

Strategic themes for the review of Heathrow Airport Limited's charges ("H7")

Technical Appendices

CAP 1383a



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APPENDIX 1

Introduction

Structure of Appendices

- 1.1 The CAA is beginning the formal process to review the price control condition(s) and associated regulatory arrangements for Heathrow Airport Limited (HAL). The present Q6 arrangements run from 1 April 2014 until 31 December 2018. A new price control must be in place on 1 January 2019 with the key regulatory decisions made by late summer 2018.
- 1.2 The Technical Appendices contained in this document describe in further detail the context, process, timetable and key issues around the regulatory framework that should apply in the 7th regulatory period for HAL (referred to as the 'H7' review). These Appendices can be read alongside the main document.¹
- 1.3 This Appendix document is structured as follows:
- Appendix 2 sets out more details of how our assessment of market power has shaped our thinking to date.
 - Appendix 3 includes details of the context within which the review will take place.
 - Appendix 4 discusses our initial views on how to manage the H7 price review within the context of a future government decision on capacity expansion.
 - Appendix 5 sets out a discussion of the options for engaging consumers more directly in the price review process.
 - Appendix 6 discusses a move towards more outcome-based regulation including options for improving resilience.
 - Appendix 7 considers the overall approach (or form) of regulation.
 - Appendix 8 discusses the key policy and technical issues to ensure efficiency and financeability.

¹ Strategic themes for the review of Heathrow Airport Limited's charges ("H7"): A discussion document; www.caa.co.uk/CAP1383

- Appendix 9 considers the options for engaging industry stakeholders in the process through Constructive Engagement (CE).
 - Appendix 10 sets out the timetable for the review and next steps.
- 1.4 The Annexes summarise our statutory duties under the Act and set out more detailed market trends. A list of abbreviations used in the document is also supplied.

Our duties

- 1.5 We economically regulate HAL under the Civil Aviation Act 2012 (the Act). The Act gives us a single primary duty to further the interests of users of air transport services. The scope of this duty concerns the range, availability, continuity, cost and quality of airport operation services. The CAA must, where appropriate, carry out this duty in a manner which it considers will promote competition in the provision of airport operation services.
- 1.6 In discharging our primary duty, we must also have regard to a range of other matters as set out in Annex A. Under the Act, users of air transport services are defined as present and future passengers and cargo owners (those with a right in property carried by the service).²
- 1.7 For the sake of simplicity, we use the term 'consumers' to mean present and future passengers and cargo owners.
- 1.8 We also have concurrent powers with the Competition and Markets Authority (CMA) to enforce the UK and European Community competition law prohibitions in relation to the provision of the supply of airport operation services and air traffic services. We are required to consider whether it would be more appropriate to use these powers prior to any regulatory action against a holder of a licence granted under the Act or air traffic services provider for example in relation to a licence condition breach. We may not take such licence enforcement action to the extent that we consider it would be more appropriate to proceed under the competition prohibitions.

² Given that over 95% of cargo at Heathrow travels in the bellyhold of passenger aircraft, we consider that the interests of cargo owners will in many ways be aligned with those of passengers (although as part of the H7 review, we propose to better understand the needs of all users including cargo owners).

Views invited

- 1.9 If you have any views on the issues raised in these Technical Appendices, please email them to economicregulation@caa.co.uk. Responses to this consultation are due by **noon on Friday 29 April 2016**. We cannot commit to take into account representations after this date.
- 1.10 We expect to make submissions available on our website for other interested parties to read as soon as practicable after the period for responding expires. Any material that is regarded as confidential should be clearly marked as such. Please note that we have powers and duties with respect to information under Section 59 of the Act and the Freedom of Information Act 2000.
- 1.11 If you would like to discuss any aspect of this document, please contact Stephen Gifford (stephen.gifford@caa.co.uk) or Rob Toal (robert.toal@caa.co.uk).

Next steps

- 1.12 We will be holding two workshops in March 2016 to discuss the issues raised in this document with industry and other interested stakeholders.
- 1.13 The key workshop will be held on **Thursday 10 March 13:00 – 16:00**.
- 1.14 The workshop will be run again on Thursday 17 March 13:30 – 16:30 to ensure as many stakeholders as possible have the option to attend. Both workshops will take place at Heathrow's Compass Centre, Nelson Road, Hounslow, Middlesex TW6 2GW.
- 1.15 To register your attendance, please email Beth Corbould (beth.corbould@caa.co.uk).
- 1.16 Our response to the issues raised in this discussion document will be set out in a policy update on the approach to conducting the H7 review in autumn 2016.

APPENDIX 2

Market power

Introduction

- 2.1 The Act prohibits an operator of an airport area at a dominant airport from levying charges for airport operation services unless it has a licence granted by the CAA. The CAA determines that an airport is dominant and that an airport operator requires such a licence if that airport operator meets the Market Power Test (MPT) specified in the Act in relation to an airport area. MPT comprises:
- Test A: the relevant operator has, or is likely to acquire, substantial market power (SMP) in a market, either alone or taken with such other persons as we consider appropriate;
 - Test B: 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: 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.
- 2.2 We recently consulted stakeholders on updated guidance on how we conduct market power determinations (MPDs) under the Act (CAP 1354).³

HAL 2014 Market power determination

- 2.3 We conducted an MPD for HAL in relation to HAL which concluded in January 2014 and found that HAL had SMP in the relevant market and that this was expected to persist over the period April 2014 – December 2018 (Q6).⁴

³ Draft guidance on the application of the Market Power Test under the Civil Aviation Act 2012: Consultation:
<http://www.caa.co.uk/Our-work/Consultations/Closed/2016/Draft-guidance-on-the-application-of-the-Market-Power-Test-under-the-Civil-Aviation-Act/>.

⁴ Market power determination in relation to Heathrow Airport – statement of reasons, available from:

- 2.4 We arrived at this conclusion on the basis that:
- The most likely source of any SMP that HAL has stems from its position as the operator of the UK's only hub airport and the combined package that Heathrow offers of strong demand, including premium passengers, cargo and connecting passengers. This makes Heathrow attractive for both UK and overseas airlines.
 - The airline network effects available at Heathrow mean that very few airlines would be able and willing to switch sufficient capacity to constrain HAL from increasing its charges.
 - HAL's good surface access options, the inherent attractiveness of the London market, and its strategic importance to airlines combined with the capacity constraints in the London system act to reduce the available alternatives to airlines.
 - The strength of airline demand to operate from Heathrow means that HAL would be effectively insulated from the effects of any switching away as a result of higher airport charges.
- 2.5 In addition, we considered that any change in Government policy after the release of the Airports Commission's final report would take some time to be implemented and that any significant capacity expansion would not be expected until at least 2025. Over the Q6 period, due to improving economic conditions and the lack of significant capacity expansion, we considered that HAL's SMP would endure.
- 2.6 We also determined that the other elements of MPT were fulfilled. We considered that as a result of SMP there was the risk that HAL would be likely to increase prices and/or to reduce service quality and that an 'ex post' competition law approach would not be well adapted to pre-empting such conduct. Furthermore, taking account of the interests of consumers, particularly their demands in terms of stable supply of high quality airport services at reasonable cost, we concluded that the benefits of licence regulation would outweigh any adverse effects.
- 2.7 In light of this finding, the CAA issued HAL with an economic licence that came into force on 1 April 2014.

Initiating an MPD for H7

- 2.8 We have discretion to conduct an MPD when we consider it is appropriate to do so. This means that we can initiate an MPD at any time.
- 2.9 We are, in addition, required to make an MPD and therefore apply the MPT⁵ where the following factors are met:
- we are asked to do so either by the operator of the airport area or other person whose interests are likely to be materially affected by the determination;
 - the area is located at an airport that has over 5 million passengers⁶ at the time the request is made; and
 - the area consists of or includes all or part of the core area of the airport.⁷
- 2.10 However, if we have previously made an MPD we have some discretion, even if the above factors are met. In particular, we do not need to carry out a further MPD if we do not consider that there has been a material change of circumstances since the previous MPD.⁸

Material change of circumstances

- 2.11 Material change of circumstances (MCC) is not defined in the legislation. It is a matter of regulatory judgement as to whether there has been an MCC. In making such a judgement, we will refer to decisions made by other UK competition authorities where they have assessed whether an MCC has occurred in other circumstances.
- 2.12 Our view is that a change of circumstances needs to be material in areas that are likely to be relevant to Tests A to C. However, circumstances could be considered in aggregate and several relevant changes could be considered together with pre-existing circumstances when determining whether or not a new MPD should be completed.⁹

⁵ Section 7(2) the Act.

⁶ Sections 7(4) of the Act which states that an airport is a large airport during a calendar year if, in the previous calendar year, the number of passenger movements at the airport exceeded 5 million.

⁷ Section 7(2)-(4) of the Act.

⁸ Section 7(5) of the Act.

⁹ In our paper 'Discussion paper on the regulatory treatment of issues associated with airport capacity expansion', CAP 1195, published in June 2014, we considered some capacity expansion related

Summary: is a new MPD for HAL needed before H7?

- 2.13 Our initial view is that the reasons underpinning the conclusions of the 2014 MPD are likely to remain applicable throughout H7, as they relate to stable characteristics of the airport, the business models of the airlines that use Heathrow (and their inability to switch away from it) and the capacity constraints at Heathrow and in the South East of England more generally. We consider that these factors are unlikely to change during the period covered by H7.
- 2.14 Our assessment is therefore that there has not been or likely to be an MCC during H7 and therefore a new MPD is not required.
- 2.15 Although we are not expecting to carry out a new MPD, there may be some aspects of the market conditions in which HAL operates which we may still review as part of H7. We would expect to do some work of this type in order to support our decisions on the nature of the licence conditions we would include in the H7 period.

events that could, at first glance, suggest a material change of circumstances may have occurred.
This is available from: www.caa.co.uk/CAP1195.

APPENDIX 3

Context for the H7 review

Introduction

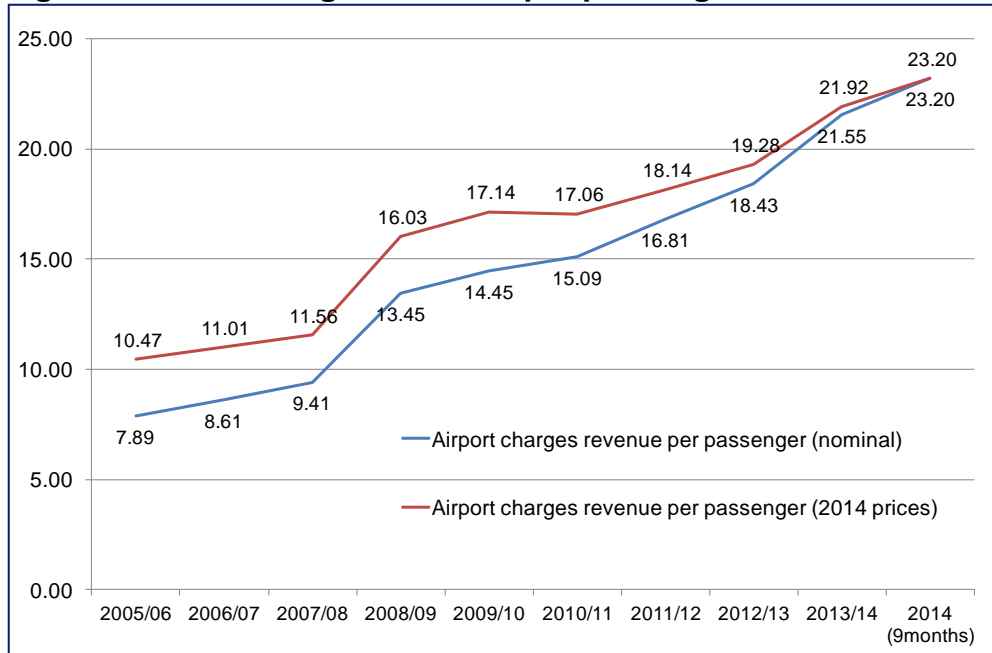
- 3.1. This Appendix describes some of the key features of the market in which HAL operates. In particular, we examine:
- trends in key regulatory indicators such as airport charges, passenger numbers and investment levels;
 - HAL's financial performance relative to the Q6 regulatory assumptions;
 - HAL's service quality performance; and
 - wider aviation market trends.
- 3.2. A more detailed assessment of market trends including changes in the ownership of UK airports, passenger and cargo trends and the composition of airlines at Heathrow is set out in Annex B.

Key regulatory indicators

Airport charges

- 3.3. Over the last decade, airport revenue per passenger has increased significantly at Heathrow from just under £8 per passenger in 2005 to just over £23 per passenger in 2014. The figure below shows the trajectory of charges over the last ten years.

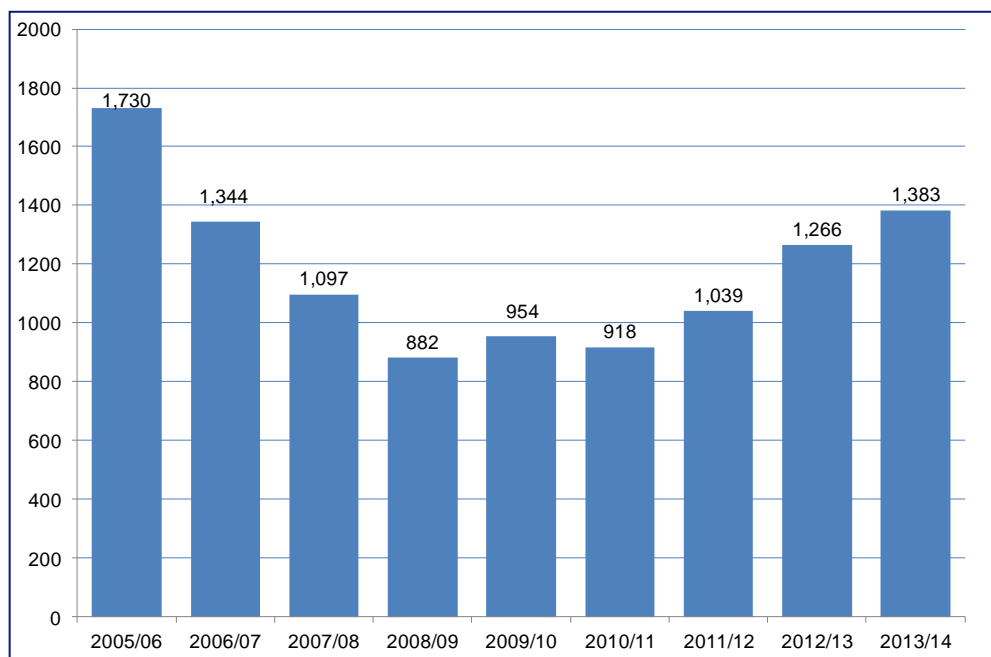
Figure 3.1: HAL charge revenue £ per passenger



Source: HAL regulatory accounts

Investment

3.4. The increases in charges over this time have largely been driven by the extensive investment programme at Heathrow which includes the construction of the new terminals 5 and 2 as well as major upgrades to terminals 3 and 4 and a number of other significant capital projects. The figure below provides details of capital invested during this period. In total, HAL has invested over £11 billion (2014 prices) in the airport during this period. This is set to continue during Q6 with around £3 billion of capital expenditure forecast to be spent between 2014 and 2018.

Figure 3.2: HAL capital expenditure, £ million 2014 prices

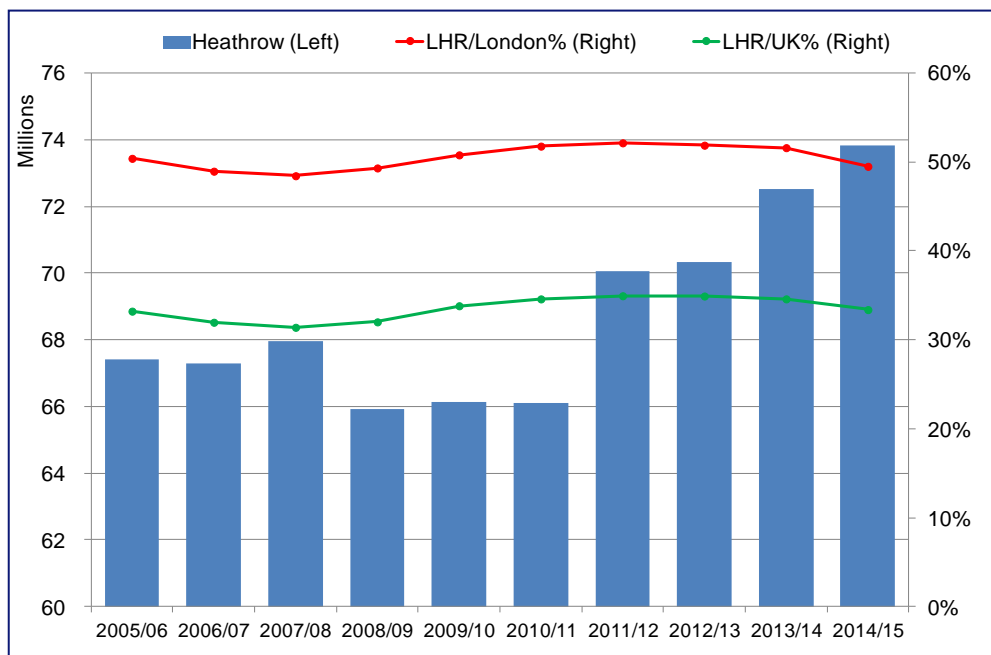
Source: HAL regulatory accounts

Passenger growth

- 3.5. Heathrow is by far the largest UK airport. It accounts for around 30 per cent of total passengers handled by UK airports and half of the passengers served by airports in the London area.¹⁰
- 3.6. Passenger numbers at Heathrow have also shown significant growth in recent years, following a downturn between 2008/09 and 2010/11. 2014/15 was Heathrow's busiest year with over 73 million passengers using the airport.

¹⁰ Airports serving the London area are Heathrow, Gatwick, Stansted, Luton, London City and Southend. It should be noted that over a third of Heathrow's passengers are transferring between flights at the airport.

Figure 3.3: Heathrow, London market and UK passenger numbers, millions



Source: CAA

HAL's financial against regulatory assumptions

3.7. HAL's financial performance is strongly influenced by previous price controls set by the CAA. For Q6, the CAA's price control is the equivalent to a maximum increase in average airport charges of RPI-1.5% per year for the four years and nine months duration of the period as set out in the table below.

Figure 3.4: HAL's Q6 price control, 2014 prices

£ per passenger	9 mo. 2014	2015	2016	2017	2018
Profiled yield per passenger	£22.00	£21.72	£21.42	£20.99	£20.60

Source: CAA

3.8. Outturn performance against the regulatory assumptions is also a direct driver of the return earned by HAL e.g. a saving on operating costs against the determination will be retained by HAL, permitting it to earn a higher return on capital than that forecast when the price control was set. Key indicators of HAL's performance in the first 9 months of Q6 are as follows:

- Expenditure on operating expenditure (opex) (£877 million) has been slightly higher than the level we assumed it would be (£871 million).

- This is offset by higher than expected 'other revenues' which were £763 million compared to the regulatory assumption of £753 million.
- Capital expenditure of £392 million was 17% lower than the level assumed in the determination £475 million.
- Airport charge revenue of £1.3 billion was 9% higher than our assumption of £1.2 billion.
- Passenger volumes were 4% higher than projected.
- Overall, HAL made a regulatory operating profit in the 9 months of 2014 of £710 million, which was 19% higher than the level assumed in the determination (£598 million).

3.9. Further details of performance against the determination on each of the main regulatory building blocks are set out in HAL's regulatory accounts.¹¹

Service quality performance

3.10. HAL is subject to service quality regulation that sets out, among other things, the service standards, the rebates payable to the airlines when service standards are not met and the bonuses that could be earned by HAL for exceptionally good performance. The objective of service quality regulation is to safeguard the minimum level of service to be delivered for consumers' benefit. HAL is responsible for recording and reporting its service performance, but we monitor performance scores, rebate payments and bonus earned. We also undertake periodic audits to ensure that the reported performance is an accurate reflection of services provided at the terminals and airfield.

3.11. There are five broad areas in the service quality scheme:

- passenger satisfaction with cleanliness, departure lounge seating, flight information and way-finding;
- security, which includes queuing time standards for central search, transfer search, staff search and control posts;
- passenger operational elements, which measures the availability of passenger-facing equipment in terminals such as lifts and escalators;

¹¹ <http://www.heathrow.com/company/investor-centre/regulation/regulatory-accounts>.

- airline operational elements, which measures availability of airline-facing equipment such as stands, jetties and ground power; and
- the aerodrome congestion term, which measures the number of delayed air traffic movements due to material events in the airfield.

3.12. In general, service performance at Heathrow showed improvements over the course of Q5 (2008/09 – 2013/14). As demonstrated in the table below, the total number of service failures across all the terminals and the campus has decreased, and the percentage of failure dropped from 10.3 per cent in 2008/09 to 4.4 per cent in 2013/14. Over the nine months April – December 2014, HAL paid £1.5 million in service quality rebates.

Figure 3.5: Standards and service failures over Q5

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Total no. of standards	972	928	840	840	840	840
Total no. of failures	100	52	37	25	45	37
Failure %	10.3%	5.6%	4.4%	3.0%	5.4%	4.4%

Source: CAA analysis of HAL data

3.13. We made changes to service quality regulation at the start of Q6 in order to 'lock-in' improvements made during Q5, in particular raising certain service standards. Additionally, we also reduced the number of areas in which bonuses can be earned from six to four, and raised the minimum performance levels that qualify for bonuses. We also rationalised the way performance should be measured in certain areas. Because of these changes, with similar service levels in these bonus areas, HAL earned bonuses in Q5, but has not started earning bonuses since the beginning of Q6.

Wider market trends

3.14. Annex B of this document sets out a detailed assessment of the market context within which HAL operates. In particular, it examines features such as changes in the ownership of UK airports, passenger and cargo traffic trends and the composition of airlines at Heathrow. The key points arising from this analysis are that:

- the ownership of UK airports has changed significantly in the past decade. In 2005, BAA was the operator of seven UK airports accounting for 63 per cent of passengers at UK airports and 92 per cent of passengers at London airports. Subsequent divestment of airports means that Heathrow Airport Holdings Limited (HAHL)¹² is now focused solely on the operation of Heathrow in the UK.
- Heathrow remains by far the largest UK airport. It accounts for around 30 per cent of total passengers handled by UK airports and half of the passengers served at airports in the London area.
- Heathrow is also the largest air cargo hub in the UK, despite serving very few cargo-only (freighter) flights. Heathrow alone, accounts for 63 per cent of cargo handled at UK airports, a share that has been increasing gradually for example in 2006 it accounted for 53 per cent.
- Heathrow is exceptionally highly utilised. Runway utilisation above 95 per cent has been a consistent feature of the airport for the past 15 years.
- As a consequence, slot productivity has been improving as airlines have gradually been utilising larger aircraft on longer flights.
- The airline base at Heathrow is almost entirely full-service airlines, contrasting with a mix of full service, charter and low cost airlines at Gatwick and an almost entirely low cost airline base at Stansted and Luton.
- Airlines at Heathrow, in particular British Airways, serve a large number of passengers connecting at Heathrow, with about 36 per cent of its passengers connecting there. This compares with about 8 per cent at Gatwick and 4 per cent at Stansted.

3.15. British Airways is the largest airline at Heathrow. In 2015, it accounted for 51 per cent of flights and 49 per cent of the airport's passengers. British Airways is part of the International Airlines Group (IAG), which also includes Iberia, Vueling and, since July 2015, Aer Lingus. In 2015, IAG accounted for 56 per cent of flights and 52 per cent of passengers at the airport.

3.16. Airline competition plays an important role in making sure that the benefits of economic regulation are passed on to consumers. Capacity constraints

¹² HAHL is the holding company that owns Heathrow Airport Limited.

influence the level of airline competition present at the airport as new entrant airlines need to acquire slots. We have also noted that, as a result of airline consolidation and cooperation in recent years, IAG has been increasing the proportion of slots it controls at the airport and this is something we will take account of in the H7 review including our objective to focus more closely on consumers.

APPENDIX 4

Interaction with potential new runway capacity

Introduction

- 4.1. The H7 review takes place against the backdrop of the Government's announcement that it will undertake a package of further work related to capacity expansion which it expects to conclude in the summer of 2016.
- 4.2. This announcement follows the recommendations of the independent Airports Commission which reported in July 2015. The Commission favoured a new northwest runway at Heathrow alongside a package of measures to mitigate the impact of the new runway on the environment and the local community.
- 4.3. We have argued for some time that, without building another runway in the South East of England, consumers will suffer from higher prices, reduced choice and lower service quality.

Key principles

- 4.4. Our March 2015 statement¹³ on this issue set out three principles that would underpin our future regulatory decisions in relation to new runway capacity:
 - risk should be allocated to those parties who can best manage it;
 - commercial negotiations should be encouraged; and
 - capacity can be paid for before and/or after it opens.
- 4.5. While one of our three principles highlighted the opportunity for commercial negotiations between the airport operator and individual airlines to lead to an outcome that better meets their needs than a regulatory approach, we recognise the challenges associated with agreeing commercial terms. We are therefore developing our approach to regulation of new runway capacity

¹³ Economic regulation of new runway capacity, CAP 1279, available at http://publicapps.caa.co.uk/docs/33/CAP1279%20Economicregulationofnewrunwaycapacitynon_confidential.pdf

irrespective of whether or not progress of commercial negotiations is being made.

- 4.6. On the regulatory regime, our policy update in September 2015¹⁴ outlined our plans to publish future consultation documents to help ensure that the regulatory regime is clear and robust and to support the timely delivery of new capacity. The document gave a brief outline of some of the approaches that we might consider adopting in certain key areas (including planning costs, reflecting the long term nature of capacity expansion, risk premiums, surface access, promoting delivery and compensation to third parties) and that would be developed more fully in the subsequent consultation document(s).

Priority new runway capacity regulation issues

- 4.7. Of the issues set out above, we are of the view that two areas will need to be prioritised and dealt with as early in the H7 process as possible. These are the regulatory treatment of planning costs and the long term nature of capacity expansion. These issues are explored in greater detail below, followed by a brief summary of other major issues in the section after.

The treatment of Category B (or planning) costs

- 4.8. In our March and September 2015 publications we set out two principles in relation to Category B costs. The first was that we see planning as a cost which consumers can reasonably be expected to carry in full or in part. The second was that the airport operator and its airline customers should, in the first instance, look to agree risk-sharing agreements for planning costs dealing with the associated risks.
- 4.9. We also defined two categories for the recovery of Category B costs:
- costs up to £10 million per annum will be automatically recoverable by an airport operator; and
 - costs over £10 million per annum may be recovered by an airport operator, subject to them being efficient and there being risk-sharing arrangements in place.
- 4.10. We also stated that the treatment of Category B costs needed to be addressed separately and more quickly than that of the overall economic regulation framework. Early clarity on the regulatory treatment of

¹⁴ Economic regulation of new runway capacity – Update, CAP 1332, available at <http://publicapps.caa.co.uk/docs/33/CAP1332%20Economic%20regulation%20of%20new%20runway%20capacity%2015-09-15.pdf>.

Category B costs will reduce the uncertainty faced by the airport operator and its investors, and will act in the interests of consumers by encouraging investment to proceed in a timely way.

- 4.11. As previously indicated in our policy, we believe that the airport operator and its airline customers should, in the first instance, look to agree risk-sharing agreements around planning costs. Allowing space for commercial discussions, negotiations and agreements between the airport operator and its airline customers could result in innovative solutions being developed that can be good for consumers.
- 4.12. To aid and facilitate the process around planning, we published a document in February 2016 setting out the sort of issues and risks that we would expect the airport operator to explore with its airline customers around the treatment of planning costs.¹⁵

The long term nature of capacity expansion

- 4.13. Given the long term nature of capacity expansion, we recognise that it may be helpful to provide greater certainty to stakeholders. We will consider the advantages and disadvantages of options such as setting longer price controls or accepting longer term pricing commitments; 'locking in' some elements over several price control periods; or other options for providing greater long term certainty about our regulatory policies. We will also consider the arguments for and against pre-funding of new capacity.
- 4.14. As well as the long timescale, any airport expansion project would be likely to lead to changes in HAL's risk profile. We will need to consider the additional risks that result from capacity expansion, how these should be reflected in the weighted average cost of capital (WACC) and its components; and whether our current approach to ensuring financial sustainability needs to be reviewed in the light of a very large long-term investment programme.

Other major regulatory issues

- 4.15. There are a whole host of other regulatory issues relating to new runway capacity, including the treatment of surface access costs, the compensation

¹⁵ Recovery of costs associated with obtaining planning permission for new runway capacity: policy update, CAP 1372, available at:
<https://publicapps.caa.co.uk/docs/33/NRC%201372%20Final%2028-01.pdf>.

to third parties for noise and blight and incentives around large capital investment projects.

- 4.16. The importance and cost of surface access to airport expansion at Heathrow is likely to be substantial. To include costs in the regulatory asset base (RAB), or for these costs to be taken into account in the setting of any pricing restrictions or commitments, we would expect the airport operator to provide robust evidence on how the investments would meet the following criteria:
- the extent to which surface access investment by the airport operator is in the long term interests of consumers (rather than third parties);
 - the investment delivers positive benefits to consumers (rather than third parties);
 - costs have been efficiently incurred and the scope of the project minimised;
 - surface access users (and third parties) would contribute to the cost where appropriate, for example, through the payment of fares; and
 - the costs added to the RAB are proportionate to the benefits to consumers.
- 4.17. Another consideration for allowing costs into the RAB, would be whether there are specific surface access schemes which are required as part of gaining planning consent.
- 4.18. We would consider mechanisms to promote cost efficient and timely delivery of new capacity, including capital expenditure (capex) triggers, similar incentives linked to delivery milestones, our overall approach to reviewing capex and adding expenditure to the RAB, and the possible role of the licence.
- 4.19. Noise, blight or other compensation paid to local communities will need to be explored. Where expenditure is mandatory (for example where the airport operator has no discretion as part of the "price" for airport expansion), our starting point is that this should normally be added to the RAB. Where expenditure goes beyond mandated expenditure (or where expenditure is required but there is discretion as to how this obligation can be met) our current approach is that it would only be added to the RAB if it can be demonstrated to be in consumers' interests and to be efficiently incurred.

Summary

- 4.20. We are currently planning to maintain the H7 proposed timeline with new price control conditions in HAL's licence in place for January 2019. Starting the H7 process early in 2016 (with priority runway regulatory policy issues highlighted) gives us and stakeholders sufficient time to design a suitable regime for Heathrow for consumers' benefit beyond Q6.
- 4.21. In short, our objective is to manage the H7 review in a flexible way so that the priority and other elements of regulation of new runway capacity can be brought within the H7 process if necessary or handled in a separate process if the timetable for a Government decision slips further.

APPENDIX 5

Empowering consumers and furthering their interests

Introduction

- 5.1. We are firmly committed to increasing consumer engagement across all of our regulatory functions. We have already set up a Consumer Panel to act as a “critical friend” and to advise us on consumer issues. In terms of the economic regulation of airports, we see this commitment as key to fulfilling our primary duty in the Act and we are designing the price control framework in a way that ensures much greater consumer participation in the H7 decision-making process.
- 5.2. While we consider that our existing regulatory framework has delivered significant benefits in this area we believe there is no room for complacency and we wish to build on the successes to date. In this Appendix we provide a reminder of our approach to furthering the interests of consumers as part of the Q6 review before considering our initial thoughts on how consumer participation should be enhanced for H7.

Engaging consumers in the Q6 review

- 5.3. As part of the Q6 price review, we made a firm commitment to put consumers at the heart of airport economic regulation.¹⁶ We undertook a number of tasks to improve our understanding of consumers’ priorities in order to develop more proportionate and effective regulatory arrangements than in previous price reviews. This was done in three main ways:
- the process of CE between HAL and the airlines;
 - independent passenger research commissioned by the CAA; and
 - challenge by our Consumer Panel.

¹⁶ See for example page 6 of the Q6 initial proposals for HAL, available from: www.caa.co.uk/CAP1027.

Constructive Engagement

- 5.4. We oversaw a detailed CE process during which HAL was required to develop and discuss an initial business plan (IBP) and then a final business plan (FBP). This process recognised that airlines' commercial interests often, but not always, align with the interests of their passengers and cargo customers. It also recognised that airlines are materially affected by our decisions and may therefore take positions during a price review that are not necessarily in the interests of all consumers in the way that the CAA is required to do.
- 5.5. Through that process HAL and the airlines developed a vision statement for Heathrow and a suite of key service propositions for Q6. We welcomed the agreed long-term vision for the airport to be: "The UK's direct connection to the world and Europe's hub of choice by making every journey better". We were also encouraged that HAL and the airlines were able to agree some common joint passenger priorities for Q6. These included delivering a noticeably better passenger experience, improving resilience, ensuring hub capacity and driving efficiency.

CAA independent passenger research

- 5.6. Recognising that the airlines' commercial interests may not always be aligned with the interests of passengers we considered that it would be important to form our own view on passengers' priorities to influence the CE discussions and validate the outcomes.¹⁷
- 5.7. To inform our views, we undertook primary passenger research and surveys as well as evaluating the third-party research to which we had access e.g. from airport operators, airlines, and independent agencies.
- 5.8. This evidence suggested that passenger satisfaction at Heathrow was relatively high and had been increasing over Q5. There were some notable differences between satisfaction levels across terminals at Heathrow. While most passengers, on most journeys, reported a "good" or "excellent" experience, that was not always the case especially at times of service disruption.

¹⁷ The interests of consumers and airlines may diverge for example where airlines are able to exercise a degree of market power or where incumbent airlines may resist expansion.

Challenge from the CAA's Consumer Panel

- 5.9. Towards the end of Q6, we sought scrutiny from our Consumer Panel on our approach to understanding passengers' priorities from airport operation services.
- 5.10. As well as challenging us to ensure that HAL's price rises during Q6 should be no more than the minimum necessary, the Consumer Panel also highlighted that, although most passenger research indicated high levels of satisfaction with Heathrow, such research focused on average performance. The Panel also encouraged us to consider the needs of different sub-groups and the importance of performance during times of disruption.

Q6 summary

- 5.11. Against this background, our final determination for Q6 included a number of features that were designed to further the interests of consumers including:
- a price cap that was deemed to be challenging but fair on HAL's ability to increase its airport charges over the Q6 period;
 - minimum service standards, through the service quality regime, that consumers could expect from HAL including financial rewards and penalties associated with these;
 - measures to strengthen HAL's operational resilience to help reduce the negative impacts on consumers from service disruption; and
 - flexibility within the licence to enable us to respond more effectively to consumer risks.
- 5.12. These measures provide a solid foundation upon which to develop our approach for H7.

UKRN study on involving consumers

- 5.13. In July 2014, the Consumer Working Group of the UK Regulators Network (UKRN) published a short, cross-sector discussion paper looking at the role played by dialogue between regulators, regulated businesses and the relevant consumer population in ensuring that regulation, and the outcomes it delivers, are designed around consumers' needs.
- 5.14. That study identified four core principles that regulators should consider when designing and reviewing their consumer engagement strategies. In particular these should be:

- Tailored – by giving clear and realistic timeframes for input, avoiding lengthy and convoluted consultation and briefing documents and not overburdening stakeholders (including consumer bodies) with undue demands.
- Inclusive – by identifying all consumer cohorts (e.g. in the case of airports, passengers with reduced mobility or in vulnerable circumstances including infrequent flyers etc.) that are relevant to a regulatory decision. Regulators should also reject assumptions about ‘average’ or ‘mainstream’ consumers, which can lead to inappropriate one-size-fits-all policies.
- Transparent – by identifying and communicating the role of consumers in the engagement process and objective of the process. Regulators should be clear about how inputs will be used to influence decisions and they should publish findings from engagement in a timely manner.
- Developing – by establishing indicators to measure the success of engagement strategies and activities, with a view to seeking ongoing improvement. Regulators should also periodically review engagement strategies and processes by regularly consulting on the effectiveness of engagement strategies with consumer bodies.

5.15. We fully support these principles and propose to adopt them as we develop our overall approach to the H7 review. In particular, through this document we are signalling to all stakeholders early in the process how committed we are to engaging consumers in our approach to economic regulation. Following assessment of responses to this consultation we will develop a tailored and transparent methodology for how consumers will be engaged in the process. Our proposed approach will be discussed in detail with interested stakeholders through the proposed workshops and seminars.

5.16. We consider that the need to be inclusive is particularly relevant for airport regulation which encompasses a relatively diverse consumer base with different needs and expectations of the airport. A one-size-fits-all approach will not work for airport regulation. As we develop our approach, we will consider how best to ensure that different kinds of consumers are identified and segmented so that their views are properly represented in the business plans put forward by the airport operator. We will periodically review the effectiveness of our approach including through regular consultation with our Consumer Panel and potentially through the development of outcome measures.

- 5.17. Building on our experience of Q6 and taking account of these principles, our initial thoughts on how we might make the regulatory framework more consumer focused are set out below.

Delivering a consumer-led approach for H7

An oversight role for the CAA Consumer Panel

- 5.18. Our Consumer Panel was established part way through the Q6 review in October 2012. The Panel acts as a ‘critical friend’, scrutinising and challenging work across all of our regulatory functions.
- 5.19. The main aim of the panel is to be a champion for the interests of consumers more generally¹⁸ and its members have a very broad range of skills and experience in this area. Collectively, the Panel has a deep understanding of the regulatory environment both through the development of policy in the consumer interest, and through practical experience of how business operates within a regulatory framework.
- 5.20. We propose to consult extensively with the Consumer Panel on all relevant aspects of the H7 price review, including the early design stage.

A scrutiny and challenge role for a Consumer Challenge Forum

- 5.21. An important, emerging theme in other regulated sectors has been an ever greater emphasis by regulators on the importance of systematic consumer engagement in the price review process. One notable development has been the use of ‘challenge groups’, set up for the express purpose of scrutinising and challenging the consumer engagement strategies used by regulated businesses during the development of their business plans. In some cases these groups have also been used to challenge the investment, operational and financial outcomes proposed by the companies.
- 5.22. For example, as part of the PR14 review, Ofwat mandated that each company should set up a Customer Challenge Group (CCG), comprising end customers, representatives of consumer bodies and interest groups, to:
- review the company's engagement process and the evidence emerging from it;

¹⁸ The CAA's wider duties mean that it needs to consider other consumers in addition to passengers and cargo owners.

- challenge the phasing, scope and scale of work required to deliver outcomes; and
 - advise Ofwat on the effectiveness of the company's engagement, and on the acceptability to customers or otherwise of its overall business plan and bill impacts.
- 5.23. Ofwat's overall approach made it clear that customer engagement would be an important factor in its assessment of the companies' business plans.
- 5.24. Likewise, the Water Industry Commission for Scotland (WICS) has also developed the regulatory framework to include a significantly enhanced role for its Consumer Forum. Ofgem has been encouraging 'enhanced engagement' in its RIIO (Revenue = Incentives + Innovation + Outputs) reviews, in which network businesses were provided with various process incentives for high quality consumer engagement as they assembled their business plans. Ofgem established a Consumer Challenge group to advise it and the network businesses on this aspect of the price review.
- 5.25. We consider that there is a strong case for complementing the process of CE with a workstream specifically designed to ensure that the views of consumers are effectively taken account of. This would help to embed a consumer voice more deeply in the H7 price review process. Our further thoughts on the rationale for setting up a similar group which we have termed a Consumer Challenge Forum are set out below.

Rationale for convening a Consumer Challenge Forum (CCF)

- 5.26. Our primary duty means that the legitimacy of our regulatory decisions rests on our ability to be sure that such decisions reflect the needs and preferences of consumers.
- 5.27. While airlines claim to represent the interests of their own customers, we consider that this does not obviate the need to also engage meaningfully with consumers more generally, including particular sub-groups.
- 5.28. A CCF is not the only way that consumers' interests can be taken into account when making regulatory decisions. For example, we could carry out research to understand consumer needs and preferences and use this research as the lens through which proposals from the airport are considered (as we did for Q6). However, this can make for a disjointed, and nonlinear process, potentially involving duplication of research effort and leading to disputes between HAL, the CAA and airlines over the quality of 'evidence' used by the different parties to, support, dispute and assess proposals.

- 5.29. In the England and Wales water sector, CCGs appear to have enhanced the legitimacy of the price control process. For example, the way in which Ofwat required water companies to set up and run their CCGs (as opposed to Ofwat doing this itself) has helped ensure that customer research and insight – and accompanying challenge from CCGs – have had to be taken into account at the formative stages of business planning, resulting in regulatory benefits from the outset of the price review process.
- 5.30. In principle, it is difficult to see why - in the context of our primary duty - we would not want to aim to bring these kinds of improvements to H7 and subsequent price reviews. We consider that the benefits of such an approach are also likely to include:
- a deeper company understanding of consumer preferences;
 - a better understanding of the range of consumers including those that may be 'hard to reach';
 - a more sophisticated conversation with consumers about price / outcome trade-offs and the respective costs and benefits of different options; and
 - a process through which 'internalisation' of consumer preferences and challenge within the airport takes place, through an initial tension between those dealing with the CCF and others involved in the business planning process.
- 5.31. The following section considers how a CCF could be implemented to deliver these benefits.

Implementation of the CCF

- 5.32. Our initial view is that the CCF should be used to build upon and improve the existing arrangements for economic regulation of airports. The CCF would have some similarities to the CCG approach used by Ofwat for PR14, but also some key differences that reflect the particular characteristics of airport regulation, not least the important role played by airlines.
- 5.33. Our current thinking is that the CCF's primary focus should be on the process for developing evidence-based, consumer-focused outcomes (and the framework for incentivising and monitoring their delivery) which will set the parameters for the more detailed discussions on HAL's business plan that take place between HAL and airlines during CE.
- 5.34. Done well, the process described above should result in an IBP which is demonstrably focused on the needs of consumers and which provides a strong foundation for the subsequent CE phase.

- 5.35. Further work will be required to clarify the specific areas that the CCF would be expected to focus on to reduce the risk of nugatory effort – this clarification will also be essential in ensuring the right mix of skills and experience are recruited to the CCF. We propose to consider this further through the consultation period with an expectation that we will, in due course, signal the areas where we would most value the input of the CCF at the outset (as well as those areas where we suggest that CCF does not focus its attention).
- 5.36. Under this approach, we will also consider issues such as:
- the specific objectives and terms of reference for the CCF;
 - the governance and membership arrangements;
 - its interaction with CE;
 - its relationship with the CAA Consumer Panel;
 - how research carried out by other stakeholders (particularly airlines) can be brought into the process; and
 - whether the CCF should have an ongoing role in the process of regulation.
- 5.37. We will consider these issues further through the stakeholder workshops and seminars that we have planned with a view to having the Chair of the CCF and terms of reference agreed by summer 2016.

Engaging cargo owners

- 5.38. Given the nature of the operation at Heathrow where 95 per cent of cargo is carried by passenger aircraft, we consider that the interests of cargo owners will generally be closely aligned to those of passengers. However, rather than simply assume, we think it is important for us to get a direct understanding of the perspective of cargo owners, including whether the existing regulatory regime adequately identifies and addresses their concerns.
- 5.39. We are aware that some cargo operators have expressed specific concerns in the past which may adversely affect the interests of cargo owners but do not impact on passengers. These include issues such as:
- problems with airfield access leading to bottlenecks at control posts and cargo access points viewed as a lower priority than passenger equivalents;

- limited space to hold cargo and empty equipment resulting in more vehicle movements; and
 - road congestion becoming increasingly an issue and impacting on already lengthy journey times.
- 5.40. As a consequence, this is an area where we are keen to further our understanding and would welcome input from cargo owners and operators on how their views can best be captured and addressed through the H7 process.

Summary

- 5.41. Through the Q6 review, the CAA made significant progress in tailoring the approach of regulation to be more consumer-focused. We propose to go further still in H7 through the establishment of a CCF and a focus on using consumer research to help shape regulatory outcomes. We will also ensure we have a fuller understanding of the views of cargo owners in the future, and we will be better placed to consult our Consumer Panel for advice at all stages of the process than we were for Q6 (when the Panel was in its infancy).
- 5.42. We would welcome stakeholder views on all of the issues raised in this Appendix.

APPENDIX 6

Incentivising the right consumer outcomes

Introduction

- 6.1. Our approach to regulation at previous price reviews has focused on assessing how much HAL needs to spend in terms of opex and capex (inputs) in order to deliver a particular level of infrastructure and service quality (outputs). However, we are concerned that this approach may not adequately capture what consumers value and are therefore interested to explore the merits of more outcome-focused regulation.
- 6.2. An example of this is in relation to resilience. Heathrow already operates close to capacity, with little room to deal with even minor disruptions without significant delay. With increased passenger growth across the UK and a new runway more than a decade away, this problem is likely to be exacerbated. We therefore consider that increasing resilience, reducing the amount of disruption and mitigating the impact of disruption on consumers should form a specific outcome to consider for H7.

The current arrangements

- 6.3. We currently regulate the quality of services provided by HAL through the Service Quality Rebates and Bonuses (SQRB) scheme. The SQRB scheme covers a number of aspects of service quality such as central search, way-finding, cleanliness and equipment availability. This approach enables us to monitor and enforce the standards that airlines and consumers should expect from HAL in exchange for the charges that they pay.
- 6.4. The SQRB scheme has, therefore, had an important function since its introduction in 2003. A typical shortcoming of price control regulation is that the strong incentive to reduce costs may inadvertently incentivise reductions in service quality. The purpose of a scheme regulating the quality of service is to counterbalance this effect in order to protect consumers' interests.

A new approach for H7?

- 6.5. In developing the initial framework for H7, we are considering whether the SQRB scheme is still delivering good value for consumers in the current

form, or whether an alternative approach would be better placed to do so. In the context of our primary duty under the Act, we are interested to explore whether the SQRB scheme adequately reflects consumer preferences and priorities.

- 6.6. We are considering the merits of a move towards more outcome-based regulation in line with current practice in a number of regulated sectors in the UK. Outcomes in this context refer to the broader range of higher level consumer objectives that HAL's actions are intended to help deliver which could then be incentivised and monitored through the regulatory regime.
- 6.7. Our initial view is that the industry may be best placed to initially propose the outcome measures that could be used to form part of the H7 regulatory framework. This assessment should be based upon and informed by a robust, comprehensive and transparent understanding of consumer preferences.
- 6.8. The CCF would have an important role to play in gaining assurance that the outcomes were demonstrably focused on the needs of consumers. This approach would provide a strong foundation for these issues to be considered in greater detail in the CE phase of the H7 process between HAL and the airlines.

Increasing airport operational resilience

- 6.9. One outcome we are keen to focus on is increasing airport resilience and reducing disruption, which has been a major area of concern at Heathrow for a number of years. Disruption can be caused by a number of factors such as bad weather, equipment failure, interruptions to key supplies such as fuel or electricity, closure of terminals (for example for security reasons), road or rail closures or strikes.
- 6.10. As noted in Appendix 3, Heathrow already operates at the margin of full capacity and therefore has little room to spread the impact of disruption across the day. Even minor disruptions can have knock-on effects throughout the day and Heathrow subsequently has a high number of delays compared to other European airports. As London's major hub airport with a large number of international carriers there are a greater number of stakeholders to coordinate. That and the large proportion of transferring passengers mean that there may be fewer options for accommodating those who have been delayed.
- 6.11. We have worked with HAL and the industry during Q6 to improve the anticipation and management of disruptive events, requiring better

coordination and planning through HAL's licence. HAL has made many improvements to its plans and processes which have had positive impacts across the airport and reduced the impact of disruption on consumers on significantly disrupted days. HAL continues to build on those changes in line with the requirements of the licence. However, these initiatives concentrate on minimising the risk of disruption to the infrastructure and services and to minimising the impact of disruption on consumers, working within the existing capacity constraints.

- 6.12. In H7 we would like to explore more innovative ways to reduce and manage disruption due to capacity constraints on a more day-to-day basis through incentivising better performance and better use of the management of capacity.

Understanding resilience in relation to capacity

- 6.13. There have been a number of studies into runway capacity at airports in the South East of England over the last 10 years which we consider may be relevant to inform the development of additional initiatives in H7.
- 6.14. In 2008 we commissioned a report from Helios, XPX Consulting and SH&E,¹⁹ which was used to advise Government on improving runway resilience in light of capacity constraints. Evidence from this work included the extent of delays and cancellations, their cost to airlines, and their impact on consumers. During the period covered by the study (April 2007 – March 2008), Heathrow suffered between 8 to 13 days per year when operations were 'disastrously disrupted' and a further 47 to 52 days when there was significant but recoverable disruption.²⁰ The study estimated the cost of delays to be greater than c£450 million at Heathrow alone in the year assessed.
- 6.15. In June 2010, the Government announced the establishment of the South East Airports Taskforce, with representatives from across the aviation industry, to explore how to improve performance and deliver a better passenger experience by making the best use of existing capacity. We were tasked with taking forward a number of recommendations including Operational Freedoms trials at Heathrow, and developing Performance Charters and Capacity Management Guidelines at airports.

¹⁹ UK CAA Runway Resilience Report December 2008 – Prepared by Helios, XPX Consulting and SH&E Ltd.

²⁰ UK CAA Runway Resilience Report December 2008 – Prepared by Helios, XPX Consulting and SH&E Ltd – paragraph 4.78.

- 6.16. In 2013, as part of its interim report, the Airports Commission recommended a range of short and medium term proposals to make best use of the UK's aviation resources in advance of the delivery of any new runway capacity. The Airports Commission forecast future impacts on consumers in the absence of runway and airspace capacity expansion to include:
- increasing delays and cancellations at all London airports;
 - higher prices for consumers with the 2030 UK average forecast to be c10-20% higher, Heathrow and Gatwick c50% higher, and very high prices on certain monopoly routes; and
 - consumer choice eroded, with lower quality and/or loss of marginal services.
- 6.17. In addition to the work on runway capacity, there have been a number of previous reports on winter resilience, many in response to the snow events around 2010, including reports by Begg, Quarmby, and the Transport Select Committee. These all made recommendations on preparing for significant disruptive events and, along with the Performance Charters, were the starting point for the development of the resilience conditions in the HAL licence. In 2014 we also commissioned Steer Davies Gleave to review HAL's existing resilience arrangements to inform our guidance on what should be included in HAL's resilience plans.

Reflecting resilience in the regulatory settlement

- 6.18. We propose to concentrate our attention initially in a number areas to assess:
- what progress or changes have been made since the earlier research: have recommendations been implemented and have they had a positive effect?
 - what are HAL, the airlines and other stakeholders doing, and planning to do, to improve or preserve capacity resilience?
 - whether we can update some of the past analysis to take account of the latest situation?
- 6.19. We will then use this work to consider whether and how we might continue to use the licence to improve resilience for the benefit of consumers in more innovative ways. For example, one option might be to develop financial incentives for HAL to reduce disruption for consumers, another might be to allow charges that incentivise airlines to make more efficient use of the existing runway capacity.

- 6.20. We are also undertaking wider work to understand the causes of resilience issues at UK airports and assessing the extent to which it is an issue for consumers now and in advance of any new runway capacity or major airspace improvements becoming available. This wider work will help inform the CAA's approach to increasing airport resilience in H7.
- 6.21. We will also be looking at ways in which to further improve current resilience measures at Heathrow, recognising the good progress noted above in paragraph 6.11. In doing this, we will work with industry to consider whether it is possible to incentivise greater resilience in other areas such as baggage.

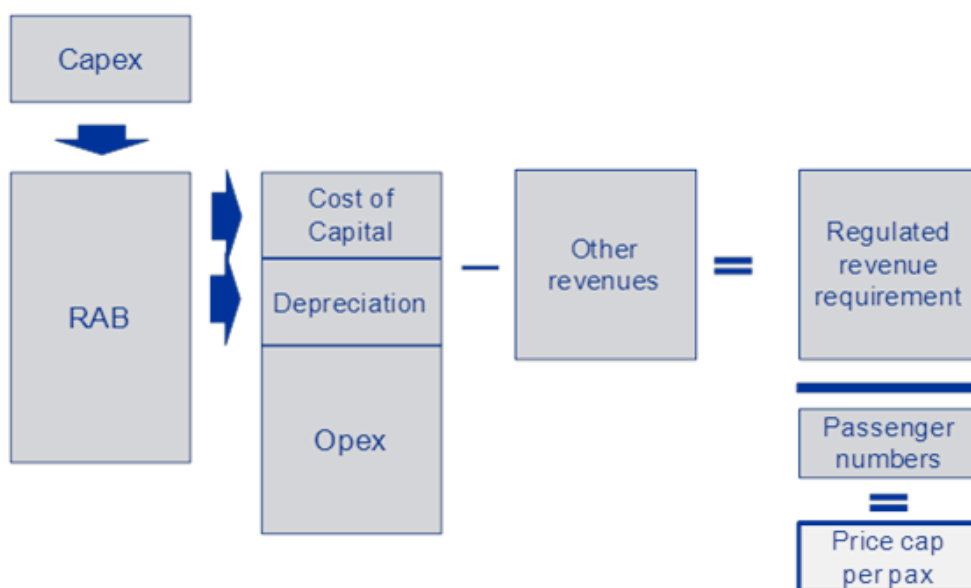
APPENDIX 7

Form of regulation for H7

Existing approach to regulation

- 7.1. In developing the price control for H7 it is useful to understand the basis upon which the Q6 control was set. The current price cap for HAL was calculated on the basis of the standard regulatory building block approach as illustrated below. Under this approach, a RAB is defined and valued and as time progresses, capex is added to the RAB.
- 7.2. The RAB drives two of the fundamental building blocks that make up the company's revenue requirement: the cost of capital (the return on the RAB) and the depreciation allowance (the return of the RAB). These two building blocks are then added to the projected level of opex to calculate the total revenue requirement for the business.
- 7.3. A single till approach is used, where the projected revenues from other regulated charges, commercial revenues and other revenues are then deducted from the total revenue requirement. The remainder represents the revenue to be recovered through regulated airport charges. As we set price controls in the form a price cap per passenger, the required regulated revenues are then divided by projected passenger numbers.

Figure 7.1: The standard regulatory building block approach



- 7.4. As part of the Q6 review we assessed a range of regulatory models, and came to the view that the RAB-based approach was most suitable for HAL, a view that was widely shared by stakeholders. We think that it is helpful periodically to consider the approach used and whether the form of regulation remains appropriate. This is particularly the case under the Act which provides significant flexibility for us to tailor our approach to regulation. The next section assesses a non-exhaustive range of alternative regulatory approaches.

Appropriateness of RAB-based regulation

RAB-based price cap regulation

- 7.5. As well as Q6, RAB-based price cap regulation was used for each of the previous control periods at Heathrow. This approach has a demonstrated track record as a suitable regulatory framework. It is well-established with stakeholders and we have significant experience in implementing this approach as well as adapting the methodology and introducing innovations where it is appropriate to do so. At the Q5 review we introduced CE for the first time and for Q6, we altered the approach to capital efficiency through the core and development capex model.
- 7.6. RAB-based price cap regulation provides strong incentives for HAL to operate efficiently, and reassures investors that their investment will be remunerated through future price caps. With this in mind, the RAB-based approach is likely to be particularly suitable if Heathrow were selected for the location of new runway capacity in London. However, the existing model may need to be adapted to include additional scrutiny and stress testing, with some refinements to reflect an airport operator undertaking such a vast capital programme.
- 7.7. On the other hand, RAB regulation is considered by some to distort investment decisions through the airport operator tailoring investment to influence future prices rather than the needs of consumers. It may also have similar effects on incumbent airlines to oppose investments that would benefit consumers in the future because they would increase airport charges.

Charging structure

- 7.8. Within the standard RAB-based approaches, we may consider providing incentives to HAL to structure charges more efficiently. In this context, we recently published guidance for stakeholders on how we implement the Airport Charges Regulations (ACRs).²¹
- 7.9. Currently, the charging structure at HAL is relatively uniform with both an aircraft specific element (related to size and noise) and a passenger element.
- 7.10. In addition, the charging structure, as for other hub airports throughout Europe, recognises the greater price-sensitivity of transfer passengers by charging airlines that carry a higher proportion of transfer passengers lower airport charges.
- 7.11. Recently, HAL has decided to reduce by £10 departing passenger charges to UK routes and offer a £5 passenger discount to European routes, compared to the previous European passenger charge. HAL has said this decision was to support its vision to be "*the UK's direct connection to the world and Europe's hub of choice*".
- 7.12. The ACR regime provides HAL with some discretion on how to structure its charges, subject to conforming to the principles of non-discrimination, transparency and consultation with users. This may, for example, allow HAL to adapt to changing market conditions to make best use of available capacity. Alternatively, charging structures may be used to encourage other behaviours on the part of airport users that would benefit consumers in some other ways. We would welcome views on whether a more detailed consideration of the structure (and/or comparative levels/differentiation) of airport charges would be in the interests of consumers.

Single v dual till

- 7.13. As noted above, the Q6 price cap was calculated on a single till basis which means that the costs and revenues from HAL's non-aeronautical activities (commercial revenues) were taken into account when determining the level of airport charges.
- 7.14. An alternative approach, known as the dual till, would involve airport charges being calculated with reference to the costs and revenues

²¹ CAP 1344 – Guidance on the application of the CAA's powers under the Airport Charges Regulations 2011: Consultation response document (October 2015).
<http://publicapps.caa.co.uk/docs/33/CAP1343GuidanceontheapplicationofACRpowers.pdf>

associated with providing aeronautical activities alone, removing the scope for commercial revenues to reduce airport charges below the costs associated with the provision of these activities.

- 7.15. While the CAA is currently minded to retain the single till approach to calculating the H7 price cap, we would welcome views on whether there are grounds to review the boundary of the till to ensure that the appropriate level of cost and revenues are included in the calculation.

Licence-backed commitments

- 7.16. The current approach at Gatwick is based upon encouraging commercial negotiations between airlines and Gatwick Airport Limited (GAL) to arrive at charges and other terms and conditions that are more tailored to airlines and their customers' requirements.
- 7.17. Licence-backed commitments could be implemented in a number of different ways. For example, at Gatwick individual price regimes are determined by negotiated settlements between GAL and airlines with the role of the regulator aimed at ensuring the process and information exchange adequately protects against the risk of abuse from GAL. These negotiations could be backed by a licence and a shadow RAB that further protects consumers, and could be used to facilitate price and quality monitoring.
- 7.18. Such an approach may more closely mirror what would occur in competitive markets, and reduce the burden of regulation. However, the approach may create significant uncertainty, could drive up risks and costs and disincentivise investment, all of which would be to consumers' detriment. We consider that given the findings of our 2014 MPD, this approach is likely to be impractical for HAL, and may not offer significant benefits over other approaches. We will be carrying out a review of the licence-backed commitments approach for GAL in the second half of 2016 and will review our assessment in light of the findings of that work.

Ex-post licence regulation

- 7.19. This approach is not widely used in the UK, however it is used by the Australian competition authority to regulate airports. It would involve the regulator monitoring the airport operator's pricing behaviour with discretion to intervene where airport prices or performance could harm consumer interests. An alternative approach would trigger intervention if certain pricing thresholds were met requiring a detailed review by the regulator.
- 7.20. As with the commitments approach this may more closely mirror what would occur in competitive markets and reduce the burden of regulation. However, it creates uncertainty over the acceptable level of prices, and how the

regulator may take action in relation to any specific complaint or in the event that a threshold was reached. Given the findings of our 2014 MPD, it appears that this approach does not offer sufficient protection to consumers.

Long-run average incremental cost (LRAIC) regulation

- 7.21. This approach is used by Ofcom in regulation of phone termination rates in the context of EU regulation. It could more accurately represent the prices that would be seen in a competitive market. However, its long term nature means it is a poor indicator of the appropriateness of the price at any particular point in time due, for example, to uncertainty about cost and timing. In particular, the lumpiness of investments at airports compared to telecoms may make an incremental approach less suitable. Also, this data intensive approach requires significant judgement by the regulatory authorities to define incremental costs and determine if costs are efficiently-incurred.
- 7.22. The benefits to consumers of regulation on the basis of LRAIC are potentially difficult to identify given uncertainty about timing and cost of investments.

Summary

- 7.23. We are currently minded to conclude that RAB-based regulation remains the most appropriate approach to economic regulation for HAL, as it better protects the interests of consumers consistent with our statutory duties. That said, if we retain the RAB model, we do think that there may be some areas where our approach to price setting could evolve to include 'good practice' from other sectors and this is discussed in the next Appendix.
- 7.24. Whilst we currently favour the RAB model for regulation of HAL in the next period, this will need additional scrutiny and stress testing if Heathrow is selected as the location for new runway capacity.

APPENDIX 8

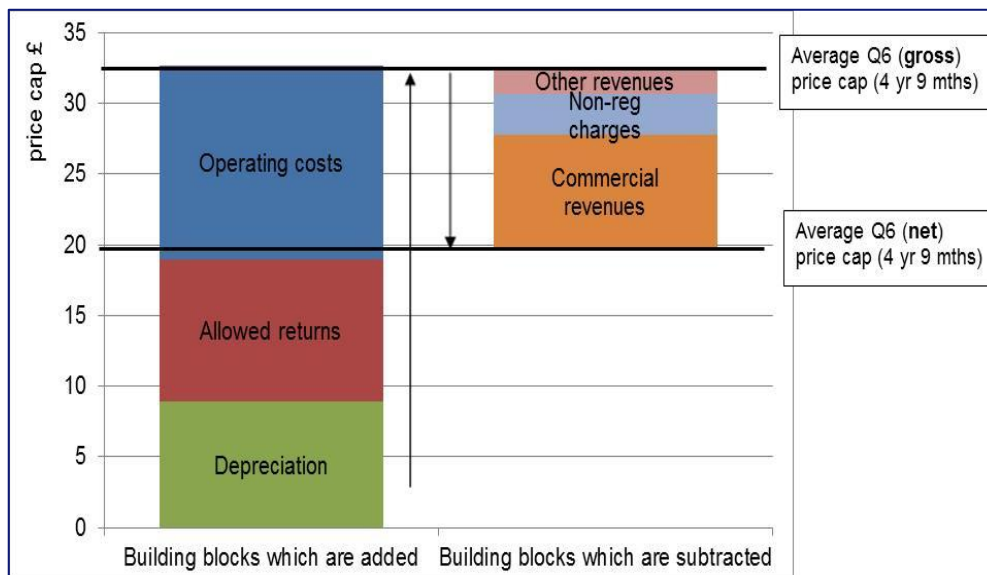
Promoting cost efficiency and financeability

Introduction

- 8.1. This Appendix sets out a range of key issues we propose to address as part of the H7 review related to efficiency and the financial framework. Among other things we will need to consider:
- how to set the level of efficient costs and revenues;
 - whether and how to strengthen the incentive on HAL to produce a high quality business plan;
 - the wider incentive framework including the treatment of outperformance (and underperformance); and
 - the financial framework including financeability, the allowed return and the treatment of risk and uncertainty.
- 8.2. This Appendix draws on approaches that other regulators have been taking to these issues in recent reviews, focusing on the aspects of these methodologies that have not previously been a feature of airport regulation.

Cost and revenue efficiency

- 8.3. To provide a sense of the relative scale of the individual regulatory building blocks, the components of the Q6 price cap are shown in figure 8.1 overleaf.

Figure 8.1: Components of the Q6 price cap

Source: CAA

- 8.4. A key part of the H7 review will be making sure that the incentive framework encourages HAL to build the right facilities, at the right time, at the most efficient cost – particularly from the perspective of consumers.
- 8.5. We propose to use a broad toolkit approach to our cost and revenue assessment. We will use this to build up a picture of the extent to which HAL's operations are currently managed in an efficient way. Over the course of the H7 process, we plan to do this using both quantitative and qualitative analysis, information provided by HAL, views and supporting evidence provided by other stakeholders (e.g. through CE), historical costs and HAL's forward looking forecasts of costs and revenues.
- 8.6. For the H7 review we plan to carry out some baseline benchmarking earlier in the process than we have in previous reviews. In particular, we are considering conduct some or all of the following studies in advance of CE:
- a top down benchmarking study to examine key headline metrics for Heathrow compared to relevant comparator airports (to be defined but could include European and global hubs). This may consider measures such as airport charges per passenger, total revenue per passenger, profit per passenger, opex per passenger, commercial revenue per passenger etc.

- a study of HAL's revenue and cost allocation policies focusing in particular on the objectivity with which HAL allocates expenditure between opex and capex and how it treats recovery of revenue between aeronautical charges, commercial revenues, other regulated charges and other revenues.
 - an opex efficiency review to indicate the level of cost savings HAL might achieve by adopting relevant leading practice to improve cost efficiency.
 - a review of the capex governance arrangements to determine whether the new Q6 regulatory arrangements for the remuneration of capex have been effectively applied and to recommend potential improvements to the current mechanism where there may be benefits for consumers.
 - a study of commercial revenues to review performance relative to the regulatory assumptions as well as an assessment of the reasons for variances and the scope for improvements in the future.
- 8.7. We propose to publish the results of the analysis we carry out early in Q4 of 2016, prior to the submission of HAL's IBP and the process of CE.
- 8.8. Before finalising our programme of work in this area we propose to consult stakeholders on the precise objective, scope and timeline of these studies both through this consultation and a dedicated seminar which will provide an opportunity to consider these issues in greater detail.

Business planning incentives

- 8.9. We are also interested in exploring ways to strengthen the incentive on HAL to produce a high quality business plan and, more generally, the merits of changing incentives and behaviours in the early stages of the price review, so that the process begins with much more realistic assumptions about future revenue requirements.
- 8.10. Other regulators have sought to change companies' incentives and behaviours in the early stages of the price review through, for example, business plan incentives such as financial rewards, light touch scrutiny and fast-tracking. These regulators have also developed criteria to strengthen customer and stakeholder engagement.
- 8.11. The perception has been that companies' plans have in the past may sometimes been tactical in nature, in that they have been directed towards

getting the best possible price review outcome for shareholders rather than at delivering the best outcome for consumers.

- 8.12. Thus, Ofgem and Ofwat have introduced the concept of "well-justified" or "high-quality" business plans. These regulators have set out that they expect companies to come up with business plans which are not aimed at convincing the regulator to maximise the price cap, but that are robustly justified and evidenced, designed to deliver good outcomes to consumers, and have regard to value for money, affordability and financeability.
- 8.13. Through the H7 review, we intend to investigate a number of ways the price review business plan process can be improved.

Business plan guidance

- 8.14. Firstly, we intend to issue detailed guidance to HAL on how to develop and prepare its initial business plan (and subsequent iterations), including specific content areas to be included. Our initial view is that we will issue guidelines to be applied in four key areas: outcomes based on consumer research; costs; risk; and financeability.
- 8.15. For outcomes based on consumer research, we will expect HAL to provide:
- evidence that consumers have been fully engaged in developing the outcomes that HAL proposes to deliver. We expect that HAL's approach to undertaking consumer research will be widely reviewed and tested by the CCF, and that a wide variety of consumer research, should be considered;
 - evidence of how consumer engagement has shaped and influenced the proposed outcomes in the business plan. We expect a clear and transparent process to be used to convert consumer research into business plan outcomes; and
 - evidence of how the proposed outcomes deliver the best possible solutions for consumers.
- 8.16. For costs, we expect HAL to provide:
- evidence that cost and revenue projections are robust and efficient. For example, we expect costs to have been market-tested or benchmarked, and that all such evidence and assumptions relating to costs are clearly outlined; and
 - evidence that alternative approaches, such as opex and capex alternatives, have been considered to achieve maximum value for money in delivering outcomes.

- 8.17. We also expect that costs will be transparently linked to outcomes, and that forecast costs reflect past performance together with realistic assumptions about the scope for future efficiency.
- 8.18. For risk, we expect HAL to outline:
- the key risks associated with delivering the plan including appropriate mitigation measures;
 - key uncertainties and consideration of how they may be addressed; and,
 - a proactive approach in how it proposes to allocate risk between stakeholders, and the impact of different allocations. HAL should also propose and justify the level of return that provides appropriate reward to the level of risk it intends to bear.
- 8.19. Finally, for financeability, we expect HAL to provide evidence that the financial costs it expects to incur are efficient, and evidence that HAL can finance the outcomes it proposes to deliver including under a reasonable range of downside scenarios.

Board certification

- 8.20. As part of the PR14 price review, Ofwat required each company's Board to certify that the business plan was high quality, with the aim of ensuring the company was focused on developing the best possible plan.
- 8.21. Our initial view is that there may be considerable merit in requiring explicit Board sign-off of the price control business plan. We will consider further during the consultation period whether such an approach would bring benefits for consumers.

Information incentives

- 8.22. Ofgem uses an Information Quality Incentive (IQI) to compare the regulator's assessment of efficient expenditure, and the expenditure in the company's business plan. It aims to reward companies who submit more accurate business plans. The IQI relies on the regulator being able to prepare an assessment of expenditure that is independent of the company's own forecasts and predictions. Given the unique aspects of HAL and the lack of comparators, it may be more difficult for us to do so but we would nonetheless welcome views on whether the principle of incentives for enhanced information disclosure may have a role to play in the H7 review.

Wider incentive framework

- 8.23. Incentives play a central role in the effectiveness of regulation. Incentives can be established to encourage (or discourage) a range of behaviours, outputs and outcomes. Incentives can be wide ranging and can cover anything that encourages the company to pursue a particular course of action.
- 8.24. An important element of H7 will be to consider the role that incentives should continue to play in the price setting process and the ongoing course of regulation. In general terms, we want HAL to face strong incentives to properly understand what consumers value from the airport experience and to provide this at the lowest possible cost.
- 8.25. Some of the areas that we intend to explore as part of our review of the incentive framework are discussed further below.

Totex

- 8.26. Capex and opex are two of the key 'building blocks' we use to determine HAL's required revenue, and thus the maximum level of airport charges to be recovered from consumers over the regulatory period. Capex relates to the costs involved in the renovation, renewal and enhancement of assets used to provide airport services. Opex relates to the costs involved in day-to-day activities. Capex is recovered over the useful life of the asset through depreciation and the return on capital. Opex is recovered in the year in which it is spent.
- 8.27. Total expenditure (totex) brings both capex and opex costs together into one measure such that the recovery of costs is no longer explicitly linked to a particular type of expenditure. Totex is now used in both the water and energy sectors in place of the traditional separation between capex and opex. The driver for moving to a totex approach has been that having separate regulatory rules around opex and capex appears to have given companies reason to prioritise one type of expenditure over the other. In particular, there has been a sense in both the energy and water sectors that there has been a 'capex bias', with companies favouring capex over opex. This may have distorted investment decisions to the detriment of consumers and the benefit of shareholders.
- 8.28. Therefore, the main benefit that may result from the use of totex is that it equalises the incentive properties around expenditure meaning that the companies no longer favour one type of expenditure over the other.

- 8.29. In the case of airports, it is less clear to us that there is an inappropriate bias between opex and capex. For example, capex and opex have tended to be complementary for airports, with large capex investments also requiring increases in opex. That might tend to suggest that shifting to totex would not create the same benefits for consumers that regulators in other sectors have identified. In addition, should HAL be successful in its bid to secure the location of the new runway, an entirely new and untested approach to the treatment of opex and capex may be problematic in the context of also needing to deliver a substantial capital expenditure programme around new runway capacity.

Gain sharing

- 8.30. Ofwat has also highlighted that companies may naturally perform better than expected due to circumstances outside their control, such as through lower input prices and lower interest rates than anticipated in the price cap. As part of the PR14 review, Ofwat made it clear that it expected companies to share these "gains" with consumers, just as they may share "pains". The Office of Rail and Road (ORR) has also implemented a gain and pain sharing mechanism in the most recent price control of Network Rail, with the goal of better aligning Network Rail and Train Operation Companies to improve overall efficiency.
- 8.31. We may consider whether pain and gain share mechanisms, such as linking allowed revenues to retail price inflation, or encouraging commercial agreements between airlines and airport operators to better share risks such as demand risk, may be suitable if costs could be reduced overall.

Innovation

- 8.32. One of the criticisms that has sometimes been made of regulation in other sectors is that price caps and associated incentives have focused companies on short-term cost reduction and led to a neglect of research and development and innovation. Several regulators have tried to address this in recent years for example, innovation was a key area of focus when Ofgem was developing its RIIO framework.
- 8.33. We would welcome views on whether the CAA should consider creating similar arrangements or whether we can assume that there is a natural spillover of ideas between airports, aided to some extent by the competitive process which mean that this is not an area that the regulatory framework needs to address.

The financial framework

8.34. The financial framework covers a range of issues we will consider as part of the price review including:

- the financeability of the overall settlement;
- the duration of the control period;
- the uncertainty mechanisms we include to allocate risk between HAL and consumers;
- how we treat specific risks such as inflation; and
- what return HAL should be allowed to earn on its RAB.

Financeability

8.35. We have a duty to have regard to HAL's ability to finance its provision of airport operation services when it comes to the exercise of our functions such as setting price caps. This cannot override our primary duty. However, we consider that setting a price control condition that is aligned with an efficient operator being able to finance its business as defined in the Act is consistent with, and it not in conflict with, consumers' interests or with the need to promote efficiency and economy.

8.36. We consider it important that HAL has the ability to raise finance at reasonable terms in the banking and capital markets through some combination of debt and equity, and that HAL is in a position to absorb reasonable unanticipated downside risk and still retain an investment grade credit rating. Financeability will be particularly important in relation to new runway capacity at Heathrow, given the magnitude of planning and construction costs that will need to be financed.

8.37. Our policy in Q6 was to ensure that the price cap settlement (including the notional capital structure) was consistent with an investment grade credit rating and robust to reasonable downside shocks.

Duration of the control period

8.38. The Act allows for flexibility in determining the length of price control periods and these may change from one period to another. The Q6 price review, the first determination made under the Act, lasts for four years and nine months (different from the five-year duration of previous control periods), so that the regulatory years align with HAL's financial year which is on a calendar year basis. For H7, there is scope for us to consider the appropriate duration of the price control as circumstances require.

- 8.39. A longer price control period could offer certainty, both in the regulatory regime and the level of charges, which should be beneficial for long term investment planning. However, over a longer control period, outturn traffic, interest rate and prices are more likely to deviate from forecasts, and this could create or magnify risks both to HAL and consumers.
- 8.40. Some other regulators have switched to longer price control periods, notably Ofgem which has introduced eight year price caps under its RIIO programme, albeit with a number of new adjustment mechanisms.
- 8.41. The duration of the price control is likely to be a particularly important issue to consider if Heathrow is selected for the location of new runway capacity. The long-term nature of airport expansion raises questions about whether we should change the current pattern of five-yearly price cap reviews, in order to facilitate this major investment project. We would consult specifically on this issue in due course should the Government decide in favour of Heathrow.

Risk-sharing mechanisms

- 8.42. In determining HAL's revenue requirement for H7, there are risks that HAL's actual costs (or revenues it will earn) will be different to those we assume in making our determination. HAL is also exposed to varying degrees to demand risk, political risk and financial risk. We need to take account of these risks and uncertainties in establishing the overall package for H7 and consider the balance of risk exposure between HAL and consumers.
- 8.43. The specific level of risk protection and the measures to allocate risk between the parties will form an important element of our review of the financial framework. For H7, we would like to consider the extent to which the industry may have more of a role to play in specifying risk allocation measures such as the treatment of price control 're-openers' and the use of uncertainty mechanisms.

CPI inflation

- 8.44. Inflation is the long term gradual and overall increase in prices. As it can erode asset values over a sustained period of time, it needs to be factored into the calculation of the RAB. The two predominant inflation measures are the retail price index (RPI) and consumer price index (CPI). In all previous price reviews we have used RPI to uplift prices.
- 8.45. RPI ceased to be a national statistic in 2013 and was replaced as the primary UK inflation measure by the CPI which is now used for inflation targeting by the Bank of England.

- 8.46. While some regulators have moved, partially or fully, away from the RPI as an inflation measure, Government, while widely using the CPI, continues to use the RPI in a number of important areas including in issuing index-linked debt and capping rail ticket prices. Additionally a significant private market in index-linked debt and derivatives utilising the RPI exists. The context of using indexation is thus wider than as used by regulators.
- 8.47. HAL has a low share of Index linked debt at less than 10 per cent of outstanding secured debt. Its exposure to RPI is, however, much higher than this owing to a significant amount of swaps and other financial derivatives it has entered into. Taken together, these factors mean HAL's exposure to RPI is equivalent to over 50 per cent of outstanding debt. This background will need to be considered in exploring the case to move to CPI. The CAA will also want to take into account how the issue is being addressed by other economic regulators because many regulated utilities have a significant exposure to RPI linked debt and financial derivatives.

Allowed return

- 8.48. The allowed return is expressed in the WACC, which was estimated to be 5.35% for Q6 (pre-tax real). In developing this estimate, we assessed individual components and carried out a top-down evaluation of the WACC. Our assessment was based on a notionally financed assumption, and gearing of 60%, we considered that the actual financing structure remained the responsibility of HAL. We consider that HAL and its shareholders should bear the risk of highly leveraged structures or gearing above the notional gearing level.
- 8.49. We propose to use a similar overall approach to our assessment of the allowed return for the H7 review.

Cost of debt indexation

- 8.50. As part of the Q6 review, we considered, but ultimately rejected, the possibility of moving away from a fixed allowed rate of return to an indexed return that adjusts annually in line with the prevailing level of the cost of debt.
- 8.51. Ofgem has taken a different position in its RIIO reviews and has been setting price controls that provide for annual adjustment of returns. During the recent RIIO-ED1 review, the electricity distribution network operators (DNOs) sought a change to this approach on the grounds that the specification would give a poor match to their actual borrowing costs. Ofgem's response was to modify the index to provide a better match to actual interest costs of the DNOs.

- 8.52. Arguments in favour of indexation include that market movements are outside the control of the company and that regulators 'aim-up' in setting the cost of capital to protect against uncertainty. Arguments against indexation include that setting the cost of debt for a price control period is more sophisticated and requires judgement which cannot be captured in a simple formula. Indexation may also lead the company to structure its debt portfolio to match the indexation formula to minimise risk, rather than to be incentivised to achieve the most efficient debt portfolio.
- 8.53. In light of the potential for HAL to incur significant amounts of new debt in the coming years, we consider that it will be appropriate to re-examine this issue to explore whether there are mechanisms that we can put in place to match revenue to actual interest rates as they are incurred (and without materially changing HAL's incentive to borrow in an optimal way).

Summary

- 8.54. Our detailed assessment of the financial framework will be set out at a later stage of the H7 process. At this time, we would welcome stakeholders' views on whether we have appropriately captured the relevant issues for H7.

APPENDIX 9

Constructive Engagement

Introduction

- 9.1. Constructive Engagement (CE) is a process that the CAA has used as a key input to the last two price reviews to encourage the airport operator and airlines to discuss and, where possible, agree upon the building blocks that will inform our price control analysis. We remain firmly committed to CE and consider that the H7 review provides a timely opportunity to reassess the objectives of CE in the light of experience and the context within which the review will take place.
- 9.2. This Appendix sets out a brief summary of the experiences of CE in the Q5 and Q6 reviews, the views of stakeholders on the effectiveness of the Q6 process and an assessment of options for how CE might be improved as part of the H7 review.

History of CE

- 9.3. CE was initially introduced by us in 2005 following discontent expressed with the price review process in the lead-up to the Q4 determinations. In response, we proposed for the Q5 price reviews that airport operators should first seek to agree relevant sections of their business plans with airlines before submitting them to us. CE was originally limited to outputs-based measures such as traffic forecasts, service quality and capital items. Notably, some of the key building blocks were excluded from the process including the level of opex, the cost of capital and the level of commercial revenues.
- 9.4. These items were excluded on the basis that we considered no agreement may be likely given the possible zero sum basis of any discussion. We accepted that full agreement on the items that were included might not always be possible, but hoped that by identifying areas of agreement and disagreement this would reveal valuable information for the regulator.
- 9.5. The outcome of CE in Q5 was mixed. At Heathrow there was a high level of agreement on capex plans and service levels. However, there was significant disagreement on the overall level of charges and discontent over

what airlines referred to as procedural shortcomings in the process including the inability to scrutinise all of the price control building blocks.

CE in Q6

- 9.6. For the Q6 price review, we broadened the scope of CE to encompass the entirety of the business plan. This was mainly in response to feedback from airlines and our view that CE should develop to reflect what would commonly happen in a well-functioning market, where parties would seek to reach commercial outcomes. Other refinements to the CE process for Q6 included the introduction of a CE mandate which set out the objectives for the process, the scope of activities under review, strategic questions for discussion, expectation on behaviours and the overall timetable.
- 9.7. In Q6 it was accepted that CE should not be regulator-led, but where appropriate, we would play a more active role on a step-in / step-out basis than was the case for Q5 especially in relation to the governance process. We also said we may have a role in inputting our views and evidence on passengers' priorities and in clarifying how the outputs from CE workstreams could be used in the subsequent regulatory process.
- 9.8. In developing the Q6 determination we noted that both HAL and the airlines had engaged in good faith and agreed a vision statement for the airport and a suite of key service propositions for Q6. Significant progress was also made in several key building blocks such as traffic forecasting, the general shape of the capital programme and service quality metrics. There was no consensus on the scale of efficiencies in HAL's opex or the WACC. Nevertheless, we welcomed the enhanced level of transparency and information sharing by HAL compared to Q5.

Stakeholders views on CE in Q6

- 9.9. As part of the early preparations for H7, we reviewed the Q6 CE process through separate discussions with HAL, airlines and the independent facilitator. Stakeholders had differing views on the effectiveness of the process. Overall it was seen as valuable, particularly by the airlines, but all parties had some criticisms.
- 9.10. There was a sense that the process may create some 'double jeopardy' as it involved the business plan being examined twice, once by the airlines, and once again by us. There was also a view that discussions could not be properly progressed until the parties had visibility of the CAA's position. Some stakeholders considered that the structure of the meetings could be improved to provide more focus for the process and that the flow of information could be better managed. There was a view that the process

was long and arduous extending beyond 12 months. Some stakeholders believed we should provide more input and organisation in order to ensure a level playing field.

CE in H7

- 9.11. CE has now become an integral feature of aviation regulation. Airlines value the locus it provides to discuss airport plans that affect their commercial operations, and HAL sees value in greater strategic consultation with its customers. That being said, it remains clear that the process could be improved for the benefit of all parties.
- 9.12. With this in mind, our main objective for CE is to provide a platform for HAL and airlines to discuss HAL's business plans with a view to identifying and narrowing their differences and, where agreement cannot be reached, they are both able to provide informed views into the CAA's subsequent price setting process.
- 9.13. In fulfilling this objective, we are interested in finding ways to elevate the consumer interest within CE and, in particular, the extent of involvement of the CCF. Our initial view is that a representative of the CCF should have some degree of participation in the CE process, but the detailed scrutiny of HAL's business plan should remain between HAL and the airlines.

Operating principles

- 9.14. Our current view is that the operating principles we established for the last periodic review remain valid for H7, but there should be greater emphasis on the CE process being consumer-focused as follows:
- **Consumer-focused.** Discussions should be focused on delivering the outcomes that consumers' value.
 - **Accountability.** There should be a clear and agreed governance framework setting out the expected accountabilities;
 - **Transparency.** Information provided for CE should be relevant and timely;
 - **Collaboration.** All parties should participate constructively and in good faith.
 - **No surprises.** Trust is undermined if either side suspects the other is simply playing games to exploit a regulatory process; and

- **Dispute resolution.** The parties should agree clear and efficient dispute resolution procedures.
- 9.15. The role that we play is likely to have an important bearing on the outcome of the process. Although CE should not be regulator-led, we could play, where appropriate, a more active role on a step-in / step-out basis than was the case for Q6. Greater involvement from us may be more practical for H7 than previously from an industry and regulatory resource point of view given that other airport reviews (or market power assessments) should not be occurring simultaneously.

Options for CE in H7

- 9.16. We have identified a range of potential refinements to the process, based on our review of lessons learned and feedback received from stakeholders. These are not mutually exclusive and are designed to address some of the criticisms of the Q6 approach.
- 9.17. A Government decision in favour of new runway capacity at Heathrow will have a significant influence on the form and scope of CE. In such a scenario, we consider that a distinct workstream would be convened to consider this issue, but that this is closely linked to other engagement on the capex programme within the existing operation of Heathrow.

Figure 9.1: Options to strengthen Constructive Engagement

Option	Description
Clarifying the timescale	In Q6 the timescale for formal CE became somewhat unclear which led to confusion around the purpose of the individual components vis-à-vis the overall price review. One option to improve the process would be for the timescale to be more clearly defined including when the CAA would require the key inputs from the parties.
Changing the focus	CE could have a more clearly defined dual focus with an initial phase aimed at informing key inputs to HAL's business and a second phase with the focus on scrutinising HAL's business plan.
Reducing the scope	We could return the scope closer to the Q5 arrangements with focus on areas where airlines are able to offer particular expertise. This would also reflect the fact that for certain issues (opex, WACC etc) HAL and airlines are unlikely to reach agreement meaning that the regulator may be better placed to make the assessment and is therefore likely to do so whatever position the parties take.
Integration	A weakness of Q6 was a lack of integration of the different workstreams. Greater integration of service quality/outcomes and costs with clear trade-offs could be built into the H7 process.
Terminal level CE	Previously CE at Heathrow has been at a generic airport level. However airlines operating from different terminals may not have identical requirements. An option could be a more terminal specific approach to CE and H7 regulation.
New runway capacity	Inclusion of an additional component specifically tasked with looking at new runway capacity, but closely linked with engagement on the capex programme around existing operations and on capex efficiencies.
Role of CAA	We could play a more active role within CE for example by attending more of the meetings and providing guidance to the parties. This may be particularly relevant where it is apparent early on that the parties are unlikely to reach meaningful agreements e.g. by having an option for HAL or airlines to apply to us to arbitrate in specific debates that have reached an impasse.
Commercial negotiations	To the extent that airlines have a degree of bargaining power we could place more reliance on the results of CE for the purpose of regulation or might even accept commitments based on contracts instead of price controls (or elements of them).

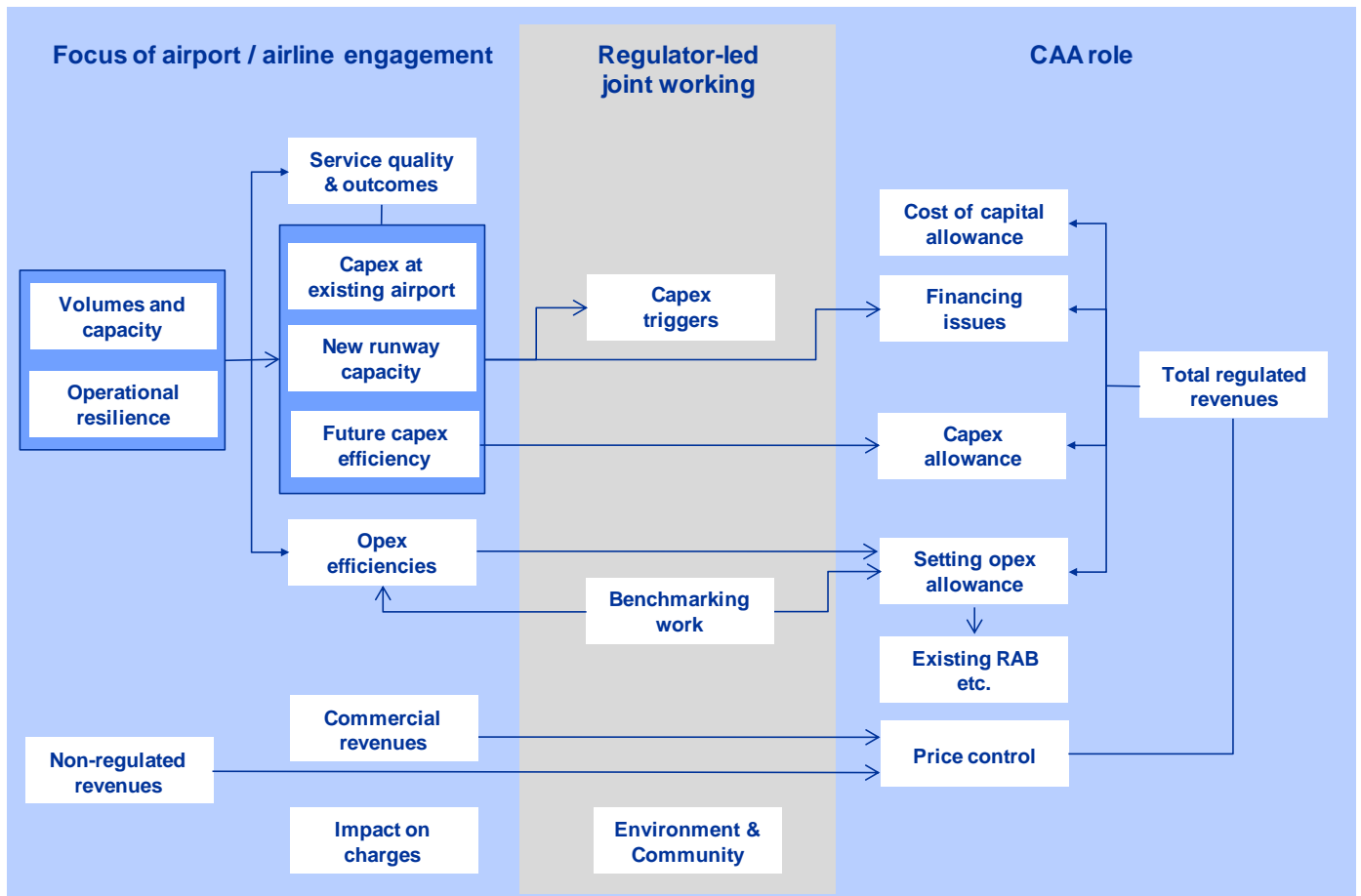
9.18. In assessing these options, we note that the on-going processes of consultation in Q6 are vastly improved from those in Q5 – largely as a result of processes and relationships developed in CE. It will, therefore, be

important to consider how CE should function alongside and complement the existing airport – airline governance procedures at the airport.

Summary

- 9.19. The CAA's initial view is that the greatest benefit from CE in previous periodic reviews has been through the progress made around discussions of the capital plan and the scope for capital efficiency. For that reason, we think that for H7, the priority for CE should be placed on the assessment of HAL's capital plan. In order for the implications of investment decisions to be considered in the round, all of the regulatory building blocks should be included in the scope of CE. We will expect HAL to develop a thorough and well justified plan which it will be required to present to the airlines through the process. CE should concentrate on scrutinising the assumptions and evidence base in HAL's business plans with a view to identifying areas for CAA focus in the subsequent phase of the price review.
- 9.20. In addition, we think that the scope of CE should be expanded to include the development of appropriate consumer-focused outcome measures. Options and measures for reducing disruption and increasing resilience should be regarded as a priority. Finally, we will expect the parties to consider the implications of the environmental impact of the airport including its role in the local community.
- 9.21. To address concerns around process shortcomings, the CAA may play a more prominent role by attending more of the meetings and providing guidance to the parties where it is appropriate to do so. We will, once again, issue a CE mandate setting out the objectives for the process, the scope of activities under review, expectation on behaviours etc.
- 9.22. The potential H7 CE process is illustrated below, based on the previous Q6 process, adapted to include additional work around resilience, outcomes-based regulation and possible work on new runway capacity.

Figure 9.2: Outline of possible Constructive Engagement process for H7



9.23. We welcome views on the issues raised in this Appendix and other points that stakeholders consider the CAA should take into account.

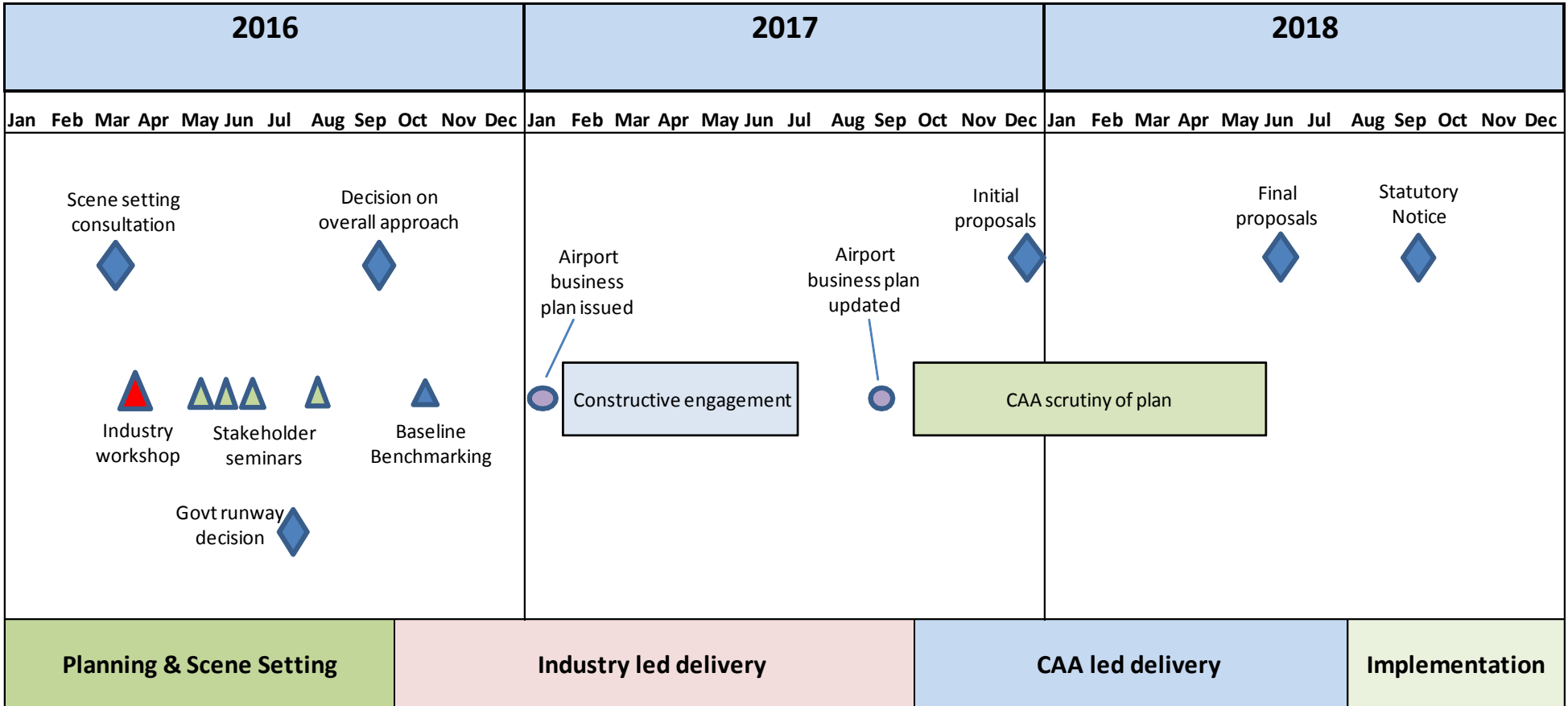
APPENDIX 10

Timetable and next steps

Four phased approach to H7

- 10.1. This Appendix explains the H7 process and the main milestones. The Appendix has been included to help stakeholders plan their involvement in the process and to provide the opportunity to comment on the overall timetable and our proposed approach.
- 10.2. H7 will be administered under four broad phases of work, namely planning, industry-led delivery, CAA delivery and licence modification / implementation. The figure overleaf sets out an overview of the key milestones and consultations. The Government work on new runway capacity is now expected to conclude by summer 2016.
- 10.3. The H7 planning phase will run from now until September 2016. During this period we will progress our work on the overall approach to carrying out the review and the regulatory framework. This will involve a number of formal engagements with interested stakeholders including industry workshops in March 2016 and a series of focused seminars which will take place over the spring and early summer. We may also convene further workshops, issue working papers and make requests for information to help inform our assessment. The planning phase culminates in the publication of a policy update (i.e. latest thinking on the framework for the review) around September 2016.

Figure 10.1: High level timetable



- 10.4. The industry-led delivery phase will begin following the publication of the initial suite of baseline benchmarking analyses and will run from around October 2016 to approximately September 2017. During this period we will expect the parties to commence and formalise discussions around the outcomes and assumptions that the price review should deliver in order to further the CAA's statutory duties. A key part of this phase will involve HAL issuing its H7 price control IBP followed by detailed explanation and discussion with interested stakeholders. The plan will be challenged and scrutinised by airlines through the CE process. At the end of the industry-led phase, stakeholders would submit their views on the plan with recommendations on areas for improvement. HAL would then have three months to revise the plan before it is resubmitted to us in preparation for the next stage of the review.
- 10.5. The CAA-led delivery phase would begin around October 2017 with us issuing a short statement summarising our assessment of progress to date. Taking into account the findings from the industry-led phase and any additional scrutiny undertaken by us, our initial proposals would be published in December 2017. This would be followed by final proposals by June 2018.
- 10.6. The final stage of the review is for licence modifications to implement the regulatory settlement, with the final decision and statutory notice published in September 2018. Unless we receive objections from HAL or others which affect this timetable, we will make changes to HAL's licence and any other regulatory instruments that are required.

10.7. The figure below summarises an approximate timetable for the H7 process.

Figure 10.2: Provisional high-level timetable for H7

Timing	Activity
Planning phase (Until September 2016)	
1 March 2016	We publish our first H7 discussion document on the strategic themes
10 & 17 March 2016	Industry workshops to discuss the H7 strategic themes
April to June 2016	Focused seminars to consider issues in more detail including (i) engaging consumers in the process (ii) incentives (iii) financial issues (iv) cost and revenue assessment
September 2016	We publish our policy update with latest thinking on the framework for undertaking the price review
Industry led delivery phase (October 2016 to September 2017)	
October 2016	We publish initial suite of baseline benchmarking studies to start industry led phase
January 2017	HAL's H7 initial business plan issued to stakeholders
January – June 2017	Constructive Engagement
July 2017	Report from CE on areas that require focus in HAL business plan
September 2017	HAL re-issues plan to address stakeholder feedback
CAA led delivery phase (September 2017 to June 2018)	
September 2017	We issue a short update on progress made and next steps, to start CAA-led phase
December 2017	CAA initial proposals
June 2018	CAA final proposals
Licence modification and implementation (July 2018 to 1 January 2019)	
September 2018	CAA final decision/ statutory notice for licence modifications
October 2018	Licence modification notice published
1 January 2019	New licence conditions take effect

Annex A: The CAA's duties under the Act

The Act gives the CAA a single primary duty to further the interests of users of air transport services in respect of its economic regulation functions. Under the Act, users of air transport services are defined as present and future passengers and those with a right in property carried by the service i.e. cargo owners.²² For the sake of simplicity we use the term 'consumers' to mean both present and future passengers and cargo owners.

The scope of the CAA's primary duty concerns the ***range, availability, continuity, cost and quality of airport operation services***. The CAA must carry out its functions, where appropriate, in a manner that will ***promote competition in the provision of airport operation services***.

In discharging this primary duty, the CAA must also have regard to a range of other matters under the Act. These include:

- the need to secure that HAL is able to finance its licensed activities;
- to secure that all reasonable demands are met;
- to promote economy and efficiency;
- the need to secure that HAL is able to take measures to reduce, control and mitigate adverse environmental effects;
- any guidance issued by the Secretary of State or international obligation on the UK notified by the Secretary of State; and
- better regulation principles.

²² Given that over 95% of cargo at Heathrow travels in the bellyhold of passenger aircraft, we consider that the interests of cargo owners will in many ways be aligned with those of passengers.

Annex B: Wider aviation trends

Introduction

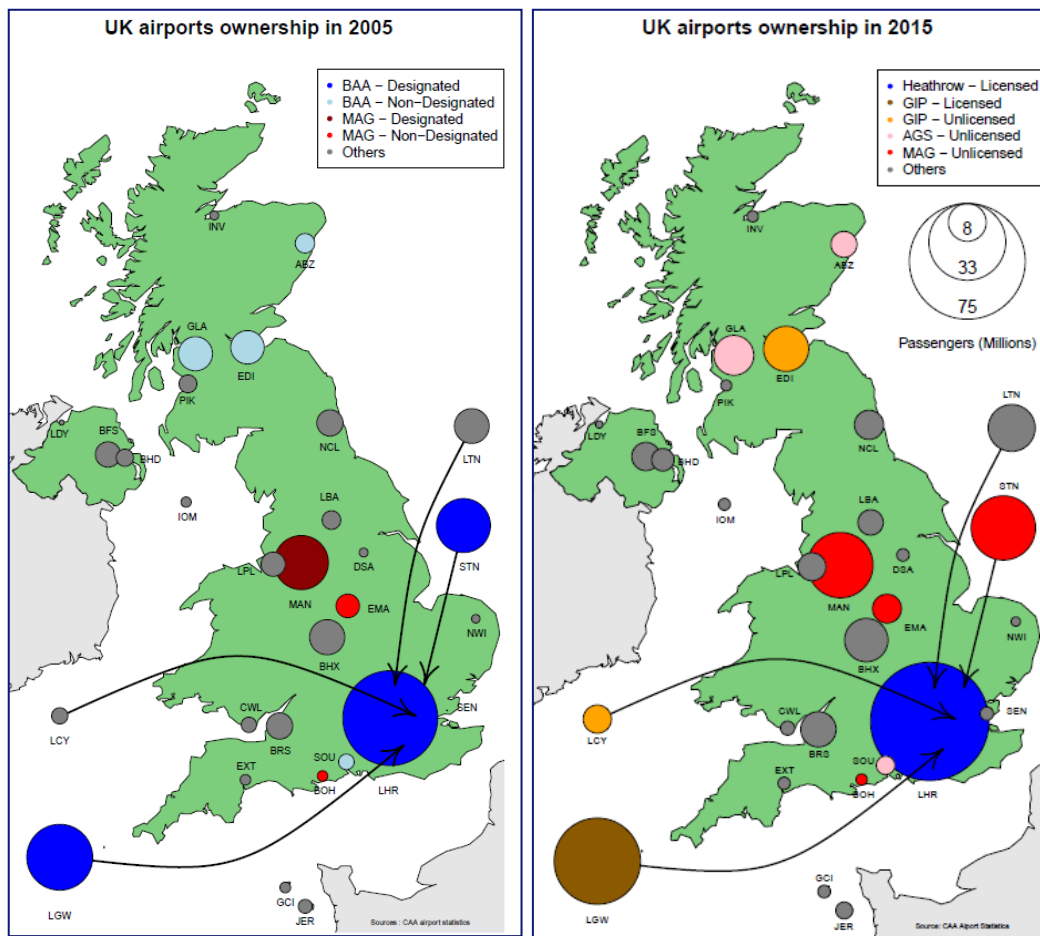
- B.1. This Annex describes in greater detail the market context in which HAL operates. At a high level the market conditions and features are very similar to the ones that informed the market power determination for HAL in 2014.²³
- B.2. In reviewing the market context, our aim is to ensure that economic regulation is effective and proportionate. In achieving this, we will consider the key features of the market since we determined the approach to regulation for Q6. The following sections present and discuss some basic characteristics and trends in the airport sector and how they could influence the H7 review. In particular, we examine:
- changes in the ownership of UK airports;
 - passenger and cargo trends and characteristics; and
 - the composition of airlines at Heathrow (and the role of airline competition).

Changes in ownership of UK airports

- B.3. The ownership of UK airports has changed significantly in the past decade. In 2006, a consortium led by Ferrovial bought the largest conglomerate of UK airports – BAA. However, BAA's common ownership of several airports in the London area and Scotland was the subject of a Market Investigation by the Competition Commission in 2009, which led BAA to divest progressively airports and triggered a wider reorganisation of the sector. Figure B.1 illustrates the more significant changes in ownership over the past decade.

²³ The market power determination is available at www.caa.co.uk/CAP1136.

Figure B.1: Changes in ownership at UK airports over the last decade



Source: CAA

B.4. In 2005, BAA was the operator of seven UK airports accounting for 63 per cent of UK passengers and 92 per cent of passengers at London airports. Since then:

- BAA sold Gatwick to a consortium led by Global Infrastructure Partners (GIP) in December 2009;
- BAA sold Edinburgh to a GIP-led consortium in June 2012;
- BAA sold Stansted in March 2013 to the Manchester Airports Group;
- AGS Airports, a partnership between Ferrovial and Macquarie, bought Aberdeen, Glasgow and Southampton from HAL’s owners in December 2014; and
- London City has been owned, since 2006, by a consortium led by GIP.

- B.5. As a result, HAML²⁴ is now focused solely on the operation of Heathrow in the UK.
- B.6. Ferrovial has also been selling stakes in HAML such that the airport is now owned by a variety of global investors, including infrastructure specialists, several sovereign wealth funds and a UK pension fund as follows:
- FGP Topco Limited, a consortium owned and led by the infrastructure specialist Ferrovial S.A.– 25.0 per cent;
 - Qatar Holding LLC – 20.0 per cent;
 - Caisse de dépôt et placement du Québec – 12.6 per cent;
 - the Government of Singapore Investment Corporation – 11.2 per cent;
 - Alinda Capital Partners – 11.2 per cent;
 - China Investment Corporation – 10.0 per cent; and
 - Universities Superannuation Scheme – 10.0 per cent.²⁵

Passenger and cargo trends and characteristics

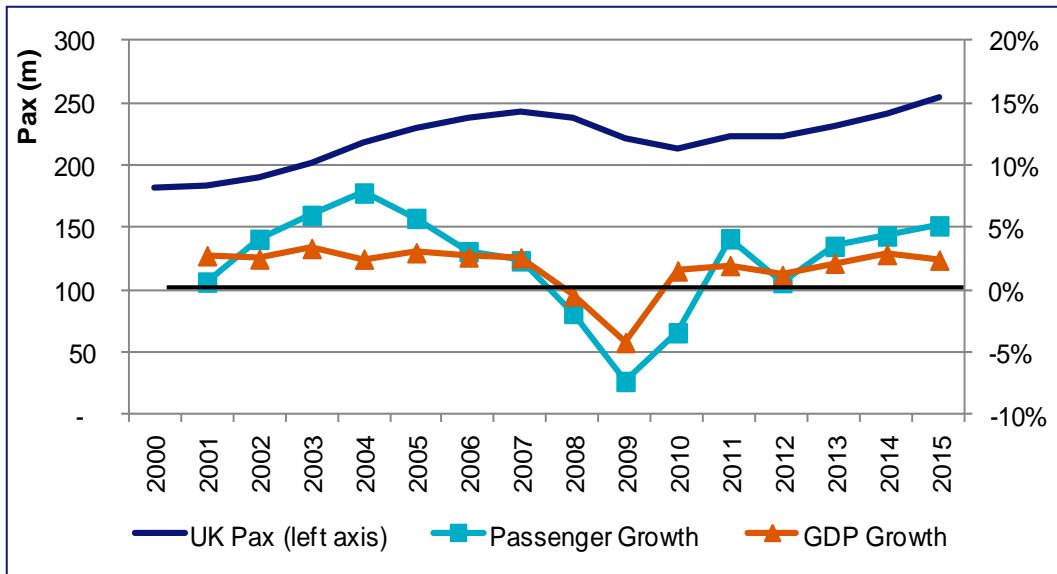
Passenger traffic

- B.7. The long-term trend shows that UK passenger numbers tend to grow and fall faster than gross domestic product (GDP). The figure below also shows that during the 2008 downturn, traffic fell by more than GDP.

²⁴ HAML, previously known as BAA, is new holding company that owns HAL.

²⁵ <http://www.heathrowairport.com/about-us/company-news-and-information/company-information> (analysed in July 2015).

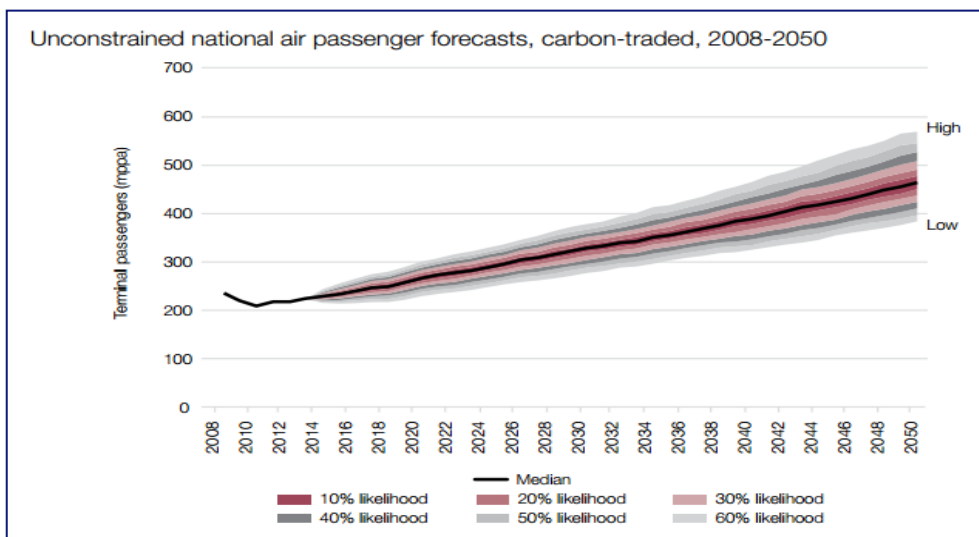
Figure B.2: Passenger numbers at UK airports and GDP growth



Sources: CAA Airport Statistics, ONS

B.8. Passenger demand is expected to continue growing at UK airports. The Airports Commission report from July 2015 assumed that passenger demand in the UK, in the absence of any constraints on capacity, would roughly double between now and 2050 to around 470 million passengers per annum (mppa). The figure below shows that passenger demand was forecast by the Commission to exceed 300mppa by 2030.

Figure B.3: Airports Commission unconstrained forecasts

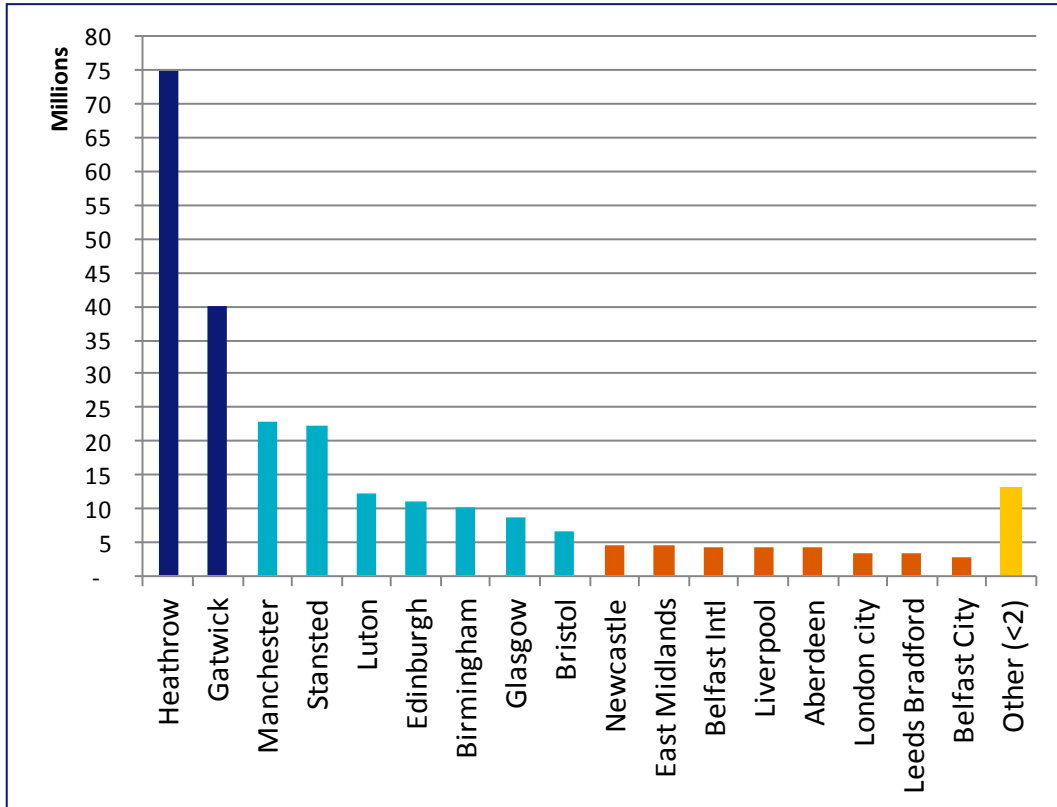


Source: Airports Commission Final Report

Heathrow compared with other London and UK airports

B.9. Heathrow is by far the largest UK airport. It accounts for around 30 per cent of total passengers handled by UK airports and half of the passengers served in the London area.²⁶

Figure B.4: Size of UK airports by number of terminal passengers, 2015



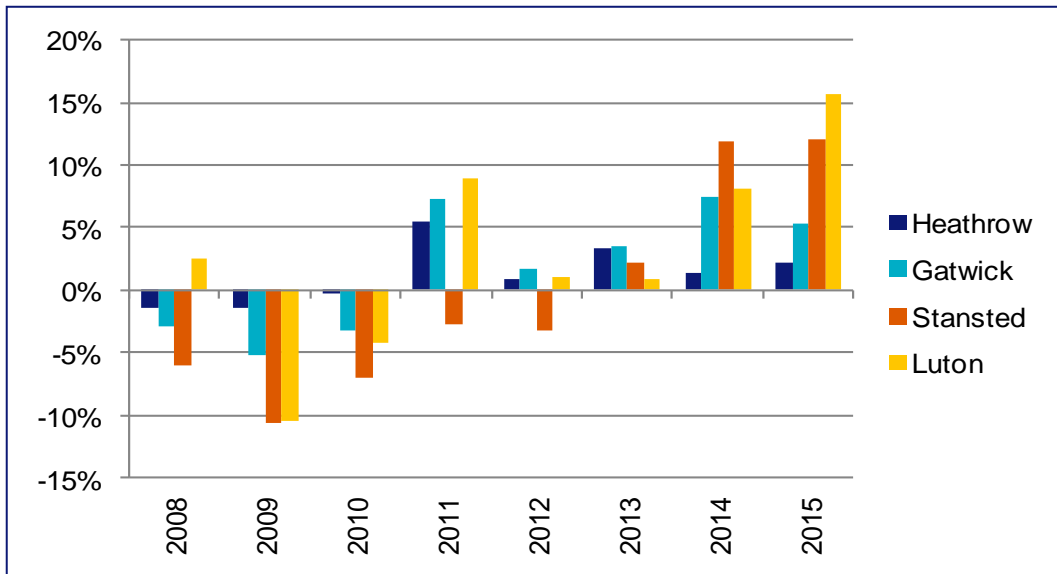
Source: CAA Airport Statistics

Note: dark blue – airports issued with an economic licence; teal – airport with over 5mppa; orange – airports with over 2mppa; yellow – all other UK airports combined.

B.10. In recent years, compared with other large London airports, Heathrow has had the most stable traffic. During the economic crisis, passenger numbers declined faster at Gatwick, Luton and Stansted but passenger numbers are now rising faster at those airports than at Heathrow.

²⁶ Airports serving the London area are Heathrow, Gatwick, Stansted, Luton, London City and Southend. It should be noted that over a third of HAL’s passengers are transferring between flights at the airport.

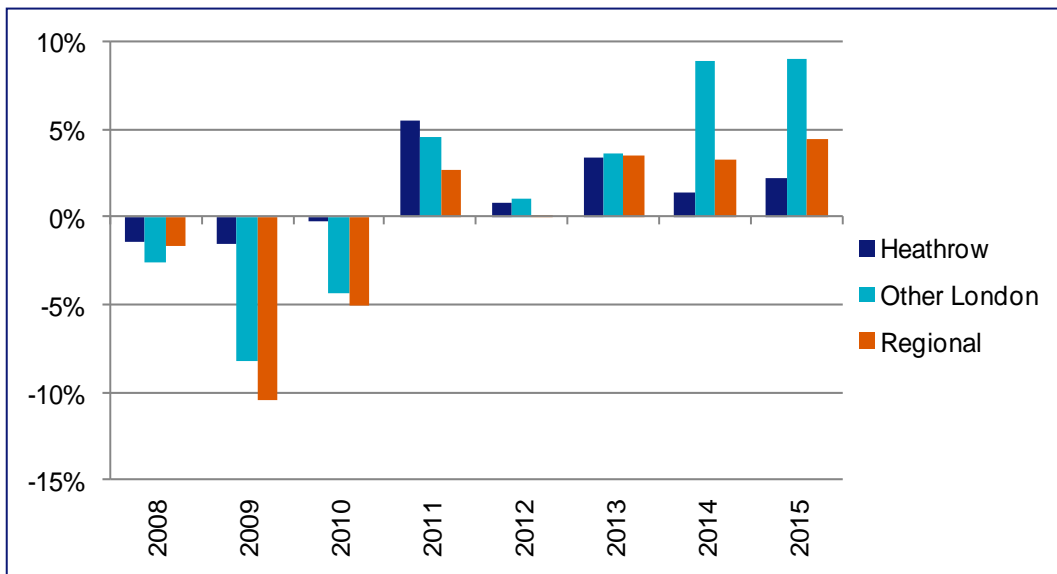
Figure B.5: Traffic growth at the four largest London airports



Source: CAA Airport Statistics

B.11. The figure below shows that traffic declined faster at regional airports during the economic downturn. More recently, regional traffic has grown marginally slower than at London airports overall, but at a faster pace than Heathrow.

Figure B.6: Traffic growth at London and Regional airports



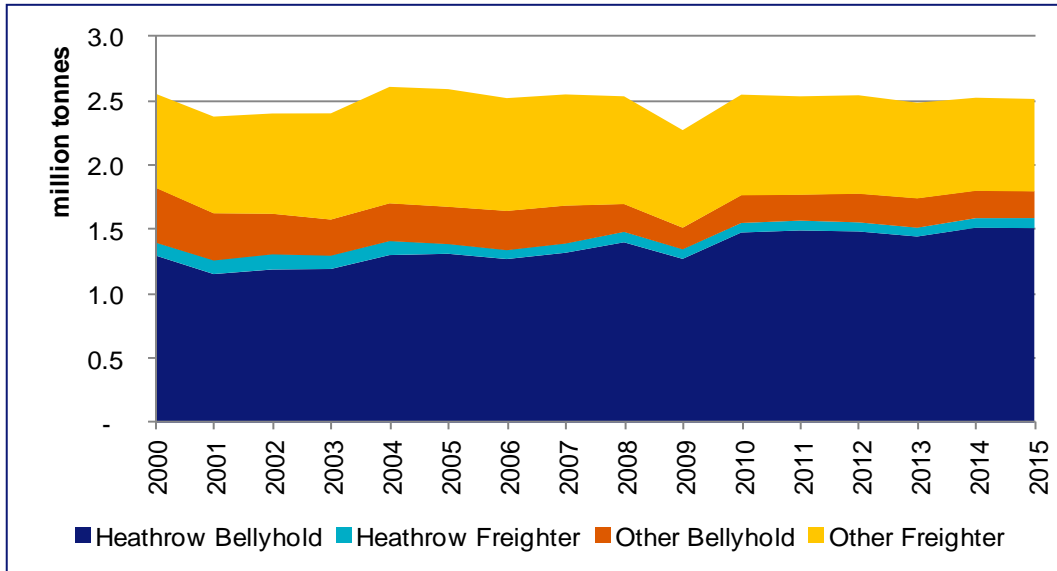
Source: CAA Airport Statistics

Cargo traffic

B.12. Cargo tonnage at UK airports has been broadly flat since 2000. Heathrow plays a central role in this sector being by far the largest cargo hub in the UK, despite serving very few cargo-only (freighter) flights. Heathrow alone,

accounts for 63 per cent of cargo handled at UK airports, a share that has been increasing gradually since 2006 when it accounted for 53 per cent.

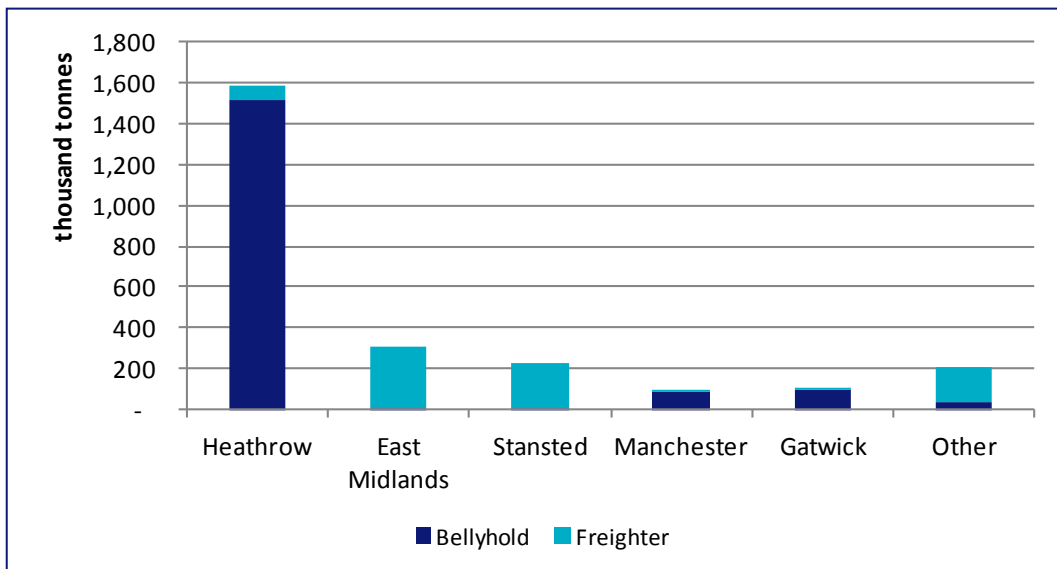
Figure B.7: Air Cargo tonnage at UK airports



Source: CAA Airport Statistics

B.13. In contrast, cargo at other UK airports is mostly carried on cargo-only flights, with the most relevant airports being East Midlands and Stansted, as shown in the figure below.

Figure B.8: Cargo at UK airports 2015



Source: CAA Airport Statistics

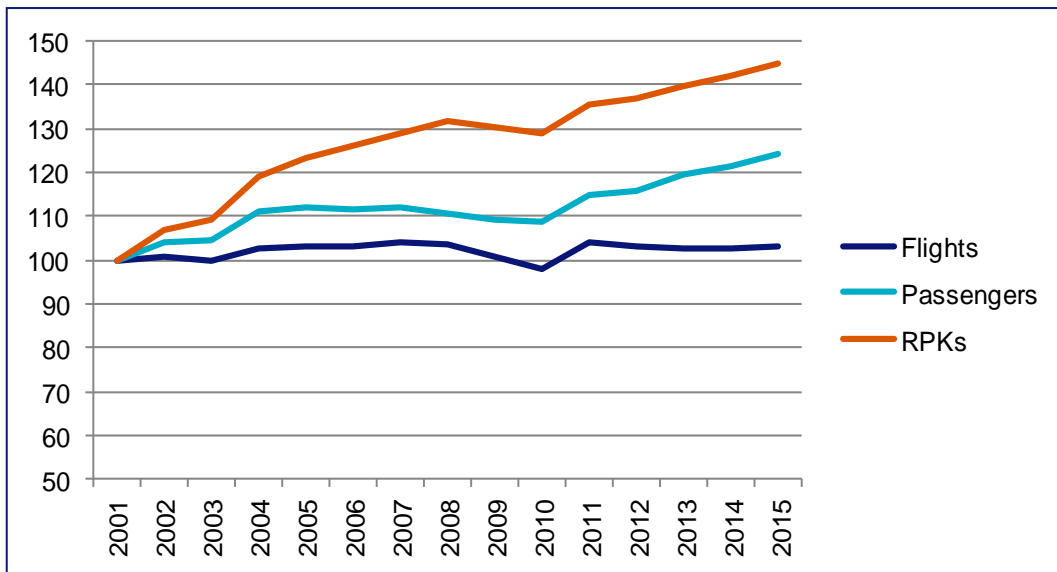
Characteristics of Heathrow

B.14. It is not only in terms of size that Heathrow is different from other London and UK airports. It is different on a number of dimensions where we consider there is unlikely to be a great deal of change in the medium term. We describe each in turn.

Utilisation

B.15. Heathrow is exceptionally highly utilised. There is an annual cap of 480,000 movements imposed as a condition of the planning permission for Terminal 5. Last year, Heathrow operated about 472,000 movements or 98 per cent of its total runway capacity. Runway utilisation above 95 per cent has been a consistent feature of Heathrow for the past 15 years. However, slot productivity has been improving, as airlines have been utilising Heathrow slots with larger aircraft on longer flights. The figure below shows that despite Heathrow serving a similar number of flights to 2001, it now serves 24 per cent more passengers and supports over 5 per cent more revenue passenger kilometres (RPKs). Also, in the last four years, slot efficiency increased with respect to number of passengers.

Figure B.9: Indices of volumes supported by HAL’s slots (2001=100)



Source: CAA Airport Statistics

Note: RPKs were calculated by multiplying the number of passengers by the sector distance of their flights.

Airline composition

B.16. HAL’s airline customers are almost entirely full-service airlines, contrasting with a mix of full service, charter and low cost at Gatwick and almost entirely a low cost airline base at Stansted and Luton.

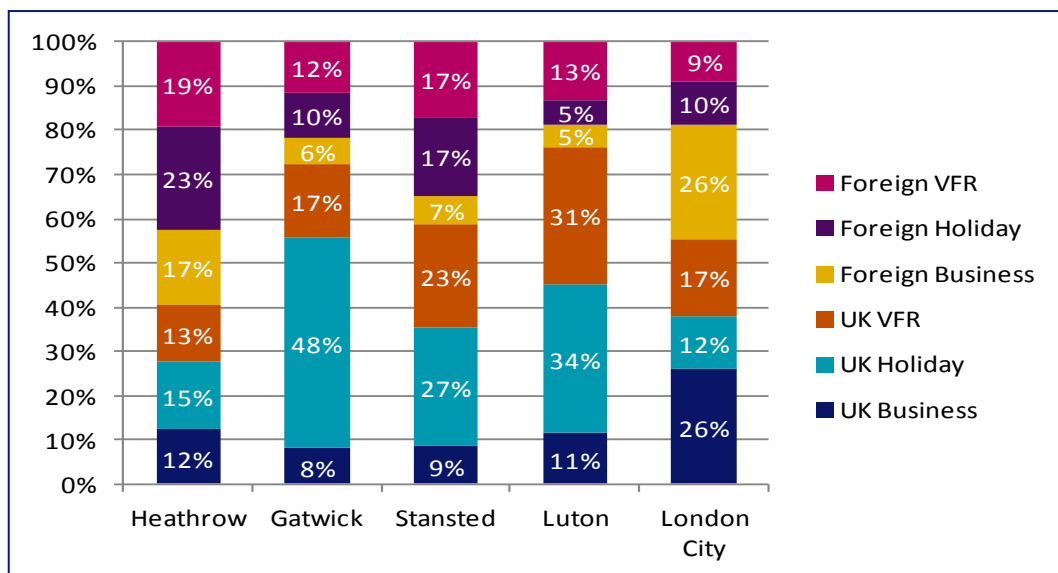
B.17. HAL’s airlines, in particular British Airways, serve a large number of passengers connecting at Heathrow, with about 36 per cent of its passengers connecting there. This compares with about 8 per cent at Gatwick and 4 per cent at Stansted. Some of those passengers are connecting to the UK regions but the majority are foreign International-to-International connecting passengers. Connecting passengers, however, contribute to the economic viability of a wide route network with frequent services.

Passenger mix

B.18. HAL’s long-haul route network is unique in the UK. Linked to this, the aircraft operating these routes also tend to be larger, and have a higher proportion of premium passengers. This means that, on average, airlines generate larger revenues²⁷ for each landing at Heathrow compared to other UK airports.

B.19. HAL’s passenger mix includes a higher proportion of foreign passengers than most other UK airports, as illustrated in the figure below. It also has a higher proportion of business (and premium) passengers than at other large London airports, except for London City.

Figure B.10: Passengers' Residency and Purpose at London airports



Source: CAA Passenger Survey, 2014

²⁷ In the form of more passengers, often paying more per ticket, and producing more commercial revenues at the airport.

Heathrow compared with other hubs

- B.20. Figure B.11 compares key metrics of Heathrow's traffic with the largest hubs in Europe. Heathrow is the airport serving the most passengers in Europe and it also has the largest number of scheduled passenger flights, even though it has been facing the strongest capacity constraints to increase flight numbers. These capacity constraints, as seen earlier, put pressure on Heathrow's airlines to best utilise available slots.
- B.21. Therefore, Heathrow serves fewer destinations than other large European hubs and it has not been increasing the number of destinations served over the past decade, unlike at other European hubs. However, Heathrow tends to serve its destinations with greater frequency, and with larger aircraft size. Also, a larger proportion of its seat capacity is serving non-European destinations, particularly in North America. This means that each Heathrow slot supports, on average a larger airline output (available seat kilometres, ASKs) than any other airport in Europe.

Figure B.11: Key traffic metrics at the 5 largest EU hub airports

	Heathrow	Paris (CDG)	Amsterdam	Frankfurt	Madrid
Passengers (m)*	73.4	63.8	54.9	59.6	41.8
Scheduled passenger flights (000s)	473	436	422	441	350
Destinations	162	211	215	212	166
Non-European Destinations	88	103	78	91	57
Non-European seat Capacity (%)	51	44	30	36	24
Average aircraft size (seats/flights)	204	184	159	181	167
ASKs per flight (000s)	820	642	450	563	421

Source: OAG (2015), *Anna.aero (2014)

Note: A "destination" is an airport served with more than 100 departures in a year. Available seat km is the number of seats multiplied by the distance between the airport and the destination.

- B.22. All of these hub airports also serve a large proportion of transfer passengers.²⁸ Transfer passengers tend to be, by their nature, more price-sensitive than passengers travelling direct. That is because they are relatively willing to substitute the airport they interline as an intermediate point in their origin-destination journey. Network airlines compete for these passengers travelling between a variety of origin-destinations. This will have an effect on how airlines choose to charge such passengers and the extent to which airlines are willing / able to pass on costs to transfer passengers (including airport charges).
- B.23. HAL's charging structure, as other hub airport operators throughout Europe, seems to recognise this price-sensitivity by charging lower airport charges to airlines that carry a higher proportion of transfer passengers.
- B.24. Recently, HAL has decided to reduce, by £10, the departing passenger charges to UK routes and offer a £5 passenger discount to European routes, compared to the previous European passenger charge.²⁹ HAL states that this decision was to support its vision to be "*the UK's direct connection to the world and Europe's hub of choice*".

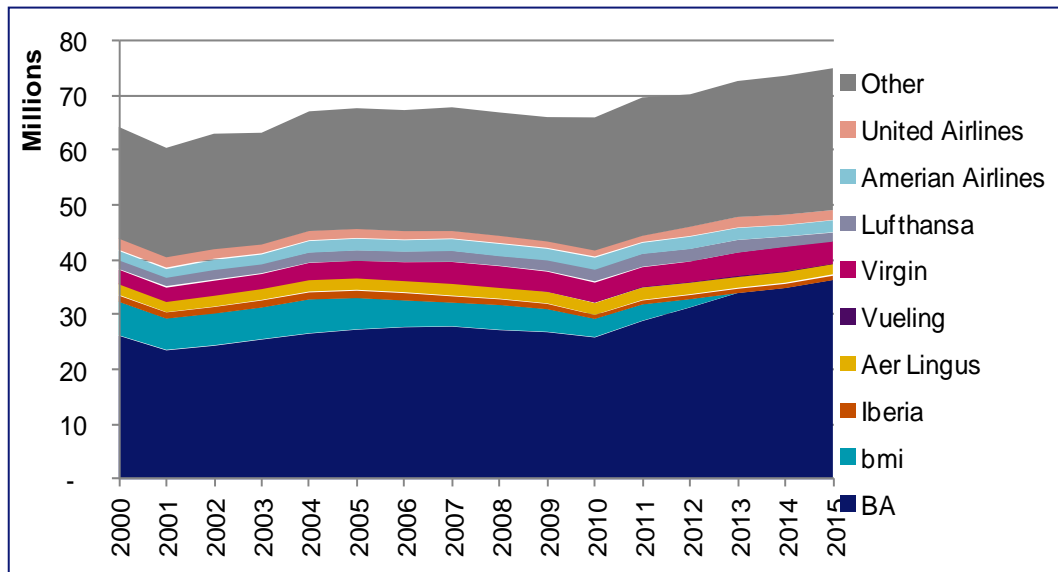
Airlines at Heathrow

- B.25. British Airways is the largest airline at Heathrow. In 2015, it accounted for 51 per cent of flights and 49 per cent of the airport's passengers. British Airways is part of IAG, which also includes Iberia, Vueling and, since July 2015, Aer Lingus. In 2015, IAG accounted for 56 per cent of flights and 52 per cent of passengers at Heathrow.

²⁸ See, for example, figure 3.5 of https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/266670/airports-commission-interim-report-appendix-3.pdf.

²⁹ Further details of its decision are available in http://www.heathrow.com/file_source/Company/Static/PDF/Partnersandsuppliers/Airport_Charges_Decision-5-August-2015.pdf

Figure B.12: Passenger Numbers by passenger airline at Heathrow 2000-2015



Source: CAA Airport Statistics

- B.26. The presence of IAG and its partner airlines at Heathrow has been increasing in recent years. This has been a result of mergers and joint ventures, which has increased coordination between alliance partners. Figure B.13 illustrates recent developments in terms of airline cooperation and shares of slots at Heathrow.
- B.27. In 2008, following the EU-US open skies agreement, a number of long-haul carriers entered Heathrow to serve routes to the US after acquiring Heathrow slots. Before then only Delta, Continental and Northwest airlines, for example, could serve the US routes from Gatwick, as under the previous bilateral air transport agreement only British Airways, Virgin, American Airlines and United Airlines were allowed to serve Heathrow. This liberalisation, therefore, introduced more direct competition in this important segment of Heathrow's demand.
- B.28. Since then, however, a number of transatlantic joint ventures have gained anti-trust immunity to cooperate between the EU and the US. Notably, in 2010, the oneworld-led joint venture between IAG and American Airlines was allowed to cooperate. This deal was subject to scrutiny by EU and US competition authorities, who found that these agreements could generate important consumer benefits, particularly because they could provide more opportunities of seamless one-stop connectivity. However, it was noted that they could also lead to a reduction in competition particularly for direct (non-

stop) long-haul passengers.³⁰ In order to gain approval for the joint ventures, parties had to provide commitments in the form of Heathrow slot remedies to encourage entry by competitors on key routes.

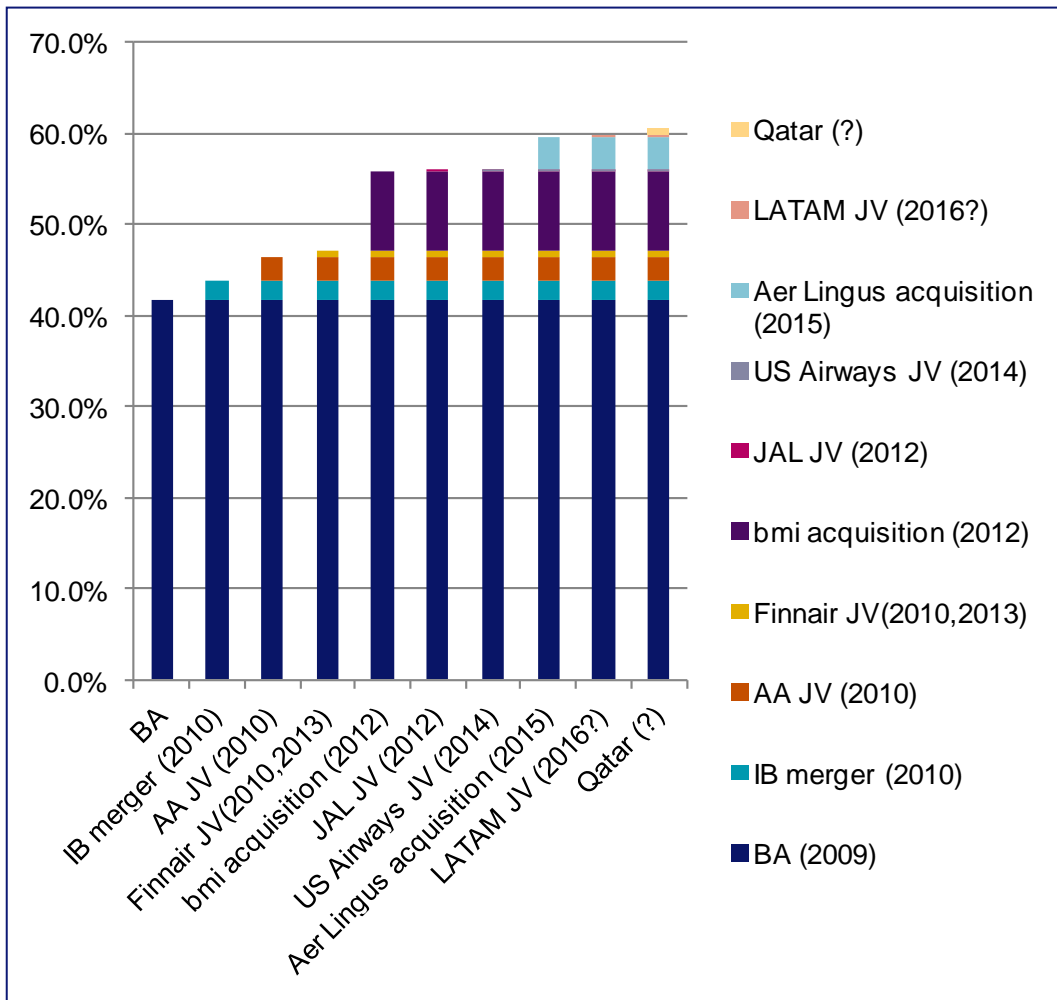
B.29. Other recent consolidation developments, as illustrated in the figure below, had an impact on the number of slots that come under the IAG and their partners' umbrella include:

- IAG's acquisition of bmi in 2012 and of Aer Lingus in 2015. These two carriers historically provided important feed to other alliance (Star, Sky) and non-aligned carriers at Heathrow.
- In 2012, IAG and Japan Airlines signed a joint venture on trans-siberian traffic. Finnair has also joined the transatlantic and the trans-siberian joint ventures.
- The acquisition of US Airways by American Airlines in 2014 brought US Airways' previous services within the oneworld transatlantic joint venture.
- The agreement reached in January 2016 to establish, subject to regulatory approval, a joint venture between IAG and LATAM Airlines Group for air transport services between South America and Europe.

³⁰ See, for example, the conclusions by the US Department of Justice, available at <http://www.justice.gov/atr/public-version-comments-department-justice-joint-application-american-airlines-et-al>.

The Department concluded that the proposed alliance agreements would significantly harm competition on the most significant transatlantic routes, resulting in fare increases of up to 15% for some passengers. Its main concerns were around the price effects from the loss of non-stop competition in transatlantic routes. It also concluded that the proposed alliance agreements could also lead to some public benefits (particularly for connecting (indirect) passengers, but it recommended that the US Department of Transport should impose conditions – slot divestitures or carveouts, as appropriate – to protect the public interest in competition.

Figure B.13: Developments in distribution of slots: IAG (and joint venture partners) slot share over time



Source: CAA's analysis of ACL reports

B.30. In January 2015, Qatar Airways announced that it had acquired a 9.99 per cent of stake in IAG and that it may consider increasing this stake further over time. Qatar joined oneworld in 2013 and last year signed a deal with IAG to fly IAG cargo flights between London and Hong Kong via Doha. The companies will now explore ways to extend their commercial cooperation further. The Qatari sovereign wealth fund also has a 20 per cent stake in HAHL including a seat on the Board.

B.31. Other transatlantic joint ventures were also formed in the period post EU-US Open Skies, mostly affecting passengers at other European hubs. The most notable in a Heathrow context is the Virgin/Delta partnership. Delta acquired a 49 per cent stake in Virgin in 2013. Virgin has the second largest portfolio at Heathrow. The two carriers have been taking steps to increase cooperation and formed a transatlantic Joint Venture (although Virgin did not join the broader Sky Team Joint Venture).

- B.32. Finally, we see with interest the entry of new airlines and new business models at other London airports, including low-cost long-haul carriers (such as Norwegian) and initiatives for new ways of integrating low cost carriers' traffic into long-haul networks at other London airports.

The role of airline competition

- B.33. In order for the benefits of economic regulation to be passed on to consumers, there must be sufficient competition between airlines. Specifically, consumers need to be able to choose between airlines in order to create competitive pressure that limits airlines' ability to pass through changes in airport charges to ticket prices.
- B.34. Although the airline sector is generally competitive, it is also clear that the extent of competition varies depending on the route a passenger wishes to travel; as in some cases, a route may be offered by just one or two airlines.
- B.35. So it is reasonable to expect that the outcomes in some aviation markets will not be competitive: that is to say where prices always reflect (long run average) incremental costs. This means that economic rents, which would normally all be captured by consumers, are likely to accrue to the airport operator and/or airline to some degree. We may particularly expect this where there are restrictive air service agreements or capacity constraints.³¹
- B.36. The situation may be further affected by the nature of the vertical relationship between the airport and airline. This is an area that has been covered in some detail in academic literature.³² In some cases vertical agreements may encourage more competitive outcomes, while in others they may serve to constrain competition.
- B.37. There is therefore a wide range of different factors that may affect the distribution of the economic benefits of a particular journey between the airport operator, airlines and consumers. This will also influence the degree of passthrough of airport charges to consumers. It is, however, possible to reach some general conclusions as set out below.

³¹ The question of distribution of economic rents was discussed in depth in a number of submissions to the Airports Commission. These were reviewed for the Commission by SEO Economic Research (2015) *Scarcity rents and airport charges*: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/439688/strategic-fit-scarcity-rents-and-airport-charges.pdf.

³² For a review of the literature see for example Rey (2012): *Vertical restraints – an economic perspective*: <http://www.fne.gob.cl/wp-content/uploads/2013/11/Patrick-Rey.-Vertical-Restraints.pdf>.

- In general more competition between airlines will lead to more complete pass through of changes to airport charges since fares will more closely reflect costs.
- Airline competition may also play a part on constraining airport operator market power, particularly where there is countervailing buyer power and scope for negotiation of airport charges.
- However the degree of countervailing buyer power or airline “lock-in” to the airport will also affect the distribution of any economic rents. With “lock-in” favouring the airport operator over its airlines and consumers.
- Airlines may be able to capture some economic benefits where they have more information than airport operators about the nature of consumer demand and have the ability to differentiate fares.
- Capacity constraints are likely to increase the scope for the airport operator and its airlines to exercise market power and capture economic/scarcity rents.
- Vertical agreements (explicit or implicit) between airport operators and airlines may increase efficiency and choice but also increase the possibility for both to exercise market power over consumers.

B.38. There may, therefore, be circumstances where airlines are able to extract some economic rents. Thus it cannot always be assumed that airlines fully reflect the interests of passengers in their dealings with airports. Likewise, increases and reductions in airport charges will not always be passed through to passengers in full.

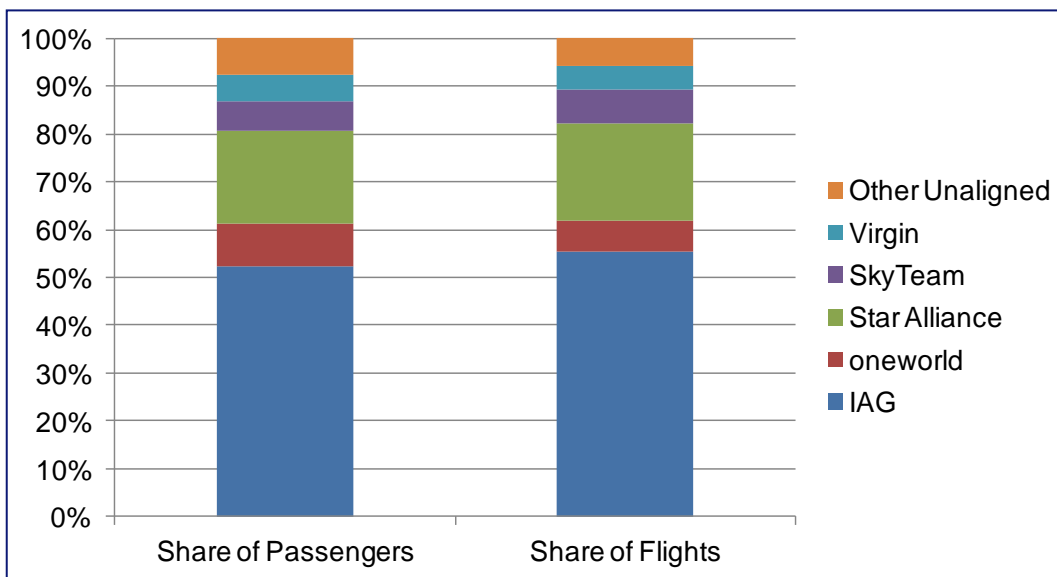
B.39. This raises an important question for H7 since, the smaller the passthrough, the less likely it is that benefits of economic regulation will be passed on to consumers. At Heathrow in particular, the extent to which airlines can compete effectively is also likely to depend on the capacity constraints present at the airport and elsewhere in the airport system. Capacity constraints also mean that incumbent airlines may derive an economic advantage of prevailing constraints.³³ This may further dampen the incentives faced by incumbent airlines to represent consumers’ interests.

³³ We note that slots have economic value as demonstrated by the values paid when they are traded. We also note that Virgin was recently able to borrow, using its slots as collateral.

Airline cooperation at the airport (alliances, connectivity, terminal co-location)

B.40. As well as competition, airline cooperation may help support connectivity levels available at London. The overwhelming majority of Heathrow’s airlines are network carriers, and are members of airline alliances. As shown in the figure below, oneworld is the largest alliance with about 61 per cent of the airport’s passengers. Star Alliance, which recently moved into the new Terminal 2, represents 21 per cent of passengers at the airport.

Figure B.14: Share of passengers and flights by alliance at Heathrow, 2015

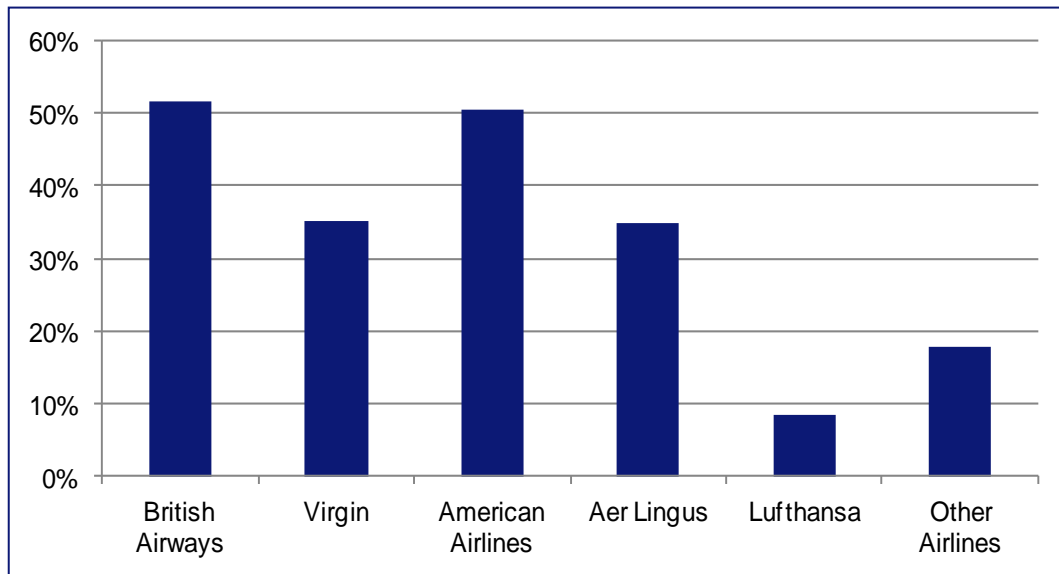


Source: CAA Airport Statistics

Note: Year to September 2015

B.41. According to the CAA's passenger survey around half of British Airways' passengers at Heathrow were connecting between flights, whereas for other airlines that proportion was around 20 per cent (an important part of which were connecting with British Airways' services), as illustrated in the figure below. That proportion was varied across airlines depending on airlines' arrangements with each other to offer connections at the airport. As well as commercial arrangements between airlines, co-location in the various terminals at the airport also plays an important role in making these connections possible.

Figure B.15: Proportion of connecting passengers at Heathrow by airline



Source: CAA Passenger Survey, 2014

Annex C: List of abbreviations

Abbreviation	
the Act	Civil Aviation Act 2012
ASKs	available seat kilometres
ASQ	Airport Service Quality
capex	capital expenditure
CAPM	capital asset pricing model
CCF	Consumer Challenge Forum
CCG	Customer Challenge Group
CE	Constructive Engagement
CMA	Competition and Markets Authority
CODA	Central Office for Delay Analysis (Eurocontrol)
COPI	construction price index
CPI	consumer price index
DNOs	distribution network operators
FBP	final business plan
GAL	Gatwick Airport Limited
GDP	gross domestic product
GIP	Global Infrastructure Partners
H7	the 7th price control period of Heathrow, from January 2019 onwards
HAHL	Heathrow Airport Holdings Limited
HAL	Heathrow Airport Limited
IAG	International Airlines Group
IBP	initial business plan
IQI	Information Quality Incentive
LRAIC	long-run average incremental cost
MCC	Material change of circumstances
MPD	Market Power Determination
mppa	million passengers per annum
MPT	Market Power Test
opex	operating expenditure
ORR	Office of Rail and Road

Abbreviation	
Q4	the 4th price control period of Heathrow, from April 2003 to March 2008
Q5	the 5th price control period of Heathrow, from April 2008 to March 2014
Q6	the 6th price control period of Heathrow, from April 2014 to December 2018
QSM	Quality of Service Monitor
RAB	regulatory asset base
RIIO	Revenue = Incentives + Innovation + Outputs
RPI	retail price index
RPKs	revenue passenger kilometres
SMP	substantial market power
SQRB	Service Quality Rebates and Bonuses
totex	total expenditure
UKRN	UK Regulators Network
WACC	weighted average cost of capital
WICS	Water Industry Commission for Scotland