

# Incentivising the right consumer outcomes – discussion paper

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Tuesday 3 May 2016

## Introduction

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1. The current regulatory controls on the charges and services that Heathrow Airport Limited (HAL) offers to airlines, and, ultimately, to consumers are due to expire on 31 December 2018. The CAA has therefore launched a review (called ‘H7’) of the appropriate regulatory arrangements that should be put in place after that date.
2. To initiate this review, we published a discussion document in March 2016 seeking views from all interested parties on the process, strategic themes, and the relevant issues that should shape our methodology for the H7 review.<sup>1</sup>
3. We are now hosting a series of seminars through which we would like to explore each of our strategic themes in greater detail with interested stakeholders.<sup>2</sup> The objective of the seminars is to help us to develop our thinking on the overall design of the framework in these key areas ahead of our ‘Policy Update’ document in September 2016 which will set out our latest views on the approach to carrying out the H7 review.
4. This paper has been written to inform the ‘*Incentivising the right consumer outcomes*’ seminar and aims to elaborate on our proposed approach in this area.

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<sup>1</sup> [www.caa.co.uk/CAP1383](http://www.caa.co.uk/CAP1383)

<sup>2</sup> The four strategic themes are (i) Empowering consumers and furthering their interest (ii) Incentivising the right consumer outcomes. (iii) Increasing airport resilience; and (iv) Promoting cost efficiency and financeability. Separate seminars have been arranged to cover each of the themes.

## **The CAA's primary statutory duty**

5. The Civil Aviation Act 2012 (The Act) gives the CAA a primary duty to further the interests of users of air transport services in respect of its economic regulation functions.<sup>3</sup> Under the Act, users of air transport services are defined as present and future passengers and those with a right in property carried by the service i.e. cargo owners. For the sake of simplicity we use the term 'consumers' to mean both present and future passengers and cargo owners. We stated in the discussion document that we intend to go much further than we have previously to put consumers at the heart of our airport economic regulation.

## **Issues to consider**

6. We would like to use the seminar to consider three key areas:
- How a new outcome-based approach to regulation may work, and the benefits it could bring;
  - How HAL could be best incentivised to produce a high quality initial business plan that strongly reflects the outcomes that consumers value; and
  - The impact of other incentives that are relevant to the H7 regulatory framework, for example whether there might be benefits in moving to a total expenditure (totex) approach.

## **Section 1**

### **Reviewing our approach to regulation: outcome-based regulation**

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7. This section describes in greater detail the CAA's initial views on how an outcome-based approach to regulation could be developed and introduced through the H7 price review.
8. We consider:

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<sup>3</sup> <http://www.legislation.gov.uk/ukpga/2012/19/contents/enacted>

- The existing arrangements for regulation of quality at Heathrow;
- What we mean by outcome-based regulation;
- How such an approach might work;
- Why we think such an approach would be better for consumers; and
- The areas that we would like to discuss with stakeholders at the seminar.

## The existing SQRB

9. We currently regulate the quality of the services provided by HAL through the Service Quality Rebates and Bonuses (SQRB) scheme (set out in Schedule 1 of HAL's Licence).
10. There are five broad areas in the SQRB:
  - Passenger satisfaction with cleanliness, departure lounge seating, flight information and way-finding;
  - Security, which includes queuing time standards for central search, transfer search, staff search and control posts;
  - Passenger operational elements, which measures the availability of passenger-facing equipment in terminals such as lifts and escalators;
  - Airline operational elements, which measures availability of airline-facing equipment such as stands, jetties and fixed electrical ground power; and
  - The aerodrome congestion term, which measures the number of delayed air traffic movements due to material events in the airfield.
11. The SQRB scheme enables us to monitor and enforce the standards that airlines and consumers should expect from HAL in these areas in exchange for the charges that they pay.
12. In addition to the SQRB scheme, HAL is also required to comply with an operational resilience licence condition requiring it to "*secure the availability and continuity of Airport Operation Services, particularly in times of disruption, to further the interests of passengers and cargo*".

*owners in accordance with best practice and in a timely, efficient and economical manner.*” The condition also requires HAL to:

- Consult on, develop and maintain resilience plans and processes in line with any guidance issued by the CAA;
- Facilitate a governance forum to foster a more cooperative and collaborative approach to managing disruption;
- Lead on coordination and communication between itself, airlines and the groundhandlers to ensure a more coherent response to disruption, including developing a ‘rules of conduct’ for airlines and groundhandlers, in consultation with those bodies setting out what HAL would need from to support it meetings its licence obligations; and
- Publish information relevant to other service providers and passengers so far as possible to help them plan their response to disruption.

13. Under the licence, HAL is also required to publish audited regulatory accounts in accordance with guidelines to enable the CAA, airlines and users of air transport services to assess HAL’s financial position and performance during the relevant regulatory period or year.

## **Looking ahead to H7**

14. In developing the regulatory framework for H7, we want to take the opportunity to consider whether these arrangements are still delivering good value for consumers in the current form. We would like to explore whether revisions are needed to the SQRB scheme and the regulatory regime more generally, to better capture the outcomes that consumers’ value. We consider this review to be necessary in light of our primary duty under the Act.

## **What do we mean by outcome-based regulation?**

15. ‘Outcomes’ in this context refer to the range of higher-level consumer objectives that HAL’s actions are intended to help deliver, and which could then be incentivised and monitored through the regulatory regime.

16. In a practical sense, that means that we want HAL to identify what consumers really want from their experience at Heathrow, and then deliver it. **In the absence of current consumer engagement on what outcomes consumers may want, and without limiting the form outcomes may take**, we can consider a few illustrative examples:

- Passengers' journey through the airport is smooth and stress-free;
- Passengers travel with their bags every time;
- Passengers always arrive and depart on time;
- Passengers always receive the assistance and information they need.

17. Figure 1 below provides an illustration of what we currently think an outcome-based approach to regulation may look like. **This framework is a draft illustrative example only. We expect HAL to initially populate the matrix based on robust consumer research and engagement, and consultation with airlines.** This representation has been designed to help readers understand the architecture of such an approach, and in particular the relationship between outcomes, outcome performance standards, performance measures and incentives, as outlined below:

- The first row of the matrix provides examples of areas where consumer engagement may indicate a specific outcome or set of outcomes should be achieved;
- The second row gives illustrative examples of outcome performance standards associated with the outcomes from the first row. The performance standards are the lower-level, tangible and measurable activities that contribute to the higher-level outcomes being achieved;
- The third row of the matrix provides an illustrative example of how metrics may be used to measure each outcome performance standard. The measures allow transparent understanding of whether the performance standards are being achieved, and in some cases could potentially be adapted from the current SQRB scheme or newly created; and

- The fourth row of the matrix outlines the incentive associated with the delivery of each performance standard, and thus, to the delivery of the outcome. We consider that a range of incentives may be appropriate in achieving the right outcomes for consumers.

18. To illustrate further using one of the examples from Figure 1, let us assume that consumer engagement shows that consumers particularly value receiving the “right customer care and information” at Heathrow, and that an outcome addressing that objective becomes part of HAL’s business plan. Three outcome performance standards have been identified that may help deliver an outcome in this area. These standards each have a corresponding performance measure to identify the performance of the standard. Finally, the attached incentives reflect both consumer priorities and the extent to which the achievement of the performance standard is fully within the control of HAL. In this example, the staff availability and helpfulness standard is only partially in HAL’s control, given that airline staff are also responsible for the care and information consumers receive.

**Figure 1: Outcomes, standards and incentives illustrative framework**

<p>Outcomes are informed by detailed <b>consumer research</b> and verified by the CCF</p>	<p><b>Outcomes*</b></p>	<p>Airport operation services are reliable and efficient</p>			<p>The airport operates punctually</p>		<p>Passengers receive the right care and information</p>			<p>Passengers can use the facilities they want</p>			<p>etc</p>	<p>etc</p>
<p>Outcome performance standards (OPS)** are developed through the CE process, in consultation with CCF</p>		<p><b>Outcome performance standard</b></p>	<p>% of missed bags</p>	<p>Security queues</p>	<p>Number of disrupted days</p>	<p>On-time performance</p>	<p>Availability of airline operational elements</p>	<p>Quality and inclusiveness of wayfinding information</p>	<p>Availability of universal access facilities</p>	<p>Staff availability and helpfulness</p>	<p>Seat availability</p>	<p>Availability of passenger-sensitive equipment</p>	<p>Cleanliness</p>	<p>etc</p>
<p>OPS are specific, measurable, achievable, realistic and time-bound - the CE process defines how to measure them</p>	<p><b>Performance measurement</b></p>		<p>New measure</p>	<p>New measure</p>	<p>New measure</p>	<p>New measure</p>	<p>Current measure</p>	<p>New measure</p>	<p>New measure</p>	<p>New measure</p>	<p>Current measure</p>	<p>Current measure</p>	<p>Current measure</p>	<p>etc</p>
<p>Incentives are calibrated to reflect consumer preferences and the degree of control that HAL has on performance, and consumer preferences</p>		<p><b>Incentive type</b></p>	<p style="background-color: red;"> </p>			<p style="background-color: red;"> </p>		<p style="background-color: green;"> </p>			<p style="background-color: green;"> </p>			<p style="background-color: white;">?</p>

\* Consumer priorities emerging from previous research that the CAA has considered for Q6, only given here by way of example

\*\* OPS may include, without being limited to, the OPS suggested here by way of example

<b>INCENTIVE TYPE LEGEND:</b>	
Fully in airport control - financial and/or reputational incentives?	
Only partially in airport control - financial and/or reputational incentives?	

## Principles of outcome-based regulation

19. We consider that the industry is best placed to take responsibility for engaging with consumers, gathering evidence on what they value, and translating this engagement into appropriate outcomes which can be incorporated in to the regulatory regime.
20. As it will be HAL's responsibility to initially propose through its business plan the consumer outcomes to be delivered, we will expect HAL to consult with all stakeholders including airlines on the development of outcomes prior to the publication of its initial business plan.
21. To ensure that the outcomes in HAL's business plan genuinely reflect the needs of consumers, we want to see independent, consumer focused scrutiny applied to the development of outcomes. We see this role being played by the Consumer Challenge Forum (CCF). Broadly, we expect the CCF to provide us with a view on:
  - In the first instance, the quality of engagement carried out by HAL in order to understand consumers' needs – if this is not done well then we are unlikely to see the business plan as credible;
  - If HAL succeeds on the first count, the extent to which the outcomes that HAL intends to achieve reflect the needs of consumers and are supported by robust evidence; and
  - The appropriateness of the outcome performance standards proposed by HAL and agreed through CE (for example, whether performance targets are sufficiently challenging).
22. Although the outcomes will be proposed by HAL, to assist this process we propose to develop and issue a set of guiding principles to govern the process. A draft for discussion of these is set out below:
  - Outcomes should be informed by robust and transparent engagement into consumer preferences.
  - The consumer engagement and the transmission process through which the outcomes are developed will be subject to scrutiny and challenge by the CCF.



- Outcomes may reflect a long-term horizon and potentially used for multiple price control periods, so we will not oppose the definition of multi-period outcomes, provided that they are sufficiently specific to H7 (e.g. an explicit level of performance against the outcome is intended for H7).
- Outcomes and the associated performance measures should reflect the interests of all different consumer segments.
- Outcomes should include clearly defined performance measures in the form of 'outcome performance standards'.
- Outcome performance standards may include relevant aspects of the existing SQRB scheme, where appropriate. Where aspects of the SQRB scheme are not included, the airport should provide an explanation for why the measure is not required and why its exclusion would not jeopardise the interest of consumers.
- Outcome performance standards should not only be reflective of consumers' preferences, but also comprehensive in considering the aspects of airport operations where consumers' interests lie.
- Outcome performance standards should be appropriately incentivised through financial, reputational or other means as appropriate, similar to the current SQRB scheme. Financial incentives may consist of a system of penalties and rewards. The level of revenues at stake may also be considered and agreed during CE.
- Priority of outcome performance standards should reflect consumer priorities, and this should inform the calibration of financial measures.
- The development of performance standards and their associated measures and incentives should be considered and agreed through the CE process.
- We will reserve the right to mandate outcomes and / or outcome performance standards in specific cases when we think that the interests of passengers, such as regarding resilience, or specific groups of passengers, including for example vulnerable passengers, may not be taken into account to a satisfactory degree.

- More generally, we will reserve the right to mandate specific outcomes if necessary, to reflect that we have some fundamental objectives, such as in relation safety and security.
- In order for incentives to work effectively and impact the operations of HAL, they will have to be clear, well-understood by all parties, and credible.
- Non-financial incentives, especially in the form of reputational incentives (such as increased transparency), will play a role in those circumstances where HAL cannot be held solely responsible for the achievement of a certain outcome. For example, punctuality is typically an area shaped by several factors, some of which are outside the airport's control, and thus the application of financial incentives may not be appropriate.

### **Baggage**

Baggage is one area of airport service that has a big impact on consumers. The responsibility for baggage operations is shared among several parties, including the airport, airlines and groundhandlers. In particular, HAL is responsible for providing and operating the baggage system which transports, screens and sorts the baggage. Following disrupted service in June 2014, HAL started a review of its contingency plans and focussed on addressing the structural issues that contributed to the disruption. The review made recommendations to improve resilience of the baggage system and procedures, which are the process of being implemented.

The SQRB scheme currently only measures the availability of baggage reclaim belts. We expect the H7 outcome-based framework to reflect a stronger focus on baggage performance and resilience, to the extent that consumer engagement confirms this is something consumers really value.

23. In addition to these guiding principles, we will also consider the relationship between outcomes and other aspects of the regulatory framework, particularly the cost and revenue assessment. Outcomes inevitably have to sit alongside the financial package, i.e., our assessment

of the efficient level of opex, capex and the return etc. In the first instance, we will expect HAL's initial business plan to include a package of outcomes and performance measures alongside a financial proposal that includes well justified and reasonable projections of cost and revenues.

24. The assumptions associated with HAL's proposed outcomes will be tested vigorously by the CAA and debated through the CE process.
25. We appreciate that the transition to a new outcome-based approach to regulation will imply a few challenges. The SQRB scheme has been in place for three control periods and its functioning is well-understood by HAL and the airlines. We also recognise that to some extent any departure from a familiar system is going to require adaptation. However, our view is that many aspects of an outcome-based approach would be directly informed by the SQRB scheme. In practice this may involve the retention of some of the "tried and trusted" SQRB deliverables as outcome performance standards (see Figure 1).
26. Similarly, we expect that in developing a new scheme, stakeholders will be able to benefit from the process of constructive engagement through which we expect the detail to be discussed and developed.

## **Section 2**

### **The role of HAL's business plan**

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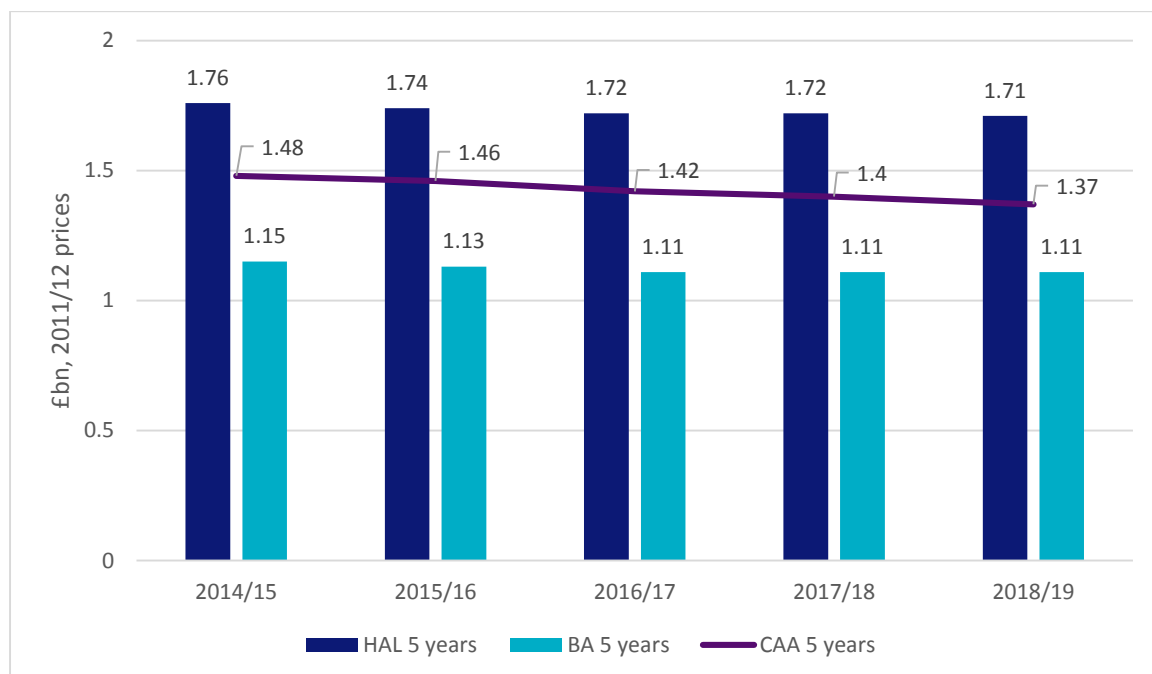
27. This section describes in greater detail the CAA's initial views on ways to incentivise a high quality business plan from HAL. It considers our reflections on how the assessment of the HAL's plan for Q6 played out and some views on how business plan incentives might help to improve the price review process. Much of our thinking in this area has been informed from the experiences we have observed in other regulated sectors where a number of regulatory innovations have been introduced

with the objective of focussing business plans more on the needs of consumers rather than shareholders.<sup>4</sup>

## The Q6 assessment

28. As part of the Q6 price review, HAL proposed in the Final Business Plan an £8.7 billion net revenue requirement, which is 54% higher than British Airways (BA)'s assessment of £5.6 billion on behalf of the airlines (based on a five-year price control period). The CAA final decision for Q6 was £6.9 billion (Figure 2).<sup>5</sup> Of some relevance to this discussion, neither side elected to exercise their right to appeal the CAA's final decision.

Figure 2: Q6 assessment of HAL's net revenue requirement (£bn, 2011/12 prices)



Source: CAA analysis

29. We consider that the range between HAL and the airlines is wider than it needs to be. The consequence of this is that industry stakeholders invest the most resource into trying to make the case for the individual

<sup>4</sup> This principle is explored further in Chapter 2 of 'A Review of Recent UK Price Review Innovations', [www.caa.co.uk/CAP1383b](http://www.caa.co.uk/CAP1383b)

<sup>5</sup> This decision is based on a four year and nine month regulatory period, whereas the initial proposals by HAL and BA assumed a five year period. The assessment in Figure 3 also assumes a five year regulatory period.

assumptions which inform their projection, rather than focusing on the things that will further the interests of consumers.

30. The nature of RAB-based price cap regimes, which are typically based on historic cost, means that regulated companies may have incentives to overstate their ex ante cost and revenue forecasts as, other things being equal, this may lead to a higher price cap. As a result, business plans may be developed in a way which aims to maximise the price cap, rather than illustrate how the company intends to run the business and deliver benefits to consumers. In the airport case, the opposite incentives typically apply to the airlines, which have an interest in lower airport charges, and thus a lower price cap. In this context, the CAA ends up playing the role of arbiter, by scrutinising the two submissions in-depth and either rejecting or accepting the parties' criticism on a case-by-case basis.
31. This dynamic has been a recurring theme in airport price reviews in which the stakeholders arguably anticipate (or respond to) the other side's approach to revenue projections and adapt their own strategy accordingly. We consider that we would be better equipped to discharge our duties if the parties had stronger incentives to reveal their own view of a reasonable revenue requirement at the outset of the process. A narrowing of this wide range should enable all stakeholders (including the CAA) to focus more attention and resource on the outcomes that consumers value.

### **High quality business plans reflecting consumer interests**

32. Our ambition for H7 is to change this mindset. Therefore, we are considering strengthening existing incentives and possibly designing new ones. Business plan incentives have been described by some commentators as among the most successful innovations recently introduced in UK regulatory practice in energy and water.<sup>6</sup> Ofgem and Ofwat have called for a similar change in approach: for business plans to

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<sup>6</sup> See for example the First Economics report [www.caa.co.uk/CAP1383b](http://www.caa.co.uk/CAP1383b)

elaborate on the best strategy to deliver outcomes for consumers, and for plans to be based on reliable information and wide stakeholder engagement.

33. In order to achieve this, these regulators have put in place a range of incentives. Business plans at the most recent reviews in these sectors were assessed and graded, and the promise of reputational gains, such as a company's plan being held up as "high quality" by the regulator, seems to have played a big role in the success of the schemes.
34. We recognise that we will not be able to take advantage of peer competition to achieve better business planning, as the H7 price review only involves one company. While being aware of this and other specificities of our industry, we see scope for learning from the lessons in other sectors, and using the H7 review to promote best practice in airport regulation.

### **What do we mean by "high quality business plan"?**

35. We would like HAL to develop a business plan that: reflects the outcomes that consumers value; is informative, accurate and well-justified; provides cost and revenue projections that stand up to scrutiny and can be assessed as reasonable by interested stakeholders. HAL will therefore need to be proactive in developing the business plan.
36. We intend to assist HAL and other interested stakeholders in understanding our expectations in this area. We will issue guidance as part of our Policy Update in September 2016, to be used by HAL in the preparation of its initial business plan and subsequent iterations.
37. Our guidance will be on the principles of a high quality business plan, rather than the detailed requirements. The following is a brief summary of our current views on the guidance:
  - To ensure that the business plan reflects the outcomes that consumers value, HAL will have to demonstrate that its understanding of consumer preferences is based on robust and

comprehensive consumer engagement. This engagement will be reviewed and tested by the CCF, which will play an assurance role for the CAA.

- In all areas, we expect HAL to demonstrate: assumptions are robust, that strategic choices have been made after careful consideration of all possible options, and that the preferred option is best placed to achieve maximum value for consumers.
- Airlines should be engaged at key stages of the process including the development of the initial business plan. They should contribute to the definition of the outcomes and to the transparent conversion of the outcomes into outcome performance standards, measures, and incentives.
- Costs should be transparently linked to the outcomes, and all possible cost options (involving both opex and capex) will have to be considered before selecting the one that is best placed to achieve an outcome.
- We will expect forecast costs to combine the evaluation of past performance with realistic assumptions about the scope for increased efficiency in the future.
- Costs should be market-tested or benchmarked, and in all cases HAL should be able to explain the baseline evidence and the assumptions made.
- HAL should identify the key risks associated with delivering the plan and explain what proportionate actions it will take to mitigate those risks.
- Risks should be allocated to the stakeholder that is best placed to deal with it. We would welcome a proactive approach from HAL in proposing how to allocate risks between stakeholders, and highlighting the consequences of each allocation.
- HAL should consider the financeability of the plan. HAL should provide evidence that the expected financing costs are efficient and that the business plan is financeable. In particular, HAL should provide evidence that it can finance the achievement of the

outcomes under a reasonable range of (upside and downside) scenarios.

38. It is possible that some of the above principles are already reflected in HAL's business planning practice. Our guidance will thus be an opportunity to formalise the existing good practice and identify the areas towards which HAL will have to direct its biggest effort.

### **How might business plan incentives work?**

39. We propose to sharpen the existing incentives and consider designing new ones to motivate HAL to issue a high quality plan.
40. Our analysis of how this has worked in other sectors reveals that regulators have identified different types including reputational, procedural, administrative and financial incentives.
41. In the 2014 RIIO-ED1 review, Ofgem introduced financial incentives in the form of additional revenues. Financial incentives for "enhanced" companies, in terms of greater proportion of retained profit from cost outperformance, were also considered by Ofwat.
42. Our current view is that no form of incentives should be ruled out at this stage of the H7 price review and we would very much invite stakeholders' view on this. We currently see a stronger case for some types of incentives over others.
- Financial incentives may be difficult to include given the lack of comparators on which to make an objective assessment.
  - By contrast, we see considerable scope for reputational incentives to play a major role. Our view is that the regulator's assessment of the quality of a business plan of a company has immediate impact on a wide array of industry stakeholders, including executives and investors. Moreover, we could involve the CCF in strengthening those, and ask them to formally report on (a) how well HAL has engaged with them; (b) how well their views have been reflected in the plan; (c) their overall assessment of the quality of HAL's plan.



Following CE, airlines will also be invited to formally provide their views on the quality of the plan.

- We are also interested in the pros and cons of administrative incentives for example by offering to complete the CE process more rapidly than we otherwise might, provided we assess the business plan is high quality, particularly if this view was endorsed by the airlines and the CCF.
- Finally, we consider that procedural incentives may also have a role to play for example a high-quality business plan could result in a more focussed, light touch scrutiny limited to the high-risk areas and/or key areas of disagreement, rather than providing the type of holistic and detailed assessment we have carried out at previous reviews.

43. Expanding on the concept of reputational incentives, there may also be considerable merit in setting explicit requirements to ensure that HAL's Board takes full ownership of the plan. This would enable us to increase the Board's accountability for the development of the plan and the achievement of the plan's outcomes.
44. Other regulators have also been focussing on the role of effective corporate governance in fostering accountability and transparency. For example, Ofwat introduced a requirement for each company's whole Board to issue a statement and provide assurance on its strategic leadership and on the quality of the plan. Both Ofwat and Ofgem also required the companies to have regard to the reporting standards set in the UK Corporate Governance Code.
45. We acknowledge that there may already be a high degree of involvement by HAL's Board in developing and approving the business plan presented to the CAA. Nonetheless, we consider there may be merit in formalising procedures that are already in place.
46. Our current view is that a requirement for a Board statement would be a significant enhancement to the H7 price review. In particular, we would expect the Board to certify and demonstrate that the company has put

effort in to develop the best possible strategy for the achievement of the outcomes, and not simply assert confidence in the plan. We are also considering setting an additional requirement for the HAL Board to present the plan to the CAA Board.

47. We intend to provide HAL with full certainty over the incentives to deliver a high quality plan, so we will finalise our position on the incentives in the September “Policy Update”.

### **Summary of current thinking**

48. We provisionally propose that:

- The regulatory regime should incentivise HAL to produce a high quality business plan, which is reflective of what consumers’ value, and is informative, accurate and well-justified;
- Airlines should be involved in the development of the business plan at key stages of the process;
- We will issue further detailed guidance on the principles of what would constitute a high quality business plan and on the content areas that the plan should cover;
- Although stakeholders will have the chance to engage to discuss the incentives, the whole process should be driven by strong reputational and procedural incentives. We intend to consider administrative incentives and currently see that financial incentives may not be appropriate; and
- HAL’s Board should acquire greater ownership of the plan through an assurance statement and a presentation to the CAA Board.

## **Section 3**

### **Wider incentive framework**

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49. More generally, incentives play a central role in the effectiveness of regulation. Incentives can be established to encourage or discourage a range of behaviours, outputs and outcomes. Incentives can be wide

ranging and can cover anything that encourages the company to pursue a particular course of action.

50. An important element of H7 will be to consider the role that incentives should continue to play in the price setting process and the ongoing course of regulation. In general terms, we want HAL to face strong incentives to properly understand what consumers' value from the airport experience and to provide this at the lowest possible cost. In addition to the incentives we place on the airport in terms of delivering consumer outcomes and a high quality business plan, we also will consider the wider incentives that are at play. This section considers the merits of totex, pain and gain sharing, and funding for innovation. There may be other incentives we should examine further, and we welcome all stakeholder views on these.

### **What is totex?**

51. This section considers the option of using totex during H7, in place of the current separation of capital and operating expenditure (capex and opex). Capex and opex are two of key 'building blocks' we use to determine the airport's required revenue, and thus the maximum level of airport charges to be recovered from users over the regulatory period.
- Capex generally relates to the costs involved in the renovation, renewal and enhancement of assets used to provide services to existing and future customers. Capex costs are recovered by HAL over the useful life of capital (approximately 20-25 years on average) through depreciation and through the airport earning a return on capital.
  - Opex relates to the costs involved in the day-to-day activities of the airport. Opex is recovered in the year in which it is predicted to be spent.
52. In the UK, Ofgem and Ofwat have moved away from the distinction between opex and capex to base their regulatory assessment on the

combined total of opex and capex (which is known as totex). The totex approach used has three important components:

- **Totex benchmarking:** Ofgem and Ofwat have tried as much as possible to benchmark between companies at a totex level when assessing the efficiency of company expenditure;
- **Totex incentives:** regulators have used totex to equalise the incentives on expenditure. Under the capex and opex approach, under- or over-spend by companies has different impacts, and thus a regulated company has different incentives when it comes to cost efficiency of its capital and operating expenditures. Using totex allows regulators to set the rate (typically 50% of under- or over-spend) companies will receive, where they under- or over-spend for any type of efficient expenditure; and
- **Totex cost recovery:** the differences in how capex and opex costs are recovered by companies may lead to a bias in expenditure. By setting the rate of cost recovery as a proportion of totex, and thus no longer linking it to explicit capex or opex, the incentive on capital or operating expenditure are equalised. A simple example this may be where capital expenditure is incurred to replace an asset whereas the optimal solution might be to incur opex to maintain the asset for longer. Capex is added to the RAB, and then a return is earned on this investment over the regulated period. Conversely, opex is recovered in the year it is spent. Using totex as a measure means the different capex and opex recovery incentives are equalised, and therefore in this example, the company should no longer prefer capex intensive solutions over opex i.e. the regulatory regime makes the company indifferent as to the choice of expenditure it incurs.

### **What are the pros and cons of a totex approach?**

53. We consider that there may be a number of benefits of a move to a totex approach:

- The use of the totex measure has been designed to reduce the scope for gaming by companies, which capex and opex may be susceptible to;
- Improving the incentives around expenditure may also improve engagement between airlines and the airport, as the perception that the regulatory regime distorts the incentives on the parties may be reduced. Thus, a move towards totex could potentially benefit discussions during Constructive Engagement particularly with respect to the development of the airport's business plan;
- A totex approach should in theory better reflect the whole-of-life cost of an asset. Considering a more holistic view of asset investment means that trade-offs between expenditure in one cost category that facilitate efficiency in another category may be captured, increasing the efficiency of the airport and thus benefiting consumers;
- Totex may facilitate a greater diversity of approaches to investment. For example, the use of new technology, such as automated bag drop facilities, which may be both capex and opex intensive initially, but result in opex efficiencies over the longer term, can be compared to different solutions more simply; and
- In other regulated industries, a further benefit of totex may be that it simplifies regulation, through facilitating a single efficiency assessment, or a more simple incentive regime overall (albeit the initial change to the new approach may come with high learning costs).

54. In addition to the potential pros of totex outlined above, there are likely to be potential disadvantages:

- Totex may be complex and difficult to implement, for the regulator, the airport and airlines. Adopting a new approach may imply significant learning costs as both the regulator and companies invest in increasing their understanding of totex as a measure;
- There are few examples of totex being practically used internationally and while both Ofgem and Ofwat have switched to using totex in recent price controls (2014 and 2009, respectively), it

may be premature to conclude whether the use of totex has achieved the beneficial results anticipated, or draw lessons from other regulators in implementing totex; and

- Changing the approach for expenditure at HAL while it may also be delivering new runway capacity could be quite risky, given the new approach is untested.

## How might totex work for H7?

55. In considering that there may be some benefits offered by the adoption of a totex approach, we have also considered the application to HAL specifically:

- As outlined above, one of the key reasons that other regulators have given for implementing totex is that it equalises incentives that result from the different ways capex and opex costs are recovered. In the airport case, we are very keen to understand the evidence base for whether similar incentives are created through our approach to regulation. This may be due to the differences in the sectors - for example expenditure at airports tends to be lumpy, with less frequent but large investments (such as a new runway or terminal), whereas energy and water networks typically involve more regular investment expenditure at predictable levels (with capital maintenance being a significant proportion of works).
- There may be specific benefits as a result of totex if HAL is approved for a third runway. Potential benefits may include the ability of HAL and us to sculpt depreciation through the cost recovery rates, and thus assist HAL with financing, or incentivise capacity being brought forward). However, a totex approach is not strictly necessary to achieve these benefits, as depreciation could also be sculpted in other ways to deliver such benefits.
- The totex approach seen in other sectors would require adaptation to be compatible with the current core and development cost approach for HAL.

56. In summary, we consider that there are a variety of pros and cons from adopting a totex approach at Heathrow. We would like to understand in more detail any evidence on whether the problem of distorted incentives exists at HAL, and whether it is sufficiently significant that a totex approach should be considered. We would also like to understand stakeholder appetite to explore these issues further as part of H7.

### **Gain and pain sharing / Risk allocation**

57. One of the consequences of a regulatory price cap, is that the revenues a company may earn and the costs that it incur may be driven by factors which are largely outside of the direct control of the company for example construction price inflation, business rates, interest costs, other input prices, demand for the product etc.
58. Ofwat in particular have highlighted this issue, suggesting that high retail price inflation and low interest rates on debt compared to what Ofwat assumed in developing the PR09 price cap meant that companies made gains from external factors.<sup>7</sup> Ofwat considered that given the companies were benefiting from long term monopoly public service assets, they should look to share these gains as they may look to share pains which could also occur.
59. During the most recent PR14 price review, Ofwat asked companies to propose through their business plans how pains and gains may be shared with consumers. Suggestions by companies ranged from passing debt costs beyond certain limits on to consumers in prices, to increasing transparency by producing a pain and gain scorecard over a year.
60. ORR also looked at pain and gain sharing to better align the interests of Network Rail and the Train Operating Companies (TOCs), with the aim of increasing efficiency. ORR suggested that this approach should be a

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<sup>7</sup> Johnson Cox (2013), Observations on the regulation of the water sector. Available: <http://www.ofwat.gov.uk/publication/observations-on-the-regulation-of-the-water-sector/>

stepping stone to bilateral contracts between Network Rail and TOCs, where risk and reward sharing agreements were negotiated commercially.

61. We consider there may be some merit in reviewing the approach to risk allocation. In previous airport operator price reviews, the allocation of risk has generally been assessed by us and not debated extensively through constructive engagement. We would be interested to understand whether there is appetite for industry stakeholders to debate more fully the risk allocation arrangements for H7 for example through the use of general or specific price cap reopeners, use of pass-through, pain / gain sharing mechanisms, cap and collars on the treatment of certain building blocks.
62. Our initial view is that traffic forecasting is a particular area where HAL currently takes volume risk during the control period. However, HAL has a restricted role in influencing traffic. In contrast, business rates were treated as a pass-through in Q6. We invite views on whether the pain/gain share approach should be extended to other areas where HAL's scope to control the outcome is limited. Clearly any alteration to the allocation of risk would have implications for the assessment of the weighted average cost of capital (WACC) which would also need to be carefully considered.
63. We are keen to hear more views from stakeholders on the scope for reviewing the risk allocation arrangements and the potential pros and cons that may result.

## **Innovation**

64. One of the criticisms that has sometimes been made of regulation is that price caps and associated incentives have focused companies on short-term cost reduction. Of course, one of the goals of price cap regulation is to reduce costs, however short-term cost reduction may lead to a company neglecting research and development and hence reducing their ability to innovate, which could lead to higher costs over the longer term.
65. Regulators have tried to address this in recent years by introducing new incentives for companies to behave innovatively. For example, Ofgem currently has an 'innovation stimulus package', which provides partial



funding for innovation projects. Similarly, ORR also set up an allowance in the last price control of Network Rail for a strategic research and development (including innovation) fund of £140m.<sup>8</sup> ORR also introduced a matched-funding financial incentive, whereby each additional pound spent by Network Rail on research and development or innovation is matched in the settlement up to £50m, and subject to similar governance as the innovation fund.

### **Ofgem's innovation stimulus**

Ofgem has introduced two annual Network Innovation Competitions (NICs); one for electricity transmission and one for gas network companies. Through the NICs, companies compete for funding for the research, development and demonstration of new technologies, operating and commercial arrangements. Per annum, up to £81m is available through the electricity NIC, and up to £18m through the gas NIC.

An independent expert panel evaluates bids for funding to projects, supporting the review and awarding of funding by Ofgem. Ofgem seeks to facilitate sharing of intellectual property and lessons learned of these projects, so that innovation benefits are shared across the industry, and ultimately benefit consumers. The funding for these projects has been raised through research and development allowances in Ofgem's recent price controls.

66. We are considering whether we could improve or sharpen the incentives on HAL to act innovatively through similar arrangements. For example, one approach might involve setting aside an allowance for research and development as part of the price review. This allowance could be used to fund innovative projects that may be more difficult to advance through the current business case process because they are untested or new projects. Any unused allowance over the year or regulatory period could be rolled back into reducing charges, thus benefiting consumers. We

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<sup>8</sup> ORR's Final determination of Network Rail's outputs and funding for 2014-19. pp 722 Available: [http://orr.gov.uk/\\_data/assets/pdf\\_file/0011/452/pr13-final-determination.pdf](http://orr.gov.uk/_data/assets/pdf_file/0011/452/pr13-final-determination.pdf)

consider that sufficiently strong governance arrangements could be set in place to manage potential risks, for example research and development funds are used for projects that would have progressed in the absence of such a fund. Specifically, we consider that there would be an important role for airline oversight through Constructive Engagement as projects for an innovation fund are identified.

67. However, in considering whether we should create similar arrangements, we need to judge whether there is sufficient justification for such an approach in the aviation industry where the considerations may be quite different from those in other regulated sectors. We consider that there may be a higher degree of spillover of ideas between airport operators than might be observed between network utilities. This spillover may be aided to a certain extent by potential competitive tension between airports which is not observed in regional monopoly businesses. It may be that this spillover is sufficient to ensure new ideas are being implemented by HAL without the requirement for intervention by the regulatory regime.
68. In addition to understanding stakeholder views on the need for a sharper incentive on HAL to consider innovation, we would also like to understand views on whether ring-fencing funds for innovative projects is an appropriate approach.