Consumers and Markets Group

Consultation on core elements of the regulatory framework to support capacity expansion at Heathrow

CAP 1541

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About this document

This document follows on from our January 2017 Consultation on the priorities and timetable for our programme of work on the economic regulation of new capacity at Heathrow (the January 2017 Consultation).[1] It confirms our priorities and seeks views on our latest thinking on the development of core elements of the regulatory framework for Heathrow Airport Limited (HAL). These core elements also build on our discussion document on Strategic themes for the review of HAL's charges ("H7") (the March 2016 Document).[2]

This consultation also updates our thinking on the timetable issues discussed in our Guidance for HAL in preparing its business plans for the H7 price control (the April 2017 Guidance).[3]

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 discussed in more detail in chapters 2 to 7.

Please e-mail responses to economicregulation@caa.co.uk by no later than 22 September 2017. 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 expires. 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 Stephen Gifford (stephen.gifford@caa.co.uk).

1 See CAP 1510 Economic regulation of the new runway and capacity expansion at Heathrow airport: consultation on CAA priorities and timetable www.caa.co.uk/CAP1510.

2 See CAP 1383 Strategic themes for the review of Heathrow Airport Limited's charges ("H7") A discussion document www.caa/CAP1383.

3 See CAP 1540 Guidance for Heathrow Airport Limited in preparing its business plans for the H7 price control www.caa.co.uk/CAP1540.

Executive summary

Introduction

1. The CAA has consistently said that increased airport capacity in the South East of England would be in consumers' interests.[4] Without this, there is a significant risk that consumers will experience detriment from increased fares, less choice, and a less resilient service. This view was endorsed by the Airports Commission, which, among other things, provided calculations of the significant "shadow costs" that would arise to consumers if no new capacity was made available in the South East of England.

2. In October 2016, the Government announced that its preferred option for the expansion of airport capacity in the South East of England was the Heathrow Northwest runway. Soon after this, we set out our expectations of HAL in its engagement with airlines on the design of new runway capacity.[5] We were also asked by the Secretary of State to advise him about the effectiveness of HAL's engagement process with airlines.[6]

3. Our work in developing the economic regulatory framework for HAL is guided by our statutory duties, including having regard for the principles of better regulation. Broadly speaking this involves the CAA designing through analysis and consultation a suite of modifications to HAL's economic licence, including limits of the maximum airport charges it can levy on airlines. A wide range of stakeholders also have key roles in capacity expansion, including HAL, airlines and the Government. Wider changes will also be necessary for capacity expansion at Heathrow to be a success, including, in particular, changes to airspace to allow airlines to make best use of new capacity. HAL also has key ongoing responsibilities for safety and security at Heathrow.

4. In January 2017, we issued a consultation on our priorities and timetable for developing the economic regulatory framework. We said that the regulatory arrangements for HAL should properly take account of capacity expansion, continue to protect consumers, and incentivise HAL to finance and develop new

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4 In this consultation, the terms "consumers" and "users" are used interchangeably. See Appendix 1.

5 Letter from Andrew Haines to John Holland-Kaye regarding CAA's expectations on the appropriate scope, design and cost of the new runway capacity www.caa.co.uk/WorkArea/DownloadAsset.aspx?id=4294981598.

6 Terms of Reference: Assessment of airport-airline engagement on the appropriate scope, design and cost of new runway capacity: www.caa.co.uk/uploadedFiles/CAA/Content/Standard_Content/Commercial_industry/Airports/Economic_regulation/Price_control_files/Section%2016%20ToR%20on%20HAL%20engagement%20with%20airline%20community.pdf.

capacity in an efficient way. The four key priorities we identified were that HAL should develop:

1. a scheme design to further the interests of consumers by engaging in a transparent and effective way with airlines and other stakeholders;
2. robust cost estimates, which would help us to develop regulatory arrangements to incentivise HAL to deliver the project in a timely and efficient way;
3. proposals for efficient financing, which would enable us to develop the regulatory framework to be consistent with this, affordability and financeability; and
4. coordinated proposals for HAL's existing operations (i.e. for the H7 price control) alongside its proposals for the new runway and capacity expansion, so that its overall business plan is affordable and financeable.

5. These priorities put effective airport and airline engagement, efficiency, affordability and financeability, and the interests of consumers at the heart of our work to develop the regulatory framework for HAL.

6. We have set out a two stage approach to our programme to develop the regulatory framework and price controls for HAL.

7. The first stage of our work involves encouraging, monitoring and reporting to the Secretary of State on the effectiveness of HAL's engagement with airlines. The purpose of this engagement is to give airlines the opportunity to influence overall scheme design so that it is fit for purpose, efficient and affordable. We published a report on HAL's progress with airlines in February of this year, making recommendations as to how this process can be improved and will publish a further report shortly.[7] We will continue to monitor the process over the coming months, prior to producing a final report for the Secretary of State in November 2017. In order to allow for the testing of affordability and financeability of scheme designs before the Government designates the National Policy Statement (NPS), we also have an important role in developing the broad approach to the economic regulatory framework over the next year. This should allow debate on how the recovery of capital costs can best be smoothed over time, and an appropriate, but early and preliminary, range for the cost of capital and the other key variables that influence affordability and financeability.

8. The second stage of this work will involve turning this high level framework into proposals for a five year price control and associated outputs and licence

[7] See http://www.caa.co.uk/uploadedFiles/CAA/Content/Accordion/Standard_Content/Commercial/Airports/Files/CAA%20letterannex%20Feb%2017%20health%20check%20final%20for%20website%20with%20signature.pdf.

conditions, which will require more detail on costs, incentives and the implementation of the broad policy established in stage one.

9. This document is an important part of the first stage of our work. It summarises the responses to our January 2017 Consultation, starts to map out the regulatory framework consistent with our latest views on regulatory priorities, and updates our timetable for developing the regulatory framework and price control.

Stakeholders' views on our main priorities

10. We received 9 responses to our January 2017 Consultation and these have been published on our website.[8] We are pleased that all of our key priorities for developing the regulatory framework for capacity expansion received broad support from stakeholders, although some responses suggested differences in emphasis, and provided suggestions for additional clarity or further priorities.

11. We discuss stakeholders' views and suggestions in chapter 1. These do not undermine the importance of the four key priorities identified in our January 2017 Consultation and we can confirm that these remain the strategic priorities for our future work on capacity expansion.

Developing the regulatory framework

12. Our initial work on developing the regulatory framework and incentives is set out in chapters 2 to 5 of this document. On the main aspects of the regulatory framework, we set out initial policy and consult on issues around implementation. In relation to incentives and costs, we identify key issues and further questions for consultation. On assessing affordability and financeability, we describe the main issues and note our intention to publish further information on financeability in Q4 2017.

13. Our policy on the regulatory framework confirms the continued use of both:

- a Regulatory Asset Base (RAB) to promote efficient financing; and
- a single till to calculate HAL's price control revenues.

14. As we explained in our January 2017 Consultation, the use of a RAB will only be consistent with overall efficiency if there are appropriate incentives for efficiency and the RAB approach does not preclude commercially negotiated alternative delivery arrangements that would benefit consumers. The use of a single till approach to calculate price control revenue, which involves taking account of forecasts of commercial revenues and costs, should lead to a reduction in the level of airport charges compared to other approaches.

8 See (http://www.caa.co.uk/Commercial-industry/Airports/Economic-regulation/Licensing-and-price-control/Approach-to-economic-regulation-of-new-capacity/.

15. The key questions on the implementation of these policies include:

- any further steps we could reasonably take to facilitate (rather than mandate) the use of alternative delivery arrangements, and how comfort could be provided by promoters of any such arrangements to demonstrate that they would clearly be in the interests of all consumers; and
- whether there are any further safeguards (for example in relation to any particular commercial arrangements) that should be built into the regulatory regime to ensure that the boundary of the single till remains appropriate and sufficiently protects the interests of consumers.

16. In relation to incentives, our overall objective is to encourage the timely delivery of capacity expansion at the lowest overall efficient cost, consistent with HAL providing the outputs that consumers and airlines expect. This will involve weighing up the effect that developing incentives on HAL to deliver efficiently may have on increasing the risks it faces, and which may need to be taken into account in setting the cost of capital. It will also be necessary to balance incentives for cost efficiency with incentives to deliver the outcomes consumers want in terms of service and resilience. Therefore, we need to take care to develop an approach that delivers a balanced overall package of measures consistent with overall efficiency. Part of this balance involves avoiding incentive arrangements that would create undue risks for HAL (i.e. those that it cannot effectively manage) as this could affect its ability efficiently to finance the scheme which, in turn, might jeopardise affordability.

17. The key questions for consultation on incentives include:

- we consider that the key regulatory incentives for HAL are those associated with (i) capital efficiency; (ii) the cost of debt finance; (iii) operating expenditure; (iv) commercial revenues; (v) service quality (including resilience); and (vi) passenger traffic volumes. Do stakeholders agree? Are other incentives equally important?
- how should we ensure that we have the best forecasts of operational expenditure, commercial revenues and passenger traffic volumes to support our assessment of affordability and financeability later this year and, in due course, to help set the price control?
- we consider that our starting point should be to retain the existing incentives for efficiency for operational expenditure and commercial revenues. Do stakeholders consider that this is appropriate?
- we consider that it is reasonable to look again at the incentives we adopt for passenger traffic volumes (in particular, for price control period H8, following the opening of new capacity) and debt interest costs. Do stakeholders agree with this approach?

- should we develop a new licence condition for HAL further to incentivise its development and maintenance of an efficient and resilient airport?

18. In relation to incentives for capital expenditure efficiency, we will look to build on the existing incentive arrangements and, where practicable and appropriate, develop stronger incentives for cost efficiency. Key issues for consultation at this stage include:

- what steps should we take to ensure that we have the best forecasts of costs to inform the setting of price control incentives, for our assessment of affordability and financeability and to develop better incentives for efficiency?
- how should early stage construction costs be treated in the existing capital expenditure governance process and are there additional steps we should take to provide appropriate incentives for efficiency?

19. A key determinant of affordability will be the work HAL does in conjunction with airlines on refining overall scheme design. As noted above, we have been reporting to the Secretary of State on airport and airline engagement on these matters and will continue to do so during the remainder of this year. We are also developing our own affordability and financeability model in conjunction with PwC. We will publish further information on this modelling and our initial views on the cost of capital later this year. Key questions in relation to financeability include:

- what are the advantages and disadvantages of our previous approach to assessing financeability (which focused on metrics attractive to providers of investment grade debt finance), and how might these be best adapted to the circumstances of capacity expansion?
- how can HAL best demonstrate to stakeholders that its proposals for financing capacity expansion provide appropriate assurance with respect to financial stability and resilience?
- do stakeholders support our initial thinking on maintaining Retail Prices Index (RPI) indexation of the RAB while remaining open minded on whether the form of the price control should be in relation to the Consumer Prices Index (CPI) or RPI (i.e. CPI+/-X or RPI+/-X)?

20. Further investment in road and rail access to Heathrow is essential to support capacity expansion and to ensure that HAL can help meet the Government’s expectation for greater use of public transport contained within the draft NPS. We are also seeking views in chapter 6 on whether our existing policy in relation to surface access costs remains fit for purpose for the challenges of capacity expansion.

21. In the January 2017 Consultation, we made it clear that the amount of progress we are able to make in developing the regulatory framework would depend on the amount of information that we received from HAL. While HAL has responded in detail to our January 2017 Consultation, it has, to date, provided only limited information on the costs of capacity expansion. This, in part, reflects how early it is in the process of developing a detailed scheme design. However, timely progress of the programme will be dependent on HAL providing us with information on affordability and financeability, assurance around its cost and price path model results, and evidence showing its expected cost levels are efficient, that its procurement processes are robust, and that its financing plans are appropriately resilient.

Next steps

22. As highlighted in the January 2017 Consultation, our processes for the development of the regulatory framework for HAL need to be coordinated with, and take account of, the wider processes associated with capacity expansion. This includes engagement with the airline community and other stakeholders, and the Department for Transport's process to develop the NPS for Heathrow as well as HAL's process to secure planning permission (development consent). The process (and progress) of the engagement between HAL and airline stakeholders is also important in providing information and data that will inform consideration of affordability and financeability. Depending on progress, we plan to consult on issues important to our initial assessment for financeability in Q4 2017, including our early and preliminary thinking on an appropriate range for the cost of capital.

23. Chapter 7 sets out our latest thinking on the overall timetable. There is broad support from HAL and the airlines to further extend the current price control period in order for the regulatory timetable better to align with the wider Government NPS process and HAL's application for development consent. We consider this is in consumers' interests and we set out our position that the existing regulatory period should be extended by at least a further 12 months so that it fits better with the overall timetable for capacity expansion. This means the current regulatory period will expire at the end of 2020 (or after) rather than the end of 2019.

24. There remains uncertainty about the precise timing of milestones for the wider capacity expansion process. Specifically, there is uncertainty about whether an extension of 12 months will be long enough if there are delays in the wider process. As a pragmatic step, we plan to decide as early as practicable in 2018 whether a longer extension is needed, once the position on the timing of the NPS designation is clearer.

25. We note that there is also broad stakeholder support for the terms of the 12 month extension to be kept simple and to avoid distracting from the important work in 2017/18 on scheme design options, while protecting consumers and ensuring that HAL can continue to finance its licensed activities. There is, however, not a consensus on how this can be achieved. This document sets out a number of options on which we would welcome stakeholders' feedback on these matters. We will decide on the way forward as early as practicable in 2018, alongside whether a further period of extension is necessary beyond 2020. The longer the extension, the greater the case for reopening the assumptions underlying the price control to protect consumers and to ensure HAL can finance its activities.

Our duties

26. 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.

Structure of this document

27. The structure of this document is as follows:

Chapter 1	summarises the themes emerging from the responses to our January 2017 Consultation and sets out the way forward on our key priorities;
Chapter 2	sets out initial policy on the regulatory framework;
Chapter 3	consults on the approach to setting incentives;
Chapter 4	consults on our approach to cost assessment and incentives;
Chapter 5	discusses our approach to affordability and financeability;
Chapter 6	sets out for consultation our policy on surface access costs;
Chapter 7	updates the timetable for developing the regulatory framework and setting price controls;
Appendix A	provides a summary of our duties under CAA12; and
Appendix B	provides more detail on incentives for passenger traffic volumes, commercial revenues and debt market risks.

Chapter 1

The January 2017 Consultation: stakeholders' responses

Regulatory priorities for HAL and capacity expansion

1.1 In the January 2017 Consultation, we identified four key priorities that HAL should develop:

1. a scheme design to further the interests of consumers by engaging in a transparent and effective way with airlines and other stakeholders;
2. robust cost estimates, which would enable us to develop regulatory arrangements to incentivise HAL to deliver the project in a timely and efficient way;
3. proposals for efficient financing, which would enable us to develop the regulatory framework to be consistent with this, affordability and financeability; and
4. coordinated proposals for HAL's existing operations (i.e. for the H7 price control) alongside its proposals for the new runway and capacity expansion, so that its overall business plan is affordable and financeable.

1.2 We received 9 responses and these have been published on our website.[9] Our key priorities for developing the regulatory framework for capacity expansion received broad support across all stakeholders, although some responses suggested differences in emphasis, and provided suggestions for additional clarity or further priorities.

1.3 While it offered broad support for the four key priorities, HAL also emphasised the need for an approach to regulation that is predictable, simple and effective, creates clear commercial incentives rather than using coercion or bureaucracy, and follows a pragmatic and clear timeline. It also said that a key priority was missing – ensuring that new capacity is actually delivered.

1.4 Airlines supported the four key priorities, but emphasised the importance of affordability, efficiency and HAL engaging in a meaningful way with airlines on scheme design. There was strong support for the suggestion in the January 2017 Consultation that it should be possible to develop alternative delivery mechanisms with certain assets designed, developed and delivered competitively, perhaps with financing outside the RAB/single till.

[9] See (http://www.caa.co.uk/Commercial-industry/Airports/Economic-regulation/Licensing-and-price-control/Approach-to-economic-regulation-of-new-capacity/.

1.5 Gatwick Airport Limited (GAL) said that airport competition should be a priority.

1.6 HAL's comments on predictability and simplicity are broadly consistent with our statutory duty to take into account the principles of better regulation. Our second priority also stressed the importance of efficient and timely delivery for consumers and so we think these comments are consistent with the broad approach set out in our January 2017 Consultation. Similarly, airlines broadly accepted our key priority issues. In respect of GAL's comments, one of the broader benefits of capacity expansion is that it will enhance competition (by starting to relieve capacity constraints) between airports in the South East of England. So we do not see a compelling case to change our priorities to reflect these matters.

1.7 These priorities, therefore, provide us with a frame of reference for our work on high level affordability and financeability issues over the next year and the more detailed work that will follow on setting HAL's next price control later in 2018 and 2019.

More detailed comments on the regulatory framework

1.8 As well as comments on our overall vision and key priorities for capacity expansion, we received more detailed comments on our initial thinking on the regulatory framework. These are summarised below and then addressed in the following chapters of this document.

Affordability and financeability

1.9 On affordability, HAL said it would aim to achieve the lowest possible airport charges, by engaging with airlines, the Government and the CAA on reducing costs. Noting the present cost to consumers arising from the lack of capacity, HAL said an affordability assessment should start from the consumers' perspective. This should provide value for money, but not be at the expense of providing a fair deal to the local community or an environmentally sustainable scheme.

1.10 Airlines considered that the primary consideration should be affordability, and that this would determine financeability. Airlines were concerned about the lack of clarity around affordability and reiterated the importance of flat charges. Virgin Atlantic went further to express the view that per passenger charges should fall over time as passenger numbers increase.

1.11 On financeability, HAL emphasised the ability to finance a scheme of the size of Heathrow expansion privately is intrinsically linked to the way in which risk is recognised, allocated and valued. HAL also said that acknowledging the increased risk that investors will face throughout the delivery and operation of expansion is the first step in ensuring expansion is financeable. Building on the strengths of the existing regulatory framework, together with the use of positive incentives, would encourage investors to commit their resources to the project.

1.12 As noted above, airlines saw financeability as a subsidiary consideration to affordability.

Engagement and robust governance on cost estimates

1.13 All parties agreed that robust cost estimates were central to the delivery of the scheme. HAL pointed to its ongoing activities with airlines and stakeholders and welcomed the role of the new independent Heathrow Consumer Challenge Board (known as the CCB). HAL said the CAA may not have fully appreciated how important it is to HAL's commercial interests to develop robust costs estimates, as these will be essential to delivering capacity expansion. HAL regarded the role of the Independent Fund Surveyor (IFS) as a significant step towards ensuring the delivery of value for money. It was also of the view that any cost recovery framework should be built on well established approaches, with positive and simple incentives that reflect the nature of individual costs and avoid punitive arrangements. It also stressed the importance of getting comfort from the CAA on early development costs (i.e. those costs in addition to planning costs that it would be necessary and efficient to incur ahead of any approval of its Development Consent Order (DCO) application).

1.14 Airlines emphasised the importance of them having a key role in the development of scheme design, together with the need for HAL to demonstrate how it was responding to their input with evidence. Suggestions to drive cost efficiency included better use of new technology, rigorous cost benchmarking, building on the experience of constructive engagement from the Q5 and Q6 price control reviews, and a more substantial role for the IFS. Airlines also said *ex post* cost incentives (i.e. a review of expenditure after it has been incurred) may not always deliver the best outcomes for consumers and were complex and difficult to administer. They gave support to *ex ante* incentives (setting firm cost targets), provided that they were supported by robust cost estimates.

Procurement issues and alternative delivery mechanisms

1.15 HAL regarded concerns about its procurement as based on perception rather than fact. It said its procurement process was agreed with airlines at the Q6 price control review through constructive engagement, run in accordance with UK and European procurement law, in line with its procurement code of practice required under its licence granted under CAA12 (the Licence), and shown by IFS reports to realise value for money. HAL opposed any blanket prescription on supplier choice and said this would lead to higher costs and poorer quality.

1.16 HAL was also critical of suggestions that we should consider Special Purpose Vehicles as alternative delivery mechanisms for certain assets. It said these proposals could delay and endanger overall delivery and that aspects of the development such as terminal buildings were integrated with the wider development.

1.17 AOC/LACC, IAG and Virgin Atlantic said that the procurement issues identified by the CAA warranted a greater degree of scrutiny and would welcome safeguards and a bolstering of competition in the supply chain. They also strongly favoured the option of commercially negotiated alternative delivery arrangements, including involving alternative developers in capacity expansion.

Timetable

1.18 HAL expressed concerns over whether the CAA's timetable was workable, as it might not allow sufficient time for HAL to produce a high quality Initial Business Plan (IBP). It suggested a later date for the IBP would be more achievable. It said there were difficulties with the timing of the regulatory update scheduled for the middle of 2018 and that it might be appropriate to consider a further extension of the Q6 price control.

1.19 We recognised the issues with our timetable and the need to update it to reflect changes in the wider programme of work to deliver capacity expansion in our April 2017 Guidance and consulted how best to meet the challenges of the capacity expansion programme. The responses to this further consultation in relation to timetable issues are dealt with in chapter 7 of this document.

Other issues

1.20 As well as HAL, GAL, airlines and airline representatives, we had a number of other responses to our January 2017 Consultation. Some of these responses raised wider issues, including:

- whether capacity expansion at Heathrow can be environmentally sustainable;
- the interests of Londoners as tax payers and the advantages of avoiding state subsidies for capacity expansion;
- concerns over HAL's debt financing arrangements;
- the need for HAL to make a fair contribution to the costs of surface access projects;
- delivering capacity expansion as efficiently as possible without breaching promises to its customers, staff and contractors; and
- whether capacity expansion would be better undertaken across the five main airports serving London rather than focusing on Heathrow.

1.21 Our work needs to take account of relevant environmental requirements, including those that emerge from the planning process (including both the adoption of the NPS by Government and the DCO application by HAL).

1.22 The regulatory framework is designed to allow HAL to finance its activities from debt and equity markets and not to rely on state subsidy. As with other undertakings, HAL is required to comply with company and wider UK law in relation to the way it raises debt finance.

1.23 We are consulting on our policy in relation to the treatment of surface access costs. These matters are discussed further in chapter 6.

1.24 While our duties do not enable us to consider employee and contractor interests directly, we are clear that our focus on the efficient development and operation of Heathrow does not mean that we will only be interested in delivery at the lowest possible cost. Rather, we will focus on incentivising both efficiency and service quality (which are best delivered by motivated employees and contractors).

1.25 The Government announced in October 2016 that the Heathrow Northwest runway was its preferred location for capacity expansion in the South East of England. This does not preclude improvement in the quality of service at other airports in the South East or improvements in their surface access arrangements.

Chapter 2

Regulatory framework

Introduction

2.1 This chapter deals with key elements of the regulatory framework discussed under priority three (developing the regulatory framework in a way consistent with efficient financing) in our January 2017 Consultation. These issues include the use of a RAB to promote efficient financing and the advantages of a single till approach in calculating HAL's price control revenues. Nonetheless, as we also explained in our January 2017 Consultation, the use of a RAB will only be consistent with overall efficiency if there are appropriate incentives for efficiency (which are discussed in the following chapters) and the retention of the RAB does not preclude commercially negotiated alternative delivery mechanisms that would benefit consumers.

Overall approach

2.2 In our January 2017 Consultation, we said that developing the regulatory framework in a way that is consistent with efficient financing, affordability and financeability should be a key regulatory priority. We described the advantages of a RAB-based approach to regulation and (if appropriate) how this could be combined with commercially negotiated alternative delivery arrangements. Taken together, these arrangements could support the efficient financing of the capital expenditure necessary for capacity expansion and so support affordability.

2.3 We also discussed how investments in the RAB should be best recovered from consumers, and the advantages of profiling returns and depreciation consistent with both affordability and financeability. This would be an evolution of the CAA's recent approach to these matters, which involved allowing a return on capital expenditure when it was incurred and the simple application of return and straight line depreciation from when the asset enters operation.

2.4 Taken together, these policies put both affordability and financeability at the heart of the regulatory framework. In general, respondents to the January 2017 Consultation did not provide an alternative to this vision for the regulatory framework, but they did comment on components of the approach and the relative importance of affordability and financeability.

2.5 Another key element of the regulatory framework that supports affordability is how commercial costs and revenues generated by HAL at the airport (such as rent from retail outlets) are taken into account in setting the price control. Consistent with previous policy on these matters, we propose to take account of these costs and revenues in setting future price controls. This approach is known as the single till.

The RAB and regulatory depreciation

Overview and previous policy statements

2.6 The RAB is at the core of HAL's present price control, representing the value invested by HAL in the assets at Heathrow on which regulated returns and depreciation are calculated. Our March 2016 Document said that we intend to continue to remunerate HAL's investment through its RAB. The January 2017 Consultation built on this, stating that the current RAB form of regulation was well understood by stakeholders and debt providers, with a long track record of successful use in UK airport regulation and other sectors.

2.7 The recovery of capital expenditure is smoothed by the use of the RAB and the way that this is used to calculate allowances for regulatory depreciation and return on capital. In recent price controls for HAL, regulatory depreciation has been applied to individual assets on a straight line basis using the same asset lives as those used in HAL's statutory accounts.

2.8 A benefit of straight line depreciation is that it is simple and predictable: the amount of depreciation for each asset is known and does not have to be recalculated for each year. However, it can produce a relatively arbitrary profile of revenue allowances over time and may not be consistent with affordability and/or financeability.

2.9 Regarding the timing of revenues, in the January 2017 Consultation, we said that HAL should be allowed to recover returns and regulatory depreciation:

"to the extent that this is consistent with broader commitments that airport charges should not increase in real terms – and provided that these commitments provide meaningful protections for airlines over the next 10 years as well as the longer term. If HAL were to seek higher charges to support the financeability of its expenditure programmes, then it would need to provide persuasive evidence to us and stakeholders that this would be in the interests of consumers."[10]

2.10 This makes clear that we are open to the profile of regulatory depreciation to be varied to help balance affordability and financeability, consistent with consumers' interests.

[10] At paragraph 5.43.

Stakeholders' views

2.11 HAL has consistently supported RAB-based regulation and does not consider that there is merit in, for example, an evolution of it that would create a split of the RAB between existing assets and those for capacity expansion. It sought confirmation from the CAA that RAB regulation will be the starting point of the regulatory framework to enable a timely and efficient delivery of the programme, ensuring that it is affordable and financeable.

2.12 Airline representatives also considered that a RAB-based approach has the potential to provide an appropriate basis for estimating regulatory revenue and protecting consumers. Nonetheless, they suggested that this approach should be combined with an appropriate allocation of risks between HAL and its customers, incentives for efficient delivery, and that it should be implemented in a way that would avoid market distortions.

2.13 HAL said that the approach we adopted at Q6, including the remuneration of assets in the course of construction, could help ensure that capacity expansion was financeable. Airline representatives acknowledged the potential importance of phasing regulatory depreciation. Virgin Atlantic has previously suggested that we consider the merits of unitised depreciation (under which depreciation is calculated on the basis of expected units of output or usage) to avoid existing consumers paying more than future consumers and to address concerns about depreciation profiles.

CAA views and initial policy

2.14 We welcome the support given by respondents to the January 2017 Consultation for a RAB-based approach to regulation and note their comments about delivering a balanced overall package of regulatory measures.

2.15 Experience across regulated sectors indicates that existing RAB-based frameworks are consistent with attracting low cost financing and promoting resilient financial arrangements. Low cost financing can also help with affordability, but it is important that the regulatory framework includes a balanced package of measures to ensure that consumers' interests are properly protected. To this end, a RAB-based framework can best deliver overall affordability and financeability when combined with:

- appropriate incentives for efficiency (including, where appropriate, the use of alternative delivery mechanisms, as discussed in the section below) to bring overall costs down; and
- profiling of regulatory depreciation to help ensure an appropriate price path and so help deliver both affordability and financeability, rather than focusing on issues such as pre-funding or the mechanistic application of accounting conventions.

2.16 The specific depreciation profiles will be developed alongside our affordability and financeability modelling, on which we will consult later this year. Where appropriate, we will draw on the approaches developed by other economic regulators, including the use of flexible RAB run-off rates and depreciation periods. If capital expenditure is incurred efficiently and in a way consistent with any relevant incentive arrangements (as discussed in chapter 4), we would expect such spending to be added to the RAB as it is incurred.

2.17 Our commitment to the continued use of RAB-based regulation depends on HAL being open to it being implemented in a way that helps to improve the affordability and financeability of the expansion programme as a whole.

Alternative delivery mechanisms

Overview and previous policy statements

2.18 The January 2017 Consultation noted that alternative mechanisms for delivering infrastructure in other sectors such as electricity transmission and the Thames Tideway project have helped to drive efficiency through greater competition and choice, including where they involve financing outside the RAB of the incumbent infrastructure provider. At the same time, it also noted the limits of our legal powers to require a party other than HAL to undertake all or part of the capacity expansion, but said we would remain open to proposals for separable assets to be delivered through commercial agreements between HAL and third parties. Under such agreements, assets could be designed, developed, financed and delivered by parties other than HAL, and financed either inside, or outside, the RAB/single till.

Stakeholders’ views

2.19 HAL outlined a number of concerns around separating the construction of particular assets from the main expansion programme, including emphasising how integrated terminal capacity is with the rest of the airport and building programme. In contrast, IAG strongly supported giving third parties, and especially airlines, the ability to invest with other developers (including HAL) in new facilities, as happens at other airports worldwide. LACC/AOC also noted its view that the CAA should not assume that HAL was the sole delivery agent or operator, but that the regulatory regime should be designed for the most efficient delivery and operation of the airport.

CAA views and initial policy

2.20 We remain of the view that it is not possible for us to use our existing powers to force delivery of all or part of the capacity expansion programme by a party other than HAL. That said, our regulatory tools could be used to facilitate and encourage airlines or other parties to enter into commercial arrangements with

HAL to deliver expansion. We are clear that future investments could be undertaken on a commercial basis, if it is in the interests of consumers. These could fall either inside, or outside, the RAB and single till. If funding is to be outside the regulatory framework, or delivery was by a party other than HAL, then the revenue may not be subject to economic regulation (although obligations deriving from competition law would continue to apply).

2.21 Factors that might demonstrate a particular proposal is in the interests of consumers would include: that (i) they introduced significant additional competitive pressure into the procurement process/supply chain; and/or (ii) brought in new and efficient sources of financing; and (iii) helped deliver capacity expansion in an affordable and financeable way. Any such arrangements would need to avoid undue discrimination between airlines and should benefit all stakeholders (either directly or indirectly).

2.22 We are open to the development of such commercial approaches, and proposals to incentivise such developments. We therefore encourage parties to bring such proposals forward and expect that HAL will actively consider the full range of commercial mechanisms and delivery arrangements to promote efficiency, including those brought to it by third parties and proposals for joint delivery of assets. This could extend to HAL entering into long-term price commitments with airlines as has been the case at Gatwick, where we took a lighter touch approach to economic regulation on the basis that these commitments would protect consumers’ interests.

2.23 In doing so, we would stress that any bilateral proposals need to be brought into the multilateral process between HAL and airlines in a timely manner that enables its overall impact on consumers generally to be discussed and validated.

Single till

Overview and previous policy statements

2.24 We currently apply a single till approach under which the projected revenues from other charges, commercial revenues and other revenues are deducted from the total revenue requirement to be recovered through airport charges. This has some similarities to the approach at airports not subject to economic regulation, where management will look at the whole business in setting charges. The use of all revenues in offsetting the sum to be recovered through airport charges supports affordability, as commercial revenues at airports tend to exceed the costs of providing the associated facilities.

2.25 The single till covers aeronautical charges defined under the Airport Charges Regulations and *all* commercial or non-aeronautical activities undertaken by HAL and its subsidiary undertakings as at 1 April 2014 and equate to its “permitted business”. [11] Through the definition of HAL’s permitted business, the single till extends to owning, operating and developing the airport, any and all airport operation services, the provision of facilities for, and connected with, aeronautical activities, including retail, car parks, advertising and surface access, and the infrastructure development of these activities.[12]

2.26 At Q4, these matters were considered by the Competition Commission (CC) and it concluded that a single till approach was appropriate given:

- the difficulty in separating commercial and aeronautical facilities;
- that, as airlines deliver passengers to and from the airport, the benefits of commercial activities should be shared with the airlines and users; and
- an alternative “dual till” approach could risk unduly benefitting commercial activities at the expense of non-capacity-enhancing aeronautical activities.

2.27 Our March 2016 Document and January 2017 Consultation proposed retaining the single till for the next price control.

Stakeholders’ views

2.28 In response to our March 2016 Document, AOC/LACC/IATA welcomed our intention to continue with the single till, as reviews had repeatedly found it to be the model which best reflects both the nature of commercial revenue and the integration of the airport infrastructure at Heathrow.

CAA views and initial policy

2.29 Consistent with previous policy, we intend to retain a single till approach for the next price control and for considering the overall affordability and financeability of capacity expansion. Although we do not at present have evidence to suggest that it raises issues, it is important that the boundary of the single till is defined in an appropriate way to protect the interests of consumers and promote incentives for efficiency.

Views invited

2.30 Views are invited on any matters relating to the development of the regulatory framework for HAL and in particular on the following issues:

[11] For more information on the Airport Charges Regulations, see http://www.caa.co.uk/Commercial-industry/Airports/Economic-regulation/Competition-policy/Airport-charges-regulations/.

[12] See paragraph E2.12 of the Licence, which defines the permitted business of HAL. It also covers any other business of HAL, subject to a cap on expenses incurred in relation to those businesses of not more than 2% of the RAB: http://www.caa.co.uk/Commercial-industry/Airports/Economic-regulation/Licensing-and-price-control/Economic-licensing-of-Heathrow-Airport/.

- any further steps we could reasonably take to facilitate (rather than mandate) the use of alternative delivery arrangements, and how comfort could be provided by promoters of any such arrangements to demonstrate that they would clearly be in the interests of all consumers; and
- whether there are any further safeguards (for example in relation to any particular commercial arrangements) that should be built into the regulatory regime to ensure that the boundary of the single till remains appropriate and sufficiently protects the interests of consumers?

Chapter 3

Incentives

Introduction

3.1 The regulatory arrangements discussed in chapter 2 should help HAL raise finance efficiently, but to promote overall efficiency it will also be necessary to develop incentives for HAL to operate and invest efficiently.

3.2 Our January 2017 Consultation noted the importance of robust incentives for timely delivery and cost efficiency. It also discussed issues associated with certain other incentives, including those for HAL to grow passenger traffic volumes and minimise debt costs. This chapter (together with chapter 4) deals with these issues in more detail.

3.3 In considering these issues, it is important to bear in mind that we are in our initial phase of the work on developing the regulatory framework for capacity expansion, which, of necessity involves a high level assessment of overall scheme affordability and financeability. This means that we need to establish at this stage the broad approach to incentives, but not all the detail that will be required later in the process when it comes to calibrating HAL's next price control.

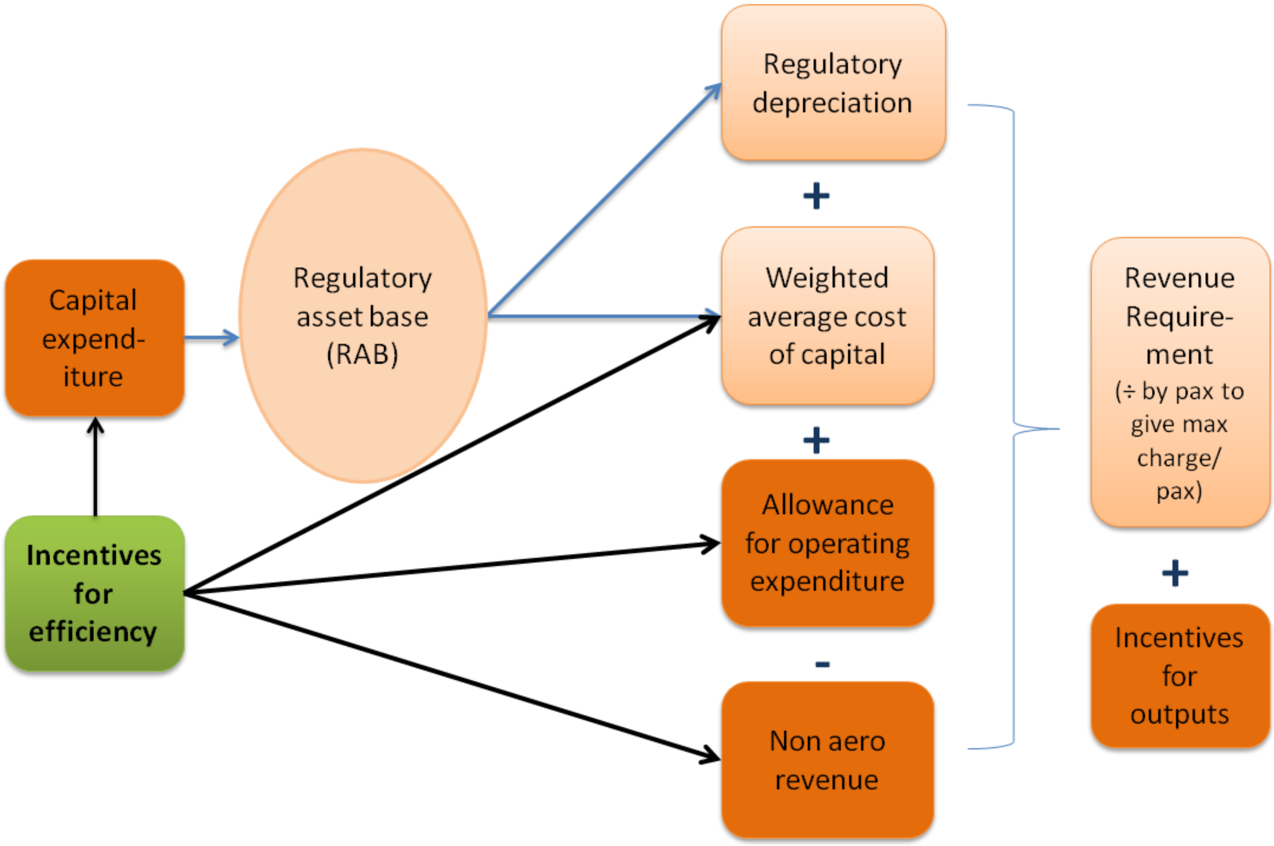
Overall approach

Creating a balanced package of incentives

3.4 Our overall goal in incentivising HAL is to encourage delivery of both capacity expansion and its business as usual activities at the lowest overall efficient cost, consistent with providing the outputs that consumers and airlines want. This will involve an element of balance, in that developing incentives on HAL to deliver efficiently may increase the risks it faces and this, in turn, may need to be taken into account when setting its cost of capital. It is also necessary to balance incentives for cost efficiency with incentives to deliver what consumers and airlines want in terms of resilience and outcomes. Therefore, we need to take care to develop an approach and package of measures consistent with overall efficiency.

3.5 The figure below summarises how we set HAL's price control using a RAB and single till as discussed in chapter 2.

Figure 1: Calculation of HAL's price control



Source: CAA

3.6 In this context, the most important incentives will be those relating to:

- capital expenditure;
- the cost of debt finance (which has the greatest weight in setting the cost of capital);
- operating expenditure;
- commercial (non-aero) revenues;
- outcomes and delivery incentives; and
- passenger traffic volumes.

Incentives at Q6

3.7 In setting the Q6 price control, our approach was to provide short-to-medium term incentives for HAL to maximise commercial revenues and passenger volumes, and to minimise operating costs and the costs of debt finance. Within the period of the Q6 price control, HAL benefits from all outperformance but also bears the risks of all underperformance in these areas.

3.8 This approach has also given airlines greater certainty about the level of per passenger charges within each price control period. Airlines then share the benefits of efficiencies (for example from higher commercial revenues or traffic volumes) through lower airport charges when the next price control is set.

3.9 Different incentives apply to capital expenditure, which is subject to *ex post* reviews of efficiency after it has been spent, with the scope to disallow the recovery of inefficient expenditure from the RAB. At recent price control reviews, the CAA's use of *ex post* efficiency assessments has not resulted in significant disallowed expenditure (although we will consider these issues again later in our process when we have more complete information on the Q6 period and more information from the recently introduced IFS). There are also incentives on HAL to deliver certain outputs through the Service Quality Rebates and Bonuses (SQRB) scheme, although the materiality of these incentive payments and penalties to date has been relatively modest.

Future incentive arrangements

3.10 When considering the incentives that HAL should face in the future, we will need to take account of the ways that constructing and operating the new runway capacity will change its risk profile. Volume risk, for example, will increase once new capacity becomes available, as traffic growth will be crucial to the overall economics of capacity expansion. Debt interest payments will increase as a result of the significant additional finance that will be required for capacity expansion.

3.11 In assessing how to set incentives, we will need to consider both individual incentives and the overall package of incentives against the following criteria:

- the incentives on HAL to seek out efficiencies that will benefit consumers in the longer term;
- the information available to set incentives, and the risks of creating incentives that would encourage gaming by HAL or might have undue costs for consumers;
- whether incentives can be implemented in a way which is reliable, relatively simple and transparent;
- the impact on affordability and financeability and, in particular, any significant impacts on HAL's cost of capital that would lead to higher overall charges for airlines and consumers; and

- avoiding (to the extent practicable) any significant impact on the volatility of airport charges, that might create difficulties for airlines and so affect passengers and growth in passenger traffic volumes.[13]

3.12 Taken as a whole, the incentive package should:

- add up to a balanced package that incentivises efficiency, allows HAL to finance airport expansion and promotes a solution that is affordable for airlines and consumers;
- incentivises HAL both to proceed in a timely way with the capacity expansion programme as well as retaining a focus on its business as usual activities and resilience; and
- be designed to maintain stakeholders' confidence in the regulatory framework.

3.13 Our starting point is that incentives for efficiency remain important and we see no compelling case for changing the incentives for operating costs and commercial revenues under which HAL would continue to bear 100% of the risk of under/over performance within the price control period. Given the importance of timely and efficient delivery of capacity expansion, there may be a case for strengthening the incentives for capital expenditure. The approach to cost incentives (both operating and capital costs) is discussed further in chapter 4.

3.14 We note that volume risks are likely to be most acute once new capacity is available, and so we expect risk-sharing to be a more significant policy issue for the price controls covering the periods after the new capacity opens (i.e. for the H8 price control period). We consider that there may be a case for revisiting the approach to incentivising and sharing the risks associated with debt interest costs for the H7 price control, given the increased importance of these matters with the construction of new capacity. Both these issues were raised in our January 2017 Consultation and our latest thinking and the views of respondents are discussed further in Appendix B.

3.15 Our April 2017 Guidance for HAL explained the importance of outcomes and associated incentives for consumers. These matters are discussed later in this chapter.

Calibrating incentive arrangements

3.16 Setting incentives typically requires a reasonable estimate of the base level of the variable concerned and a judgement on the strength of the incentive that should be applied. As noted above, the majority of the incentives associated with HAL's price control have been set for the period of the price control. The assessment of the base level of operating costs, commercial revenues and traffic

[13] We also need to carry out this assessment having regard to the principles set out in section 1(4) CAA12.

volumes has typically started with an assessment of the forecasts put forward by HAL and then been modified in the light of our own review of these forecasts, assessment by our advisers, and consideration of the views and assessments of stakeholders.

3.17 It will be necessary to explore the impact of incentives on affordability and financeability. This may lead to the use of mechanisms that retain the basic incentive for efficient behaviour, but moderate the impact of the incentive mechanism in certain circumstances, so as to support overall affordability and financeability. Such mechanisms could include caps and collars on incentive payments, sliding scales and/or sharing factors.

3.18 It will be important for all stakeholders to view the economic regulatory framework in the round as a package. This will mean that it would be difficult to reach final decisions on any one component until the full package is known later in the process.

Incentivising timely delivery, outcomes and resilience

Overview and previous policy statements

3.19 As we explained in our January 2017 Consultation and April 2017 Guidance, we consider that the regulatory regime should:

- encourage the timely delivery of new capacity;
- incentivise outcomes that consumers value, including an outcome-based regulation (OBR) approach to service quality regulation (with HAL responsible for developing proposals on these matters as part of the IBP); and
- incentivise resilience at Heathrow through OBR.[14]

3.20 In our December 2016 consultation on the future of service quality regulation for HAL, we said that we would like the regulatory regime to be responsive to the outcomes that consumers value and include an outcome-based approach to service quality regulation for H7.[15] Those airlines that responded to our consultation on these matters argued vigorously that the existing quality of service regime has worked well, and that any changes should take proper account of the circumstances at Heathrow and the role of airlines in protecting the interests of consumers.

[14] For further discussion of OBR, including the five principles for the design of an OBR framework, see Chapter 2 of the April 2017 Guidance.

[15] See CAP 1476 Future of service quality regulation for Heathrow Airport Limited: Consultation on the design principles for a more outcome-based regime www.caa.co.uk/CAP1476.

3.21 In our April 2017 Guidance, we said that we recognise that airlines have a vital role to play in helping deliver an appropriate quality of service for users and in working with HAL to develop a coordinated approach to service provision. For the successful implementation of OBR, we said that it will be appropriate for HAL to recognise the role of the airline community at Heathrow and to work with the airlines to develop OBR. This will involve building on the success of the existing SQRB scheme.

3.22 Our January 2017 Consultation also noted the importance of incentives on HAL to deliver capacity expansion, which should be of significant benefit to consumers in the longer term. Some of these incentives derive from our approach to cost incentives and these matters are discussed further in chapter 4. Nonetheless, it is also appropriate to consider whether the Licence should include further specific obligations with respect to capacity expansion.

3.23 In granting the Licence in 2014, we said that we were considering the development of a licence condition relating to HAL's capital expenditure programme.[16] That proposal would not only require HAL to operate, maintain and enhance the airport efficiently and economically, but would also incorporate clear processes for constructive engagement into the Licence. In September 2015, we said that options we could develop to promote the delivery of new capacity might include an obligation to use best endeavours to develop the airport's capacity.[17]

Stakeholders' views

3.24 In 2014, the Heathrow airline community welcomed the CAA's intention to develop a condition to address the capital investment commitments made by HAL in the process of constructive engagement.

3.25 Separately, in response to the January 2017 Consultation, HAL considered that, while the CAA should avoid attempts at compulsion or penalty, a formal recognition of the need to deliver expansion would be aligned to our primary duty. Nonetheless, HAL did not suggest that such formal recognition should extend to a new licence condition.

CAA views and initial policy

3.26 Our approach to outcomes remains as set out in our April 2017 Guidance.

3.27 In relation to timely delivery, as we recognised at the time of the Q6 review, the Licence does not fully adopt the approach taken in licences issued in other regulated sectors, such as energy and rail. This is because the Licence does not

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[16] See CAP 1151 Economic regulation at Heathrow from April 2014: Notice granting the Licence www.caa.co.uk/CAP1151 at paragraph 2.155ff.

[17] See CAP 1332 Economic regulation of new runway capacity – Update www.caa.co.uk/CAP1332.

contain an overarching statement that HAL is expected to develop, maintain and operate its assets in an economical, efficient and timely manner.[18] At present, the obligations on HAL are limited to requiring it to procure capital projects in an economical and efficient manner and to publish and report on a procurement code of practice.[19]

3.28 We would welcome views on whether we should now develop a relatively simple licence condition for HAL that would require it to operate, maintain and develop Heathrow in an economical and efficient and timely manner so as to satisfy the reasonable requirements of users regarding the quality and capacity of the airport. For instance, taking elements of the approach adopted in Network Rail's licence referred to above, the obligation could be designed to secure the overall timely, efficient and economical operation, renewal and enhancement of the airport. This would sit alongside the outcome-based framework for quality of service regulation and the approach to resilience envisaged in our April 2017 Guidance.

Duration of the price control and long term commitments

Overview

3.29 The CAA has, in the past, adopted an approach that has largely been in line with that adopted by other economic regulators (i.e. five year price control periods, with occasional extensions for a further year). This duration[20] of control has provided for a reasonable period of certainty and provided incentives for efficiency. In our January 2017 Consultation, we also asked whether there were other commitments that we could make to help protect consumers, including those that might extend beyond the normal five year period of the price control.

Stakeholders' views

3.30 HAL supported using the existing regulatory framework as the basis for capacity expansion, and made particular comments about the importance of using the RAB and aspects of regulatory depreciation as necessary to support efficient financing. In general, it stressed the importance of transparency and predictability in developing the regulatory regime, rather than making suggestions for new regulatory incentives or commitments. In contrast, the focus of airlines is the affordability of airport charges, over both the shorter and longer term.

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18 See, for example, condition 1 of the network licence granted to Network Rail Infrastructure Limited http://www.orr.gov.uk/__data/assets/pdf_file/0012/3063/netwrk_licence.pdf.

19 See condition C3 (Procurement of capital projects) of the Licence.

20 See section 18 CAA12 on licence conditions generally and section 19 on price control conditions.

CAA views and initial policy

3.31 Our general approach should be to continue to set five year price controls for HAL, not least because our understanding is that, once planning consent is granted, the initial construction period prior to the opening of the new capacity will be approximately five years and it appears appropriate to align, so far as is reasonably practicable, price control periods with the different phases of the capacity expansion programme.[21]

3.32 Nonetheless, we acknowledge that in the context of an investment programme to support the delivery of a new runway, investor and creditor confidence may be enhanced if there is clarity about what might happen beyond the end of the fixed regulatory period. The RAB is one form of longer term commitment that (as we have explained in chapter 2) we propose to retain. We also intend to retain the approach to adjusting the cost of debt finance for embedded debt as discussed in chapter 5. If evidence emerges that other longer term commitments are in the interests of consumers, we would consider these matters carefully.

3.33 In the context of assessing the overall affordability and financeability of capacity expansion, particular difficulties arise from the importance of the longer term projections of costs, commercial revenues and traffic volumes to the appropriate level of price control revenue and per passenger charges. These difficulties are not usually encountered in setting a five year duration price control. In particular, we will need to assess the reasonableness of the long term projections of these variables in order to reach a judgement on longer term affordability and the aspiration of airlines that airport charges should not increase in real terms. We will consult stakeholders further on these matters later this year.

Reopening the price control

Overview and previous policy approach

3.34 The discretion afforded by CAA12 also gives us the ability to include provisions in price control conditions that enable them to be reopened or terminated early in prescribed situations.

3.35 As noted in our January 2017 Consultation, the price controls used by other economic regulators contain provisions to allow reopeners that provide for an early review in certain pre-defined circumstances.[22] These mechanisms have been used by Ofgem, Ofwat and the ORR and can cover:

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[21] For more detail on our current thinking on aligning the timetable with the capacity expansion programme more generally, see chapter 7.

[22] The licensing regimes under which Ofwat and the ORR are, however, different from that applicable under CAA12, to the extent that licence modifications require the consent of the licensee.

- known issues where there is only a possibility that they might arise during the course of the price control, but which need to be provided for in the price control when they arise; and/or
- extreme events (or combinations of events) that cannot reasonably be foreseen, but which could create exceptional financial or operational risks for the companies affected.

3.36 HAL's current price control does not contain any such reopeners. However, in the event that HAL was to be affected by an extreme event, CAA12 gives us the discretion to bring forward proposals to modify the existing price control before it is due to expire.[23] Similarly, HAL could ask us to reopen the price control at any time.

3.37 To provide greater certainty on this issue, we could either issue guidance on the circumstances in which we might exercise this discretion. Alternatively, we could follow the example of other regulators, such as Ofwat, and provide for reopeners in the event that certain financial thresholds were met or to apply in certain circumstances. An example might be if the fundamental assumptions underpinning the price control, such as the construction of new capacity, turned out not to be correct.

Stakeholders' views

3.38 Respondents have not commented substantively on this issue.

CAA views and initial policy

3.39 Given the early stages of our work on developing the regulatory framework for capacity expansion, it is too early to judge whether more formal arrangements for reopening price controls, or more guidance on the circumstances in which we might bring forward a price control review is appropriate. We will consider these issues further later in the process during the more detailed work we will undertake to set HAL's H7 price control.

Views invited

3.40 Views are invited on any matters relating to the development of incentive arrangements for HAL and in particular on the following issues:

[23] This would be done using the licence modification procedures set out in CAA12 and subject to the usual consultation and appeal rights.

- we consider that the key regulatory incentives for HAL are those associated with (i) capital efficiency; (ii) the cost of debt finance; (iii) operating expenditure; (iv) commercial revenues; (v) service quality (including resilience); and (vi) passenger traffic volumes? Do stakeholders agree? Are other incentives equally important?
- how should we ensure that we have the best forecasts of operational expenditure, commercial revenues and passenger traffic volumes to support our assessment of affordability and financeability later this year and, in due course, to help set the price control?
- we consider that our starting point should be to retain the existing incentives for efficiency for operational expenditure and commercial revenues. Do stakeholders consider that this is appropriate?
- we consider that is reasonable to look again at the incentives we adopt for passenger traffic volumes (in particular, for price control period H8, following the opening of new capacity) and debt interest costs. Do stakeholders agree with this approach?
- should we develop a new licence condition for HAL further to incentivise its development and maintenance of an efficient and resilient airport?

Chapter 4

Costs: incentives and efficiency assessment

Introduction

4.1 In our January 2017 Consultation we stressed the importance of HAL engaging with airlines in a transparent and effective way on options for overall scheme design, costs and value for money. We also said that HAL would need to develop robust estimates of costs, and that we would need to develop incentives to support HAL delivering the project in a timely and efficient way.

4.2 This chapter sets out our present thinking on how we can best develop cost incentives and assess efficiency. It discusses:

- our overall approach to incentivising efficiency;
- operating costs and incentives;
- capital costs and incentives;
- issues around HAL's procurement of contractors to support the capital expenditure associated with capacity expenditure; and
- the treatment of capital costs incurred early in the programme (i.e. ahead of DCO consent).

Overall approach

Overall incentive structure

4.3 Our January 2017 Consultation said that we would need to strengthen the incentives for efficiency and to deal with the circumstances where there are significant variances between forecast and outturn costs. We said we would develop policies for a balanced set of incentives to support both the efficient financing of the very substantial expenditure programmes and the efficient and timely delivery by HAL.

4.4 We said that we would review the existing set of mechanisms for setting HAL's price controls, and noted that aspects of the existing arrangements have a degree of support from stakeholders and have been used to deliver large terminal capacity expansions at Terminal 5 and Terminal 2. The current mechanisms include constructive engagement, the use of capital expenditure triggers and the role of the IFS to review cost efficiency.

4.5 We also said that HAL would need to work within clear budgets, but that the regulatory framework would need to balance setting fixed allowances for costs (*ex ante* incentives) with reviews of efficiency after expenditure has been incurred (*ex post* incentives). We noted that an *ex ante* approach may have the potential to provide strong incentives for efficiency but need to based on relatively robust cost targets. We noted that while they may be easier to implement initially, *ex post* approaches tend to have weaker incentives for efficiency and provide less certainty for consumers on the final level of costs and so the impact on airport charges.

Stakeholders' views

4.6 HAL agreed it would be important to find the right balance between *ex post* and *ex ante* incentives and noted that recent improvements to capital expenditure governance processes, including the use of the IFS, the core and development approach to capital expenditure, and improvements to constructive engagement. It also emphasised the importance of the CAA developing a comprehensive approach for the treatment of early (i.e. before the DCO is granted) construction costs (early Category C costs).

4.7 IAG expressed strong support for *ex ante* cost incentives and said that these should be based on robust estimates of costs. Airline representative bodies highlighted the potential to improve the existing governance arrangements for capital expenditure, including making more use of the IFS and by developing more robust information on cost benchmarking. Virgin Atlantic made similar comments. All airline respondents expressed concerns about the efficacy of HAL's procurement processes.

4.8 Bearing the above comments in mind, we will look to create a balanced set of incentives that builds on the existing incentive arrangements and, where practicable and appropriate, makes greater use of *ex ante* incentives.

Category B costs

4.9 In February 2017, we issued a Policy Statement setting out our policy in relation to the recovery of costs associated with obtaining planning permission for the new runway and capacity expansion at Heathrow. These are termed Category B costs and are those directly associated with, and solely for the purposes of, seeking planning consent for the delivery of the new runway capacity, including through the DCO process. Our policy is that these Category B costs should be subject to ongoing governance processes and efficiency tests.

4.10 As part of this, we said that we would appoint a planning focused Independent Planning Cost Reviewer (IPCR) to advise the CAA on the efficiency of Category B costs. This advice will support our final decisions on the level of planning costs to be added to the RAB.

Total expenditure

4.11 In our March 2016 Document, we discussed issues around setting incentives on the basis of total expenditure (i.e. the sum of capital expenditure and operational expenditure) or totex.[24] Given the extent of the challenges associated with capacity expansion we have decided that now is not the right time to introduce such a change and we will retain separate incentives on operating and capital costs for HAL's next price control.

Operating expenditure

4.12 In setting allowances for operating costs at the Q6 price control review we made projections of the efficient level of operating expenditure and set *ex ante* incentives on this basis. To the extent that HAL outperforms our forecast of operating costs, it retains all the benefit of this outperformance during the remainder of the price control period. Conversely, if it incurs additional costs, these will reduce its profits. This approach provides HAL with relatively strong incentives for efficiency in the early period of its price control as it can retain the benefits of efficiencies for up to five years. The next price control review provides the opportunity to share the benefits of these efficiencies with consumers.

4.13 Our forecasts for operating expenditure for the Q6 period were based on a detailed assessment of the projections HAL made in its Initial and Final Business Plans, taking into account the constructive engagement process. During the course of this process, the allowed operating expenditure incorporated into the price control was reduced from £5.3bn (in 2011/2 prices) in HAL's IBP to £5.0bn (over the five year period of the price control).[25] The CAA commissioned several pieces of research in support of its decision, including detailed studies on staff costs, maintenance costs and pension costs. Overall, we set a target of reducing real operating expenditure by around 2% per year over Q6 compared to the end of Q5. The main efficiency challenges were in the areas of: staff and pensions costs, maintenance costs, 'other' costs including central support services, and rail costs.

4.14 As part of our preparations for the H7 price control review, we commissioned a report by CEPA on the scope for further operating expenditure efficiencies for the next price control period. This included an initial assessment of HAL's performance against our Q6 assumptions in the first two years of the period. The results of this assessment are that HAL's actual operating expenditure has been somewhat higher than the CAA's estimates. Total operating cost overruns were

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[24] See CAP 1383a Strategic themes for the review of Heathrow Airport Limited's charges ("H7") Technical Appendices paragraphs 8.26-8.29: www.caa.co.uk/CAP1383a.

[25] See CAP 1151 Economic regulation at Heathrow from April 2014: Notice granting the licence at Figure E.1, p237: www.caa.co.uk/CAP1151.

1% for 2014 (9 months) and 4% in each of 2015 and 2016 (£6m, £40m and £39 million respectively).[26]

4.15 These initial results suggest that the operating expenditure incentive scheme is providing discipline for HAL to keep costs under control. The modest scale of the variances suggests that we have been able to forecast operating expenditure in a reasonably reliable way. Given this background there appears to be no compelling case at present fundamentally to change the approach to setting these incentives at the next price control review.

Capital expenditure

Previous policy

4.16 In setting the Q6 price control, the CAA worked with stakeholders to develop a bespoke regulatory framework for the oversight of capital expenditure. This framework relies on constructive engagement between HAL and airlines to determine the cost and scope of the capital expenditure programme required to serve customers' needs and to be incorporated into price controls.

4.17 Our main role has been to facilitate and support constructive engagement at the time of the price control review and the ongoing governance framework for capital expenditure. In particular, for Q6, we reviewed HAL's plans for capital expenditure and sought to strengthen the governance framework that supports the *ex post* to incentives for capital expenditure.

4.18 The current capital expenditure framework provides enhanced oversight through scrutiny by the IFS and escalation procedures to the CAA in the event of disagreement over investments between HAL and its airline stakeholders. HAL faces the risk that some capital expenditure could be disallowed from the RAB following *ex post* cost reviews by the CAA, including in any cases where the IFS considers that there is evidence that projects have not been delivered efficiently.

4.19 The large size of the capital programmes associated with capacity expansion mean that cost overruns could have a much more significant impact on airport charges if they were passed through to consumers and airlines. We need to review how we best encourage capital efficiency, including (a) our approach to setting incentives and (b) our expectations of HAL in making its forecasts and our scrutiny of these forecasts.

26 See HAL Regulatory Accounts http://www.heathrow.com/company/investor-centre/regulation/regulatory-accounts.

Moving towards ex ante incentives

4.20 Moving to a framework with a greater role for *ex ante* incentives would mean that additions to HAL's RAB would be based, at least in part, on a fixed cost allowance. HAL would bear a pre-determined share of any cost variance (positive or negative) compared with this allowance. We would need to consider the following challenges:

- the potential difficulty of obtaining sufficiently accurate cost forecasts;
- the risk that we might need to consider separate forecasts for a large number of different projects within the expansion programme;
- avoiding potential distortions from HAL unduly reducing the scope of investment programme or sacrificing service quality in order to meet targets for cost reduction; and
- possible incentives that HAL would have to overstate its initial cost forecasts.

4.21 We therefore intend to consider in greater detail these practical aspects of how *ex ante* incentives could be applied to HAL's capital expenditure (capex) in future. This further work should allow us to consider whether, and how, to introduce *ex ante* incentives, including the following possibilities:

- the share of cost under or overspends (compared with the initial cost forecast) that HAL should bear, including whether these should be subject to any caps/collars, sliding scales or other risk-sharing arrangements and whether any such arrangements should vary between different categories of capital expenditure; and
- whether we might apply *ex ante* incentives only to certain categories of capital expenditure, (such as those for which we can establish reasonable forecasts), with *ex post* incentives continuing to apply to other categories.

4.22 If different incentives are to be applied to separate categories of capital expenditure, we will need to develop robust definitions of the types of costs that fall into each category, and also monitor the way that HAL allocates costs between these categories.

4.23 Our further work would also need to encompass:

- reviewing the forecasts of costs emerging from the airport and airline engagement process and consideration of whether these forecasts could reasonably form the basis for *ex ante* cost incentives, and if so, what form these incentives would take and what further scrutiny or assessment would be required before finalising incentive arrangements;

- the specific regulatory arrangements for applying any *ex ante* incentives, including the stage at which the cost allowance will be confirmed, how this allowance is uplifted for general price inflation or similar changes, and any arrangements for updating cost allowances for subsequent scope changes or similar; and
- associated governance arrangements (including the role of airlines and IFS so to build on the success of the existing constructive engagement process).

4.24 To the extent that we continue to apply *ex post* incentives, we will also need to consider whether our current approach should be enhanced to reflect the specific challenges of capacity expansion.

Assessing capital expenditure forecasts

4.25 The use of *ex ante* incentives will require reliable approaches to estimating capital programme costs. Irrespective of the approach to incentives, reliable and soundly based forecasts of capital expenditure will also be necessary to inform the assessment of the affordability and financeability of overall scheme designs. We expect HAL to provide strong supporting evidence for its forecasts of costs, so that we, airlines and other stakeholders can judge both the risks and levels of efficiency associated with its baseline forecasts of expenditure.

4.26 The level of assurance that HAL provides alongside its expenditure forecasts should be proportionate to the level of risks and materiality of different projects and categories of expenditure. High value projects where there are significant uncertainties should be subject to the most scrutiny and assurance. We will consider the views of airlines from the constructive engagement process and we will, in part, be guided by the level of confidence they have in HAL's approach and resulting cost estimates.

4.27 For Q6, as well as relying on constructive engagement, we distinguished between "development" and "core" capital expenditure on the following basis:

- for development capital expenditure, a p80 value was used, consciously being a figure higher than the central case, with the intention that there would be an 80 per cent chance of the outturn cost being no higher than the estimated amount; and
- for core capital expenditure, cost estimates were based on a p50 value (i.e. a central estimate).[27]

[27] For development capex, HAL is then required to follow the governance process set out in the Capital Efficiency handbook before the final value to be included in the RAB is confirmed. Where actual expenditure is higher or lower than the estimated amounts this feeds through directly into the price control, subject to the relevant approvals from the above governance process: see paragraphs 4.16ff above.

4.28 Our April 2017 Guidance to HAL sets out clearly our expectations with respect to robust cost estimates and supporting evidence. These included:

- Historical costs: HAL should make realistic cost estimates based on its experience in delivering projects in the past using this experience, technology and general advances in project management techniques to drive costs down further;
- Benchmarking: HAL should provide evidence of benchmarking of its costs against the cost capacity expansion at other airports internationally, carried out from both a 'bottom up' and 'top down' perspective as appropriate; and
- Contingency: HAL should be transparent about where costs are uncertain and provide reasonable ranges and contingencies.

Procurement

Previous policy

4.29 Our January 2017 Consultation said HAL will need to provide assurance that there is vigorous and effective competition in the supply chain, and this would need to address perceptions of possible bias towards its associated companies. We noted that this was particularly important ahead of capacity expansion, given that HAL will need significant support from contractors to deliver the capital expenditure needed for capacity expansion.

Stakeholders' views

4.30 HAL expressed strong reservations about the concerns set out in our January 2017 Consultation about its procurement processes. It said that no single shareholder has a controlling interest in HAL and unnecessary interference in its procurement processes could reduce competition in its supply chain, increase tender costs and reduce build quality. Nonetheless, as we have highlighted in chapter 1, airlines remain concerned about HAL's procurement processes and the involvement of one of its shareholders in its supply chain. For example, IAG raised concerns that it is difficult to identify margins being charged by contractors, particularly where those contractors are related parties to HAL's shareholders.

CAA views and proposed approach

4.31 We note the comments that HAL has made about the Q6 price control review and how its procurement process was discussed and agreed with the airline community. HAL should use best endeavours to secure similar agreement for capacity expansion, providing the information and evidence to deal with the concerns that airlines have recently expressed about its procurement processes.

4.32 If appropriate, we will consider taking further steps to ensure an appropriate degree of confidence that HAL's procurement processes are competitive, deliver value for money and allow for the efficient sharing of risk with its supply chain. These steps may encompass more formal interventions such as modifications to the Licence and/or focused efficiency reviews of its arrangements, if HAL cannot provide sufficient evidence based assurances about its current and future processes.

Treatment of early stage construction costs ("early Category C" costs)

Overview and previous policy

4.33 While the main works for the construction of the new runway and associated terminal capacity will only begin after the DCO has been granted, HAL has said that that some early works should take place before then. These works would be done during the Q6 price control period to support timely delivery of the scheme, provide early compensation or land purchases and allow early mitigation of environmental impacts.

4.34 As a result, HAL may incur compensation and early construction costs prior to the commencement of its H7 price control. In the January 2017 Consultation, we stated that HAL would need to make the case and provide persuasive evidence for any special treatment of these early Category C costs. We have discussed these matters further and HAL has agreed to provide substantial further information on these costs. Below we start to explore options for dealing with these costs, but a final decision on these matters will not be possible until HAL has provided substantial information in support, and that satisfactory progress is being made on understanding the overall efficiency and affordability of the scheme.

Compensation costs

4.35 Compensation costs relating to the acquisition of land consist of statutory and voluntary compensation schemes for residents and commercial properties resulting from the construction of new capacity.[28] These compensation costs will be substantial and will be incurred relatively early in the construction process. HAL has made a number of public commitments regarding residential compensation that go beyond the statutory minimum. Commercial compensation

[28] In this context, "compensation costs" do not include community measures (for example HAL's proposed noise mitigation schemes). As well as the statutory compensation schemes HAL has proposed a series of noise mitigation scheme for local communities to reduce the noise impact of the expansion i.e. insulation and double glazing, as well as other measures to support the communities around Heathrow.

costs could also be substantial with some major local businesses and organisations being affected.

4.36 The Government has been clear that capacity expansion at Heathrow is dependent on appropriate compensation arrangements being put in place. We have previously said that compensation costs relating to the acquisition of land should fall within a reasonable envelope and set out the following principles to support our assessment of the recovery of compensation costs from future airport charges:

- spending on compensation is likely to be higher than the norm and the statutory minimum in the UK; and
- a need for enhanced compensation should not be an open-ended commitment, and that we will guard against inefficient expenditure.[29] [30]

4.37 In addition to evidence on efficiency and reasonableness of costs, we expect HAL to provide a clear indication of how it expects the regulatory mechanisms for these elements of compensation should work and to set out any modifications that may be required to the current capital expenditure governance process.

Other early stage Category C costs

4.38 HAL will also invest during the remainder of the Q6 and Q6+1 periods (and any further period of extension of the existing price control) on other capital expenditure items required for new runway capacity. This may create issues where capital expenditure is expressly linked to the development of the third runway rather than having been already envisioned as part of the two runway masterplan at Q6. This is because the governance process for recognising capital expenditure in the Licence explicitly refers to the Q6 investment programme.

4.39 We are aware that HAL has already agreed with airlines a modified capital governance protocol with airlines to govern early Category C costs within the current framework. This provides a level of scrutiny to the process of incurring early Category C costs.

4.40 However, until the CAA has established and agreed a method of treatment of early Category C costs in the form of a policy statement (such as the statement we developed for Category B/planning related costs), HAL will need to accept

[29] CAP 1219: CAA Response to the Airports Commission Delivery Discussion Paper, paragraphs 2.16-2.18 (www.caa.co.uk/CAP1219) and CAP 1263: CAA response to the Airport Commission Consultation: Increasing the UK's long-term capacity at paragraph 2.37 (www.caa.co.uk/CAP1263).

[30] CAP 1332 Economic regulation of new runway capacity – Update and Letter Andrew Haines (CEO CAA) to John Holland-Kaye (CEO HAL) regarding CAA's expectations following Government announcement on aviation capacity (25 October 2016) http://www.caa.co.uk/WorkArea/DownloadAsset.aspx?id=4294981598.

that it is investing with a degree of risk. Such expenditure should be recorded in sufficient detail and supported by strong evidence on efficiency to enable the CAA to assess that it is in the interests of users and has been efficiently incurred prior to any remuneration through the regulatory settlement.

4.41 As the CAA's policy formation and decisions need to be founded on appropriate evidence, it is important that we have sufficient information on which to develop this assessment framework for early Category C expenditure. As a result, it is clearly in HAL's interests that it provides us with the information that we need to put us in a position to develop our approach prior to it undertaking any significant expenditure or commitments. HAL has already taken us through some high level cost estimates and we have issued an Information Request to HAL seeking more detailed information to progress these issues.

Views invited

4.42 Views are invited on any matters relating to the regulatory treatment of costs and the development of incentives for efficiency, including:

- what steps should we take to ensure that we have the best forecasts of costs to inform the setting of price control incentives, for our assessment of affordability and financeability and to develop better incentives for efficiency?
- how should early stage construction costs be treated in the existing capital expenditure governance process and are there additional steps we should take to provide appropriate incentives for efficiency?

Chapter 5

Affordability and financeability

Introduction

5.1 In our January 2017 Consultation, we stressed the importance of affordability and financeability. Respondents to our consultation generally accepted the importance of these issues. This chapter sets out our initial thinking on how we will assess both affordability and financeability.

Affordability

Overview

5.2 In our January 2017 Consultation, we noted that HAL, the airlines, and Secretary of State had all recently expressed support for making sure that airport charges are maintained as close to current levels as practicable during and after the capacity expansion programme. Airlines have a particular focus on affordability and charges not rising by more than inflation in any year. HAL responded to this by saying that, as an early priority, it would work with the airlines on design options to see whether such a pricing aspiration is possible.

5.3 In responding to our January 2017 Consultation, airlines have continued to stress the importance of affordability. Meanwhile, HAL has been working with airlines on design options and has shared with them its cost and price path modelling to increase the transparency of affordability issues. This work has already reduced the estimated impact of capacity expansion on the estimated future peak level of airport charges compared to the figures provided to the Airports Commission.

5.4 We have been reporting on airport and airline engagement on these matters to the Secretary of State. Our work so far indicates that, while significant progress had been made, much remains to be done in order for agreement to be reached on an overall scheme design.

Next steps

5.5 We will continue to monitor the results of airport and airline engagement, and will provide further reports to the Secretary of State this year on these matters.

5.6 We will also look at wider evidence on affordability, including considering the views of the newly established independent Heathrow Consumer Challenge Board, and looking directly at evidence and research into consumers' priorities and willingness to pay to complement the work being done by airlines and HAL.

Financeability and the cost of capital

Overview and previous policy

5.7 A key determinant of financeability is the cost of capital for HAL. The cost of capital is the expected return required by the financial markets to provide capital to a company or project for a given level of risk. Our approach to setting the cost of capital is to calculate it as the weighted average of the cost of equity and the cost of debt (together known as the WACC).

5.8 In the Q6 price control, we calculated the WACC by reference to a notional financial structure with an assumed gearing level of 60%. The WACC was also calculated on a pre-tax basis using estimates of future corporation tax rates based on the standard UK rate. The approach to the cost of debt was to provide a fixed estimate of debt costs based on the assumption that 70% of debt was embedded (i.e. existing debt) and 30% was new debt.

5.9 Using this approach, HAL's real (i.e. before inflation) WACC for Q6 was estimated to be 5.35%. On a RAB of £15 billion, this equates to allowed revenues of £0.8 billion per annum or around 50% of annual airport charges.[31,32]

5.10 We said in our January 2017 Consultation that we were interested in exploring alternative approaches to setting the cost of debt rather than our traditional approach of using a fixed point estimate. This is because debt market costs can be volatile and difficult to predict and HAL has little or no control over market wide changes that can impact on the provision of debt finance. As we have indicated in chapter 3, we have developed our thinking further on these issues and have set out further detail of an approach based on indexation in Appendix B. This takes into account developments by other UK economic regulators on this issue. We also said in our January 2017 Consultation that we were interested in exploring whether we should adopt a different approach to the treatment of tax, e.g. using actual tax rates paid rather than a simple assumption of standard corporation tax. We are also undertaking further work in this area.

5.11 In response to our January 2017 Consultation, HAL has highlighted the increased risks it will face in the light of capacity expansion, in particular greater volume risks, construction risks, higher debt costs and political risks, and that these should all be considered in setting a risk adjusted cost of capital.

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[31] Closing RAB of £15.2 billon (31 December 2016); Heathrow (SP) Limited Regulatory Accounts (2016). See http://www.heathrow.com/company/investor-centre/regulation/regulatory-accounts.

[32] CAA forecast revenues of £1.6 billion for year ended 31st December, Section 1, Heathrow Airport Limited Regulatory Accounts (2016).

Next steps

5.12 We have recently commissioned PwC to provide an early and preliminary estimate of the appropriate range of HAL's likely cost of capital for the period 2020-2024. This work will take into account the changes in the UK economy and financial markets since the Q6 determination and set out analysis under both two- and three-runway scenarios. It will also discuss different assumptions in relation to the notional financial structure and different options for allowing for corporation tax costs and will include allowances for embedded debt costs. The results of this work are likely to be available for publication in Q4 2017.

Assessing financeability

Overview and previous policy

5.13 In April 2013, we assessed the financeability of HAL's Q6 initial price control proposals. This was done on the basis of a notional assumption for efficient gearing of 60% of its RAB (which is a significantly lower level of gearing than the regulated business actually supports).[33]

5.14 This assessment was made using HAL's price control model which converted assumptions on the regulatory building blocks (returns, depreciation, operating cost allowances, commercial revenues and traffic forecasts) into financial forecasts (including key financial ratios) by using a number of additional assumptions. These included assumptions on the volume and cost of index-linked debt, dividends, opening gearing, and inflation.

5.15 Our focus was on debt financeability and, in particular, six key financial ratios that were of particular interest to rating agencies Moody's and Fitch.[34] Nonetheless, the CAA recognised that there was no agreed approach across rating agencies as to how credit assessments should be undertaken. For example, the Rating Agencies can apply different methods and there is no general agreement on the definition of financial ratios, how they should be calculated, or which ones are most significant.

5.16 In February 2014, the CAA updated its assessment of financeability for its Q6 final proposals. The CAA referred to views from Fitch regarding securitised debt financing and the two ratios which it applied to sub-sets of HAL's debt (PMICR and net debt/EBITDA). The CAA referred to a weakness in the PMICR and the precedent from the CC that a regulatory determination can be consistent with an

[33] See CAP1103 Economic regulation at Heathrow from April 2014: final proposals at paragraph 10.23: www.caa.co.uk/CAP1103.

[34] *Ibid*, paragraph 10.31.

investment grade credit rating even though not all the financial ratios may support this conclusion.[35]

Next steps

5.17 We are currently developing a financial model of HAL with the assistance of PwC. We will provide an update to our approach to financial modelling and financeability alongside the publication of our views on the cost of capital in Q4 2017. We recognise that Rating Agencies' assessments of HAL's credit strength takes into account what they perceive as a predictable and transparent regulatory regime. We intend to continue to engage with the Rating Agencies and other stakeholders on these matters to explain our approach and understand their views.

Financial robustness and ring fencing

Overview and previous policy

5.18 As with many other regulated businesses, HAL is responsible for providing a service that is very important to consumers and the national economy. Issues of financial robustness and financial ring fencing were considered by the CAA during the process of granting HAL the Licence under CAA12. The Licence incorporates some ring fence provisions that are "lighter touch" than those typically used in other sectors subject to economic regulation.

5.19 A factor in our adoption of this approach was the existence of certain protections against financial distress provided for in HAL's financing arrangements and that these arrangements have certain "spill over" benefits in protecting the interests of consumers. Nonetheless, these arrangements are not as comprehensive as those available in other regulated sectors, which operate under statutory frameworks that provide for Special Administration arrangements (which provide additional statutory protections for consumers in the circumstances of financial distress).

5.20 In our January 2017 Consultation, we said that, in the light of the challenges associated with financing the construction of new capacity, we would consider whether there was a need to introduce new measures to help improve HAL's financial resilience. These could include changing our assumption on notional gearing used to test financeability, a gearing cap (as the CAA has put in place for

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[35] The Competition Commission recognised that its ratio analysis showed that a BBB+/Baa1 could be achievable on the basis of all other ratios, even if it would not do so on the basis of the PMICR: see Competition Commission Report BAA plc A report on the economic regulation of the London airports companies (Heathrow Airport Ltd and Gatwick Airport Ltd) at paragraph 5.24 http://webarchive.nationalarchives.gov.uk/20111108202701/http:/competition-commission.org.uk/rep_pub/reports/2007/fulltext/532.pdf.

NATS (En Route) Plc), cash/asset lock ups, and/or requirements to maintain cash reserves or investment grade credit ratings.

Stakeholders' views

5.21 HAL said that additional gearing caps, cash/asset lock ups or requirements to maintain cash reserves or an investment grade credit rating have the potential to increase costs for consumers. It also emphasised that it has strict debt covenants to help ensure stable financing. In the light of these considerations, HAL said that new regulatory restrictions could constrain efficient financing, had the potential to cause investor uncertainty, and so should be treated with caution. Airlines did not comment on these matters.

Next steps

5.22 We have commissioned KPMG to analyse some of the options for regulatory measures that could improve the financial resilience of HAL, including a gearing cap, a minimum liquidity requirement or minimum credit worthiness. We will publish this report in the autumn. We accept that there may be some merit in the comments made by HAL in response to our January 2017 Consultation that these sorts of interventions could be disproportionate. Therefore, we have not at this stage reached a firm view on what would represent a proportionate or efficient response to concerns about financial resilience.

5.23 Financial resilience remains an important issue. We expect HAL to be able clearly and transparently to demonstrate how its proposals for financing arrangements provide strong comfort in respect of stable financing and financial resilience. This should include appropriate evidence and third party assurance. If this does not deliver the appropriate level of assurance, we will consider what proportionate additional protections could be introduced. To the extent reasonable and practicable, we would look to develop such measures in a way that they worked in conjunction with HAL's existing financing arrangements.

Different measures of inflation

Overview and background

5.24 There are a number of areas in relation to HAL's price control and our affordability and financeability modelling where inflation needs to be taken into account. These include:

- indexing the RAB and estimating the real WACC;
- projecting costs and taking account of any real price effects;[36]

[36] For example, if RPI inflation were forecast to be 3%, and the relevant costs in the price control were expected

- projecting revenues and financial statements in nominal terms; and
- calibrating the price control (i.e. as RPI-X or CPI-X).

5.25 In previous price control decisions, the CAA has used RPI as the inflation measure for these purposes. However, in 2013 the RPI ceased to be designated by the Office for National Statistics as an official national statistic. CPI and CPIH (which are both less volatile and typically lower than RPI) are now considered more reliable measures of inflation.

CAA initial policy

5.26 Economic regulators are starting to transition away from using the RPI and relying more on the CPI as the core measure of inflation. We fully acknowledge the advantages of this transition in the longer term but, given the critical phase that the next price control period will represent in financing capacity expansion, we intend to adopt a cautious approach to this transition.

5.27 In particular, we need to be mindful of the following potential short term impacts of moving to CPI indexation.

- Affordability: the use of CPI would be likely to lead to higher charges in the short term.[37] This would make the aspiration that charges remain as close as possible to present levels more difficult to meet over the period of construction and initial operation of the new capacity.
- Financeability: there is no market for CPI-indexed debt. While the Government's Debt Management Office (DMO) continues to issue RPI-linked debt, there are few CPI instruments available on the financial markets.[38]

  The absence of CPI-based instruments might make it more difficult for HAL to finance new investment. We also understand that ratings agencies would need to re-evaluate the ratings given to HAL under a CPI-based price control.[39]

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to move more in line with a construction index (e.g. COPI) of 2%, then the 'real price effect' adjustment would be roughly -1% to account for the fact that RPI was not reflective of the relevant costs being forecasted.

37 Since the RAB is inflated by the same measure by which the WACC is discounted, given that CPI is generally lower than RPI, the discount to the WACC applied to the RAB would be lower in the short term, increasing charges. This would be offset over time as the RAB would be inflated by a lower measure in the long term. Overall, the position would be NPV neutral.

38 The Debt Management Office consulted on CPI-linked gilts in 2011 and concluded that the introduction of CPI-linked gilts will be "driven by the depth and suitability of investor demand for such an instrument". UK DMO CPI-linked Gilts: A Consultation Document (29 June 2011).

39 See for example Moody's report: CPI move creates risks for water and energy networks. Reported in the press here: http://utilityweek.co.uk/news/moody%E2%80%99s-cpi-move-creates-risks-for-water-and-energy-networks/1205612#.Vt61qIfcvPQ.

5.28 The importance of these factors is heightened by the fact that HAL will need to raise significant amounts of new debt over the course of the capacity expansion programme. As a result, our initial policy is that we should continue to use RPI for calculating the allowed return and inflating the RAB during the next price control period, because a move away from using RPI is unlikely to yield significant benefits in terms of affordability and financeability and could potentially introduce some downsides.

5.29 Nonetheless, we remain open minded on whether RPI or CPI should be used to calibrate the price control. We are mindful that measures of inflation are still in transition from RPI and the Office for National Statistics has not made a final decision on whether CPI or CPIH should be the main measure of inflation.[40] We will look to explore the sensitivities between RPI and CPI further before making a final decision on these matters.

Views invited

5.30 Views are invited on any matters relating affordability and financeability and, in particular, on the following issues:

- what are the advantages and disadvantages of our previous approach to assessing financeability (which focused on metrics attractive to providers of investment grade debt finance), and how might these be best adapted to the circumstances of capacity expansion?
- how can HAL best demonstrate to stakeholders that its proposals for financing capacity expansion provide appropriate assurance with respect to financial stability and resilience?
- do stakeholders support our initial thinking on maintaining RPI indexation of the RAB while remaining open minded on whether the form of the price control should be in relation to CPI or RPI (i.e. CPI+/-X or RPI+/-X?)

[40] On 9th March 2016, the National Statistician (John Pullinger) advised “I am inclined to consider that CPIH should become the ONS preferred measure of consumer inflation”. See https://www.statisticsauthority.gov.uk/wp-content/uploads/2016/03/Letter-from-John-Pullinger-to-Sir-Andrew-Dilnot-090316.pdf.

Chapter 6

Surface Access

Introduction

6.1 The development of new runway capacity at Heathrow is expected to generate a very substantial number of additional passengers that will need to travel to and from the airport. High quality, efficient and reliable road and rail access to airports will contribute to the experience of passengers, freight operators and people working at the airport.

6.2 This chapter sets out our existing policy on the recovery of surface access costs and invites views as to whether this policy remains fit for purpose to deal with the development of new capacity at Heathrow.

6.3 We consulted in detail on our surface access policy in 2005 and it was subsequently adopted for the Q5 price control review. Although it pre-dates the CAA12 (and was developed under the previous Airports Act 1986 (AA86)), it was used as the policy framework for the Q6 price control review.

6.4 We are consulting now because:

- a significant amount of time has elapsed since the last review of the CAA's policy on surface access costs;
- there has been a change in the legislation governing the CAA;
- there have been changes in planning law and policy; and
- the potential scale of the expected costs of surface access works associated with the development of new capacity at Heathrow is significant.

The CAA's surface access policy

6.5 We expect HAL to develop updated proposals for surface access projects and bring them forward in its engagement with airlines and other stakeholders. The CAA's surface access policy will play an important role in determining the contribution towards surface access costs that HAL can recover in airport charges.

Regulatory Principles

6.6 The underlying principle is "user pays". In our 2005 consultation on surface access policy, we said that consumers' interests are unlikely to be furthered by airports bearing costs of projects beyond what is strictly necessary (i) to enhance the efficient operation of the airport; and/or (ii) to secure planning permission for airport expansion.

6.7 The CAA's aim in developing the surface access policy was to establish a framework for deciding on which projects should be considered for funding by airports, estimating appropriate contributions from the users of surface access projects and then considering the appropriate allocation of any residual costs between the airport and other funders (including Government).

6.8 The cost/benefit analysis supporting these assessments was evaluated from the perspective of airport users, which may contrast with the cost/benefit analysis typically used by Government (which may reflect the costs and benefits to wider society).[41]

Criteria for assessing surface access costs

6.9 Under our existing policy, the CAA applies a series of criteria against which it would expect HAL to bring forward evidence in support of any proposal to allow surface access costs associated with expansion to be funded from airport charges.

6.10 While these criteria have been summarised more recently in CAA publications,[42] the four criteria that the CAA adopted for taking account of surface access costs, their role in that assessment, and the evidence that would need to be brought forward were set out fully in the CAA's "Airports review – policy issues Consultation paper" of December 2005 and are set out below.[43]

6.11 Of these, criteria (a) and (b) define the total surface access costs that should be considered for funding (or part funding) from airport charges. Criterion (c) apportions costs between direct charges to users of surface access and the residual costs to be borne by Government and by airport users in general through airport charges. Criterion (d) apportions this residual between the airport charges and the Government.[44]

Criterion (a): overall cost benefit (used to define total surface access costs)

6.12 Airport operators should be able to demonstrate that surface access projects (considered jointly with any airport development that they enable) would be likely

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[41] Note that, under AA86, users were defined to include airlines, unlike the position under CAA12 under which they are defined to include only passengers and cargo owners.

[42] For example in CAP 1332 Economic regulation of new runway capacity – Update: www.caa.co.uk/CAP1332

[43] See Annex D and especially paragraphs D.25 to D.28: http://webarchive.nationalarchives.gov.uk/20140713054907/http://www.caa.co.uk/docs/5/ergdocs/erg_ercp_airportsreview_dec05.pdf.

[44] *Ibid*, paragraph D.26.

to deliver benefits in excess of costs from the point of view of airport users over time.[45]

6.13 The benefits *to* users (rather than costs imposed *by* users) are used here so that airport users triggering the need to invest do not bear more than a reasonable proportion of costs where the benefits are shared by non-airport users. This is particularly important where the new investment is lumpy as, otherwise, airport users may bear more than a reasonable proportion of a significant cost.[46]

6.14 The evidence in assessing against this criterion should be based on the same or similar economic appraisal methodology as used by public transport agencies in assessing road and rail investments.[47]

Criterion (b): cost minimisation (used to define of total surface access costs)

6.15 The airport operator must be able to demonstrate that there is a need for the surface access investment, based on the efficient operation of the airport and/or the likely requirements to secure planning approval for airport expansion, and that the surface access project as a whole is not over specified or costed. The costs of airport surface access projects should be measured against a base case which includes planned future upgrades by Government to road and rail infrastructure which would be made absent any airport growth. These costs may include the costs of compensating, or otherwise accommodating elsewhere, non-airport traffic displaced by a new surface access link.[48]

6.16 As with other capital expenditure costs associated with airport development, the CAA would expect to scrutinise (including with assistance from technical consultants) the scale and costs of surface access projects, with the aim of encouraging efficient levels of investment. In addition, where the airport operator is co-funding a surface access project with other transport agencies, the CAA would expect to see comparator data from other projects funded by the other transport agencies to be used to demonstrate the cost efficiency of the airport surface access project.[49]

Criterion (c): direct users' cost attribution (used to apportion costs between direct users of surface access and Government/airport users)

6.17 The airport operator should take reasonable steps to ensure that the direct users of surface access facilities defray the costs to be recovered through airport charges to the maximum extent practicable through the application of direct

[45] *Ibid*, paragraph D.25a.

[46] *Ibid*, paragraphs D.14 to D.16.

[47] *Ibid*, paragraph D.27, first bullet.

[48] *Ibid*, paragraph D.25b.

[49] *Ibid*, paragraph D.27 second bullet.

charges for the use of such surface access. Direct charges from one mode of surface access may be used to offset the costs of another where this would support measures to encourage modal shift from car to public transport which may be required for the efficient operation of the airport and/or to secure planning consent for airport expansion.[50]

6.18 We would expect the airport operator to demonstrate that they had assessed a full range of technically feasible options for placing as much of the surface access costs as possible on direct users of these facilities. Evidence of users' responsiveness to charging on surface access, and the impact on overall demand for journeys to and from the airport across all transport modes, should inform the proposals for direct users' cost attribution. Where encouraging modal shift towards public transport is likely to be a planning requirement on the airport operator, evidence on the scope for generating surpluses from road schemes to co-fund public transport should be presented.[51]

Criterion (d): users' reasonable interests (used to apportion residual costs between the airport and Government)

6.19 The proportion of net surface access costs borne by the airport operator (after direct users have contributed through direct road or rail charges) should be based on the relative benefits derived by airport users versus non-airport users of the surface access projects required to support airport expansion. The relevant costs are those from the additional or earlier surface access projects required, compared to the base case of surface access investments which would be supplied by Government in the absence of airport expansion.[52]

6.20 Relevant evidence should be based on the relative net present value of benefits to two categories: (i) those airport users that are also direct users of the new surface access infrastructure; and (ii) non-airport users of the new surface access. Benefits would be measured according to standard transport appraisal methodology in terms of generalised cost savings in surface travel (net of any direct charges for fares/tolls). Calculations of wider benefits to the economy more broadly are likely to be more tentative, but may influence the approach taken by Government and airports in negotiating relative shares of surface access costs.[53]

6.21 In relation to criteria (a) and (d) above, there is reference to standard economic appraisal methodologies for assessing costs and benefits. We have commissioned an external consultant to review the applicability of the

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[50] *Ibid*, paragraph D 25c.

[51] *Ibid*, paragraph D.27 third bullet.

[52] *Ibid*, paragraph D25d.

[53] *Ibid,* paragraph D.27, fourth bullet.

Department for Transport's "WEBTAG" approach to assessing surface access projects for airports.

Importance of engagement with stakeholders

6.22 As with other elements of costs, the CAA would also expect airports to demonstrate that they had actively sought airlines' and other users' views on surface access options and costs. Where consensus had been reached between airports and airlines through such engagement, the CAA would expect to attach significant weight to this evidence in reaching its own view on the inclusion of the proposed surface access costs within the regulatory cost base. It would not, however, be appropriate for users (including airlines) to have a veto over surface access projects being allowed into regulatory consideration for purposes of setting the price control, because the interests of passengers (and cargo owners) may be under-represented by airlines on their own, and the beneficiaries of growth will include airlines not currently serving the airport.[54]

Government policy context

6.23 At the time the CAA developed its surface access policy, the Government's policy set out in 2003 White Paper was that:

"The Government expects airports to pay the relevant costs of upgrading or enhancing road, rail or other transport networks or services where these were needed to cope with additional passengers travelling to and from expanded or growing airports. Where the scheme has a wider range of beneficiaries, the Government … will consider the need for additional public funding through their investment programmes on a case-by-case basis."[55]

6.24 Since the Government's 2003 White Paper there have been changes in planning law and Government policy has evolved. The Government's draft Airports NPS, and the consultation on it, notes that Heathrow has pledged in the Statement of Principles to meet the cost of surface access schemes required to enable a runway to open and that:

- *"The Government requires Heathrow Airport to cover all the costs of upgrading or improving road and rail networks where these are needed to construct the new runway, or to address the impacts of additional passengers and staff accessing the airport as a result of expansion."*[56]

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54 *Ibid*, paragraph D.28.

55 The Future of air transport, DfT, 2003, at paragraph 4.58 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/272086/6046.pdf.

56 See Consultation on Draft Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England at paragraph 6.14. See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/589082/consultation-on-draft-

- *"The majority of the surface access costs where a split of beneficiaries is expected (for example, where multiple businesses and the public at large benefit from a new road junction or rail scheme) are likely to be borne by Government, as the schemes provide greater benefits for non-airport users. The airport contribution would be subject to a negotiation, and review by regulators."*[57]
- *"The Government expects the applicant to secure the upgrading or enhancing of road, rail or other transport networks or services which are physically needed to be completed to enable the Northwest Runway to operate. … Where a surface transport scheme is not solely required to deliver airport capacity and has a wider range of beneficiaries, the Government, along with relevant stakeholders, will consider the need for a public funding contribution alongside an appropriate contribution from the airport on a case by case basis."*[58]

6.25 While we note that there is a difference of emphasis between the statements made in 2003 and 2017, we do not consider that these differences should fundamentally change the objectives of our surface access policy. Nonetheless, it may be appropriate for us to give more consideration to what is meant by "to secure planning permission for airport expansion" (see paragraph 6.6) in light of the changes in planning law since the CAA's policy was adopted in 2005.

6.26 The Statement of Principles entered into between HAL and the Secretary of State acknowledges HAL's view that surface access schemes including works to the M25 and A4, increasing Crossrail capacity and a Western Rail Link were either essential to the delivery of expansion, or needed to support its surface access strategy, while Southern Rail Access would also be desirable.[59]

6.27 We also note the importance the Government places on mode share targets for HAL. For instance, the draft NPS states that: "The airport surface access strategy should contain specific targets for maximising the proportion of journeys made to Heathrow by public transport, cycling or walking. It should also include details of how the airport will achieve a public transport mode share target of at

airports-nps.pdf.

57 Draft Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England, DfT, January 2017 at paragraph 3.38. See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/588764/draft-airports-nps-web-version.pdf.

58 *Ibid*, paragraph 5.18.

59 See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/562175/heathrow-airport-limited-statement-of-principles.pdf at Part 5.

least 50% by 2030, and at least 55% by 2040, for passengers, and a 25% reduction in all staff car trips by 2030 and a reduction of 50% by 2040”.[60]

Recent developments

6.28 We note the recent High Court judgment in *R (Heathrow Airport Limited) v ORR.*[61] Our view is that this judgment largely deals with the specific facts of the case in question and the impact of changes to the regulatory regime pertaining to railway track access charges. We do not consider that it alters the criteria discussed above that suggests direct users of surface access links (for rail links, track access charges may be relevant to the overall contribution that charges to direct users make) should contribute to those links to the maximum extent practicable or that only an appropriate proportion of residual costs should be funded by an airport.

6.29 Nonetheless, we accept that the case in question may have an impact on the costs/revenues that we expect to take into account in future single till calculations to set HAL’s price control revenues and so on the level of airport charges. We would expect to take into account all relevant considerations pertaining at the time when the price controls are reset, including the level of efficiency required of HAL and how the resulting contribution to airport charges of surface access projects furthers the CAA’s statutory duties.

Views invited

6.30 Views are invited on any matters relating to our policy for allowing surface access costs and in particular on whether our policy remains robust and fit for purpose in the circumstances of capacity expansion at Heathrow.

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[60] See draft Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England, DfT, January 2017 at paragraph 6.17.

[61] [2017] EWHC 1290 (Admin), judgment of Ouseley J.

Chapter 7
Timetable and the extension of the price control

Introduction

7.1 This chapter discusses the responses to our January 2017 Consultation and April 2017 Guidance on the timetable for developing the regulatory framework. It explains our proposals further to extend the existing Q6 price control by at least one year and explains the process that we will follow to consult stakeholders on the length and terms of this further extension to the price control.[62]

Initial CAA consultations

7.2 Our January 2017 Consultation explained that we would need to keep the timetable for developing the regulatory framework under review pending developments on the Government's NPS process and HAL's application for development consent. We noted that we have already extended the Q6 price control in 2016 (so that it would remain in place until the end of 2019 rather than the end of 2018) and we also said there was a possibility that we might need to extend the Q6 price control again so that the regulatory timetable would better align with the overall Government process for capacity expansion at Heathrow.

7.3 HAL's response to our January 2017 Consultation emphasised some of the difficulties with the current timetable for developing the regulatory framework. It suggested that there could be advantages in both allowing it sufficient time to develop high quality business plans and in better aligning the timetable for developing the regulatory framework with the wider timetable for capacity expansion. The timetable set out in the January 2017 Consultation would require HAL to issue an IBP by the end of 2017 – but it would not be in a position at that stage to have properly taken account of its firm view of its preferred scheme design, which is an important foundation for its IBP. Requiring HAL to develop an IBP to this timetable would not be in consumers' interests as it could frustrate the process of engagement on the overall scheme design for capacity expansion.

7.4 Our April 2017 Guidance set out options that could better align the timetable for developing the regulatory framework with the wider timetable for capacity expansion. The first two of these options would allow HAL more time to produce a high quality IBP by condensing the time available to the CAA to make its price control determination. The third would involve extending the existing price control by 12 months to allow more time for HAL to produce a high quality IBP and

[62] For a general discussion of the duration of price controls, see chapter 3 at paragraph 3.29ff.

better align the timetable for the work on setting the next five year control with the timetable for the wider programme for capacity expansion.

Stakeholders' views

7.5 In their responses to our April 2017 Guidance, airlines generally supported an extension to the current price control arrangements to promote alignment with the wider processes for capacity expansion. They also recognised the advantages of a pragmatic approach to the price control extension and did not want to trigger a full scale and detailed price control review, as this could distract attention from the work necessary to support capacity expansion. IAG suggested that the price control could be reset for a further year by simply rebasing revenues using updated forecasts of passenger traffic volumes, and the AOC/LACC suggested we consider setting an overall revenue cap, instead of a price cap per passenger.

7.6 HAL said that without a 12 to 18 month price control extension, it would not be practicable to align the timetable for the main price control review with the wider programme for capacity expansion. It went on to say:

"another extension year would mean yet another year of drift from the Q6 price review. 2020 will carry particularly large risks. It is the first full year of Brexit, meaning Heathrow will be particularly exposed to traffic, commercial and legal risk. Crossrail will be fully operational in 2020 which will likely have a significant but hard to predict impact on Heathrow Express. This higher than usual uncertainty reinforces the need for a clear decision now on the terms of any extension. It also cautions against attempts for partial re-opening of the settlement elements."

7.7 HAL also said that discussing the option of extending a price control without outlining how the extension would be implemented and calibrated was inconsistent with best regulatory practice and that we should make clear our proposals in relation to these matters.

CAA views and proposed approach

Duration of the price control extension beyond 2019

7.8 We consider there are clear benefits to consumers in better aligning the main price control timetable with that for the wider programme for capacity expansion. Otherwise, we might not have the level of certainty and information that would allow us to set a price control that both protects the interest of consumers and allows HAL to finance its licensed activities.

7.9 The responses from stakeholders confirm the benefits of a further price control extension. There is also a degree of consensus from stakeholders that any extension should be made in a relatively simple way, albeit there is no consensus on the precise terms that should apply.

7.10 At this stage, it is not possible for us to judge with confidence whether the price control extension to be put in place from the end of 2019 will need to cover a period of 12 months or longer. There is a degree of uncertainty about the timing for key aspects of the wider programme for capacity expansion, including HAL's plans for consultation on scheme design and the precise timetable for designation of the NPS. In this context, we note that HAL's response discusses either a 12 month or 18 month extension to the price control.

7.11 We need to retain some flexibility to respond to evolving circumstances, but we also need a transparent and timely process that will allow us to reach final decisions on these matters in an appropriate and reasonable way.

7.12 The shortest period for which we will extend the price control is for a period of 12 months. We do not see merit in setting a price control for a period of 18 months given the complexities that this may bring in relation to the seasonality of HAL's revenues and costs. Nonetheless, it would seem premature to rule out at this point a price control extension beyond a further 12 months until the timetable for the designation of the NPS is reasonably settled.

7.13 Bearing the above in mind, we are committing now to a further extension of the price control by at least 12 months. The earliest point at which the price caps will now expire will be the end of 2020. While there is some uncertainty about the timing of key milestones in the wider process for capacity expansion, we cannot finalise the duration of the price control extension at present. We will keep open the possibility of extending the price control beyond this point (e.g. to the end of 2021) at least until the timetable for designating the NPS becomes reasonably clear.

The level of the price control to apply in 2020 (and beyond)

7.14 Our January 2017 Consultation explained the importance of both affordability and financeability in setting the level of airport charges at a price control review. In setting the price control extension we will adopt a proportionate approach to these matters, which reflects the circumstances ahead of the main capital programmes associated with capacity expansion.

7.15 HAL has cautioned against any reopening of regulatory building blocks given the uncertainty and distraction it says that this would create. Both HAL and airlines are concerned not to introduce unnecessary distractions into the current process of scheme design, especially if the period in question is only an additional 12 months. Nonetheless, IAG has said that we could adopt a simple approach to reopening the price control assumptions for the additional year by adjusting only one variable, i.e. the (higher) level of passenger traffic compared to the forecast at the time of setting the main Q6 price control.

7.16 We need to ensure that the interests of consumers are properly protected, while recognising the need for HAL to finance its licensed activities. With this in mind, our approach to the level of the price controls to apply in 2020 should reflect an approach that is: (a) effective; (b) clear and proportionate; and (c) sufficiently flexible to work with either a one year extension or a longer extension (e.g. two year), should a longer period prove necessary.

7.17 Given what stakeholders have told us about the benefit of simplicity if the period of extension were a further one year, one option would be to simply maintain the current terms of the Q6 price control (RPI-1.5%). A price control extension for a longer period is likely to require a reassessment of some of the key assumptions and conditions underlying the price control to ensure a reasonable and balanced approach. This is because, the longer the price control is extended, the more the likelihood is of significant variances from the assumptions made in 2014. Nonetheless, it would be necessary to retain a proportionate approach and avoid the complexity of a full price control review. This could include a high level assessment of the main assumptions used to set a full price control, but not in the level of detail associated with a full review and making simplified assumptions wherever practicable.

7.18 There are alternative approaches the CAA could adopt. Possible alternatives are described below:

- a simple roll-over of the current pricing formula of RPI-1.5% for the period of any extension. This would be a simple and pragmatic approach which we have already used to extend the Q6 price control, but this would be less desirable for a longer price control extension. Indeed, in making the first extension in 2016 we noted the disadvantages of a simple roll-over of the existing price control when applied for a period of two years or more. In particular, it is likely to be that the variances from the original assumptions made in 2014 would be significantly greater than for a one year extension and there would be no precedent for a simple extension of two years or more. It will be important for us to consider whether a further one year extension can reasonably be carried out on the basis of a simple extension of the current terms or whether a more detailed review would be appropriate;

- the IAG suggestion of rebasing the price control that will apply in 2020 only to reflect higher than previously forecast traffic levels. It would likely lead to a lower price control than applying RPI-1.5% for an additional year. This has the advantage of being a relatively simple way of reopening the control for the period of extension – but could be argued as arbitrary in that it picks one key variable but not other factors relevant to resetting the price control. Previous extensions of price controls (Q5+1 and Q6+1) have been on the basis of simple ”roll-overs” and the extension of Q5+1 was against the background of traffic being lower than anticipated when setting the price control. However, these previous extensions were designed to be for only one year rather than a subsequent period that we are now proposing;
- the approach of reviewing elements of the price control could be extended to a small number of key building blocks of price control revenue, including the WACC. For instance, it would be possible to take account of the reductions in the cost of debt finance since the Q6 price control review. Nonetheless, we would need to retain a proportionate approach to the review, reflecting the shorter term nature of the price control extension; and
- given the airlines' strong preference to ensure future charges over the long term do not rise in any year by more than inflation (i.e. RPI-0%), there may be merit in adopting this profile for the period of extension. Although this level of prices would be a little higher than the current price control of RPI-1.5%, the difference for the period of extension could then be considered as a contribution to regulatory depreciation of the RAB – i.e. it would mean that prices after construction commences would rise less fast by an equivalent amount. In this sense, it could be used to smooth prices over time to try and achieve the airlines' stated aim of 'flat real' prices over the longer term. This approach could also be used more widely, for instance, if we reset some of the assumptions made in setting the price control (including the IAG suggestion above) and this put downward pressure on revenues, we could increase the level of regulatory depreciation to provide a longer term benefit for consumers.

7.19 Other possible options include implementing a true-up after the year in question, but this would not necessarily be straightforward to implement and without detailed proposals in advance as to how any true-up would be implemented. The AOC/LACC have suggested a revenue cap, but this could mean traffic risks were transferred from HAL to airlines, which would be a significant change in approach.

Way forward

7.20 We intend to go forward on the following basis:

- bearing in mind the consensus between HAL and the airlines that regulatory alignment with the overall Government/planning timetable is in consumers' interests, we intend to extend the current regulatory period by at least a further 12 months. This means the price control will be extended at least until the end of 2020 rather than running until the end of 2019 as at present;
- there is less consensus on the terms that would apply to the price control extension and we have used this consultation document to set out a number of options on which we would welcome further feedback from stakeholders on these matters. The approach to extending the price control will need to be proportionate and as simple as practicable to avoid any unnecessary distractions to capacity expansion; and
- we will update our thinking on how to make the price control extension and whether the duration should be 12 months or longer in Q4 2017, ahead of making a final decision on these matters as soon as is practicable in 2018 (once the position on the designation of the NPS is reasonably clear). If a longer extension is appropriate, then the greater will be the case for reopening the assumptions underlying the price control so as to protect consumers and ensure HAL can finance its activities.

Timetable for developing the regulatory framework assuming a one year extension to the price control

7.21 Figure 2 below shows the key milestones for developing the regulatory framework, assuming the price control is extended by an additional year and hence expires at the end of 2020 rather than at the end of 2019.

Figure 2: Timetable for developing the H7 regulatory framework (assuming a further one year extension to the Q6 price control)

Q4 2017	CAA consults on initial thinking on the cost of capital and financeability, and updates its thinking on extending the price control and early Category C costs
November 2017	Final section 16 report to the Secretary of State on airport / airline engagement
Early 2018	CAA decides on its approach to the price control extension, and updates on its approach to affordability and financeability
Mid 2018	CAA updates on regulatory framework following designation of the NPS
Dec 2018	HAL provides IBP
Until end Jun 2019	Constructive engagement between HAL and the airlines on the IBP
Aug 2019	HAL provides its Final Business Plan (FBP)
Dec 2019	CAA’s initial proposals for the R3/H7 price control
May 2020	CAA’s updated proposals
Sept 2020	CAA’s statutory notice proposing modifications to HAL’s Licence
Nov 2020	CAA’s decision modifying HAL’s Licence
Jan 2021	New R3/H7 price control commences

Views invited

7.22 Views are invited on any matters relating to the timetable for setting the next HAL price control and the further extension of the existing price control. In particular, we would welcome views on how consumers' interests are best served in setting the terms of the price caps that will apply in the additional 12 month period (i.e. 2020) and our general approach to a possible extension beyond that time.

Appendix A

Our duties

A1 The CAA is an independent economic regulator. Our duties in relation to the economic regulation of airport operation services (AOS), including capacity expansion, are set out in the Civil Aviation Act 2012 (CAA12).

A2 CAA12 gives the CAA a general ("primary") duty, to carry out its functions under CAA12 in a manner which it considers will further the interests of users of air transport services regarding the range, availability, continuity, cost and quality of AOS.

A3 CAA12 defines users of air transport services as present and future passengers and those with a right in property carried by the service (i.e. cargo owners). We often refer to these users by using the shorthand of "consumers".

A4 The CAA must also carry out its functions, where appropriate, in a manner that will promote competition in the provision of AOS.

A5 In discharging this primary duty, the CAA must also have regard to a range of other matters specified in the CAA12. These include:

- the need to secure that each licensee is able to finance its licensed activities;
- the need to secure that all reasonable demands for AOS are met;
- the need to promote economy and efficiency on the part of licensees in the provision of AOS;
- the need to secure that the licensee is able to take reasonable measures to reduce, control and/or mitigate adverse environmental effects;
- any guidance issued by the Secretary of State or international obligation on the UK notified by the Secretary of State; and
- the Better Regulation principles.

A6 In relation to the capacity expansion at Heathrow, these duties relate to the CAA's functions concerning the activities of HAL as the operator at Heathrow.

A7 CAA12 also sets out the circumstances in which we can regulate airport operators through an economic licence. In particular, airport operators must be subject to economic regulation where they fulfil the Market Power Test as set out in CAA12. Airport operators that do not fulfil the Test are not subject to economic regulation. As a result of the market power determinations we completed in 2014 both HAL and GAL are subject to economic regulation.

A8 We are only required to update these determinations if we are requested to do so and there has been a material change in circumstances since the most recent determination. We may also undertake a market power determination whenever we consider it appropriate to do so.

Appendix B

Incentive mechanisms

B1 This appendix sets out our current thinking in relation to passenger traffic volume, commercial revenue and debt market cost incentives and risks.

Passenger traffic volume incentives and risks

Overview and previous policy

B2 Forecasts of passenger traffic volumes have a fundamental role in the setting of the price control. Previous price controls for HAL have been expressed in terms of a maximum allowable yield per passenger. Within each price control period HAL is exposed to risks from variations in passenger volumes compared to the forecast made when the price control was set.

B3 The treatment of volume risk has been considered in detail by us and also the Competition Commission in previous price control reviews in the context of Stansted.[63] Risk sharing has not been supported in the past, because it would lead to higher charges if there were to an unexpected downturn in passenger traffic during the price control period (because there would be fewer passengers over whom to spread the required regulated revenue) and because airport operators were viewed as better placed to bear the risks of such short term difficulties than airlines. Nonetheless, in resetting price controls new forecasts of passenger traffic volumes would be made and so longer-term risks of lower passenger traffic are passed through in airport charges.

B4 During price control periods Q4 and Q5, for a variety of factors, outturn passenger volumes were generally lower than our original forecasts, reducing HAL's revenues.[64] By 2012/13 passenger volumes were 10 per cent lower than our original forecast.[65] We calculate that this implied a shortfall in HAL's revenues from airport charges of more than £150 million. In contrast, during the early years of Q6,

63 See, in particular, Competition Commission report – Stansted Airport Q5 price control review (Oct 08) at paragraphs 5.22-5.31 (Volume risk); CAA reference to Competition Commission for Stansted (Apr 08) Annex H H3-9 (Volume risk); Stansted Airport – CAA price control proposals (Dec 2008) at paragraphs 2.14-2.20 Volume risk); and Pricing Structures and Economic Regulation (March 01) at paragraphs 7.1-7.5 (volume risk).

64 The Q4 and Q5 price caps were set under the previous legislative framework, as set out in the Airports Act 1986. Among other things this required all price cap proposals to be referred to the Monopolies and Mergers Commission (now the Competition and Markets Authority (CMA)), which in turn would give its own view of what the price cap should be. Under the current Act, in contrast, the CMA acts purely as an appeals body.

65 See http://www.heathrow.com/company/investor-centre/regulation/regulatory-accounts.

passenger volumes at Heathrow have been around 4 per cent higher than the forecasts that underpinned the price control, allowing HAL to earn higher revenues.

B5 One potential reason for considering the treatment of volume risk again is that HAL has been partially shielded from volume risk as a result of capacity constraints. Significant additional capacity could make volume risk more of an issue in future as expansion will loosen these constraints. Nonetheless, our historical treatment of volume risk has not been based solely on the current position at Heathrow. When we have considered (but not adopted) volume risk sharing during previous reviews, this has also covered other regulated airports that were subject to greater volume risk than Heathrow.

B6 In the January 2017 Consultation, our initial view was that it would be in the interests of users to retain a strong element of the present volume risk on HAL to incentivise it to make maximum use of the new capacity.

Stakeholders' views

B7 In its response to our consultation, HAL noted that its exposure to volume risk will change following capacity expansion. It stressed that it is keen to engage on the most appropriate regulatory treatment of these matters and said that it will start to have a clearer view on the issues once the NPS is designated and overall scheme design is more certain. At this stage, it suggested exploring options and noted that volume risk sharing could align airport and airline incentives to help grow volumes faster.

B8 IAG responded in detail on how to develop incentives and allocate risk, stressing that the CAA needs to have regard to the airlines' own capital and financing requirements and that external influences have a greater impact on the return of the airlines compared to airports. IAG concluded that expecting airlines to commit volumes to insulate HAL from risk would not be appropriate or feasible. However, it also suggested medium term volume incentives built into the pricing formula and the ability to co-invest in new facilities (e.g. terminal facilities) as two possible approaches for consideration.

CAA views

B9 We recognise the arguments that:

- capacity expansion is likely to increase the importance of volume risks and incentives;
- passenger numbers and returns are more stable for airports than airlines; and
- it is important that HAL retains incentives to increase traffic volumes, in order to encourage it to bring capacity on stream promptly and ensure that the costs of expansion are spread across as many users as possible.

B10 We also note that volume risks are likely to be most acute once new capacity is available, and so we expect risk-sharing to be a more significant policy issue for the price controls covering the periods after the new capacity opens (i.e. for the H8 price control period). Therefore, while we remain open to discussing options for dealing with these matters the detail of any new incentive arrangements may not need to be finalised for the H7 review. In terms of our overall assessment of affordability and financeability of scheme designs that will take place ahead of NPS designation, it will be prudent to assume that HAL faces a somewhat increased level of volume risk compared to the existing position of a capacity constrained two runway airport.

Commercial revenue incentives and risks

Overview and previous policy

B11 Under the single till approach, a forecast of HAL's commercial revenues is used as one of the key inputs to set the price control on airport charges. Forecasts of commercial revenues are used to offset the total revenue requirement for the airport and so they have the effect of reducing the amounts that need to be recovered through airport charges. In our March 2016 Document, we said that commercial revenues should be included within the scope of constructive engagement.

B12 Commercial revenue is partly linked to the volume of passengers but also wider factors. For almost all of Q4, Q5 and Q6 to date, HAL's commercial revenues have been above our forecasts by an average of 2 per cent (equivalent to around £10 million per year). This was because:

- despite Q4 and Q5 passenger volumes being below our forecasts, HAL's per passenger commercial revenues were significantly higher than expected so that overall commercial revenues exceeded the forecast; and
- for the first two years of Q6, while commercial revenues per passenger have been slightly below the forecast, this has been more than offset by higher than expected passenger numbers.

B13 There may be a number of factors that could affect trends in future commercial revenues, in addition to passenger traffic volumes. The UK's exit from the European Union could lead to a change in the proportion of passengers that can take advantage of duty and tax-free shopping. This could be the opposite of the situation that we dealt with in setting the Q3 price control for Heathrow, Gatwick and Stansted, which included a pre-determined adjustment when duty and tax-free shopping for intra-EU passengers was abolished. In the longer term, wider factors could also influence commercial revenues, such as the impact of e-commerce on retailing at Heathrow.

CAA views and initial policy

B14 Our current view is that HAL should continue to bear 100% of the commercial revenue risk within each price control period as it is clearly better able to deal with specific risks around the attractiveness of its commercial retail, car parking and property offerings than airlines. It should continue to face incentives to increase commercial revenues further, as this will benefit users in future price control periods through the contribution these revenues make to offsetting airport charges through the single till.

B15 We remain open minded whether there are ways to improve the longer-term incentives on HAL to boost commercial revenues, such as rolling incentives that would ensure that the penalties and rewards from HAL's performance from commercial revenue were in place for a fixed number of years. At a later stage of the H7 price control review we may need to consider whether and/or how to deal with changes to duty and tax-free shopping regulations. This will only be practicable when there is greater clarity on the likelihood, nature and timing of any changes.

Debt market cost incentives and risks

Overview and previous policy

B16 The cost of debt finance feeds into the calculation of the cost of capital which is used to calculate a return on the RAB. It has a significant impact on charges.

B17 Approaches to the cost of debt have been consulted on in previous price control reviews, including indexing the allowance for debt costs.[66] Debt indexation is one of the mechanisms that could be used to update the cost of debt allowance for market movements. Using different approaches to debt indexation could see the debt allowance changing at set times during the price control period (such as every year) or be dealt with as part of a true-up mechanism in setting the next price control and so avoid any undue volatility in charges.

B18 In setting the Q6 price control we concluded that the benefits of debt indexation were not significant enough to warrant its introduction. As a result, the present Q6 price control was set by reference to fixed allowances for embedded (i.e. existing) and new debt. This was based on forecasts of the notional efficient cost of debt which are not subsequently corrected or adjusted within the price control period to account for new information.

B19 This approach involved the CAA making assumptions about various factors including:

- debt market rates;

66 See CAP 1115: Estimating the cost of capital: a technical appendix to the CAA's Final Proposal for economic regulation of Heathrow and Gatwick after April 2014 www.caa.co.uk/CAP1115.

- the amount of new debt to be taken on;
- the efficient level of embedded debt;
- the average refinancing profile;
- debt tenor; and
- the associated credit rating.

B20 The real cost of debt allowed for HAL in the Q6 regulated settlement was 3.2%. The outturn benchmark cost of debt to date reflecting both embedded debt and the issue of new debt since the start of Q6 can be valued at about 2% (assuming inflation of 3%).[67] With a RAB of £15 billion,[68] this represents an over estimation in the cost of capital of 0.7% (under a 60% gearing assumption) and is equivalent to a forecasting error of some £100 million per annum which is passed into airport charges.

B21 However, in the Q6 decision, the CAA acknowledged that the arguments for and against indexation were finely balanced although it only conducted a high level assessment at the time. Given the large amount of debt that may be necessary to support capacity expansion it is timely to reconsider these matters.

B22 In the March 2016 Document, we identified the approach to setting the cost of debt as an issue to consider again given that HAL will need to raise significant levels of debt. We published a seminar paper in April 2016[69] which covered the topic and also commissioned advice from CEPA on alternative approaches to setting the cost of debt.[70]

Stakeholders' views

B23 In response to the strategic themes consultation and the seminar, the airlines agreed that debt indexation should be re-examined. HAL agreed, but noted that the iBoxx index used by Ofgem in its approach to debt indexation does not fit well to Heathrow corporate debt yields. It also said that capacity expansion could put upward pressure on its debt costs in a way that might not be captured by market indices.

67 CAA Assumption.

68 Closing RAB of £15.2 billon (31 December 2016); Heathrow (SP) Limited Regulatory Accounts (2016).

69 See paragraph 45 onwards here: http://www.caa.co.uk/uploadedFiles/CAA/Content/Accordion/Standard_Content/Commercial/Airports/Files/Promoting%20cost%20efficiency%20and%20financeability%20paper.pdf.

70 Alternative approaches to setting the cost of debt for PR19 and H7, CEPA (August 2016) www.caa.co.uk/CAP1562.

CAA views and initial policy

B24 Projecting a cost of debt allowance in the way we have for previous price controls can result in significant forecasting errors. Given this and the fact that significantly more debt will need to be raised to finance the new runway, we consider it is in the interests of users to review this approach and evaluate whether other options are likely to produce better outcomes for consumers.

B25 The key objective for policy to manage debt risks is to devise a method which reduces HAL's exposure to forecasting risk while still providing incentives for HAL to minimise debt costs while remaining financeable. This reflects the global nature of debt markets any licensee will have limited ability to influence the market prices.

B26 In deciding on whether to introduce debt indexation, the appropriate approach that best furthers the interests of consumers, we propose also to consider and balance affordability and financeability, as well as implementation issues.

B27 Our initial view is that a notional allowance should continue to be used rather than relying exclusively on HAL's actual debt costs. Using actual costs would give little incentive for HAL to finance its activities in the most efficient way, and consumers would bear all the risk of inefficient financing. Actual debt costs could also be quite difficult to calculate.

B28 We understand that Ofgem's approach to debt indexation includes elements of both new and embedded debt. We will consider this further in formulating our policy on debt indexation, but it is not clear at this stage that this would be appropriate for the circumstances of our regulation of HAL.

B29 We will be mindful of introducing changes or incentives that are perverse or that increase the overall cost. For example, we would aim to ensure that the benchmark was not upwardly biased and that the index would be durable over the longer term. We would also not seek to define how HAL should finance its activities or what type of debt it should use although to calibrate any benchmark either using fixed or indexation approaches, assumptions about refinancing and average tenor would need to be made.

B30 Another consideration is whether to define the mechanism in a way which shares over or under performance of debt costs between HAL and users. Such a mechanism would adjust HAL's allowed revenues/airport charges for a proportion of the difference between the forecast benchmark used to set the cost of debt allowance and HAL's actual cost of debt (or an updated outturn benchmark). This is conceptually similar to an efficiency sharing mechanisms that could apply to over/under-spend of operating expenditure and capex.

B31 Any risk-sharing mechanism would need to consider:

- how it would impact on the incentive for HAL to seek lowest cost debt financing;

- how it would impact on the allocation of financing risk between HAL and consumers; and
- the ease of implementing such a mechanism given the anticipated benefits.

B32 We would welcome views from stakeholders whether we should introduce debt indexation and the issues discussed above.