Consumers and Markets Group

Economic regulation of Heathrow Airport Limited: Consultation on the Way Forward

CAP 2139

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Appendices to support this document have been published separately:

Appendices to Economic regulation of Heathrow Airport Limited: Consultation on the Way Forward (CAP2139A)

About this document

This consultation summarises our broad approach to the remainder of the Heathrow Airport Limited ("HAL") H7 price control review programme. It provides:

- an update on the timetable and recent developments for the review. Our response to HAL's request for a covid-19 related Regulatory Asset Base ("RAB") adjustment is set out in a document published alongside this one;
- an overview of our proposed approach to the form of regulation for HAL, including our intention to set a 5-year price control;
- our assessment of HAL's revised business plan ("RBP") including our proposed approach to developing projections for each of the key price control "building blocks" that will inform our Initial Proposals due to be published this summer; and
- an update on our approach to introducing traffic or revenue risk sharing, developing stronger capital efficiency incentives, moving towards outcome based regulation ("OBR"), and our approach to assessing HAL's financeability and the affordability of its charges.

Views invited

We welcome views on all the issues raised in this document and, in particular, the issues set out in the executive summary and those highlighted in chapters 1 to 5 as well as appendices H, J, K, L, M and O.

Please e-mail responses to economicregulation@caa.co.uk by no later than 18 June 2021. We cannot commit to take into account representations received after this date.

We expect to publish the responses we receive on our website as soon as practicable after the period for representations expire. Any material that is regarded as confidential should be clearly marked as such and included in a separate annex. Please note that we have powers and duties with respect to information under section 59 of the Civil Aviation Act 2012 and the Freedom of Information Act 2000.

If you would like to discuss any aspect of this document, please contact Rob Toal (robert.toal@caa.co.uk).

Executive summary

The Way Forward for the H7 programme

1. During the last four years, we have published a number of consultations and working papers on the economic regulation of Heathrow Airport Limited (HAL) from 1 January 2022 (the “H7” price control period).[1] This consultation summarises our broad approach to the remainder of the H7 price control review programme, including the changes we are making to accommodate the impact of the covid-19 pandemic.

2. There is significant ongoing uncertainty over the likely pace and strength of the recovery from the very large reductions in passenger numbers caused by the pandemic. In the light of this uncertainty, we are seeking to develop an approach such that the price control arrangements can be set in way that accommodates a range of different passenger traffic scenarios. Nonetheless, the combination of lower passenger volumes, HAL’s large RAB and that some elements of its cost base do not change in proportion to changes in passenger numbers, are likely to put upward pressure on airport charges per passenger. We will take steps to smooth the path of prices over the period of the H7 price control but this is unlikely to fully mitigate the upward pressure on prices created by current circumstances.

3. We will closely monitor developments over the coming months to determine how best to deal with the evolving uncertainty. If necessary, we will make further changes to our approach ahead of our Initial Proposals for the H7 price control (scheduled for publication in the summer of 2021).

Recent developments

The impact of the covid-19 pandemic on passenger numbers

4. The covid-19 pandemic continues to have a very large impact on the aviation industry. Passenger numbers at Heathrow airport over 2020 were 73% lower than they were in 2019. The impact of ongoing travel restrictions, including legal restrictions on travelling and quarantine measures both in the UK and overseas, continues to make the path of

[1] All our consultations on the H7 price control can be found at: https://www.caa.co.uk/Commercial-industry/Airports/Economic-regulation/H7/Consultations-and-policy-documents/.

recovery highly uncertain, particularly in the earlier years of the H7 control period.

5. HAL has produced a range of traffic forecasts in its Revised Business Plan ("RBP"), with its "high" case reflecting a relatively strong recovery in traffic and its "low" case a significantly slower recovery. We discuss these forecasts further in chapter 1 and chapter 2. As noted above, a key challenge will be setting HAL's price control in a way that protects consumers across an appropriately wide range of passenger traffic scenarios. Scenarios with lower traffic levels are likely to be particularly difficult with significant upward pressure on HAL's charges. Dealing with these issues will be central to our approach to setting the price control.

6. We would particularly welcome further views and evidence from stakeholders on the best approach to assessing the affordability of airport charges for H7 and how any such approach would further the interests of consumers, including allowing essential investment in airport services to be reasonably financed. We acknowledge that this is a challenging area given the present uncertainty and will focus on these matters in developing Initial Proposals. Consistent with the approach we have adopted to date we will also continue to consult the CAA Consumer Panel on how we should further the interests of consumers, including our approach to affordability.

HAL's request for a covid-19 related RAB adjustment

7. In response to the impact of the covid-19 pandemic, HAL made a request to the CAA in July 2020 for a significant upward adjustment to its RAB from 2022 to help protect it from the adverse financial consequences of the reduction in passenger volumes. We have been assessing HAL's request in accordance with our statutory duties and issued consultations in October 2020[2] and February 2021[3] on whether intervention would be warranted in the context of the current ("Q6") regulatory settlement and the commercial deal between HAL and airlines for 2020 and 2021.

8. We have published our decision on the RAB adjustment ahead of the H7 price review alongside this document. In this we conclude that we should make a targeted intervention that would provide for a £300 million increase in HAL's RAB from 2022 to provide more assurance that HAL has the incentive to make investments and spend money to provide good quality consumer outcomes during the recovery. In addition to this immediate

[2] See: Economic regulation of Heathrow Airport Limited: response to its request for a covid-19 related RAB adjustment (CAP1966) (the "October 2020 Consultation") http://www.caa.co.uk/CAP1966

[3] See: Economic regulation of Heathrow Airport Limited: response to its request for a covid-19 related RAB adjustment (CAP1966) (the "February 2021 Consultation") http://www.caa.co.uk/CAP2098

intervention, we have committed to consider whether a further RAB adjustment would be appropriate as part of the H7 price control review. This assessment will be an important component of our work on HAL's financeability, its cost of capital and the affordability of airport charges.

Other CAA consultations

9. In addition to considering HAL's request for a covid-19 related RAB adjustment, we have continued developing the regulatory framework for the H7 period through working papers on:

- capital expenditure ("capex") efficiency incentives;
- the efficiency of HAL's capex incurred during Q6; and
- the treatment of early expansion costs.

10. These papers are available on the H7 page of the CAA website.[4]

Supreme court decision on the Airports National Policy Statement (the "NPS")

11. We said in the April 2020 Consultation that work on HAL's H7 price control would focus on a "two runway" airport. This reflected the impact of the covid-19 pandemic and the Court of Appeal's decision that the NPS had not been lawfully produced. In December 2020, the Supreme Court reversed the decision of the Court of Appeal, ruling that the Government's decision to designate the NPS had been lawful. As a result, the legal effect of the NPS was restored.

12. Nonetheless, we consider that a "two runway" approach to the H7 price control remains appropriate and reflects the wider circumstances faced by the aviation industry. Further, HAL has said that it will reflect on the Supreme Court decision and consult with stakeholders before setting out the next steps for capacity expansion. We will consider any regulatory issues related to expansion through a separate workstream should the need arise.

Overall approach to the H7 control

13. We remain of the view that regulating prices and service quality is the most appropriate form of regulation for HAL and is the best way for the CAA to

[4] H7 Consultations and Policy documents

further the interest of consumers as we are required to do by our statutory duties. We are currently minded to:

- develop a five-year price control to cover the period from 1 January 2022 to 31 December 2026. The intention to set a five-year price control is supported by HAL and airline stakeholders. We will, however, continue to keep this under review through the rest of 2021 as we understand more about the ongoing impact of the covid-19 pandemic;
- base that price control on the "building block" approach used for the Q6 and previous price controls (including using the existing RAB based approach and a "single till" to calculate the level of airport charges);
- deal with the uncertainty in future passenger traffic volumes by considering (i) a range of scenarios for passenger traffic and the impact of these scenarios on HAL's costs and commercial revenues, and (ii) developing passenger traffic or revenue risk sharing arrangements; and
- to the extent appropriate and practicable, use conventional regulatory levers (such as the profiling of revenue or regulatory depreciation) to develop a price control that delivers affordable charges for consumers and supports the financeability of HAL's investment programme.

14. Nonetheless, we are very conscious of the challenges and uncertainties created by the impact of the covid-19 pandemic. Bearing these issues in mind we will keep our approach under review with the aim of protecting consumers and supporting the recovery in traffic at Heathrow airport. If circumstances were to dictate a different approach to the form of the price control (or way we set the control) we would not rule out changing our approach, but we would continue to seek to ensure essential investment by HAL remains financeable and charges to airlines (and so passengers) remain affordable.

HAL's revised business plan

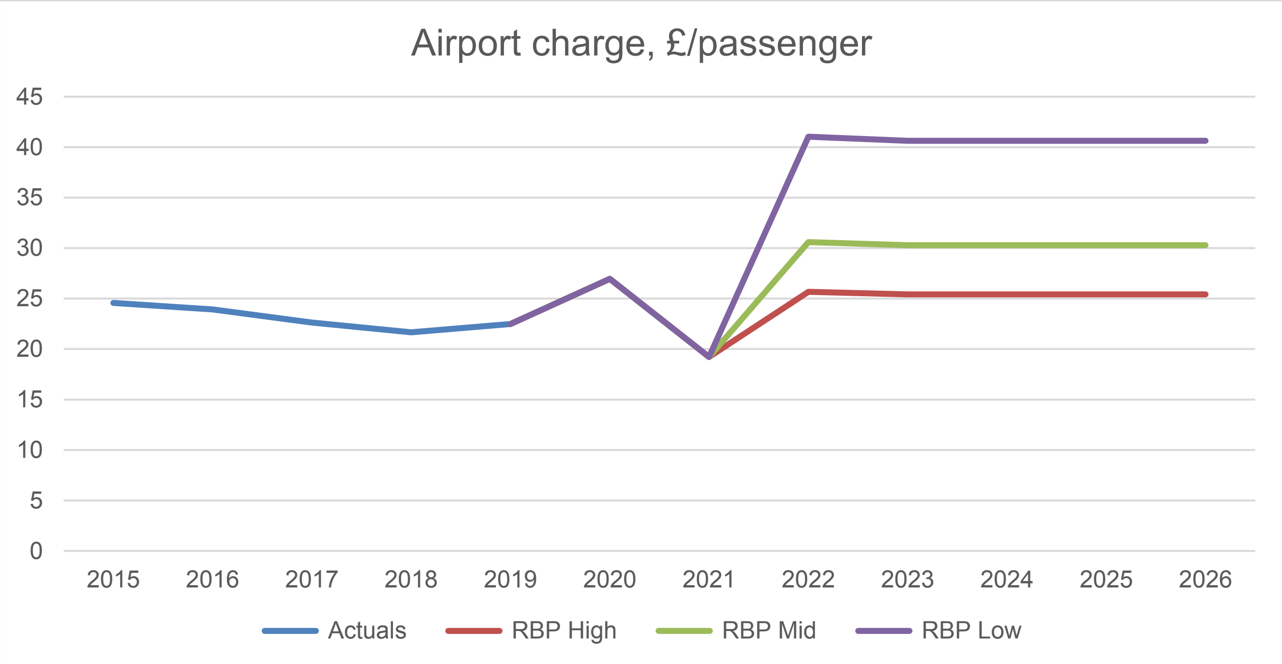
15. In the June 2020 Consultation, we set out key principles and guidance for HAL to produce a high-quality business plan, informed by the needs of consumers and stakeholders.[5] HAL issued its RBP on 18 December 2020.

[5] https://caa.co.uk/CAP1940 Appendix E of the June 2020 Consultation, referred to as "the June 2020 Business Plan Guidance".

HAL said that the RBP reflects the in-depth consultation with airlines undertaken through Constructive Engagement ("CE") in 2020.

16. HAL's RBP "base case" would lead to very significantly increased airport charges compared to the Q6 price control period. HAL's base case for H7 assumes an average charge of £30 per passenger compared to around £20 in 2021. The RBP "low" case would lead to charges of £40 per passenger and the "high" case £25 per passenger as set out in Figure 1 below.

Figure 1: RBP airport charge compared to last five years of Q6 (2018 prices)



Source: HAL Regulatory Accounts and RBP

Note: Actuals from 2015 to 2019

17. While we recognise that the RBP is an extensive and detailed document and has been developed in difficult circumstances, there are a number of elements of the plan that do not comply with the aspirations set out in our Business Plan Guidance. In particular, the absence of properly integrated alternative scenarios limits the effective assessment of the plan as a whole and the RBP does not fully meet the requirements for a high-quality plan that adequately addresses the needs of consumers and stakeholders.

18. Further, in a number of areas, the plan lacks sufficient detail to enable the CAA and other stakeholders to scrutinise the proposals properly. This is particularly evident in HAL's estimated capex envelope of £3.5 billion, which is based almost entirely on "top-down" projections rather than on an assessment of the costs of specific projects and programmes supported by structured business case analysis and cost estimates.

19. Nonetheless, we acknowledge the particularly difficult circumstances that HAL has been dealing with, while also developing its RBP. We also recognise the efforts it has made to establish an approach to passenger forecasting that addresses some of the uncertainties created by covid-19. HAL has also already committed to providing more comprehensive information in a number of important areas, including capex.

20. Airlines have also raised concerns with HAL's RBP, stating that it:

- focuses too much on rewards for shareholders at the expense of consumers; and
- has failed to reflect the reality of what other businesses within the industry have been required to do in response to the impact of the covid-19 pandemic.

21. In response to these concerns, airlines have provided us with an updated alternative assessment based upon further information from HAL as well as third party consultancy support on commercial revenues, operating costs and the cost of capital. The airline assessment would imply average airport charges significantly lower than those proposed by HAL.

22. Further details of our assessment of the business plans submitted by each of HAL and airlines are set out in chapters 1 and 2 and in the appendices. These chapters also describe our broad approach to building on the work HAL has set out in its RBP to produce the projections of each of the key revenue building blocks that will support our development of Initial Proposals.

Furthering the interests of consumers

23. We are developing the regulatory framework for HAL in a way that is consistent with our statutory duties, so to discharge our primary duty to further the interests of consumers. With that in mind, we are proposing the following developments to the existing regulatory arrangements.

Traffic / revenue risk sharing

24. In the June 2020 Consultation we said that there was a strong case for including some form of traffic risk sharing mechanism in HAL's next price control. We noted that such a mechanism could avoid unnecessary upward pressure on the cost of capital and stated that we would consider possible options for developing such arrangements.

25. Reflecting the current and ongoing difficulties associated with traffic forecasting, we are confirming our intention to introduce new arrangements

for traffic or revenue risk sharing. More work is required over the coming months on the design and calibration of these arrangements, as well as on the interaction with other elements of the regulatory framework (including how such arrangements would prevent undue upward pressure on HAL's cost of capital and level of allowed returns).

Updating our approach to financeability and affordability

26. Chapter 3 on the financial framework builds on the discussion set out in the June 2020 Consultation and explains how we will take account of HAL's financeability and the affordability of its charges in setting the H7 price control. This includes:

- the assumptions we will make on capital structure (i.e. the amount of debt and equity appropriate to finance HAL's RAB) that support both our assessment of financeability and the calculation of the cost of capital;
- our broad approach to setting the level of allowed return on debt and equity finance (with the overall allowance for the cost of capital important to both the overall level of charges and the incentives of HAL to fund new investment);
- how we will assess both debt and equity financeability;
- our approach to the profiling of regulatory depreciation and revenues to support the affordability of airport charges; and
- how we intend to make allowances for corporation tax.

27. Our work on financeability will also involve considering a number of the issues that HAL has raised in its request for a covid-19 related RAB adjustment. The overall aim is to both support HAL's access to financial markets on reasonable terms so it can finance reasonable levels of investment and set airport charges in a way that is affordable for passengers and the users of cargo services.

Capex efficiency incentives

28. Over the last four years, we have consulted on our approach to capex efficiency incentives for the next price control, with a key objective of creating stronger and clearer incentives for HAL to make capex investments efficiently. This remains a priority for H7, even in the context of a two runway airport.

29. We remain of the view that improvements to capex efficiency incentives are best achieved through the careful introduction of forward looking

incentives. This offers a number of important advantages over the current system of after the fact reviews. These reviews have been challenging to carry out in practice and may not have provided a sufficiently strong incentive for HAL to ensure efficiency across all of its capex programme.

30. Our proposed approach builds on the well-established capex governance arrangements from Q6 including the role of airlines, particularly around the initial selection of projects. HAL's performance will be assessed against baselines that will be updated during the H7 control period to reflect more accurate capex requirements and cost information as it becomes available. We consider that this should provide an appropriately flexible approach and more targeted incentives for HAL to manage the risks that it faces in relation to capex, and so should better serve the interests of consumers.

Outcome based regulation (OBR)

31. The regulatory regime for HAL should incentivise the delivery of the outcomes that consumers value. OBR will contribute to delivering this objective and we are developing the current output-based approach to service quality regulation to provide stronger incentives on HAL to focus its attention on what consumers value.

32. As part of its RBP, HAL developed six overarching consumer outcomes, based on detailed research that it considers should provide the foundation of its business plan and for the OBR framework. HAL also proposed:

- that the OBR framework should include thirty-six service quality measures which include most of the current Service Quality Rebate and Bonus scheme ("SQRB") measures and introduce several new reputational measures; and
- to focus on maintaining Q6 service levels in H7 and make targeted improvements in areas that HAL considers matter most to consumers.

33. Airlines have also made an OBR proposal based on twenty-five service quality measures and targets, some of which align with HAL's proposals, and which they consider reflect the outcomes that consumers want. The airline proposals are based on a "journey mapping" approach to identify key elements of the passenger's journey through the airport and the operational processes for which HAL is responsible.

34. We very much welcome this focus on consumer outcomes by both HAL and airlines and consider that good progress has been made particularly on measures. We also welcome the principle of reviewing and updating the OBR framework during H7 to ensure it remains agile and can evolve

periodically to reflect consumers' changing priorities and wider covid-19 related developments. Further work is now required over the coming weeks, building on our initial views set out in chapter 5, to develop and improve the existing proposals. We expect HAL to take the lead by engaging with airlines to work towards producing an updated OBR framework and to have narrowed down or eliminated areas of disagreement.

Timetable

35. In light of the impact of the covid-19 pandemic, we have been working with stakeholders to review the timetable to understand whether changes to the timeline we published in April 2020 may be required.

36. To this end, we confirmed in February 2021[6] that we intend to extend the timetable for the H7 price control review so that our final proposals, and the proposed licence modifications necessary to give them effect, will now be issued in December 2021. Taking this approach should allow:

- sufficient time for the CAA to build a reasonable understanding of how we will address the uncertainty over traffic forecasts;
- HAL the opportunity to develop and provide updated forecasts based on the evidence emerging during this year; and
- appropriate time for us to consult stakeholders on our approach.

37. The updated H7 timetable is set out in Appendix C and includes the publication of our Initial Proposals in Summer 2021. In practice, the timetable means that the licence modifications will take effect in March 2022 at the earliest, at least three months after the end of the current Q6 price control. However, our intention is to develop modifications that apply to HAL's revenues for the full year from 1 January 2022.

38. We will keep these timings under close review noting that the continued uncertainty over recovery from the impact of the covid-19 pandemic may require us to make further changes.

Licence modifications

39. The proposed changes to the regulatory framework for the new H7 price control will require us to make extensive changes to HAL's licence to

[6] CAA letter to HAL on timing of H7 price control

implement the new arrangements. We will set out more detailed information on licence modifications as part of the Initial Proposals.

Our duties

40. In developing this consultation, we have had full regard to our statutory duties under the Civil Aviation Act 2012 ("CAA12"), which are set out more fully in Appendix A.

Next steps and views invited

41. We welcome views on all of the issues raised in this document and, in particular, the issues set out in the set out in the executive summary and those highlighted in chapters 1 to 5 as well as appendices H, J, K, L, M and O.

42. Please e-mail responses to economicregulation@caa.co.uk by no later than 18 June 2021.

Structure of this document

43. The structure of this consultation document is as follows:

- chapter 1 sets out our overall assessment of HAL's RBP;
- chapter 2 provides further information on how we will develop our projections of price control building blocks for the Initial Proposals;
- chapter 3 discusses the financial framework;
- chapter 4 considers incentives in relation to traffic/revenue risk sharing and capital efficiency;
- chapter 5 sets out further details on the move towards OBR; and
- the appendices provide further information on the main issues set out in this consultation.

Chapter 1

Our Initial Assessment of HAL's RBP

Introduction

1.1 This chapter covers our approach to the assessment of HAL's RBP for the H7 period, including:

- background to the development of the RBP building on our June 2020 Business Plan Guidance;
- a summary of the key elements of the RBP and our approach to assessing the plan;
- our initial assessment of the key issues; and
- our broad approach to developing our own projections to inform our Initial Proposals for H7.

1.2 HAL's RBP is an extensive and detailed document with the published version running to just under 600 pages in length. The plan is supported by 43 annexes which provide further detailed information on many elements of the building blocks. Over the last four months, we have carefully reviewed this material and a summary of the issues most pertinent to economic regulation and the H7 price control are set out here.

Background

1.3 In the June 2020 Consultation, we set out key principles and guidance for HAL to produce a high-quality business plan, informed by the needs of consumers and stakeholders. This included guidance for the RBP as a whole, and for each main element of the regulatory framework. We also recognised the need for flexibility given significant ongoing uncertainties on the potential recovery in traffic volumes. We explained that HAL could also develop alternative proposals or solutions in its RBP to meet our requirements, but that these should be properly explained and supported by evidence.

1.4 In the light of the impact of the covid-19 pandemic, HAL issued a revised financial forecast and accompanying narrative in July 2020 which it referred to as a building block update ("BBU"). This was intended to update the baseline in its initial business plan ("IBP") to reflect the pausing of expansion and the initial impact of the covid-19 pandemic. The BBU noted the uncertainty over its forecasts and provided illustrative "high" and "low" scenarios for traffic and other building blocks which implied a range for airports charges over H7 of around £22 to £30 per passenger (2018 prices).

1.5 Once HAL issued the BBU, a period of CE with airlines started, which ran between August 2020 and October 2020. CE is the process for engagement between HAL and its airlines customers as part of the H7 price control process. The focus of the CE discussions was on how the BBU could be developed into a robust business plan and included discussions on all key elements of the price control.

1.6 In response to CE, in October 2020 airlines provided us with their own "Alternative Business Plan" for H7 that set out their views on the individual building blocks and the overall level of charges. Airlines also noted that their plan was not final and would be subject to change dependent on passenger volumes or as further information became available.

1.7 HAL issued the RBP on 18 December 2020 (with a redacted version of the full RBP published by HAL on its website on 25 February 2021).[7] HAL stated in the RBP that the plan reflects the in-depth consultation with airlines undertaken through CE.

Summary of Key Elements of the RBP

1.8 The RBP covers all building blocks and other elements of the H7 price control. The central case (or "Mid") scenario assumes that HAL can recover the full covid-19 related RAB adjustment that it first requested in July 2020.

1.9 The RBP presented three scenarios for passenger numbers through H7, referred to as the "Low", "Mid", and "High" scenarios. However, a fully integrated set of cost and revenue estimates and narrative was presented only for the Mid scenario. The basis for these traffic scenarios is described in more detail below (in the sub-section on "passenger numbers"). HAL also set out three types of high-level sensitivities around its Mid plan and sought to demonstrate how these sensitivities deliver on consumer outcomes and affordability compared to the base case. The three sensitivities focused on:

- the number of passengers;
- the CAA's decision on the covid-19 related RAB adjustment; and

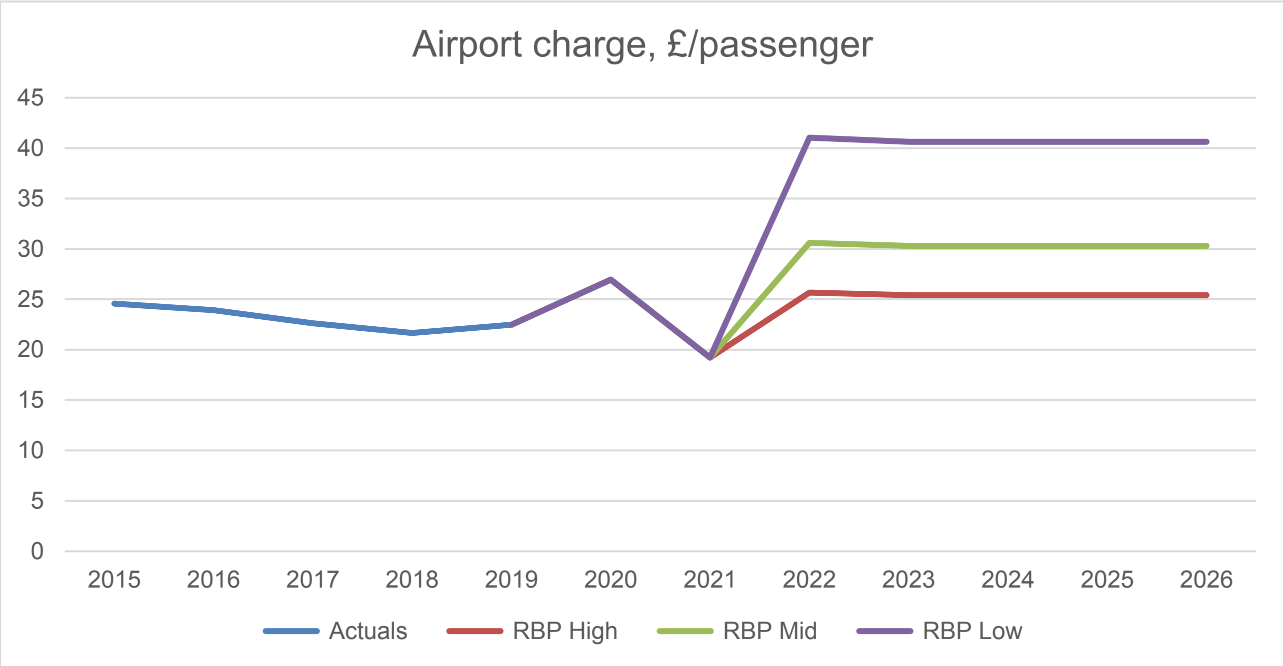
[7] See https://www.heathrow.com/content/dam/heathrow/web/common/documents/company/about/economic-regulation/RBP-detailed-plan.pdf

- the length of the regulatory period.

Airport charges

1.10 HAL's RBP provides for an increase in airport charges compared to the Q6 and iH7 periods in each of the three scenarios considered (see Figure 1.1).

Figure 1.1: RBP airport charge compared to 2015-2019 (2018 prices)



Source: HAL Regulatory Accounts and RBP

Note: Actuals from 2015 to 2019

1.11 Table 1.1 summarises the key assumptions and estimates which HAL used to construct its Mid case scenario, for the key cost and revenue building blocks and financial parameters/building blocks respectively.

Table 1.1: RBP Mid case building block forecasts 2022 – 2026 compared to Q6 determination average 2015-2018 (2018 prices)

	Q6 (2015-2018)	2022	2023	2024	2025	2026	H7 Total
Opex	1,162	1,052	1,108	1,150	1,166	1,171	5,647
Depreciation	785	250	237	190	208	228	1,113
Return on capital	873	1,455	1,478	1,513	1,558	1,609	7,613
Total revenue requirement	**2,820**	**2,757**	**2,823**	**2,853**	**2,932**	**3,009**	**14,374**
Non-aero revenues	1,119	775	884	924	979	998	4,560
Net revenue requirement	**1,701**	**1,982**	**1,939**	**1,930**	**1,953**	**2,010**	**9,814**
Passengers (million)	73	52	61	67	72	75	326

Source: HAL Regulatory Accounts, RBP

Note: The Q6 column shows the annual average from the Q6 determination from 2015-2018

Note: Figures exclude cargo revenue

Passengers, costs and revenues

1.12 Passenger volumes are a key driver of both costs and revenues. Changes in passenger numbers directly affect the revenue from airport charges and normally:

- result in changes in the expenditure that is required to run the airport effectively; and
- feed through into changes to commercial and other revenues for HAL through spending at the airport or use of HAL services such as rail and car parking.

1.13 HAL's RBP Mid scenario suggested that a full recovery of passenger numbers back to 2019 levels will not happen even by the end of the H7 period. HAL's forecasts in the RBP also suggested that the reduction in passenger numbers will result in significant impacts for the other building blocks in H7. Opex is forecast to reduce by significantly less than the fall in passenger numbers as a proportion of the 2019 figure, so that opex per passenger will increase. By contrast, non-aeronautical revenues are forecast to reduce by significantly more than passenger numbers, so that non-aeronautical revenue per passenger will be lower in H7 than in Q6.

1.14 This partly reflects HAL's RBP assumption that revenues are more variable to changes in passenger numbers than opex. However, the forecast impact on non-aeronautical revenues is also compounded by the estimated impacts of airside tax free shopping policy changes that took effect from 1 January 2021 (as well as other factors discussed further in chapter 2).

1.15 HAL has proposed a capital plan totalling £3.5bn of spend over H7. The capex plan is designed around three strategic capital portfolios:

- "Protect the Business" (£2.1bn): the minimum level of investment, in any future scenario, to ensure Heathrow is safe and compliant";
- "Win the Recovery" (£1.1bn): an amount to respond to near-term challenges presented by the covid-19 pandemic, drive efficiency and cut costs or generate commercial opportunities while also improving the environment for consumers in H7; and
- "Build Back Better" (£0.3bn): an amount to respond to longer term challenges to Heathrow and the sector, including the need to decarbonise and improve surface access links.

Financial framework

1.16 HAL's approach to financial issues is closely linked with the representations it has made with respect to the case for a RAB adjustment designed to provide it with substantial protection from the financial losses it has experienced as a result of the impact of covid-19.

1.17 HAL has assumed a RAB adjustment of £2.6 billion and suggests that this will lead to a cost of capital of 8%, in contrast to 9.5% without a RAB adjustment. HAL argues that a RAB adjustment would signal to investors that the CAA will protect it from significant volume downside risk which will lead to those investors requiring a lower return than they might otherwise. It also says that the RAB adjustment will facilitate the profiling of regulatory depreciation in the H7 period, which will keep airport charges lower than they would otherwise be.

Other key elements of the regulatory framework

1.18 Other key elements of the overall H7 framework covered in the RBP and dealt with in this document are:

- the overall regulatory framework underpinning the H7 price control including traffic risk sharing and possible arrangements to provide for price control reopeners (see chapter 4 and Appendix D);
- H7 capex efficiency incentives (see chapter 4);
- incentives for HAL to deliver high quality services to consumers, under the OBR framework (see chapter 5); and
- Other Regulated Charges ("ORCs"), surface access, resilience, and cargo: see Appendix F.

Our approach to assessing the RBP

1.19 Since receiving HAL's plan, we have worked to understand the basis for HAL's proposals. Our assessment framework comprised three stages, with increasing levels of granularity:

- a compliance review: on receipt of HAL's plan, we assessed compliance with the June 2020 Business Plan Guidance, with reference to Section 11 of the RBP (Assurance).[8] Our detailed assessment of compliance for each of the criteria in the June 2020 Business Plan Guidance is summarised in the next chapter and presented in more detail in Appendix E.
- review of the full plan: we have reviewed all sections of the RBP, highlighting any high priority (or "Red Flag") issues; and
- "deeper dive" analysis of the RBP: areas where we have looked in greater detail at the evidence available, including:
  1. historical data, such as HAL's regulatory and statutory accounts;
  2. relevant industry benchmarks or comparative data, for example unit rates for opex for other comparable airports; and
  3. submissions by airlines in relation to the RBP.

[8] See the section "Meeting the CAA's business plan criteria" in Section 11.6 of https://www.heathrow.com/content/dam/heathrow/web/common/documents/company/about/economic-regulation/RBP-detailed-plan.pdf

Summary of our assessment

Summary of compliance review

1.20 We recognise that the RBP is an extensive document, which reflects significant work by HAL in partnership with other stakeholders, and the difficult circumstances that HAL has had to deal with while producing its RBP. However, while some aspects of the RBP were consistent with our requirements, several elements of the RBP do not meet our requirements and criteria for a high quality business plan set out in our June 2020 Business Plan Guidance document.

1.21 Our assessment of the compliance of the RBP with our June 2020 Business Plan Guidance criteria is summarised in Table 1.2 below for each category of information. This uses a Red/Amber/Green (RAG) approach to show overall compliance for that category. The table shows whether the RBP complies with our criteria for several categories. Specific categories which do not comply with the criteria are highlighted in the table.

1.22 Appendix E presents our detailed assessment for each of the criteria. That appendix also provides more details on our assessment for each of the elements of the RBP that we assessed.

Table 1.2: Summary of our compliance assessment

Category	Number of Criteria	Compliance with CAA June 2020 criteria	Summary of key non-compliances	Overall RAG rating
General	4	1 compliant; 2 partially compliant; 1 non-compliant	There is a lack of meaningful integration across different elements of the RBP, and in particular the quantitative building blocks.	
Scenarios for passenger numbers	2	2 partially compliant;	Traffic scenarios are not transparently integrated with other key elements of the plan.	
Consumer engagement and OBR	3	3 partially compliant	HAL has made a clear effort to understand consumer priorities in a post-covid-19 environment, but there is scope to better use the findings from its research as part of its plan.	

Category	Number of Criteria	Compliance with CAA June 2020 criteria	Summary of key non-compliances	Overall RAG rating
			While progress has been made on measures, we note that HAL's proposed targets and incentives would result in a more generous service quality framework in terms of financial exposure in H7 compared to Q6.	
Capex	3	3 non-compliant	The RBP capex plan lacks evidence and required detail. The top-down capex plan does not provide a basis for setting a core capex allowance or baseline for H7.	
Capex Efficiency Incentives	3	2 partially compliant, 1 non-compliant	The RBP does not define delivery objectives or obligations that can be used for the H7 capex incentive framework.	
Opex & Commercial Revenues	3	3 partially compliant	Links between opex and commercial revenues and the capex plan are not well evidenced.	
Cost of Capital	2	1 partially compliant, 1 non-compliance	The use of a pre-tax WACC is not justified.	
Financeability & Financial Modelling	4	4 partially compliant	HAL's assessment of several areas of financeability (e.g. equity financeability, credit rating) was limited. HAL conducted analysis for its RBP using its own model, and a reconciliation to the PCM was only provided in March 2021.	
ORCs	2	2 partially compliant	HAL has provided a clear rationale for its proposals, but more information is needed in some areas, like HAL's forecast and how ORCs	

Category	Number of Criteria	Compliance with CAA June 2020 criteria	Summary of key non-compliances	Overall RAG rating
			would be included in any risk-sharing mechanism.	
Resilience	2	2 compliant	HAL's proposals in this area are overall robust and we are supportive of the proposal for a joint resilience plan.	

1.23 A summary of overarching and other issues arising from our RBP assessment is set out below.

Overarching issues

1.24 HAL's business plan was prepared against a backdrop of significant uncertainty about passenger numbers, revenues and costs. While the RBP does include some information on a range of alternative passenger scenarios, these do not appear to be fully integrated across the building blocks, as required by our guidance. In particular:

- the revenue and cost building blocks are not clearly linked to alternative passenger scenarios within the plan;
- the capex plan is neither sufficiently well developed nor integrated with the rest of the plan; and
- key elements of the plan, such as OBR service performance targets and opex forecasts, appear to be based on the capex envelope of £3.5bn. There is a lack of analysis of the impact of lower levels of capex that might better reflect the circumstances of a central case forecast of relatively low passenger numbers compared to Q6 levels.

1.25 Airlines also consider that the RBP fails to develop integrated scenarios properly, and so continues to be a series of building blocks that do not clearly complement or respond to each other[9]. Specifically, they disagree with HAL's assessment that the RBP addresses requests from both the

[9] Airlines' views on the RBP are set out in their March 2021 "Initial Comments to Heathrow's Revised Business Plan", shared with the CAA and HAL.

Airline Community and CAA for the development of "scenarios" based on alternative passenger forecasts.

1.26 The absence of properly integrated alternative scenarios significantly constrains the effective assessment of the plan as a whole, and results in a plan that does not fully meet the requirements of consumers and stakeholders.

Other issues

1.27 **Other Regulated Charges (ORCs).** HAL has made proposals in the RBP for some substantial changes to the ORC framework, such as changing to a marginal cost approach and moving the fixed cost elements to the airport charge. HAL has, for the most part, provided a clear rationale for its proposals for ORCs, which it has developed collaboratively with the airlines. We will need to assess the implications of the proposed changes on the airport charge and the incentives on HAL to ensure the costs are efficient and service quality is maintained. HAL has not adequately addressed its proposed treatment of over- and under-recovery of ORCs in H7.

1.28 **Resilience**. Ensuring that the airport is resilient to disruption is an important part of the overall service delivery. We support HAL's proposals for joint resilience plans which should lead to a more collaborative approach to managing disruption and its plans for airspace and runway resilience. Despite the pressures created by the impacts of the covid-19 pandemic, it is important that HAL continues to prioritise resilience and takes appropriate steps to minimise the risk of significant failures in H7 period, such as developing robust asset management plans. We will consider whether any further regulatory steps in relation to these matters are appropriate as part of the capital plan workstream.

1.29 **Surface access arrangements**. In the RBP, HAL has said that it intends to retain similar mode share targets to those set out in the ANPS. HAL will need to provide more information explaining this approach and its influence on the prioritisation of capital projects during the H7 period.

Our overall approach to developing projections to inform the initial proposals

1.30 For each of the main cost and revenue building blocks, we are currently:

- assessing whether or not the method that HAL proposes in its RBP is appropriate for setting the H7 Price Control, noting that we have the flexibility to consider and adopt different assumptions and scenarios in testing and using these methods;
- considering alternative approaches including:
  - best practice methods for that building block, including approaches implemented by the CAA for previous price controls and assessment by independent experts;
  - the approach proposed by airlines in their response to the RBP; and
  - a combination of elements of these alternatives and HAL's approach.

1.31 We set out more detail on our approach to passenger forecasts, opex, commercial revenues and capital expenditure in chapter 2.

Key issues for consultation

1.32 We welcome the views of stakeholders on any aspect of our approach to assessing HAL's RBP and in particular the conclusions of our initial assessment.

Chapter 2

Developing projections for the Initial Proposals

Introduction

2.1 This chapter sets out more detail of our assessment of HAL's December 2020 RBP, including views provided by airlines, for the price control building blocks,[10] and our proposed next steps for these elements as we work towards Initial Proposals in the summer of 2021. It considers:

- passenger forecasts and scenarios;
- opex;
- commercial revenues; and
- capex.

Passenger forecasts and scenarios

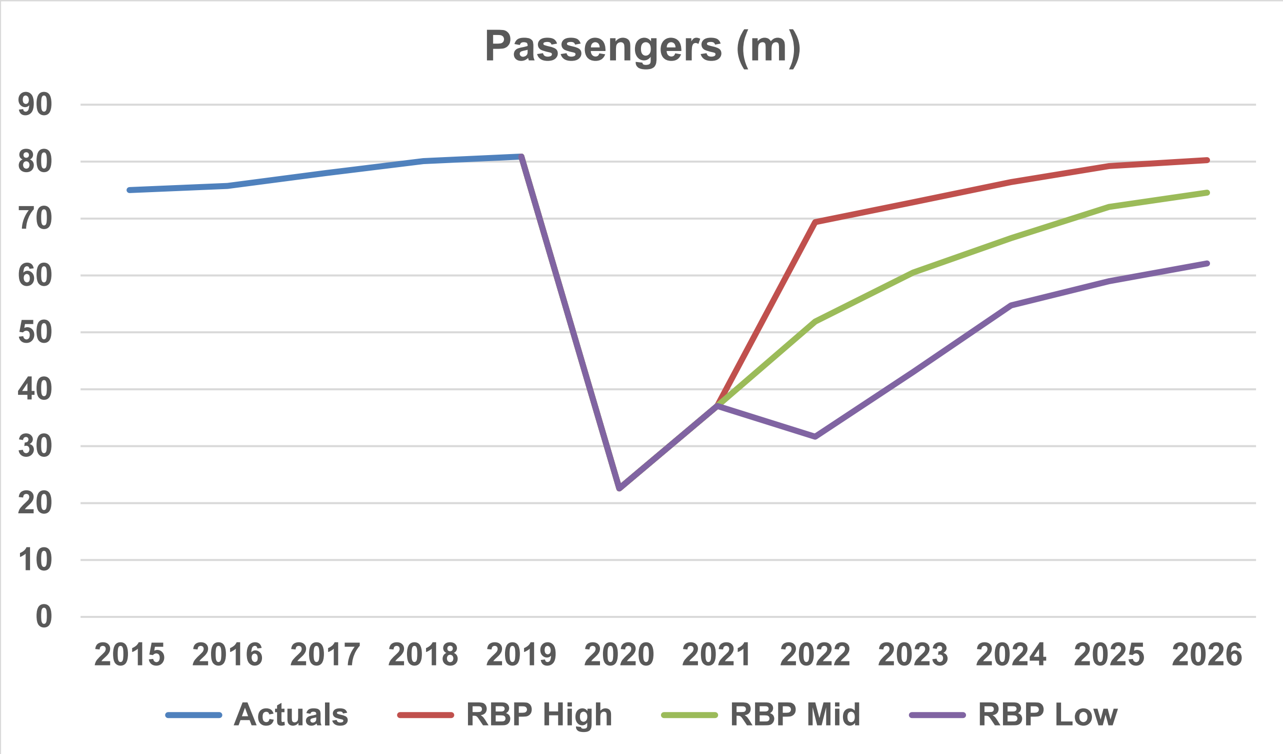
2.2 HAL has adapted its existing passenger forecasting modelling suite to take account of travel restrictions due to the impact of the covid-19 pandemic, as well as estimates of the post pandemic recovery. HAL's approach considers the key factors driving the forecast, reflecting the inherent uncertainty due to the ongoing impact of the covid-19 pandemic.

2.3 Its approach is based on four reference scenarios, with associated assumptions and narratives. These are then combined to produce three output forecasts for passengers (the Low, Mid and High cases referred to in the previous chapter). This was done using weighting based on an assumed probability of occurrence for each of the four reference scenarios.

2.4 The resulting forecasts, and actual passenger numbers for the five-year period 2015-2019 are shown in Figure 2.1.

[10] Our assessment of the other quantitative financial building blocks (such as WACC) is covered in chapter 3.

Figure 2.1: RBP passenger forecasts compared to 2015-2019



Source: HAL Regulatory Accounts, RBP

Note: Actuals from 2015 to 2019

Airlines' views

2.5 Airlines recognise the current challenges associated with forecasting and accept the iterative and broad approach HAL is currently undertaking. However, their overall assessment is that the RBP central case passenger forecasts are significantly affected by particularly pessimistic, or in some cases incorrect, assumptions and inputs that HAL has applied in developing them. The airlines set out several areas where they disagree with HAL's assessment. For example, they contend that HAL's GDP assumptions appear to be weighted too highly towards the more pessimistic scenarios, and that average fares are likely to be lower rather than higher in future (as HAL argues) in order to stimulate demand in each relevant market.

Our Assessment

2.6 Based on our initial assessment, HAL appears to have taken a reasonably well-considered and structured approach to passenger forecasting, consistent with good practice. In particular, HAL's use of specific modelling to take account of the impact of travel restrictions is based on evidence where available and appears to be reasonable.

2.7 Our initial view of HAL's assumptions, and the resulting forecasts, is that:

- the short-term forecasts for 2021 and 2022 could be somewhat optimistic given the more stringent travel restrictions that have come into force for the UK and other key markets since the RBP was published although we acknowledge there is significant uncertainty; while
- the HAL medium- and longer-term forecasts from 2022 need further analysis.

2.8 We are also engaging further with the airlines to understand in more detail their concerns with the forecasts.

2.9 Our assessment has also highlighted some specific issues:

- HAL's method is being used for the first time in a price control process, which reflects some of the unique challenges created by the covid-19 pandemic. Nonetheless, the use of a method that has not been used previously for a price control, and which cannot easily be validated, also generates a range of risks;
- HAL has included downward adjustments to all scenarios to reflect potential demand shocks in H7, which includes taking account of the impact of the covid-19 pandemic in H7. Given that the forecast scenarios already assume varying degrees of continuation of, and subsequent recovery from, the impact of the covid-19 pandemic, this appears to double count the impact of the covid-19 pandemic and thus may be somewhat pessimistic;
- we are currently unclear on the rationale for HAL combining four input scenarios into Low, Mid and High cases by applying subjective weighting factors, based on assumptions on probability of occurrence; and
- while HAL produces passenger scenarios by market level disaggregation, only the "Mid" case is used in estimating other relevant building blocks in the RBP, without disaggregation by market.

Next Steps

2.10 We recognise the ongoing unprecedented level of uncertainty around passenger forecasting, both in the short-term and for H7. The trajectory of passenger traffic will continue to depend to a large extent on both UK and overseas government policy on travel restrictions related to the covid-19 pandemic. In this context, we expect HAL's forecasts to evolve in response to governments' policies on travel restrictions.

2.11 We plan to develop our analysis of passenger forecasts for H7 further over the period until the Initial Proposals by:

- continuing our detailed review of HAL's models and assumptions, including analysis of key sensitivities in the models (see below);
- reviewing updated forecasts that HAL or airlines provide in a timely way;
- maintaining engagement with HAL and the airline community to understand their respective views on forecasting assumptions and outputs, and inform our own analysis; and
- monitoring updated forecasts issued by other relevant stakeholders including Eurocontrol and IATA.

2.12 For our Initial Proposals, we intend to use HAL's forecasting suite by:

- directly applying adjustments to HAL's models ourselves; and/or
- requesting HAL to make particular changes on our behalf.

2.13 If our preferred approach proves infeasible or we want to commission further supporting checks on our approach we would then consider alternative options such as using an existing third-party model of passenger demand.

2.14 We recognise the particularly high level of uncertainty around volume forecasts in the coming price control period, and while we will work further as set out above to assess HAL's approach, as we discuss further in chapter 4, we are considering risk sharing proposals to mitigate this uncertainty.

Opex

2.15 We consider that HAL has taken a relatively simple approach to forecasting opex over the H7 period. This is consistent with the approach it used in its December 2019 IBP.

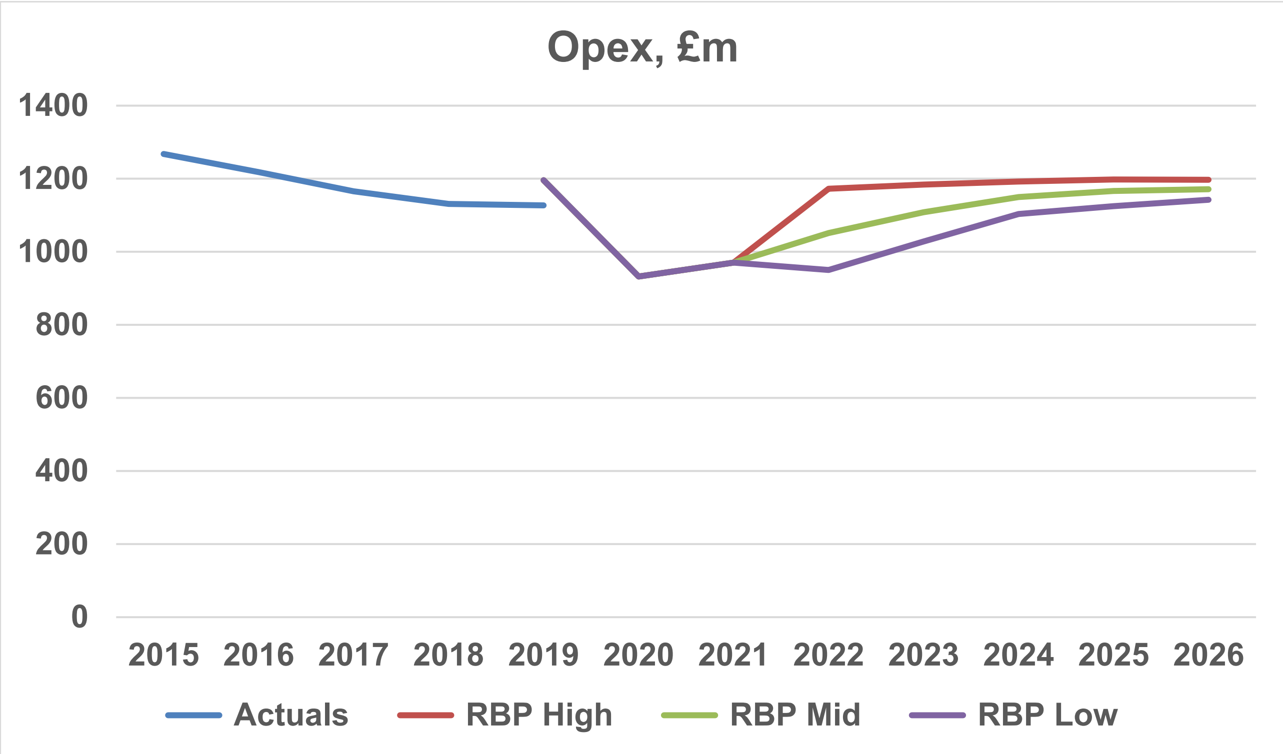
2.16 HAL's approach uses opex in 2019 as the base year from which it:

1) projects forwards using high level cost drivers which estimate changes in elements of opex as passenger volumes or other cost drivers change; and
2) adds specific adjustments (or overlays) to account for structural impacts which cannot be accounted for using the top-down cost

drivers, for example one-off costs related to the impact of the covid-19 pandemic, or initiatives relating to staff costs.[11]

2.17 HAL says that this top-down, driver-based forecasting approach has several advantages. For example, it is adaptable to different passenger growth scenarios, provides transparency and is aligned to regulatory precedent in some other sectors. The resulting forecasts of opex for the three scenarios are shown in Figure 2.2 below, compared to actual opex for the period from 2015 to 2019.

Figure 2.2: RBP opex forecasts compared to 2015-2019 (2018p)



Source: HAL Regulatory Accounts, RBP

Note: Actuals from 2015 to 2019

Airlines' views

2.18 Airlines commissioned PA consulting to examine HAL's opex projections. This review raised a number of concerns that were set out in the airline Alternative Business Plan including a variance against HAL's projections of up to £1.4bn over the H7 period. In particular airlines say that HAL's opex projections:

- are not based on a bottom-up build-up of costs;

[11] One such initiative is the "Costs of Change", which is set out in detail in Appendix H, for consultation

- fail to capture all of the structural cost savings that HAL has achieved through its response to the covid-19 pandemic;
- exclude known cost reductions discussed with airlines during CE that are either in progress, or are within HAL's control;
- overestimate cost pressures such as insurance and input prices, which should be largely controllable;
- inappropriately include significant pension deficit recovery costs for the duration of H7 that airlines consider consumers should not bear; and
- include unverified or unsupported opex overlays related to enhanced service, the impact of the covid-19 pandemic and surface access.

Our Assessment

2.19 HAL has partially complied with our June 2020 Business Plan Guidance but there are areas where we consider that the opex projections in the RBP fall short of our requirements. For example, we expected to see disaggregated estimates of opex that would:

- allow us to understand better what HAL is proposing to deliver in terms of operational activity during the H7 period (such as changes in staffing levels); and
- provide more detail on how its opex forecasts link to other aspects of the RBP.

2.20 HAL has considered airlines' feedback on its opex forecasting approach but has not implemented actions to address several concerns that were raised during CE. These include the treatment of:

- pension deficit recovery costs, where airlines oppose the continuation of HAL's defined benefit pension scheme for further accruals; and
- efficiencies relating to certain capex projects, such as opex efficiencies associated with project Magenta and the Security transformation project[12].

[12] Project Magenta is described on page 236 of HAL's RBP, under the heading "section 7.1.5.1 Transforming our Support Services efficiency", while the Security Transformation Programme is described on the same page, under the heading "7.1.5.2 Efficient Airport and Security Transformation programmes".

2.21 HAL has set out the approach it has used to estimate opex clearly and we consider that the forecasting method appears logical and provides a useful starting point. However, our assessment identified a number of issues including that:

- HAL uses its 2019 expenditure as the base year for its forecasts and says that this is an accurate reflection of an efficient cost base and that this is supported by benchmarking evidence.[13] However, airlines have challenged this approach with reference to the “structural” savings that HAL has been able to achieve since March 2020. We consider that HAL needs to provide further evidence to support its assumption that its 2019 base year is efficient;
- HAL has not provided sufficient assurance that the adjustments that it made to the 2019 opex base year are appropriate. For example, it is unclear whether the level of expansion costs that have been removed from the base year is accurate;
- HAL has provided limited justification for upward cost overlays and has not provided analysis to support the adjustments that it has proposed. Without this information, we are unable to effectively scrutinise these adjustments; and
- the sequencing of some of the key forecasting assumptions could create risks of either double counting or exclusions, for example, when the input price inflation and ongoing efficiency assumptions are applied.

2.22 Overall, we consider that HAL has taken a relatively clear approach to forecasting opex, but in many areas HAL has provided insufficient evidence to justify its key forecasting assumptions and some items have not been adequately explained.

Next Steps

2.23 We are engaging with HAL to understand better what further evidence it can provide to justify key assumptions, cost overlays and derivation of opex estimates. Our high priority information requirements for opex are set out in Appendix G.

2.24 As well as developing robust projections of opex for our central passenger traffic forecast, we will focus on understanding the likely implications of Low

[13] KPMG Airport Operating Cost Efficiency Benchmarking Report, October 2019

and High traffic scenarios for opex, so we can properly calibrate the traffic/revenue risk sharing arrangements discussed in chapter 4.

2.25 We are developing our envelope of opex forecasts for Initial Proposals by developing our views and estimates across three areas:

- core (modelled) opex;
- non-core (unmodelled) overlays; and
- input price inflation and ongoing efficiency assumptions.

2.26 In relation to core opex we are considering the following key questions:

- Are the adjustments that HAL has made to the base year costs appropriate?
- Is the key assumption that the base year is efficient robustly evidenced? We are conscious that HAL has made some structural efficiencies as a result of the challenges of the pandemic.
- Are the cost drivers and elasticities that HAL has used to forecast the different categories of opex appropriate?
- What scope is there for HAL to introduce new efficiency savings during the H7 period?

2.27 The work on elasticities will be particularly important for our understanding of the relationship between passenger traffic and opex levels.

2.28 Where information is available, we will use bottom-up opex analysis to assess the appropriateness of the top-down forecasts that HAL has proposed, for example:

- unit cost analysis;
- staff costs considering the mix of staff numbers;
- more detailed utility cost analysis;
- bespoke estimation of costs relating to specific contracts (e.g. for contracts with NERL); and
- bottom-up analysis of efficiencies associated with capex projects.

2.29 For non-core (unmodelled) overlays included in the RBP, we will consider whether:

- the overlay is necessary, including whether it represents a genuine step change in operating costs that is not captured in the base year/elasticity approach;

- the materiality of the overlay is appropriate; and
- any costs may have been double counted or included in core costs.

2.30 For input price inflation and ongoing efficiency assumptions, we will review the evidence that HAL has submitted to support its ongoing productivity assumptions and carefully consider the nature of input price pressures in the aviation sector, particularly in the context of the current unprecedented reduction in passenger numbers. Our assessment will also consider regulatory precedent and benchmarks.

2.31 We intend to commission expert independent advice to support our assessment.

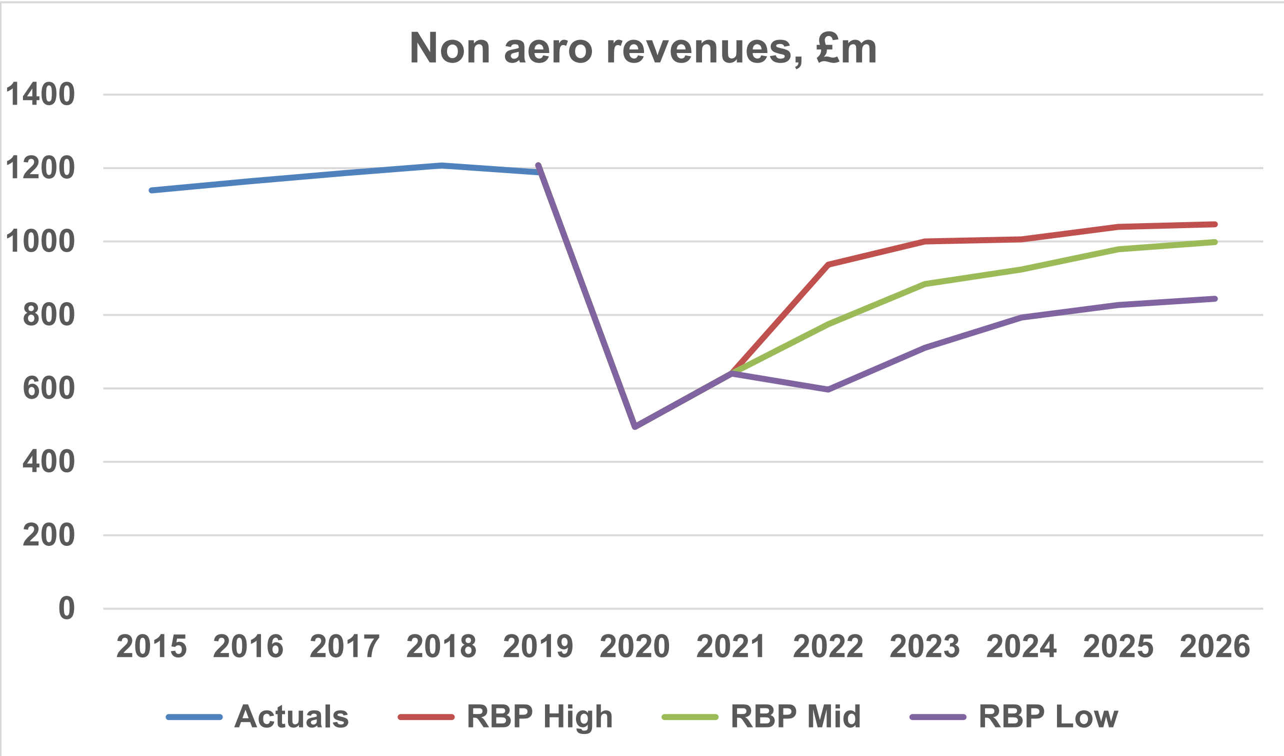
Commercial Revenues

2.32 HAL's commercial revenues proposal in the RBP is based on a top-down forecasting method similar to that used for opex where HAL:

- combines key revenue drivers, such as passengers and utilised terminal area, with revenue elasticities to forecast H7 revenues from a 2019 base year (which it considers to be an efficient starting point); and
- uses a percentage "overlay" approach to account for impacts which cannot be accounted for in the elasticity-based approach such as the removal of airside tax free shopping from 2021. These are all significant negative impacts, with the exception of the proposed forecourt access charge ("FAC") which represents a new commercial revenue stream in H7.

2.33 The resulting forecasts for all three scenarios for total non-aeronautical revenues (including ORCs) are shown in Figure 2.3.

Figure 2.3: RBP non aeronautical revenue forecasts compared to 2015-2019 (2018 prices)



Source: HAL Regulatory Accounts, RBP

Note: Actuals from 2015 to 2019

Note: Chart excludes cargo revenue

Airlines' views

2.34 Airlines say that the RBP significantly underestimates the potential for commercial revenues for H7. They commissioned Tailor Airey ("TA") to prepare an alternative H7 commercial revenue forecast. TA reported that its findings remain the same as in the Alternative Business Plan.[14] It based these findings on a bottom-up analysis of the most material factors influencing HAL's forecasts of commercial revenues in the RBP and, in particular, the Government decision to remove airside tax free shopping from 1 January 2021. The TA analysis suggests that HAL has overestimated the impact significantly and sets out an alternate view of the potential impacts using HAL's RBP as a starting point. TA has also suggested that HAL's own bottom-up analysis is inconsistent with the retail revenue forecasts included in the RBP, which show a different and even larger impact.

[14] Taylor Airey Commercial Revenue Report 131020 prepared in response to the Building Block Update (BBU)

2.35 TA maintained its view from the Alternative Business Plan that HAL should be challenged to increase its commercial revenue forecasts for car parking and property. In relation to surface access, TA suggested that the reduced level of the forecourt access charge proposed in the RBP might not drive behavioural changes in passengers' choice of transport. In addition, the analysis challenges the use of the London Airports Surface Access Model (LASAM), which HAL has not fully updated, but has relied on, in estimating surface access mode shares. Given the multiple changes that have occurred since the model was first run, TA has questioned whether this remains a consistent and reasonable approach to forecasting surface access mode shares in the RBP.

2.36 Overall, TA estimated a percentage reduction in commercial revenue forecasts compared to the BBU that is broadly consistent with the percentage reduction in the forecast for passenger numbers compared to the BBU. This approach could lead to forecasts of commercial revenue being significantly above the levels in HAL's RBP.

Our Assessment

2.37 HAL's forecasting method has the same inherent strengths and limitations as the opex method set out above. Certain categories of commercial revenues are not well suited to top-down analysis. An example of this is retail revenue which depends on passenger mix (a bottom-up input) as well as other factors. We also note that the elasticities applied to certain revenue drivers appear to be informed primarily by expert internal knowledge and/or judgement rather than objectively verifiable evidence. For example, the evidence to support the property revenue forecasting approach is very limited.

2.38 The overlay approach which implements a specified percentage reduction to account for potential negative impacts in H7 is also not well supported by appropriate evidence. Our initial assessment is that each of the proposed impacts needs to be further developed with detailed bottom-up evidence on the relative impact of the underlying drivers. The current evidence does not allow us reasonably to assess the amount of any potential impacts.

2.39 HAL has proposed a significant £600m capex programme supporting commercial revenue generation opportunities in H7. However, there is not a clear "line of sight" from this plan through to its commercial revenue projections. For example, we have not received any detailed evidence of the business case for these investments which explain the nature and scale of new commercial revenue generation opportunities. We note that this is inconsistent with HAL's approach to opex where the proposed capex portfolio is associated with an additional 0.9% addition to HAL's assumption of ongoing efficiency.

2.40 HAL has estimated that the removal of airside tax free shopping from 1 January 2021 could result in an ongoing permanent reduction of total retail revenues by 35% through an overlay. We consider that this is a good illustration of an overlay where we agree with HAL that there is an impact but there is also a significant gap in the underlying evidence base to support the materiality of the adjustment. Analysis by the airlines suggests that this impact is potentially overestimated, and a further potential upside exists as a result of Brexit-related changes to excise tax ("duty free") regulations as applied at Heathrow.

2.41 We consider that HAL's surface access mode share analysis was not appropriately updated to reflect the significant changes since the preparation of the IBP, including the impact of the covid-19 pandemic and the impact of the forecourt access charge.

Next Steps

2.42 We are engaging with HAL to better understand how it can provide further high-quality evidence on commercial revenues. Our critical information requirements for this building block are set out in Appendix G.

2.43 As well as developing robust projections of commercial revenues for our central passenger traffic forecast, we will focus on understanding the likely implications of Low and High traffic scenarios for commercial revenues, so we can properly calibrate the traffic/revenue risk sharing arrangements discussed in chapter 4.

2.44 We are now developing our commercial revenues forecasts and intend to focus on two key areas:

- core (modelled) commercial revenues; and
- non-core (unmodelled) overlays.

2.45 In relation to core commercial revenues we are considering the following issues:

- base year: as for opex, we are considering any adjustments/normalisations for our Initial Proposals;
- commercial revenue categories: we are examining the revenue drivers and elasticities HAL has used and are assessing the degree of uncertainty based on historical data and expert analysis. As with our work on opex, the assessment of relevant elasticities will be particularly important as it should help illuminate the relationship with passenger traffic;

- use of bottom-up analysis where practicable and appropriate (including building on relevant analysis by the airlines) to complement the work on elasticities. For example, we will consider developing bottom-up analysis of VAT and duty free policy changes, car parking analysis (using factors such as: parking spaces, pricing per product, etc.), property (using factors such as: rental area available, voids, guide prices per square meter forecasting) and the Heathrow Express business.

2.46 For non-core (unmodelled) overlays we will assess all of the overlays that HAL has included to consider whether:

- the overlay is necessary: i.e. whether it is a genuine step change in commercial revenue that is not captured in the base year/elasticity approach;
- the amount is appropriate; and
- there is any potential duplication of overlays.

2.47 For any significant capex programmes that aim to improve commercial revenue performance, we will seek detailed evidence on estimated investment payback periods and integrate this into our bottom-up analysis once this information is available, drawing on information from the current joint capex plan development process with airlines (see next section). This approach should enable us to develop an enhanced forecasting approach, noting that current forecasts do not appear to include any upside associated with the significant £600m capex portfolio designed to increase commercial revenues.

2.48 We intend to commission expert independent advice to support our assessment.

2.49 As with the passenger volume forecasts, we accept that there is significant uncertainty about the level of commercial revenues in the coming years, particularly linked to volume forecasts. This uncertainty can be partly mitigated in the risk sharing approach discussed later in the document.

Capex

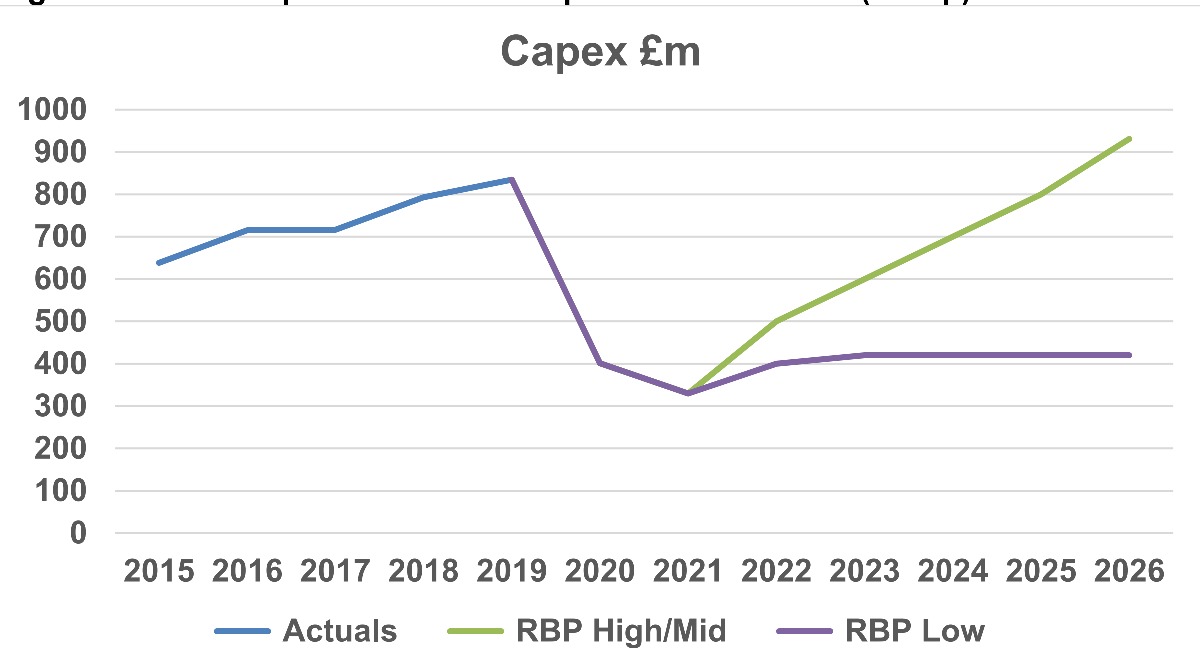
2.50 In the RBP, HAL has proposed a capital plan totalling £3.5bn of spending over H7 in the central case scenario. The plan is designed around three strategic capital portfolios:

- “Protect the Business” (£2.1bn): the minimum level of investment, in any traffic scenario, to ensure the airport is safe and compliant;

- "Win the Recovery" (£1.1bn): an amount to respond to near-term challenges presented by the covid-19 pandemic, drive efficiency and cut costs in H7, and to adapt to changes to airport commercial business, such as airside retail, to ensure the cost of operating at Heathrow remains competitive and passengers feel comfortable and secure travelling; and
- "Build Back Better" (£0.3bn): an amount to respond to longer term challenges to Heathrow and the sector, including initiatives linked to decarbonisation and improving surface access.

2.51 The resulting forecasts for capex for all three RBP scenarios are shown in Figure 2.4 alongside actual capex figures for 2015-2019[15]. The chart shows a marked reduction in expenditure in 2020 and 2021 in the light of the impact of the covid-19 pandemic.

Figure 2.4: RBP capex forecasts compared to 2015-2019 (2018p)



Source: HAL Regulatory Accounts, RBP

Note: Actuals from 2015 to 2019

Airlines' views

2.52 The key points that airlines have made to us in relation to the capex plan are that:

[15] The RBP high and mid capex scenarios are identical.

- the plan appears disconnected from wider aspects of the RBP, including the passenger traffic scenarios and the assessment of other key building blocks (such as commercial revenues);
- the overall capex envelope for H7 appears too high in the context of lower passenger numbers, given that HAL spent around £3.2bn in the five years of Q6 (2015-19);
- the capital plan should be formulated in response to agreed broader strategies and objectives;
- airlines will continue to review and work with HAL through the established forums to agree a plan that will help shape the required programmes and projects for H7; and
- airlines' priority remains minimal expenditure to address safety, security and regulatory matters with targeted future investment on benefits driven projects that deliver against a clear and agreed strategy.

Our Assessment

2.53 At the beginning of 2021, we commissioned consultants Arcadis to review HAL's RBP capex plan. The key messages from its initial review are:

- the capex plan generally complies poorly with the CAA's RBP criteria;
- there is significantly less information provided to substantiate this plan when compared to the IBP;
- prioritisation and varying scenarios for recovery have been considered, but more detail is required to understand these processes;
- historical trends have been used to forecast rather than specific project cost information; and
- insufficient information has been presented to understand the challenges that will be associated with the delivery of the plan.

2.54 We expect to commission Arcadis to review the updated capex plan when this is available and intend to publish the findings alongside our Initial Proposals. We recognise that in the current circumstances there are a range of challenges with producing a robust capex plan, particularly for the later years of the H7 period, and therefore some flexibility and a relatively iterative process is required.

2.55 That said and noting the views of airlines and Arcadis, we consider that HAL's proposed capex plan does not meet any of the main criteria in the June 2020 Business Plan Guidance. As a result, it cannot be meaningfully assessed due to the lack of detail on how project budgets have been set, and on the work HAL plans to undertake within each of the strategic headings.

2.56 We understand that HAL is currently engaging with airlines through existing governance groups to develop a more detailed capex plan, and to prioritise projects within this plan.

Next Steps

2.57 Future updates from HAL should provide significantly greater detail and an enhanced evidence base in support of its capex plan. We set out our requirements for this in more detail in Appendix G. Without this critical information:

- we will not be able to set a robust core capex baseline in our Initial Proposals and so HAL will risk all capex being treated as development; and hence;
- HAL will be exposed to greater risks in relation to capex and financeability as we would adopt a relatively conservative approach to estimating its capex requirements, but would take a robust approach to setting quality of service targets.

2.58 It is for HAL to demonstrate that its proposed capex envelope is an efficient estimate of required expenditure to deliver outputs required by airlines and consumers. HAL, therefore, needs to provide compelling evidence in support of its estimated core capex.

2.59 We will, in parallel, continue to develop our proposals for capex based on information provided by HAL in other forums and, in particular, material prepared for airport-airline governance groups. We also expect to build on recommendations from our consultants Arcadis to ensure that a credible and deliverable plan can be developed, in consultation with airlines.

2.60 We envisage two broad options for developing our Initial Proposals:

- use evidence from the updated H7 capex plan (expected in June 2021) and assess this evidence to develop a set of capex estimates, integrated with other financial building blocks, which also take into account views from airlines; and

- work with Arcadis to develop independent estimates of capex based on the information that is available from HAL, airlines' analysis and existing information from capex governance forums. This analysis would focus on the core level of capex required to safely maintain and operate the current airport infrastructure.

Key issues for consultation

2.61 We welcome the views of stakeholders on any aspect of our approach to developing projections of passenger traffic, operating expenditure, commercial revenue and capital expenditure.

Chapter 3

Financial Framework

Introduction

3.1 This chapter sets out how we intend to develop the financial framework underpinning the H7 price control. We:

- summarise the main points discussed in our previous consultations;
- note relevant developments since we last consulted on the financial framework; and then
- set out our proposed way forward.

3.2 The financial framework is important to consumers, HAL and other stakeholders as it determines how we allocate risks between HAL and its customers (including in relation to the risks created by the incentive arrangements we set). It also determines how we set the level of allowed return so that it is consistent with the risks that HAL has to manage and is no higher than is necessary to fund an efficient level of investment. In this chapter, we describe how we intend to make this assessment and the flexibility available to us to ensure that investment remains financeable and airport charges remain affordable.

3.3 The particular issues we are considering in setting out the proposed way forward for the financial framework are:

- capital structure and the impact of the covid-19 pandemic;
- determining the allowed return;
- how we will assess financeability;
- affordability and the profiling of revenues; and
- allowance for corporation tax.

3.4 We are also consulting on incremental refinements to several existing financial resilience licence conditions. The refinements build on previous consultations to clarify those obligations and improve the flow of information to the CAA. These proposals are discussed in more detail in Appendix K.

Our previous statements and stakeholders' responses

3.5 We set out our emerging policy on financeability and the cost of capital in the June 2020 Consultation, which we issued following the initial impact of the covid-19 pandemic had become apparent, the CMA's Provisional Findings on NERL's RP3 price control and HAL's decision to pause capacity expansion.

3.6 In the June 2020 Consultation, we explained that the H7 price control review would focus on the operation of a two-runway airport. In this context, we discussed the notional/efficient level of gearing. This included the advice that we had received from Flint Global that, in future, a notional gearing range of 52.5%-60.0% may be appropriate[16] in the context of estimating HAL's allowed returns and cost of capital.

3.7 In its response, HAL said the allowed cost of capital should reflect market data and changes in investor perceptions given the impact of the covid-19 pandemic. HAL noted the financeability implications of the covid-19 pandemic and the potential consequences for consumers. HAL also expressed concern about the findings presented in the Flint Global report[17] and listed specific areas where HAL took a different view to that of Flint Global.

3.8 A number of airlines also responded to the June 2020 Consultation. The AOC/LACC response highlighted the distinction between HAL's actual capital structure and the notional financial structure. AOC/LACC suggested the CAA should continue to assess financeability on the basis of a notional entity. British Airways made a similar point about the importance of the notional gearing assumption. AOC/LACC also submitted a report by CEPA which addressed a number of detailed points on the allowed return and concluded that the cost of capital allowance should be lower than implied by the Flint Global report.

3.9 There have been a number of developments since the June 2020 Consultation that may warrant a change in our approach to the development of the H7 financial framework. In particular, the covid-19 pandemic has continued to put significant pressure on HAL's finances and the recovery in passenger numbers at Heathrow has stalled. In response to this, HAL has:

[16] Based on analysis conducted prior to the impact of the covid-19 pandemic becoming clear.

[17] See www.caa.co.uk/cap1940c

- sought, and obtained, waivers on certain aspects of its debt financing arrangements;
- suspended dividend payments;
- reduced its operating costs (including cutting staff numbers and salaries);
- temporarily consolidated operations into Terminals 2 and 5;
- reduced its capital expenditure programme; and
- obtained additional liquidity, including by raising new debt finance at various levels within its corporate group.

3.10 Other developments which are relevant to the development of the financial framework include HAL's request for a RAB adjustment, CAA's work in response to that request and HAL's submission of its RBP (which includes HAL's views on the financial framework for the H7 price control review). The CMA has also recently published its final decision on the appeal of the PR19 price control in the water sector.

3.11 We address the issues stakeholders have raised through the course of the rest of this chapter and the associated appendices.

Capital structure and the impact of the covid-19 pandemic

3.12 In this section we describe our current thinking on:

- the notional financial structure (i.e. what assumption should we make on the financing of HAL's business in terms of the balance between debt and equity funding);
- whether and how our assumptions in respect of financial structure should change to reflect the impact of the covid-19 pandemic; and
- the impact on our approach to financeability of our response to HAL's request for a RAB adjustment.

3.13 These issues will influence our assessment of HAL's financeability and its cost of capital and, so, have the potential to impact both the level and profile over time of airport charges.

Broad approach to financial structure

3.14 In previous airport price control reviews, we have based our assessment of financeability and determined HAL's allowed return based on a "notional" or "efficient" financial structure. The notional financial structure constitutes a set of assumptions regarding the scale and nature of HAL's debt liabilities.

They reflect our views on the efficient balance between debt and equity finance, which we tend to refer to as the notional financial structure. In practice, the assumptions have differed significantly from HAL's actual financial structure.

3.15 The rationale for this approach has been that HAL’s actual financial structure is the responsibility of HAL’s directors and shareholders and is influenced by the particular choices they make. If the financeability test and allowed return determination were to be carried out on the basis of HAL’s actual financial structure, it could weaken the incentive on HAL to manage its finances prudently and could lead to consumers underwriting particular risks that HAL’s management had decided to take. In the Q5, Q6 and iH7 price control periods, we used a notional gearing assumption of 60%. HAL was at liberty to adopt alternative levels of gearing, but the risks and costs of doing so lay with HAL and its shareholders.

3.16 Given the advantages noted above, we intend to continue to use a notional gearing assumption and are exploring how the specific level of notional gearing that we assume might need to be varied to take account of the impact of the covid-19 pandemic.

Whether and how our assumptions in respect of financial structure should change to reflect the impact of the covid-19 pandemic

3.17 The sudden and dramatic impact of the covid-19 pandemic on HAL’s revenues calls into question whether any change to our notional gearing assumption is appropriate. This is because HAL would have experienced significant losses in 2020 and 2021[18] , even under the notional financial structure. The assumptions we make about how these losses are addressed influence the opening notional financial structure assumed for H7. We have identified the following two broad options for addressing these matters:

- one assumption is that the notional airport operator would have reduced dividends and its shareholders would have injected equity to preserve the notional gearing. This would imply that we can assume an opening notional gearing assumption of 60% for H7; and

[18] As indicated above, we note that HAL has taken a number of actions to address funding requirements in iH7, including significant reductions in opex and capex. Despite these actions, HAL has still needed to raise a significant quantum of debt to meet its funding requirements.

- an alternative assumption is that the notional airport operator would have addressed the loss of revenues, at least in part, by issuing new debt. This would imply that we ought to assume a higher opening notional gearing assumption for H7.

3.18 Many airlines and airports, including HAL, have raised new equity[19] and have foregone dividends over the last year since the onset of the pandemic. We note that the effects of providing cash up front by means of an equity injection and those of a period of foregone dividends can be quite similar, particularly in the longer term.

3.19 In the appendices to the February 2021 Consultation on the covid-19 related RAB adjustment, we noted that the losses could be met by issuing equity but there are certain barriers to HAL issuing new equity to meet the shortfall:

- issuing equity involves incurring “fixed” costs that HAL would not currently be able to recover under the existing regulatory framework (but which it might be reasonable for consumers to fund); and
- the cost of equity in the H7 period may be higher than the Q6/iH7 allowed return. To the extent that the cost of equity were to be higher, even factoring the impact of any risk sharing mechanisms, this higher cost would need to be remunerated to attract fresh investment.

3.20 Our assessment of these issues is ongoing. For the analysis presented in this document, we assume that additional equity is contributed in the form of foregone dividends. If the revenue shortfall caused by the impact of the covid-19 pandemic was addressed without an equity injection, but was met through a combination of dividend reductions and increased debt instead, we estimate that the notional gearing would have increased to around 67% by the end of 2020.

3.21 We have also cross checked against the observed gearing levels of eight comparator airports.[20] While none of the airports is a perfect proxy for Heathrow, they all show significant increases in gearing associated with the onset of the covid-19 pandemic in 2020. The increase in gearing level

[19] See https://www.heathrow.com/content/dam/heathrow/web/common/documents/company/investor/reports-and-presentations/investor-reports/2020_Heathrow_SP_investor_report_dec_2020.pdf

[20] See Appendix I for a list of the specific comparator airports and a chart showing the gearing of each. Gearing is calculated as the market value of debt divided by the enterprise value of the business since RAB values are not readily available for all the comparators.

varies across the eight airports but ranges approximately from five to 20 percentage points from pre-pandemic levels to the peak. An increase from 60% to 67% for the notional entity would therefore be consistent with the trend seen in other airports.

3.22 We expect that the longer-term level of gearing adopted by airports may be influenced by investor perceptions of the level of risk to which these companies are exposed. To the extent that investors perceive that HAL and other airports are exposed to greater risk, given the losses incurred during the covid-19 pandemic, this would be consistent with lower long-term levels of gearing. On the other hand, if investors' perceptions of risk are unchanged relative to before the pandemic, for example, due to the application of traffic risk sharing or other mitigating factors – it may be appropriate to retain an assumption on the longer-term level of gearing consistent with that used at the Q6 price control review.

3.23 In either case, we would expect to observe a gradual reversal of any increases in leverage due to the pandemic over the course of the H7 price control period. The appropriate assumption regarding the pace of this de-leveraging will need to be determined in due course. The key factors which will determine the appropriate level for the notional gearing assumption in future are:

- possible changes in investors' perception of risk due to covid-19;
- the size of any RAB adjustment(s) in respect of covid-19 related losses;
- the potential introduction of a traffic or revenue risk sharing mechanism; and
- our assumptions in respect of the credit rating required to appropriately support financeability of the price control.

3.24 Our initial analysis of gearing glide paths[21] shows that de-leveraging is possible even without an equity injection or a RAB adjustment. As described above, we assume for our analysis that no dividends are paid. This represents the fastest rate of de-leveraging possible without equity injection. In practice, it is possible that de-leveraging could occur over a longer period, which would also be consistent with an earlier resumption in

[21] See Appendix I

dividends.[22] Likewise a faster recovery in passenger numbers than we assume could bring forward the point at which dividends were paid.

3.25 Our analysis of gearing glide paths is based on purely illustrative assumptions about the allowed return. It suggests an allowed return of 3% (real, vanilla) coupled with no RAB adjustment would lead to a gearing of 63% at the end of H7. A RAB adjustment would reduce the gearing on a one-off basis and a higher allowed return would result in a quicker deleveraging (so, for example, an allowed return of 6% leads to a gearing of 50% by the end of H7).

3.26 We will carry out further work on our approach to financial structure and gearing to support the publication of our Initial Proposals later this year.

Our response to HAL's request for a RAB adjustment

3.27 We have published our decision on the RAB adjustment ahead of the H7 price review alongside this document. In this we conclude that we should make a targeted intervention that would provide for a £300 million increase in HAL's RAB from 2022 to particularly provide HAL with the incentive to make investments and spend money to deliver good customer outcomes during the recovery of traffic volumes. We do not regard this as having a sufficiently material impact to warrant taking a different approach to capital structure to that discussed above.

3.28 In addition to this immediate intervention, we have committed to consider the case for a further RAB adjustment as part of the H7 review. Our present view is that even a more substantial RAB adjustment would not undermine the case for an approach to financeability based on a notional capital structure. Nonetheless, we will consider these matters further if we reach the view that a more substantial adjustment to HAL's RAB would be warranted as part of the H7 price control review.

Determining the allowed return

3.29 The allowed return is a key element of the financial framework and is a necessary input into assessing whether the price control will lead to HAL being financeable (the "financeability assessment"). At the same time, the determination of the allowed return relies on assumptions regarding the

[22] See paragraphs E31-E32 of the appendix to the February 2021 Consultation which shows that it is not essential that gearing is returned to 60% within just one price control period. See www.caa.co.uk/CAP2098A.

other elements of the financial framework, in particular, the notional gearing assumption and credit rating.

3.30 It will also depend on the wider risk and reward package and the extent that HAL is protected from risks by the regulatory framework (in particular the approach to traffic/revenue risk sharing and capex efficiency incentives) as well as consideration of the wider issues raised by HAL in its request for a RAB adjustment. In setting initial proposals we will be clear on the risks that HAL is expected to bear. We will then take account of all these risks, collectively, as we assess the appropriate level for the allowed return.

3.31 We have set out our emerging thinking on a number of the key issues in the calculation of allowed return in Appendix J. We intend to update our analysis of allowed returns and set out our thinking on a plausible range for allowed returns as part of the Initial Proposals.

3.32 In Appendix J we provide an update on our emerging views on the weighted average cost of capital ("WACC") and the parameters that contribute to it. At this stage, we have not provided updated estimates for each parameter. Instead, we have focussed on setting out the principal issues that we think we will need to consider when forming our Initial Proposals.

3.33 Where practicable, we have had regard to HAL's request for an adjustment to the RAB and its responses to our October 2020 and February 2021 consultations. We expect to carry out further work on these matters ahead of Initial Proposals. We have also had regard to the CMA's Final Determination in relation to Ofwat's PR19 price controls and remain mindful of the potential relevance of emerging evidence from the appeals of Ofgem's RIIO-2 revenue restrictions.

3.34 Appendix J deals with the following issues (but does not provide point estimates or an overall range for allowed returns):

- our approach to estimating beta, including consideration of the appropriate comparators and the impact of the covid-19 pandemic;
- the CMA's precedent in respect of the market wide parameters;[23]
- the impact of the covid-19 pandemic on the cost of embedded and new debt; and

[23] The CMA has recently released its final report for the PR19 appeals in the water sector and is now considering appeals in respect of RIIO2 for gas distribution and electricity transmission.

- our current thinking on what factors we should take into account in determining a point estimate for the allowed returns.

How we will assess debt financeability

3.35 In this section, we present some initial analysis to illustrate how we intend to assess whether our approach to setting the price control is consistent with a notionally financed airport continuing to have access to cost effective investment grade debt finance. This is an important part of the process of setting the price control as it allows us to assume a cost of capital no higher than is necessary (and so prevents undue upward pressure on airport charges) while also allowing HAL to continue to raise debt finance to support investment.

3.36 A key aspect of the debt financeability assessment is analysis of HAL's performance (on a notional basis) against certain metrics used by the credit rating agencies as part of their rating methodologies. This analysis can provide insight into whether the level of cashflows under a set of price control arrangements is consistent with the maintenance of a reasonable investment-grade credit rating. We continue to recognise the importance of a reasonable investment grade credit rating in creating a financeable price control package.[24]

3.37 At this stage of the price review, we are not yet in a position to carry out a formal financeability assessment of our developing thinking on the new price control arrangements for HAL. Nonetheless, it is possible to carry out some illustrative analysis based largely on information in HAL's RBP, noting that this does not constitute an endorsement of the RBP.

3.38 This analysis is intended primarily as a worked example of how we expect to assess debt financeability. Any conclusions that might be drawn from this analysis will be limited by the significant level of uncertainty due to the ongoing covid-19 pandemic and that our work on the price review is at an early stage. For this illustrative analysis, we assume a recovery in passenger demand and this is a key driver of the results presented below.

3.39 We have examined key credit metrics for HAL under the notional financial structure, assuming:

[24] See our previous comments about the relevance of a 'reasonable investment grade credit rating' in the January 2020 Consultation. See www.caa.co.uk/CAP1876

- no intervention in respect of HAL's lost revenues caused by the impact of the covid-19 pandemic[25];
- a recovery in passenger demand consistent with the Mid case in HAL's RBP submission;
- no equity injection and no dividends;
- that actual costs (for example in respect of operating costs and interest) are equal to the price control assumptions;
- a glide path for notional gearing consistent with the discussion above; and
- purely illustrative high and low scenarios for the allowed return of 3% and 6% respectively. The high end of the range is a round up of the Q6 return.[26] The low end of the range is in line with Flint Global's April 2020 estimate.[27]

3.40 The detailed results of this analysis are shown in Appendix I.

3.41 The illustrative analysis suggests that across all modelled scenarios, the notional company's credit metrics will be under pressure in 2022, before returning to levels consistent with a solid investment grade credit rating (i.e., A- or BBB+) in the later years of H7. We expect this upward trajectory to be supportive of the credit rating as rating agencies place significant weight on trends in addition to looking at metrics in individual years. This view could change if significant amendments are made to the underlying assumptions in the RBP, particularly traffic forecasts.

3.42 In its RBP, HAL concludes that a substantial RAB adjustment is necessary for the H7 price control to be financeable. We have examined the impact of a RAB adjustment on debt financeability and present our findings in a separate document which is published alongside this one. In summary, we conclude that a RAB adjustment does not materially influence whether or not HAL is financeable under the notional financial structure. This is because the principal constraint on debt financeability under the notional financial structure is cashflow in the early years of H7, which is not significantly improved by a RAB adjustment.

3.43 We discuss issues around equity financeability, including in relation to the RAB adjustment, in the following section. We also note that financeability

[25] A RAB adjustment would support financeability so it is more informative to look at the baseline without any such intervention.

[26] The allowed return in Q6 was 5.35% on a pre-tax, real basis.

[27] See www.caa.co.uk/cap1940c

will be affected by any reprofiling of revenues or adjustments to depreciation. We consider these issues further in the section on affordability and the profiling of revenue.

How we will assess equity financeability

3.44 Providing the potential for reasonable returns to shareholders is an important part of creating a financeable price control. In this section, we describe our current thinking on how we will calibrate the price control to be financeable from the perspective of equity investors.

3.45 In the January 2020 and June 2020 Consultations, we presented a set of metrics through which we would examine equity financeability. This included both accounting measures such as the Return on Regulatory Equity ("RORE") and cash measures that focussed on dividends such as "running yield". It remains our intention to consider these metrics at H7 and use RORE to calibrate the incentive package and WACC so that they are consistent, and that HAL is appropriately rewarded for the risks that it manages.

3.46 In the context of this consultation, we have carried out analysis which considers how quickly the notional entity could deleverage if HAL is assumed to fund covid-related losses exclusively with debt. In all the scenarios we have considered, bringing notional gearing to pre-covid levels would require dividend forbearance for several years in H7.

3.47 A period in which no dividends are paid would be consistent with precedent and market expectations. Standard & Poor's has published analysis suggesting rated European airports will pay almost no dividends in 2020, 2021 and 2022 with a gradual return to payment of dividends from 2023 onwards.[28] HAL itself will be unable to pay dividends while gearing[29] remains above 87.5% due to a condition of the waiver it obtained from creditors.

3.48 While dividend forbearance may be appropriate in the short run, in the long run, the notional entity will need to be able to pay dividends to attract ongoing investment, which furthers the interests of consumers. We will, therefore, be looking to calibrate the H7 price control in a way that supports a return to dividend payment, within a reasonable timescale. The timing

[28] See slide 13 of "Another Stretch Year For Europe's Airports" https://www.spglobal.com/_assets/documents/ratings/research/100049716.pdf

[29] The covenant waivers refer specifically to "regulatory asset ratio" which is a measure of gearing and is calculated as the ratio of net debt to RAB

and magnitude of actual dividends paid are of course a matter for HAL's management.

Affordability and the profiling of revenues

3.49 We have already noted the difficulties that low passenger numbers may create for the H7 period in terms of putting upward pressure on airport charges per passenger. In its response to the October 2020 Consultation, HAL indicated that, depending on the determinations of price control building blocks such as the allowed return, there may be scope for deferring cashflows to future periods in order to manage charges and affordability in H7. In its RBP, HAL proposed reducing depreciation in the H7 period to balance the interests of current and future consumers and to bring charges down in the H7 period.

3.50 We indicated in the February 2021 Consultation that reprofiling of cashflows and, in particular, regulatory depreciation, could be an important lever during H7 to manage charges and affordability while the sector is recovering. Such an approach might allow us to balance the interests of current and future consumers better. The traditional approach of assuming equal amounts of depreciation in each year is reasonable in the context of a fairly steady level of demand. In the H7 period, when demand is depressed by the impact of the covid-19 pandemic, it may be more appropriate to reduce depreciation so that the passengers travelling in the H7 period do not pay a disproportionate share of depreciation costs.[30]

3.51 In its response to the February 2021 Consultation, HAL stated that it would not be possible to adjust depreciation if Heathrow's proposed RAB adjustment was not implemented. HAL also stated that the CAA's analysis of the flexibility that there might be around depreciation was incomplete due to not considering certain constraints and the need to return gearing to pre-pandemic levels. Our analysis above, though illustrative, suggests that gearing can be returned close to pre-pandemic levels by the end of the H7 period even without a RAB adjustment.

3.52 Any reprofiling of cashflows would need to take into account the impact that this would have on HAL's notional credit metrics and credit rating. We are aware that some credit rating agencies tend to "reverse out" NPV-neutral reprofiling of revenues, although we expect that they will exercise a degree of judgement in doing so. We expect that this judgement may be particularly relevant in the light of the current circumstances because the

[30] Subject to the assumptions set out in paragraph 3.39

impact of the covid-19 pandemic is putting significant short term pressure on liquidity while the longer term prospects for recovery still look strong.

3.53 We will consider the scope for any deferral of cashflows alongside our formal financeability assessment in the Initial Proposals. In doing so, we will consider our statutory duties, including in relation to the interests of current and future consumers. We are mindful, for example, that deferring depreciation to later periods can potentially create challenges for recovering it during those periods if market conditions change significantly.

3.54 Nonetheless, to illustrate some of the issues further, we have examined the impact on charges and credit metrics of both:

- a "NPV neutral" reprofiling of charges within the H7 period; and
- an adjustment which defers some depreciation into later price control periods.

3.55 This analysis is based on the same assumptions as the 6% WACC[31] case presented above, and the same caveats regarding reliance on the RBP apply. The detailed results of the analysis are presented in Appendix I.

3.56 The analysis shows that adopting a higher initial level of charges in exchange for a lower end-of-period price cap provides support to credit metrics in the early years of the price control at the expense of the later years. Given that the credit metrics (without re-profiling) are stronger in the later years of the price control, such a reprofiling could potentially provide valuable support to credit metrics in the aftermath of the covid-19 pandemic. This would indirectly benefit consumers through contributing to financeability as well as the direct benefits associated with balancing the charges paid by current and future consumers.

3.57 Deferring depreciation to later periods suppresses ratios throughout the H7 period, but conversely makes charges more affordable. The financeability impact of any such deferral of depreciation would thus be a relevant consideration when assessing the extent of potential deferral.

3.58 By using both reprofiling methods concurrently, we may be able to achieve an optimal level of charges that is financeable throughout the period while spreading fixed costs (such as depreciation) in a way that accounts for the expected growth in passenger volumes. At the same time, we are conscious that there remains a degree of tension in the shorter-term between affordability and financeability. As we work towards our Initial

[31] We use a real, vanilla WACC in all analysis presented in this chapter.

Proposals, we will continue to examine how charges can be best profiled to meet the aims of affordability and financeability.

3.59 Also, to illustrate the impact of a substantial RAB adjustment we have modelled the level of the price cap assuming a 3% WACC and a £1.6bn RAB adjustment at the start of H7. We have then compared this to the level of the price cap without a RAB adjustment and assuming either a 3% WACC or a 6% WACC. The detailed results are presented in Appendix I. In summary, a £1.6bn RAB adjustment with a 3% WACC would increase the price cap by approximately 75 pence in each year of H7. We will consider as part of the H7 process the case (if any) for a further RAB adjustment.

Allowance for corporation tax

3.60 In the January 2020 Consultation[32], we outlined our preferred approach to setting an allowance for tax costs in H7. This involved using the estimates of tax costs in our financial modelling based on a gearing level consistent with that used to set the WACC to calculate a separate allowance for corporation tax. We also explained that we would consider an additional tax clawback mechanism, to limit the benefits to shareholders of developing highly leveraged financial structures. We consider that this broad approach should provide a reasonable and transparent estimate of the tax costs that HAL will incur in practice.

3.61 In the June 2020 Consultation[33] we provided guidance to HAL on preparation of its RBP. We indicated that:

- financeability assessments should be undertaken with reference to CAA's statements on financeability policy; and
- the WACC should be no more than the efficient level necessary to compensate HAL for the business and regulatory risks it faces.

3.62 We do not consider that HAL's use of a pre-tax WACC in its RBP, in which the cost if equity is grossed up at the projected statutory corporation tax rate, complies with the guidance we set out, as noted in chapter 1.

3.63 We remain of the view that remunerating tax through setting a pre-tax cost of equity and allowed cost of capital is less transparent, inaccurate and prone to being overly generous. An example of this is that losses or reduced profits due to the impact of the covid-19 pandemic would not be properly accounted for in HAL's revenue allowances under a pre-tax

[32] See http://caa.co.uk/cap1876

[33] See http://caa.co.uk/cap1940

WACC. Further assessment of the options to setting an allowance for tax costs is provided in Appendix L.

3.64 HAL's non-compliance with our business plan guidance means we do not currently have the information to calculate the tax allowance based on its RBP. We have engaged with HAL to obtain the information to calculate the tax allowance and expect to receive further information that will help us to set a tax allowance. We understand that capital allowances are a key component of the tax allowance calculation and have noted in our RBP review the lack of detail provided on capital expenditure and the impact this has on our ability to reliably estimate an allowance for tax.

3.65 In the light of the possible practical difficulties of implementing a post-tax approach, we have also considered alternative approaches. One alternative option is a tax "pass through" mechanism. A tax pass through mechanism would require an estimate of actual tax incurred and this amount would be revised through a true-up mechanism in subsequent years. We plan to conduct further analysis of the practicalities of implementing a tax pass through mechanism.

3.66 Another option that could allow us to remunerate tax costs more accurately would be a hybrid approach. In this option, we would set an upfront allowance for tax costs based on the best available information. We would then true up in respect of certain differences, such as the difference between the expected and actual gearing and/or capex.

3.67 We will continue to engage with stakeholders as we explore the policy options outlined above. We will present our proposed approach to allowance for tax costs in our Initial Proposals.

Key issues for consultation

3.68 We welcome the views of stakeholders on any aspect of our approach in the H7 price control review to the assessment of HAL's financeability and affordability of its charges and in particular on:

- the approach we should take in respect of the losses caused by the impact of the covid-19 pandemic and how these should be taken into account in establishing the assumptions on capital structure for the efficient notional company;
- our approach to assessing HAL's debt and equity financeability: and

- the approach we take to assessing the affordability of airport charges and our suggestion that we can use the profiling of revenues and/or regulatory depreciation to help address concerns about affordability.

Chapter 4

Incentives

Introduction

4.1 This chapter addresses two key elements of the incentive framework for HAL that we propose to change for the H7 period. These are:

- a risk-sharing mechanism to reduce HAL's exposure to traffic-related risk, which is particularly important given the unusual degree of uncertainty affecting traffic forecasts for the H7 period; and
- a set of improvements to the incentives on HAL to deliver capex efficiently.

4.2 Further details of our current thinking on capex incentives are set out in Appendix M.

Risk sharing mechanisms

4.3 In the June 2020 Consultation, we said that there might be a strong case for including some form of traffic risk sharing mechanism in the H7 price control. We also;

- agreed with airlines' previous comments that any such mechanism should not aim to protect HAL from all traffic-related risk;
- noted that such a mechanism could avoid unnecessary upward pressure on HAL's cost of capital; and
- stated that we were open to considering ways to avoid short-term increases in charges at times of lower than expected demand, for example, through the use of a RAB adjustment rather than an immediate increase in airport charges.

Stakeholders' views

4.4 In its response to the June 2020 Consultation, HAL:

- supported the introduction of risk/uncertainty mechanisms;

- agreed with previous airline comments that HAL should not be insulated from all risk;
- said that the level of risk sharing should be linked closely to the level of uncertainty around the passenger forecast; and
- highlighted the importance of a mechanism to manage the impact of larger shocks, together with the need for clear triggers for adjusting or reopening a price control.

4.5 Some airline responses indicated a willingness to consider traffic risk sharing, although one stated that the current model is fit for purpose. In broad terms airlines:

- stressed the need to consider the wider context, including both the likely impact on HAL's cost of capital and the operational measures HAL would be likely to take in response to different traffic scenarios;
- stated that they did not, in general, support the use of the RAB as a mechanism to defer increases in charges; and
- said that any specific proposals would need to clearly demonstrate real consumer benefits and should only be considered once HAL had exhausted all opportunities within its control.

4.6 In its RBP, HAL included a risk sharing mechanism that would apply to all revenues (rather than a mechanism that applied only to traffic volumes)[34]. Its proposal contained:

- a "deadband" (within which Heathrow bears full revenue risk) if outturn revenues are within eight per cent of the baseline position in the price control, and
- 95 per cent risk sharing beyond this deadband, so that HAL would bear only five per cent of any further changes once revenues are more than eight per cent above or below the price control forecast.

[34] We note that in HAL's response to CAP 2098 it proposes a lower sharing factor of 86 per cent which it states reflects appropriate levels of cost savings.

Way forward

The case for risk sharing

4.7 In our view, there are three primary reasons for sharing traffic risks during the H7 period against a backdrop of considerable uncertainty about the timing and shape of the recovery in passenger traffic volumes. They are to protect the interests of consumers by:

- limiting the risks that HAL might see significant windfall gains or windfall losses depending on the pace of the recovery in passenger traffic volumes;
- avoiding unnecessary upward pressure on HAL's cost of capital that would pass through into the airport charge; and
- allowing us to facilitate the certainty and advantages for stakeholders of a five-year price control for the H7 period while helping to clarify the risks that HAL is expected to bear during that period.

The form of risk sharing

4.8 As noted above, the proposed risk sharing mechanism included in HAL's RBP would apply to all revenues. Compared with a "pure" traffic risk sharing mechanism, a risk sharing mechanism that applies to total revenues has the potential advantage that it directly helps to protect HAL from the impact of unexpected changes in commercial revenues per passenger and so would lower its risk and cost of capital for the benefit of consumers. This could be useful to help deal with uncertainties affecting commercial revenues per passenger during the course of H7, for example because of changes in duty free and tax regulations or due to potential changes in the mix of passengers at Heathrow.

4.9 However, revenue risk sharing also has some potential disadvantages compared with traffic risk sharing. It may dilute HAL's incentives to optimise commercial revenues (which benefit consumers in the long run). There is likely to be a greater risk of measurement or 'boundary' problems compared with a mechanism based on a physical metric such as passenger numbers. There is also more experience of applying traffic risk sharing mechanisms at airports than there is of revenue risk sharing.

4.10 We will continue to consider how both traffic and revenue risk sharing mechanisms could work in practice, and the potential advantages and disadvantages of each. The introduction of either traffic or revenue risk sharing will represent a significant change in the form of price control that we apply to HAL. As well as taking account of this change when assessing the cost of capital, we will need to consider the impact on the overall package of incentives that we place on HAL, and also ensure consistency with other parts of our review, such as the level of any allowance for demand shocks that we include in our traffic forecast and the cost recovery arrangements applying to ORCs.

The level of risk sharing

4.11 Further work will be required to assess the most appropriate level of risk sharing that best protects the interests of consumers, including understanding how HAL's opex and commercial revenues are likely to vary with changes in traffic volumes.

4.12 At present, and subject to review as new information emerges, our general views on the level of risk sharing are that:

- as a key objective of risk sharing is to moderate the impact of general uncertainty (and not just extreme events) on HAL's financial returns during H7, there appears to be a reasonable case for applying some degree of risk sharing to all deviations from our forecast. This is in contrast to the mechanism included in HAL's RBP, which features a large deadband; and
- another objective of risk sharing could be to provide HAL with an appropriate degree of protection from the impact of extreme events (although, as discussed below in the section of reopeners, there are other mechanisms which can be used to achieve this objective). Therefore, there may be a case for stronger risk sharing for larger deviations from our forecast. Even in these cases, however, it is important that HAL retains some incentives in relation to passenger volumes and commercial revenues.

4.13 We consider that the 95 per cent sharing factor (for variations beyond the eight per cent deadband) proposed in HAL's RBP is on the high side. It would appear to leave HAL with very weak incentives to increase traffic volumes or commercial revenues. Furthermore, if traffic-related changes in opex more than offset the incentives that remain, HAL might stand to benefit from any decreases in traffic levels once the 95 per cent risk sharing applies.

Implementation

4.14 Many existing traffic risk sharing mechanisms (such as those applying to Aéroports de Paris and to NATS (En Route) plc) operate by adjusting charges one or two years later. However, this can lead to airlines facing higher charges at a time when they are already having to deal with lower than expected demand. The current crisis has also highlighted the difficulties of relying on such mechanisms in situations where the reduction in demand is large and/or prolonged.

4.15 We consider there is merit, therefore, in exploring alternative ways of implementing risk sharing, especially in cases where traffic is lower than expected. Adjusting the RAB in the following regulatory period is one option for delaying and smoothing the increase in charges. This can be implemented so as to have the same impact on the net present value of HAL's revenues as an in-period adjustment to the price cap. We note airlines' concerns about this approach, but on balance consider that such arrangements could be in the interests of consumers.

4.16 A further question is whether the risk sharing mechanism should be based on annual differences between outturn and forecast variables, or whether it might reflect cumulative differences over the H7 period as a whole. We will continue to engage with stakeholders on the relative merits (including the likely impact on charges and HAL's financeability) of different ways of implementing traffic or revenue risk sharing.

Reopeners

4.17 The case for introducing arrangements that enable the price control being reopened in the face of traffic shocks may depend on how well any traffic or revenue risk sharing mechanism already protects HAL from the likely impact of extreme events. If a "reopener" mechanism is appropriate then, as we explained in the June 2020 Consultation, policy guidance on the types of circumstances that might justify reopening a price control could provide a more flexible approach than a formal reopener condition in the licence. Among other things we observe that:

- if a risk sharing mechanism already gives HAL a reasonable degree of protection from a shock caused solely by a traffic downturn, then the specific circumstances that are likely to justify reviewing the price control could be more complex in nature and, therefore, more difficult to enshrine in a formal licence condition;
- a formal reopener might in practice provide relatively little certainty, for example because it may only allow a party to request a review, with no guarantee that we would carry it out, and it might say little or nothing about the basis of the review or the likely outcome; and
- policy guidance might also allow us to spell out when and how we would expect to protect HAL's investors and its customers and passengers, in a way that is not possible with a formal licence condition.

4.18 For the H7 period, we intend to provide a clearer statement of the circumstances that might justify reopening a price control than there was during Q6. We continue to consider that policy guidance on when reopening a price control might be appropriate may be a more effective approach than a formal reopener included in HAL's licence.

Next steps

4.19 We expect to engage further with stakeholders as we take our work on risk sharing and reopeners forward. In relation to risk sharing this is likely to include further modelling of potential calibrations, and further consideration of implementation issues (including the practicalities of mechanisms based on either traffic or total revenues). We will also examine these issues alongside other aspects of the H7 price control, for example, to ensure there is an overall balanced package of incentives and that there is no double counting, and to consider the implications for affordability and financeability.

4.20 We will be considering how best to assess the likely impact of a risk sharing mechanism on HAL's cost of capital. A further important input into any quantitative analysis is clearer information than we have at present on how HAL's opex and commercial revenues are likely to vary under different traffic scenarios. As we note in chapters 1 and 2 on the RBP, it is important that HAL provides more robust information and evidence on how its costs and revenues are likely to vary with changes in volume.

Capex incentives

Introduction

4.21 Over the last four years, we have consulted on our approach to capex efficiency incentives for the next price control, with the key objective of creating stronger and clearer incentives for HAL to make capex investments efficiently. This remains a priority for H7, even in the context of a two runway airport, given the importance of capital efficiency to the longer-term interests of consumers.

4.22 The June 2020 Consultation set out our criteria for developing new capex incentive arrangements and the broad approach that we intend to apply to the H7 capex programme. The August 2020 Working Paper set out further details of this approach. We proposed to retain key aspects of the current arrangements, including the core and development framework,[35] but also proposed some important changes including:

- clear *ex ante* (forward looking) incentives so that HAL would bear a pre-determined share of any under or overspend against the capex baselines we set;
- delivery obligations specified for each category of capex, to allow us to assess whether HAL has delivered the outputs and benefits agreed with airlines; and
- arrangements to allow capex baselines to be updated during the H7 period, provided that any changes are appropriate and efficient and are agreed by airlines.

4.23 We discussed our proposals for capex incentives as part of our ongoing engagement with stakeholders during CE as well as meeting with HAL and airlines separately to discuss our proposed approach.

4.24 HAL has proposed an alternative approach for capex efficiency incentives in its RBP. This is largely based on the existing framework, but includes:

- *ex ante* incentives only applying to its asset replacement programme;
- no specific delivery obligations for this programme since HAL proposed that requirements will be set as part of the service quality framework; and
- for all other categories of capex, HAL proposed objectives which it would refine and link to new symmetrical incentives that would replace the current capex triggers (which penalise late delivery).

4.25 As noted in chapter 1, we do not consider that HAL's proposed approach fully meets our RBP criteria or that it addresses all of the issues that we highlighted in the June 2020 Consultation and the August 2020 Working Paper. We have set out further views, and our assessment of HAL's proposal, in Appendix M.

Stakeholders' views

4.26 Both HAL and airlines support an approach that builds on the existing Q6 framework and enhances governance arrangements for H7. However, they have different views on how this should be achieved.

[35] Appendix C of the June 2020 Consultation sets out the current capital efficiency arrangements including detailed of the core and development framework.

4.27 HAL mostly disagrees with our overall approach of applying *ex ante* incentives. Among other things it has argued that:

- the current framework is working well. Its view is that, on the whole, HAL has delivered projects close to the G3 capex baseline,[36] our *ex post* assessments have found only a few instances of possible inefficiency, and no project Gateway decisions have been escalated to the CAA. It also pointed out that the current framework already includes a form of *ex ante* incentive because HAL bears the financing costs on expenditure in excess of its allowance and keeps the financing costs on unspent capex up until the point at which the RAB and the price control are formally reset at the end of each control period (the Q6 financing cost incentive[37]);
- *ex ante* incentives could lead to worse outcomes for consumers. For example, costs could rise due to a combination of increased risk levels, higher cost estimates and an increase in HAL's cost of capital. HAL has also said our proposals could create a framework that is less flexible and collaborative than the current arrangements; and
- that the nature of its investment programme is different from other regulated industries subject to *ex ante* incentives. HAL has said that if *ex ante* incentives were to be applied, they would only be suitable for a small subset of HAL's capex where projects are short, low value and routine.

4.28 In contrast, airlines broadly supported our proposed approach and recognised the need for improved incentives:

- airlines agreed with the issues that we identified with the existing *ex post* incentive framework;[38]

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36 HAL said that Q6 performance was good and projects were completed within 0.5% of the project G3 baseline value. We note that this analysis excluded certain complex major projects including the tunnels, HBS and T3IB.

37 HAL provided a stylised example to demonstrate the Q6 financing cost incentive is around 13% because HAL does not recover the financing costs associated with any overspend or underspend against the capex baseline agreed at Gateway 3.

38 See paragraph 10 of the August 2020 Working Paper.

- they considered that ex ante incentives should encourage HAL to create robust business cases early in the planning and scoping stages, and should encourage effective contract management. However, they also stated that symmetrical *ex ante* incentives might not always provide a fair balance of risk for consumers or drive the right behaviours by HAL, and that ex post assessments may still be required for large, complex projects;
- airlines disagreed with HAL's proposal to limit *ex ante* incentives to its asset management programme. They consider that a two-runway airport produces a low risk capital programme that should be well understood and controllable by HAL; and
- they agreed that the capex framework needs to be flexible and able to adapt to changing events during H7. They stated that some aspects of the existing governance arrangements are either not adhered to, or not as effective as they should be. They supported the improvements in governance arrangements that we suggested in the June 2020 Consultation,[39] and suggested further ways that these arrangements could be further strengthened. They also said it may be necessary to establish a capital envelope "trigger" mechanism to provide appropriate governance for any significant changes during H7.

Way forward

4.29 We remain of the view that improvements to the existing capex framework are appropriate to create stronger and clearer incentives for HAL to ensure capex is incurred efficiently. Our proposed approach aims to both incentivise efficient capex and enabling the capital plan to respond to changing circumstances during the H7 period. Our approach continues to utilise those aspects of the current arrangements, particularly the role of airlines working with HAL to define the required projects, which appear to be working well.

4.30 Many of the points raised by stakeholders in response to the June 2020 Consultation and the August 2020 Working Paper have been considered in our previous consultations on these matters. Below we focus on new issues that stakeholders have raised in relation to our most recent proposal and how we can best develop new capital efficiency incentives.

[39] See paragraph 3.27 of the June 2020 Consultation and also set out in Appendix M.

Introducing *ex ante* incentives

4.31 Improvements to capex efficiency incentives are best achieved through the careful introduction of properly calibrated *ex ante* incentives. These would provide a number of important advantages over the current system of *ex post* reviews, which have been challenging to carry out in practice and may not have provided a sufficiently strong incentive for HAL to ensure efficiency across all of its capex programme. Our proposed approach builds on the well-established governance arrangements from Q6 (including the role of airlines in working with HAL to define the required projects), and we propose that HAL's performance will continue to be assessed against baselines that will evolve during H7 period to reflect more accurate capex requirements and cost information. We consider that this approach is likely to present less risk to HAL than some of the *ex ante* mechanisms used by other sector regulators.

4.32 In contrast to HAL, we consider that *ex ante* incentives should be applied to all of HAL's capex in H7. Based on our high-level assessment of the plan, we have not identified any areas that HAL should not be able to properly plan or reasonably control. Nonetheless, we will keep this under review as HAL continues to develop its capex plans, and in the light of any further information emerging on the riskiness and controllability of particular parts of the capex portfolio.

4.33 It will be important to balance the stronger cost efficiency incentives with incentives to deliver agreed outputs. We are retaining our proposal to set deliverables for each capex category so that HAL is held to account against agreed delivery obligations. When incentives are reconciled (for each capex category), we will assess the delivery obligations to ensure that any underspend against baselines is due to efficiency, not because HAL has not delivered agreed outputs. By combining cost incentives and delivery obligations we should be able to develop arrangements that best protect the interests of consumers.

The strength of capex incentives

4.34 We will develop proposals on the capex incentive rate as part of our ongoing work to calibrate the overall incentive framework for H7. At present our intention is to apply the same symmetrical incentive rate across all capex categories. We will undertake further work on the incentive strength as the price control review progresses, taking account of HAL's updated H7 capex programme as well as our overall assessment of HAL's broader risk and reward package.

4.35 Our initial view, as reported in the August 2020 Working Paper, was that the incentive rate should be higher than the implicit Q6 financing cost incentive (which is around 13 per cent on average), but lower than the 40-50 per cent sharing factors applied to total expenditure in some other regulated industries. On this basis, we consider that HAL's proposed incentive rate of 15 per cent (for asset replacement capex) is likely to be too weak and we would not be able to rely on this as our main efficiency incentive mechanism.

4.36 We note airlines' view that symmetrical incentives may not encourage the right behaviour from HAL. At present we remain of the view that symmetric incentives remain appropriate, but may review this again in the light of the quality of HAL's capex plan (which as we note in chapters 1 and 2 needs to improve significantly) and the balance of the overall risk and reward package that we will develop as part of the price control review.

Dealing with uncertainty

4.37 As discussed in the Executive Summary, there will continue to be uncertainty in relation to future passenger demand. This will have implications for HAL's capital plan, including the extent to which HAL could reasonably develop a fully detailed capital plan in advance of H7. However, we consider that there will be some aspects of HAL's capex plan that should be well developed, for example core capex projects that are known at the start of the price control and other projects that will be delivered during the first few years of the price control.

4.38 Our proposed approach maintains the flexibility currently provided by the core and development capex framework so that the price control can flex in line with emerging investment requirements. We provide further detail on how our approach accommodates the possibility that the capex baselines might change during the period in Appendix M. Alongside this flexibility, it is important that there are appropriate governance arrangements so that HAL is required to seek agreement from airlines and appropriately involve the CAA if there are major changes to its capital plans.

4.39 We consider that a new mechanism is needed for H7 so that, in the event of significant changes in the external environment, decisions around overall capital envelopes can be agreed by airlines and reviewed by the CAA. In the June 2020 Consultation, we set out a proposal for setting "tramlines" to act as upper and lower bounds for certain capex categories. Should forecast or outturn capex fall outside these tramlines, we said that we would conduct a broad review of the capex programme during H7, working with HAL and airlines. This is one example of a mechanism that could be implemented to address this issue, but we will continue to discuss these matters with stakeholders and consider whether there might be other approaches better suited to managing these issues.

4.40 We do not think it is appropriate to use the “core and development” framework to address change to the overall capex envelope because the core and development mechanism focuses on project level investment decisions and is not intended to facilitate significant step changes between capex envelopes/portfolios. Airlines have also raised concerns and said that it will be important to understand the mechanism by which HAL and airlines agree to any changes in the overall capex envelope.

Enhanced capex governance arrangements

4.41 We consider that there are a number of areas where the Q6 capex governance arrangements can be improved. We outlined these improvements in the June 2020 Consultation. We also consider that it is important that airlines maintain a vital role in governance arrangements during H7.

4.42 Enhanced governance arrangements will be especially important for setting the final baselines, as we will be assessing HAL’s delivery performance and calculating under or over-spends against these baselines. Further detail on our proposals on governance arrangements can be found in Appendix M.

Summary

4.43 Our proposed approach seeks to create stronger and clearer cost efficiency incentives while maintaining appropriate flexibility and improving governance arrangements. In summary it includes:

- clear symmetrical *ex ante* incentives to strengthen the existing capex efficiency arrangements, so that HAL bears a predetermined share of any under or overspend against capex baselines;
- a baseline established for each category of capex, linked to one or more delivery obligation which can be used to assess whether HAL has delivered the outputs and benefits agreed with airlines; and
- flexibility that allows capex baselines to be updated during the H7 period in a particular set of circumstances,[40] provided any changes are subject to appropriate governance arrangements.

4.44 Appendix M provides more detail, including examples of how our broad approach could work in practice.

[40] See paragraph 3.21 of the June 2020 Consultation.

Next steps

4.45 We recognise that HAL's capex plan has not been developed to the level of maturity that we expected at this stage of the review. This has presented some challenges in developing aspects of our framework for incentives such as establishing sensible capex category baselines and associated deliverables at the start of the price control. However, we do not consider that this is a reason to move away from our proposed approach. Instead, we intend to work with HAL and airlines to set baselines and deliverables as HAL responds to the requirements that we have set out in Appendix G of this document and subsequently as HAL starts to finalise projects during the price control period.

4.46 We intend to provide an updated view on aspects of the capex incentives framework (such as incentive rates and reconciliation arrangements) as part of our Initial Proposals for H7, then update this in the Final Proposals later in 2021.

Key issues for consultation

4.47 We welcome the views of stakeholders on any aspect of our approach to developing traffic/revenue risk sharing mechanisms and improved incentives for capital efficiency.

Chapter 5

Outcome Based Regulation

Introduction

5.1 This chapter sets out our initial views on HAL's proposed approach to service quality regulation as part of the transition to OBR for the H7 period.

5.2 It includes:

- the background to our OBR policy;
- HAL's proposed approach to OBR in the RBP;
- airline views;
- our initial views on HAL's approach; and
- next steps, including further stakeholder engagement.

5.3 Further details of our initial views on HAL's approach to consumer engagement and outcomes can be found in Appendix N.

Background

5.4 In 2017, we set our OBR policy[41] with the intention of moving towards an outcomes focussed approach to service quality regulation for H7. Our policy required HAL to develop an OBR framework that:

- is underpinned by a comprehensive understanding of consumer needs and priorities based on robust consumer engagement; and
- builds on the existing Q6 Service Quality Rebate and Bonus ("SQRB") scheme, with services provided to airlines remaining a key part of the new framework.

5.5 The transition to OBR offers a number of benefits including the opportunity to:

[41] See CAP1819 www.caa.co.uk/cap1819 CAP1540 www.caa.co.uk/cap1540 and CAP1476 www.caa.co.uk/cap1476.

- strengthen the link between airport regulation and the needs and priorities of consumers so that the regulatory regime can respond to and better reflect the outcomes that consumers value;
- incentivise HAL to deliver more innovative solutions and deliver service improvements in responding to a changing environment; and
- improve transparency and encourage HAL, in its wider coordinating role across the airport, to improve engagement and collaboration with stakeholders that affect the consumer experience.

5.6 Our OBR policy required HAL to develop outcomes, measures, targets and incentives:

- outcomes should capture the most important aspects of airport services that consumers value. They should be simple and easy to understand for consumers and can encompass those aspects of airport performance that impact on other stakeholders.
- measures should cover all aspects of airport operations that are either directly or indirectly important to consumers. They can include aspects of service which may not be visible to consumers but have a significant impact on the consumer experience.
- targets should take account of consumers' preferences and satisfaction by reference to (i) historical and current performance levels, (ii) the scope for improving performance without incurring significant extra costs, and (iii) the willingness of consumers and airlines to pay for investment to improve performance further. This should be used to identify the most cost beneficial service improvements.
- On incentives, we stated that:
  - HAL should develop a credible and balanced set of service quality incentives;
  - the majority of measures/targets should have financial incentives although reputational incentives, like the public reporting of performance can also be considered where appropriate;
  - where practicable, incentives should be both positive (reward) and negative (penalty) and sliding scales may be included where these can be justified;

- incentives should be clear and reasonably easy to understand;
- incentives should be justified and calibrated by reference to consumer priorities and willingness to pay; and
- HAL will need to consider the likely impact of its incentive arrangements on creating a balanced risk and reward package for its business plan.

5.7 We have also said that HAL should develop a "continuous improvement" approach so that the OBR framework can be updated during H7 to reflect consumers' changing priorities and wider covid-19 related developments.[42] HAL's research suggests that while consumers' underlying needs and the outcomes they value remain broadly the same, the hierarchy of what they currently prioritise has changed due to covid-19. HAL also notes that it is not yet clear whether this change in priorities represents a temporary or longer-term shift in consumer attitudes. See Appendix N for further information.

5.8 In light of the current uncertainty on how consumer priorities might continue to change due to covid-19, we consider it is particularly important that the OBR framework: (i) remains agile; and (ii) can evolve periodically to reflect the outcomes and quality of service that consumers expect and value.

HAL's proposed approach to OBR

5.9 As part of the transition to OBR for H7, HAL has proposed the following changes to the SQRB scheme in its RBP:

- **Outcomes**: six consumer outcomes, which remain unchanged since the IBP except the rewording of one outcome to reflect new consumer evidence.[43] These are illustrated in Figure 5.1.

[42] See page 36 of the June 2020 Consultation.

[43] HAL says that consumers have a greater focus on "good value choice of flights" which it has reflected by rewording one of its consumer outcomes as: "an airport I want to travel from that offers me a good value choice of flights."

Figure 5.1 – HAL's proposed consumer outcomes

Source: HAL's RBP

- **Measures**: thirty-six measures that reflect consumer research and which include the majority of current SQRB metrics.[44] Twenty of these measures have reputational incentives and sixteen have financial incentives, based on the principle that only measures wholly within HAL's control should be subject to financial incentives.
- **Targets**: HAL says its focus will be on maintaining Q6 service levels in H7 and making targeted improvements in three areas HAL considers matter most to consumers. These are punctuality, baggage and the passenger experience. HAL says these improvements are dependent on receiving all elements of its proposals in the RBP including a £3.5bn capex plan and the full covid-19 related RAB adjustment. A number of targets for reputational measures have not been proposed in the RBP but will be set later in 2021 or 2022 following the collection of sufficient baseline data and further airline engagement.[45]
- **Incentives**: HAL's proposals include:

44 See chapter 9.2 of the RBP https://www.heathrow.com/company/about-heathrow/economic-regulation/h7-update.

45 HAL says the targets for these measures will be in place no later than Q3 2022.

  - a sliding scale mechanism for rebates with changes to Q6 caps, collars and dead bands;
  - bonuses for fourteen financial measures compared to four measures eligible for bonuses in the Q6 SQRB scheme; and
  - an overall incentive rate that leads to a maximum upside/downside range of 3.55%/7% of annual aeronautical revenue compared to 1.44%/7% for the Q6 SQRB scheme.
- **Continuous improvement**: HAL has proposed an annual review mechanism starting at the end of Q3 2021 to ensure the OBR framework remains agile and flexible during H7 in meeting consumers' changing priorities and expectations. HAL proposes to review its own and airlines' consumer insights against the current set of measures and aims to reach agreement on any changes that are needed with the airlines. HAL proposes any changes that cannot be agreed should be escalated to the CAA's Consumer Panel. HAL notes that any changes to the OBR framework should not change the level of regulatory risk to which it is exposed.

Airline views

5.10 Airlines have proposed twenty-five measures and targets based on a recent "journey mapping" approach to identify key airport journey touchpoints[46] that are important to consumers. This journey mapping approach used airlines' customer satisfaction scores and operational expertise. This revealed three common themes which the airlines say their proposals address:

- **Time**: the airlines explain that many of their proposed measures emphasise speed as consumers do not want to spend more time than necessary at the airport.

[46] These touchpoints are: 1) outbound; 2) inbound; and 3) transfer journey.

- **Joined up and consistent**: the airlines say that Heathrow airport feels like four different airports operating different processes rather than one airport with four terminals operating in harmony. This particularly affects transfer passengers, bags and cargo. Service levels are also variable day to day and a much higher level of consistency of service delivery needs to be achieved in order to deliver for every consumer on every journey.
- **Flexibility**: the Q6 service quality scheme has been in place for over a decade with little change. Airlines say covid-19 and any shift to increased leisure traffic might require new ways of working and a more flexible approach to the provision of service quality.

5.11 Another common theme in the airlines' proposals is that measures should be calculated at a more granular level than is currently the case, including the proposed introduction of daily targets to:

- ensure a more consistent level of service for every consumer; and
- provide greater transparency on the actual service quality consumers experience.

5.12 Airlines recognise that there is common ground between their proposed measures and HAL's measures, but state that these measures (where common ground exists) do not require a £3.5bn capex budget. Instead they expect year on year continuous improvement through opex efficiencies and process improvements. Airlines' proposed targets are initial estimates and they note that further refinement and engagement with HAL is needed on these matters.

5.13 Airlines support the continuation of a 7% maximum downside for rebates. They remain opposed to bonuses but state that they would be willing to consider upside incentives if HAL can demonstrate that it has achieved continuous improvement from an already acceptable level of performance that doesn't require additional capital expenditure to meet the new targets. In other words, airlines have suggested that a bonus incentive may only be payable if HAL builds a successful programme of continuous improvement within the existing operational budget, since capex solutions are already remunerated through RAB growth.

5.14 Airlines say that it is appropriate to maintain the existing knife-edge mechanism for rebates as it has been driving the right behaviours and that the full rebate amount should be payable when the service standard is not met. They note a sliding scale approach to rebates would introduce the concept of "acceptable failure", create uncertainty in the delivery of service levels that airline operations require, and cause regulatory uncertainty.

5.15 Airlines support the principle of continuous improvement, noting that measures and targets should be designed to allow evolution as new issues present themselves in the future. They consider it important that the service quality regime is able to move with wider industry developments.

CAA Initial Views

5.16 Our focus as we formulate the H7 price control package will be on ensuring there are appropriate measures, targets and incentives in place to protect consumers. We will ensure that we build on the successes of the SQRB scheme, with services provided to airlines remaining a key part of the OBR framework. In doing so, we will also consider the work HAL has done in relation to developing its consumer research and outcomes. Our initial views on HAL's approach to consumer engagement and outcomes can be found in Appendix N.

5.17 We have discussed our initial views on HAL's OBR framework with the CAA's Consumer Panel.

Measures

5.18 Overall, HAL has made progress since the IBP in proposing a new set of measures that reflect an improved "golden thread" linking to consumer research and that address some aspects of the Consumer Challenge Board's (CCB) concerns. Nonetheless, we have the following observations on the measures HAL has proposed:

- HAL appears to have taken a relatively narrow view when determining whether measures should be financially incentivised by only considering measures that are wholly within its control.
- There appears to be some areas of overlap among the proposed overarching and consumer satisfaction measures.[47]
- For some reputational measures,[48] it is not always clear what action HAL will be driving with the wider airport community to improve consumer outcomes (other than tracking and publishing consumer perceptions). Also, not enough detail is provided on the degree of control HAL has in influencing these measures.

[47] These areas of overlap include: overall satisfaction; future intent, customer effort (ease); an airport that meets my needs; feeling safe and secure; and enjoy my time at the airport.

[48] These include: value for money of overall journey; offers the flights I want; the number of towns/cities connected to Heathrow by public transport through no more than one interchange; ease of access to the airport; and reducing Heathrow's carbon footprint.

- HAL proposes that the metrics for a number of measures are smoothed on a moving annual average basis, which can tend to mask variability in performance.
- We welcome the inclusion of certain new reputational measures, in particular in relation to passengers requiring support and immigration.

5.19 We are encouraged that there is some alignment between airlines' and HAL's proposed measures but note there are areas of disagreement which require further engagement. For example, there are concerns around the measurement of queues at control posts[49]. We note the airlines' views that control posts are essential to airline performance, and their proposal to measure each control post individually. Our initial view of HAL's proposed change to measuring control posts is that averaging of the performance of non-substitutable control posts could potentially mask the actual performance for specific types of traffic and at different locations.

Targets and incentives

5.20 Taken together, HAL's proposed approach to targets and incentives (including maintaining Q6 targets for several measures despite a £3.5bn capex plan, a switch to sliding scales for rebates and increased bonuses) would result in a more generous service quality framework in terms of financial exposure in H7 compared to Q6.

5.21 We have the following observations regarding HAL's proposed targets.

- There appears to be limited specific justification or supporting evidence to demonstrate that a more generous service quality framework would be in the interests of consumers.
- There is also only limited information on:
  - how HAL's proposed targets link to other building blocks (for instance, how specific capex projects and specific opex initiatives contribute to the improved targets in the three areas that HAL says matter most to consumers);[50]

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49 Control posts are security and search check points for vehicles and individuals across the airport campus. Their purpose is to ensure only vehicles and individuals with appropriate security clearance can access the airfield.

50 We note some limited information on which capex projects contribute to the three areas of improvement is set out in HAL's response to CAP2098.

    - HAL's proposed targets in a lower capex business plan scenario (although the high-level impact on consumer outcomes is set out in the RBP); and
    - how HAL's proposed targets compare with historical performance or performance at other comparable airports.
- A number of proposed reputational measures in the RBP do not have targets at this stage due to the need to gather sufficient baseline data and engage with the airlines.
- In the light of the impact of the covid-19 pandemic, we recognise there might be a need for an approach that maintains some targets/service levels in the short term and introduces incremental improvements through targeted investment during H7 in areas that matter most to consumers. We consider there is further scope to develop this approach as part of the "continuous improvement" mechanism discussed below.

5.22 We have the following observations on HAL's proposed approach to incentives:

5.23 Knife edge and sliding scale incentives

- We see potential benefits in a sliding scale approach to support a focus by HAL to improve continuously. However, among other factors this must be balanced with the added complexity and uncertainty this could introduce as well as the possibility of an undesirable trade-off in cost and service delivery if targets are not appropriately calibrated.
- We note that HAL has not calibrated its targets to reflect a sliding scale mechanism, which contributes to the more generous service quality framework in terms of financial exposure set out above.
- When balancing the potential benefits and disbenefits of a sliding scale approach, our initial view is that a knife edge mechanism remains appropriate for H7. However, we will consider this further before the Initial Proposals including whether there should be a limited number of targets/incentives that work on a sliding scale basis, where there is a particularly strong case for a change from the knife edge mechanism.

5.24 Bonuses

- As is common in other regulated sectors, bonuses (when applied appropriately) can be a useful regulatory tool in incentivising better performance.

- Our initial view is that bonuses are more appropriate where there is evidence that improved performance can deliver tangible consumer benefits and would be valued by consumers. This means HAL's proposed approach of applying bonuses to financial measures where there is little scope for improvement (for example where targets are at 99% and HAL have consistently achieved 100% without any bonuses in place in Q6) does not seem appropriate.
- It is also important that bonuses do not provide double remuneration in areas in which services levels are already being funded through opex and capex allowances.
- Overall, while we continue to see benefits in service quality incentives that are both positive and negative, we are not clear that there is sufficient evidence to support HAL's proposal to increase bonuses across fourteen measures.

5.25 Rebates

- HAL has proposed an incentive rate that leads to a maximum downside range of 7% of annual aeronautical revenue. We note that both HAL and airlines support the continuation of the 7% maximum downside from Q6.
- We will consider the application, payment and overall balance of rebates and bonuses in developing our Initial Proposals.

Continuous improvement

5.26 We welcome the principle of reviewing and updating the OBR framework during H7 to reflect consumers' changing priorities and wider covid-19 related developments. As noted above, in light of the current uncertainty on how consumer priorities might continue to change due to covid-19, we consider it is particularly important that the OBR framework: (i) remains agile; and (ii) can evolve periodically to reflect the outcomes and quality of service that consumers expect and value. We note that HAL and airlines support the principle of continuous improvement.

5.27 Regarding HAL's proposal in the RBP, we have the following observations:

- We accept that changes that are made to the OBR framework during H7 should not expose stakeholders to significant additional risks.

- HAL's proposal to escalate areas of disagreement to the Consumer Panel for resolution is not consistent with the Consumer Panel's remit (it is an advisory body to the CAA).
- While we welcome the proposal to use consumer research to update measures, our initial view is that changes to the OBR framework should not be limited to those based on consumer research as it will be important to retain the flexibility to respond to performance/operational issues as they arise.

5.28 We recognise there might be a need for an approach that maintains some targets/service levels in the short term and introduces incremental improvements through the H7 period in areas that matter most to consumers and/or airlines. A continuous improvement approach could be used to review and revise targets during H7 to:

- introduce targets which have not been set due to the need to gather sufficient baseline data;
- reflect service improvements that are brought about through capex projects as they are delivered during H7; and
- ensure targets remain appropriate and sufficiently challenging and can take account of wider circumstances.

Next steps

Further stakeholder engagement

5.29 Our objective in the coming months will be to work with HAL and the airlines to develop an agile OBR framework for H7 that delivers on the core needs and priorities of consumers and airlines, building on the SQRB scheme. Further stakeholder engagement should help in supporting this objective.

- **HAL/airline engagement:** Ahead of the Initial Proposals, we expect HAL and the airlines to engage further including on the airlines' updated views on measures and targets.
    - The key objective of this engagement is to build on areas of agreement and narrow areas of disagreement to the extent that this is practicable.
    - As part of this engagement, HAL should address the observations we make above and where appropriate provide further information to airlines and the CAA.

    - We expect HAL and the airlines to submit a joint response on the output of this engagement including progress that has been made in agreeing measures and targets and clarifying areas of agreement and disagreement.

- **Engagement on the licence:** we want the transition to OBR to introduce a simpler and more transparent approach to service quality regulation in H7 that is easier to understand for stakeholders. To help support this objective, we are considering several licensing/SQRB issues, including those of a more technical nature, that we propose to discuss further with stakeholders as we develop our Initial Proposals.

5.30 We will consider responses to this document and the outputs from the engagement noted above to inform our Initial Proposals on the OBR framework for H7.

5.31 We will also continue to engage with the Consumer Panel as the CAA's critical friend on HAL's proposed approach to consumer engagement and the OBR framework as part of the H7 regulatory process.