the ASQ and QSM<sup>489</sup>.
- 9.62 The Q5 service quality regime for HAL incorporates a service quality rebate scheme, with targets and rebates paid, set at a maximum of seven per cent of airport charges, for underperformance across 18 passenger and airline facing metrics and a service quality bonus scheme, with bonuses paid, set at a maximum of 2.24 per cent of

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<sup>487</sup> This is called X inefficiency and was first defined by Leibenstein, Harvey (1966), "Allocative Efficiency vs. X-Efficiency", *American Economic Review* 56 (3): 392–415.

<sup>488</sup> See page 23, Empirical methods for assessing behaviour, performance and profitability of airports. This document can be accessed at:

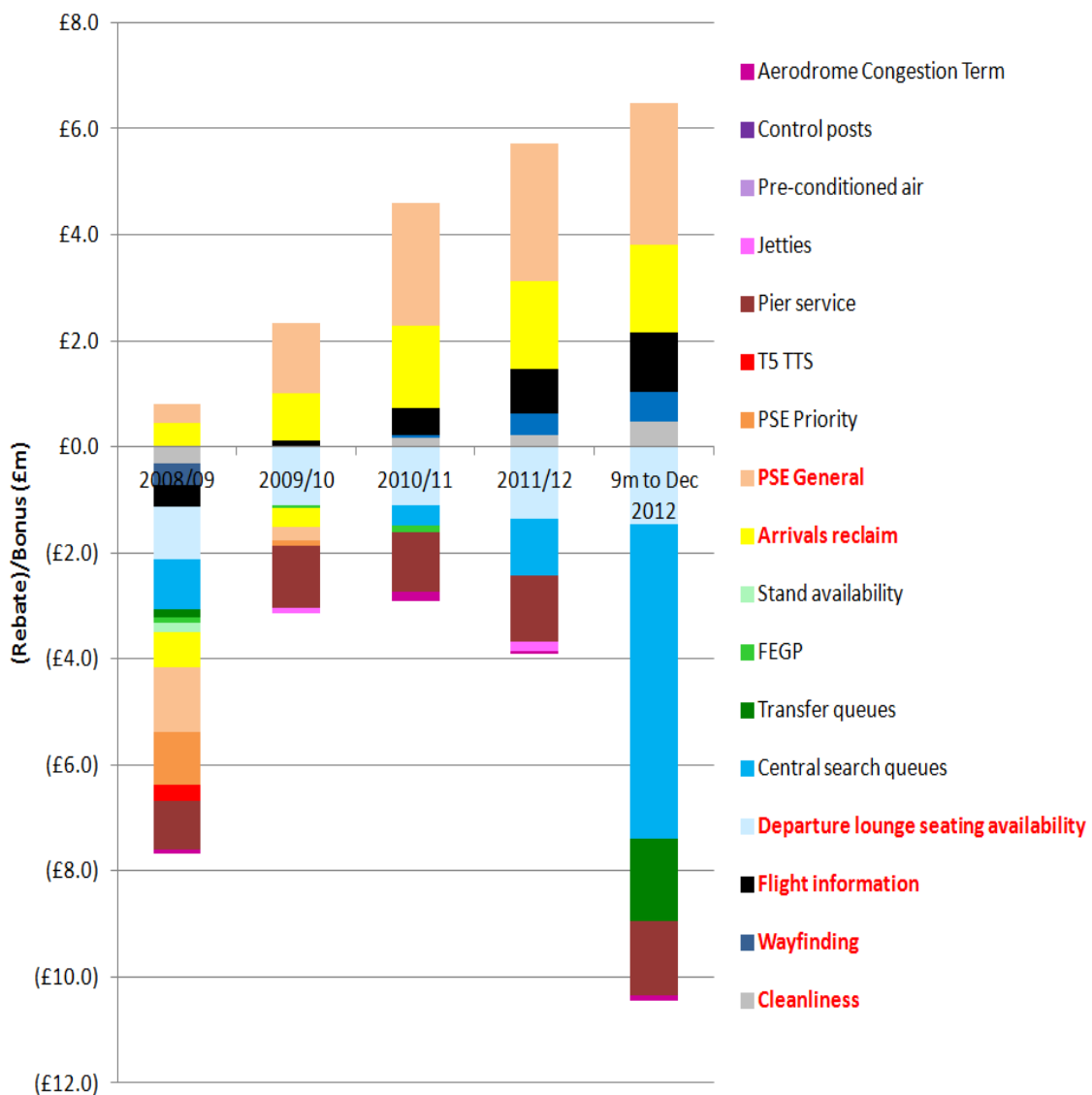
<http://www.caa.co.uk/docs/5/Performance&BehaviourWP.pdf>.

<sup>489</sup> QSM is the Quality of Service Monitor which is customer satisfaction survey data collected by BAA. ASQ is an international customer satisfaction survey overseen by the Airports Council International which enables the benchmarking of HAL's performance with other airports.

airport charges, for outperformance across six passenger facing measures.

9.63 To better understand the performance of the individual elements within the SQR scheme, the CAA has considered the breakdown of total rebates and bonuses by the various elements (see Figure 9.1 below).

**Figure 9.1: Q5 SQR and Bonus Performance**



Source: Q5 Service Quality Performance, Heathrow Airport, Full Business Plan - Part E

Note: Elements labelled in red are eligible for bonus payments

9.64 Figure 9.1 indicates that:

- the number of elements in the scheme generating rebates have fallen over the period, despite the level of overall rebate rising from 2010/11;<sup>490</sup> and
- bonuses earned have risen over the quinquennium.<sup>491</sup>

9.65 HAL's service quality performance has improved in some areas during Q5. However, the improvements that have been observed in some areas appear to have been at the expense of other areas. That said, the CAA's research indicates that passengers are broadly content with the current level of performance at the airport.<sup>492</sup>

9.66 HAL considered that if the airport was not regulated, it is likely that there may be a reduction in scope of the regime with a core level of services with greater potential for differentiation tailored more closely to individual airline needs. HAL referred to the examples of de-regulation in other sectors. HAL noted the changes in the service quality regimes in the retail telecommunications and energy supply, which saw gradual moves away from regulator determined regimes to a wider set of commercial and service quality packages.<sup>493</sup>

9.67 HAL's evidence suggests that, absent regulation, it may take a more tailored approach to the development of its service quality regime. Were there to be a reduction in scope, the cost of such a scheme would likely be lessened. However, in such an environment the enforcement of the scheme would be through airlines that are party to the bespoke agreements.

9.68 Licence regulation can address service quality issues, although it could also impose risks. These risks centre around setting the wrong set of service quality requirements, for example if the elements of service quality measured, and associated financial incentives, do not match passengers' priorities or there is a focus on attributes that can

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<sup>490</sup> The CAA notes that the increases in rebate arise from security queue failures, and the magnitude of the rebate is proportional to the number of passengers in the terminal of failure (thus, for example, a failure to meet the standard in Terminal 5 leads to a larger rebate than a failure in Terminal 1).

<sup>491</sup> The elements on which bonuses can be generated are a subset of the full suite of elements, and are labelled in red on the legend. The largest bonuses have been earned from the asset availability measures on passenger sensitive equipment (general) and arrivals baggage reclaim.

<sup>492</sup> See Chapter 6

<sup>493</sup> Source: HAL, meeting with Duncan O'Neill September 2012

be easily measured. There is also a risk that licence regulation can fix service quality requirements at a particular level during a control period when circumstances and requirements may change.

## Investment

9.69 Licence regulation can provide incentives for investment, for example by ensuring investment can be recouped, but it can also distort investment incentives by encouraging too much or too little investment.

9.70 In 2007 the CAA stated that:

- RAB-based regulation provides an incentive to invest by providing comfort to the regulated company that efficient and economic investment can be recouped. However, it could distort incentives and could, in certain circumstances, lead to too much investment too soon which could give rise to a major cost to users and distort their incentives;
- a market-based price cap would not provide strong incentives to invest as the regulatory commitment that efficient and economic investment could be recouped would no longer apply;
- competition would be a spur to investment as there would be strong incentives to enter into long-term contracts which could allow better tailoring to customer requirements;
- regulation can also affect investment incentives across airports as competing airport operators will need to respond and compete with any new investment, irrespective of whether the new investment was efficient; and
- under-investment could be protected through competition law as proposed investments were incremental, rather than lumpy, and actual airport investment could be compared to relatively well-developed investment plans for the expansion of the airport.

9.71 In 2008 DfT stated that:

- RAB-based regulation could distort new investment incentives, although the impact of distortions from regulation was difficult to separate from other factors affecting investment decisions, such as the planning process;

- the cost of regulation is likely to be greatest where an airport operator does not possess market power; and
- given the scale of investment being considered at Stansted, and the options available to the CAA to address the distortions to incentives through different approaches to price regulation, the impact of the distortions to incentives are unlikely to outweigh the beneficial effects of regulation.

9.72 HAL noted the potential for a RAB approach to lead to capex bias as has been seen in other sectors. However, HAL did not consider that this is the case at Heathrow as the airport had not been able to achieve the required cost of capital over recent control periods (a precondition for any capex bias).<sup>494</sup>

9.73 HAL's comments highlight a key issue in licence regulation, that is, over or under-rewarding capital investment. With regards to setting returns on capital too high, price cap regulation can cause a clear bias towards capital-intensive solutions over those that can be achieved through opex, which maybe more efficient in the long-run. Counter to this is the risk of setting the reward for investment too low, in which case the regulated company is likely to minimise capital investment, if it invests at all. HAL states that it has not made its allowed return in recent price control rounds due to underperforming traffic. However, HAL is still in the process of investing significant amounts of capital and its business plan indicates that it will continue to invest more. The risk of under rewarding capital, therefore, appears to currently be low.

9.74 Acknowledging the possibilities for capex bias within a RAB based price control, the CAA does not currently consider that, in the case of Heathrow, a significant bias is likely to exist. However, as noted above, Heathrow is undergoing significant expansion of facilities and this will need to be monitored going forward. The CAA considers that there are likely incentives to invest under both regulation and in a deregulated environment; where there are such incentives, it would be beneficial for the airport to invest.

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<sup>494</sup> HAL, Meeting with Duncan O'Neill September 2012

## Section 4: Other potential benefits of licence regulation

9.75 A licence can also be used to provide additional benefits. For example, the Act allows the CAA to include other conditions that it considers necessary and expedient so as to further the interests of users of airport transport services - that is the interests of the passengers or those with rights in cargo<sup>495</sup>. These interests include the range, availability, continuity, cost and quality of airport operation services. Two key areas where licence conditions might be used to address the CAA's general duty of furthering users' interests are operational and financial resilience.

### Operational Resilience

9.76 The CAA considers that good operational resilience plans are needed to protect the interests of end users. The consequences of severe disruption due to snow in January and December 2010, as well as severe disruption due to the Icelandic ash cloud, highlighted the lack of adequate emergency planning at many airports. A number of reports<sup>496</sup> looked at operational aspects of winter resilience, and the impacts on passengers, and made a number of recommendations. In response to these, the government tasked a subgroup of the South East Airports Taskforce (SEAT, set up in June 2010) to propose ways in which the operational performance of Heathrow, Gatwick and Stansted could be improved within the constraints of the current capacity caps.

9.77 In May 2011, the SEAT subgroup made a number of recommendations on punctuality, delay and resilience,<sup>497</sup> including the

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<sup>495</sup> Furthering the interests of users can include, where appropriate, acting to promote competition

<sup>496</sup> The Quarmby report Oct & Dec 2010 (<http://transportwinterresilience.independent.gov.uk/>), the Transport Select Committee report May 2011.

(<http://www.publications.parliament.uk/pa/cm201012/cmselect/cmtran/794/79402.htm> )

the Begg report on Heathrow, March 2011.

([http://www.baa.com/static/BAA\\_Airports/Downloads/PDF/BeggReport220311\\_BAA.pdf](http://www.baa.com/static/BAA_Airports/Downloads/PDF/BeggReport220311_BAA.pdf) )

CAA's reports ([http://www.caa.co.uk/docs/5/CAA%20review%20of%20snow%20disruption%20-%20Final%20Report%20-%20WEB%20VERSION%20\\_2\\_.pdf](http://www.caa.co.uk/docs/5/CAA%20review%20of%20snow%20disruption%20-%20Final%20Report%20-%20WEB%20VERSION%20_2_.pdf)) and

(<http://www.caa.co.uk/docs/5/CAA%20Issues%20facing%20passengers%20during%20the%20snow%20disruption%20FINAL.pdf>).

<sup>497</sup> <http://assets.dft.gov.uk/publications/south-east-airports-taskforce-report/south-east-airports-taskforce-sub-group-report.pdf>

need to develop performance charters setting out operational plans and cross-industry co-ordination and controls to manage and minimise disruption. The three airport operators have taken these recommendations forward but progress has not been as fast as had been hoped, partly due to questions about accountability and enforceability.

- 9.78 In a deregulated market, it would be for the airlines to enforce any redress for disruption going forward. However, the disruption in 2010 highlighted the inconsistent compliance by airlines with their obligations under the denied boarding regulations (EC261). The CAA does not consider that the interest of airlines and those of passengers are likely to be fully aligned in situations of disruption.
- 9.79 The CAA, therefore, considers that a licence condition gives greater protection to users. A licence can be used to compel or incentivise HAL to adopt certain behaviours regarding the needs of users (passengers and cargo owners) that, as a monopoly provider without a direct contractual relationship with the end user, it might not otherwise adopt.
- 9.80 A licence condition could also be useful in situations where there is no agreement between the stakeholders to facilitate further progress to incentivise a greater willingness, or even requiring them, to take their stakeholders' needs into account, as well as encouraging them to use the levers at their disposal to encourage and co-ordinate the relevant stakeholders to greater effect.
- 9.81 There is a risk that a licence condition could create perverse incentives by limiting the ability of the licence holder to negotiate effectively, or by adversely altering the balance of risks that have already been agreed between the various parties. However, in situations where there is stalemate, a licence may have benefits by changing this balance. A licence condition may also impose costs, from developing the associated resilience plans, but these are likely to be relatively small and be outweighed by the efficiency savings and reputational benefits from managing emergencies more effectively. Such conditions can also be modified in response to changed circumstances or concerns.
- 9.82 There is a benefit to the users of air transport services by protecting their interests in terms of improved resilience. However, ultimately

users will pay for this improved resilience. Therefore the resilience requirements must not lead to costs in excess of users' willingness to pay. Before imposing licence conditions the CAA would also need to consider its duty not to impose unnecessary regulatory burdens on the airport operator; regulation should be proportionate and should only target those areas where action is needed.

- 9.83 In summary, there are benefits to passengers and cargo owners having good operational resilience plans for times of disruption and there could be a role for an appropriately framed licence condition to facilitate this.<sup>498</sup>

### **Financial resilience**

- 9.84 The government has been keen for the CAA to consider whether the licence could be used to strengthen the financial resilience of airport operators, in line with the approaches commonly seen in other regulated sectors. Financial resilience is important as financial distress could cause detriment to users' interests in both the short and longer-term. The economics of an airport, whose operator has SMP, suggest that, even in a time of financial distress, the airport is likely to remain open because it would generate a positive cash flow, however, there could be a temporary closure, for example, while an administrator resolves legal and operational issues. Financial distress may also lead to reduced expenditure on the airport with implications for future service quality.
- 9.85 The initial proposals note that, because aspects of a utility style ring-fence would conflict with current financial arrangements at HAL, it would be unlikely to be in the passengers' interest to introduce a full ring-fence on commencement of the licence. However, in a licence based approach, if there is a change in circumstances and the CAA considers that it is in the passenger interests (i.e. the benefits outweigh the costs), then consistent with the DfT's policy intent, it is possible to move towards a complete ring-fence over time.
- 9.86 The CAA's initial proposals set out a number of requirements that the CAA considers are necessary to facilitate financial resilience,

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<sup>498</sup> The CAA has now made detailed proposals on operational resilience these are discussed in Chapter 12.



including:<sup>499</sup>

- restriction on business activities;
- certificate of adequate resources;
- parent company undertakings;<sup>500</sup>
- continuity of service plan;<sup>501</sup>
- minimum credit rating;
- prohibitions on cross guarantees; and
- report on changes in contractual ring-fences.

9.87 The CAA considers that, for financial resilience consisting of the issues set out above, licence regulation would have a number of potential benefits to users that outweigh the implementation costs.

## Section 5: Direct costs of licence regulation

9.88 Licence regulation will undoubtedly have costs. These costs can include indirect costs, such as the impacts on incentives set out above, and direct costs, such as the CAA's costs and the time and expenditure of management and regulation staff at regulated airports and their airlines.

### CAA direct costs

9.89 In 2007 the CAA estimated the CAA's and Competition Commission (CC) costs for the Q4 review, covering all three designated airports,

<sup>499</sup> For a detailed discussion on the issues surrounding financial resilience see Chapter 15 of the CAA's proposals for the regulation of HAL. See CAA (2013), Economic regulation at Heathrow from April 2014: initial proposals, CAP 1027 available: <http://www.caa.co.uk/docs/33/CAP%201027%20Economic%20regulation%20at%20Heathrow%20from%20April%202014%20initial%20proposals.pdf>.

<sup>500</sup> For a licence-based approach this is a parent company undertaking not to do anything that would be likely to make the licence holder do anything to breach its licence. For a commitments-based approach the parent undertaking would be not to do anything that would be likely to make the airport breach the commitments.

<sup>501</sup> The continuity of service plan in the commitments focuses on operational resilience. The CAA IPs propose a continuity of service plan that would minimise the risk of airport closure in financial distress.

was around £3 million and acknowledged that there would be additional costs of the airport and airlines.

- 9.90 The CAA's annual charges for economic regulation at Heathrow are around £1.6 million per year, with additional costs of around £0.5 million per year during the periodic review.<sup>502</sup> In addition, there are likely to be costs of any appeals to the Competition Appeal Tribunal and the CC under the new appeals processes set out in the Act. The extent and cost of these appeals is unknown. Based on this the additional CAA costs could be argued to be around £2 million per year, on average, during a five year control period.

### Costs to airports and airlines

- 9.91 In addition to the costs of the CAA, there will be the cost of management and regulation staff at the airport and its airlines, as well as the direct costs of compliance with regulatory measures.
- 9.92 HAL considered that the direct costs of the price control, and consequent measures, could amount to more than £10 million.<sup>503</sup> Netting off the cost associated with the CAA would equate to around £8 million per year.
- 9.93 In addition to these costs are the costs of airlines. Airline involvement in regulation varies but, apart from the permanent role of the ACC at Heathrow, most airline representatives are spread across a number of airports and airline sectors. In general, two airlines tend to be most heavily involved in regulatory matters at Heathrow: BA and Virgin, with other airlines having varying levels of involvement. On this basis, the CAA considers a high level of airline costs from the current regulatory arrangements to be, at most, an average of £1 million per year during a regulatory cycle.<sup>504</sup>

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<sup>502</sup> This is based on around 35 million arriving passengers at Heathrow and a charge of 4.75 pence for designated airports and 1.50 pence per arriving passenger for the Q6 review for Heathrow. Source: CAA charges 2013/14 consultation document. This document can be accessed at: <http://www.caa.co.uk/docs/1352/CAACHarges1314ConsultationDocWebFinal.pdf>. In this consultation document the CAA notes that there is still a degree of cross subsidy from designated airport to non designated airports.

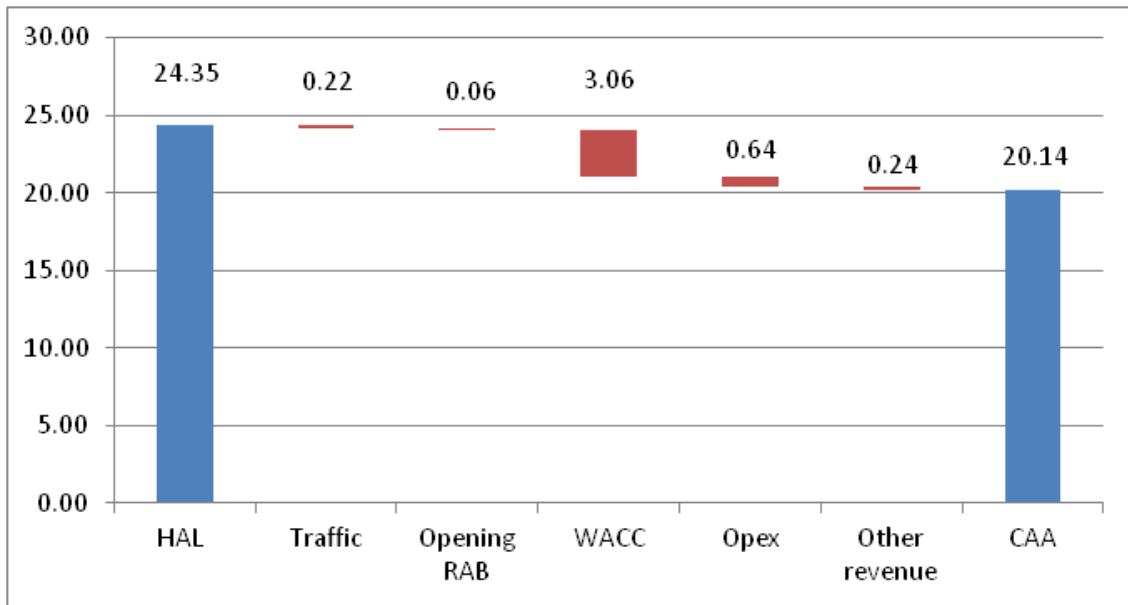
<sup>503</sup> Source: HAL, meeting with Duncan O'Neill September 2012

<sup>504</sup> This is based on an average involvement of 3-10 FTE, with an additional allowance for consultancy costs and management time.

### Overall direct costs

9.94 Overall, the direct costs of regulation under the existing regime are likely to be around £12 million per year. The main costs, however, are likely to be indirect, in terms of any potential distortions to incentives.

**Figure 9.2: Average yield per passenger - HAL compared to CAA**



Source: CAA

9.95 Figure 9.2 shows a comparison of the five year average price between Heathrow's Q6 business plan and the assessment made by the CAA. It shows that the CAA's proposed price cap is £4 lower than the Heathrow proposal. This equates to prices in a single year being £295 million, which is substantially higher than the direct costs of regulation. The CAA considers it is, therefore, likely that, in the case of Heathrow, the direct benefits of regulation would outweigh the costs involved.

### Section 6: Other potential distortive effects

- 9.96 The discussion above has highlighted a number of potential distortive effects from regulation, including:
- the increased rigidity of a regulatory system, in particular in relation to consultation requirements and changes in charges and service quality;

- the distortions to incentives on opex, non-aeronautical revenue and investment;
- the disincentive to invest for new customers; and
- the requirement for capex plans to be set too far in advance.

9.97 These adverse effects could result from RAB-based regulation. Two further potential distortive effects from licence regulation are: displacing of a more commercial approach and distracting management effort.

### Displacing a more commercial approach

9.98 One of the key areas in which licence regulation could create distortions is by displacing a more commercial approach. In the absence of regulation, airport operators and airlines may have an incentive to enter into bilateral contracts or deals. These deals could vary in terms of the duration, scope and service requirements depending on the needs of individual users and characteristics. Bilateral contracts can also provide benefits to airport operators from traffic and growth commitments and the utilisation of new facilities. Such bilateral contracts characterise much of the competitive airport sector in the UK. The desirability of such deals has been recognised by the CC.<sup>505</sup>

9.99 A regulatory settlement can displace such contracts as both the airport operator and airlines will want to know what the potential settlement is before agreeing to any deal. This is why the CAA has been keen to encourage commercial agreements where possible, for example on the extension of the Heathrow and Gatwick price controls and by encouraging a similar arrangement for Stansted (which did not reach agreement). The current regulatory framework has not prevented STAL from reaching a commercial bilateral contract with some airlines or GAL from attracting new airlines, for example by providing a discount to the operation of new long haul routes. Nevertheless, the CAA recognises that bilateral contracts may be more likely in a deregulated environment, not least as the regulated company would not be looking for the regulator to stand over any arrangements. Indeed CAA recognises that, in some circumstances, bilateral contracts may not be good for passengers; for example

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<sup>505</sup> Paragraph 5.16, Competition Commission (March 2009)

where the contract would not have been signed but for the airport exercising its SMP.

- 9.100 Consequently, while a regulatory settlement can create distortions by discouraging bilateral contracts from being agreed, it does not stop such agreements and, in cases where the airport operator has SMP, it can prevent the airport operator from abusing its market power in such agreements.

### Management distraction

- 9.101 Regulation could distort incentives by distracting management into focusing the regulated company on maximising the value from a regulatory settlement, rather than focusing on improved efficiency or service quality. The scale of regulatory distractions could be reduced through more flexible forms of regulation, for example a more flexible RAB-based approach could involve more airport operator and airline engagement, for example on capex plans, reducing the scope for regulatory distraction.
- 9.102 It goes without saying that, in a deregulated environment, there would be minimal regulatory distraction with regards to economic regulation and the management of the airport operator would be focused purely on running the airport.

## Section 7: Conclusion

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- 9.103 In summary, the CAA considers that, given the provisional findings of HAL's SMP in test A and test B, it is likely that, in the case of HAL, the benefits to users of licence based regulation outweigh the adverse effects of such regulation. The CAA's consideration is based on the following:
- The ACR and AGR are unlikely to provide sufficient protection to air transport users.
  - Having considered the impact of regulation through price, efficiency, service quality and investment, the CAA is of the view that, despite the possible distortion regulation may cause, there are currently minimal distortive effects arising. However, given the market position of HAL, it is likely that, where such distortions do arise, the benefits are outweighed by the benefits of regulation:

- The CAA observes that HAL has undergone significant investment under the current regulatory regime. Also, it appears the other airports in the region have not been deterred from taking forward significant investment programmes.
  - Analysis shows that HAL has a lower level of efficiency when compared to similar airports. Given the lack of competition that HAL is exposed to, it will face limited pressure to tackle these inefficiencies absent licence regulation
  - Evidence shows that HAL has a good service quality record, although it is difficult to isolate the motivations for its current performance. The CAA notes that GAL appears to perform very well in some areas, to the detriment of others.
- 9.104 There are benefits to users by having good operational resilience plans for times of disruption. The CAA notes that this is a key issue identified with HAL, especially with regards to recent performance in snow conditions. Similarly, benefits are likely to accrue to users from a financially resilient airport. A licence condition targeting resilience could, therefore, bring substantial benefits to users.
- 9.105 Licence regulation may displace, to some extent, a more commercial approach by airports. Licence regulation would not preclude the ability of the airport to negotiation bi-lateral arrangements with its airline customers.
- 9.106 The CAA recognises that there will be some level of management distraction with any form of economic regulation which would not be present in a deregulated environment. However, licence regulation can be tailored to minimise these impacts.
- 9.107 The CAA estimates that the direct costs of licence regulation for HAL are likely to be in the region of £12 million per annum. However, the CAA estimates that its proposed price control for HAL is, on average, some £295 per annum lower than HAL's proposed pricing.

**CHAPTER 10****The market power test and market power determination**

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**Conclusion**

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- 10.1 This chapter concludes the CAA's 'minded to' consideration of the market power test (MPT) in relation to the Heathrow airport area, having regard to the markets that are relevant for the purposes of test A.
- 10.2 The Act specifies that the MPT is met in relation to an airport area if the three tests that it includes are met by the relevant airport operator.
- 10.3 The CAA has considered the market for airport operation services that are delivered from the core area of Heathrow, defined in section 5(4) of the Act as:
- the land, buildings and other structures used for the purposes of the landing, taking off, manoeuvring, parking and servicing of aircraft at the airport,
  - the passenger terminals, and
  - the cargo processing areas.
- 10.4 Under test A, the CAA is minded to find that HAL has SMP in the market for airport operation services for FSCs and associated feeder traffic that is limited to Heathrow.
- 10.5 Under test B, the CAA's current view is that competition law would not provide sufficient protection against the abuse of that market power. The CAA is minded to find that, for users of air transport services, the benefits of regulating HAL by means of a licence would outweigh the adverse effects, thereby satisfying test C.
- 10.6 As the CAA considers that the MPT is passed for the core area of Heathrow airport, the CAA's current view is that the market power test is met in relation to this area.
- 10.7 The CAA is, therefore, minded to make a market power determination

under section 7 of the Act in relation to this area. The CAA considers that, under section 5 of the Act this area is a dominant area and, as it consists of all or part of the core area (as defined in section 5(4)), the airport is considered to be a dominant airport. Therefore, under section 3, HAL must have a licence in order to be able to charge for services provided in this area and any other area at the airport in respect of which HAL is the operator.

10.8 The CAA is consulting separately on the proposed licence, including:

- the airport area to be covered;
- the form of price control required;
- any conditions that it thinks necessary or expedient to protect against the abuse of the market power found in the MPD; and
- any other conditions that it thinks necessary or expedient having regards to its section 1 duties.