

Economic regulation of Heathrow Airport Limited: working paper on Q6 capital expenditure and early expansion costs

CAP 1996

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About this document

This working paper discusses our treatment and assessment of two categories of historical capital expenditure (“capex”) incurred by Heathrow Airport Limited (“HAL”):

- capex incurred during the Q6 price control period, and our *ex post* assessment of its efficiency; and
- early expansion costs relating to the work to develop a planning proposal for a third runway at Heathrow airport.

In relation to the Q6 capex review, this working paper covers:

- an overview of stakeholder responses received to our September 2020 Working Paper¹;
- an update on the key policy areas; and
- our emerging conclusions from this review.

In relation to early expansion costs, this working paper provides:

- an update on our policy; and
- our assessment of costs incurred by HAL before March 2020.

Views Invited

We welcome views on any of the issues raised in this working paper.

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

We expect to publish the responses we receive on our website as soon as practicable after the period for representations 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 Alex Bobocica (alex.bobocica@caa.co.uk) in relation to early expansion costs or Mantas Aleksa (mantas.aleksa@caa.co.uk) in relation to the Q6 capex review.

¹ See Appendix B: Glossary for further details.

Introduction and summary

Context

1. HAL's capex is a key element in setting airport charges, as it feeds through to HAL's regulatory asset base ("RAB") and so into airport charges (through a regulated return and depreciation on the capital invested). It is also essential that HAL invests efficiently to provide an appropriate quality of service and, where appropriate, new capacity. Previous CAA consultations² have discussed the treatment and assessment of two categories of historical capex:
 - early expansion costs; and
 - capex incurred during the Q6 price control period.
2. For both these categories, the regulatory treatment of this expenditure includes the assessment of efficiency by a process of *ex post* efficiency reviews.³ These involve an assessment of a sample of relevant capex to determine if there is evidence that the expenditure was incurred inefficiently. We will use this assessment to inform our decision on possible RAB adjustments for both categories of capex.
3. Our assessment of both categories of spending has shown that assessing the efficiency of HAL's capex projects can be challenging. It is often not straightforward to:
 - quantify inefficiency, including because there are limited clearly relevant benchmarks;
 - judge the appropriate scale of the appropriate regulatory dis-allowances (if any); and
 - be clear that projects (or project development activities) are not being judged with the benefit of hindsight.
4. As we explained in the September 2020 Working Paper, we also remain of the view that it is important to continue our work on developing new forward looking (or *ex ante*) incentives for capital efficiency for the H7 price control period. We

² The June 2020 Consultation covered early expansion costs, and the September 2020 Working Paper covered our approach to reviewing the efficiency of HAL's Q6 capex.

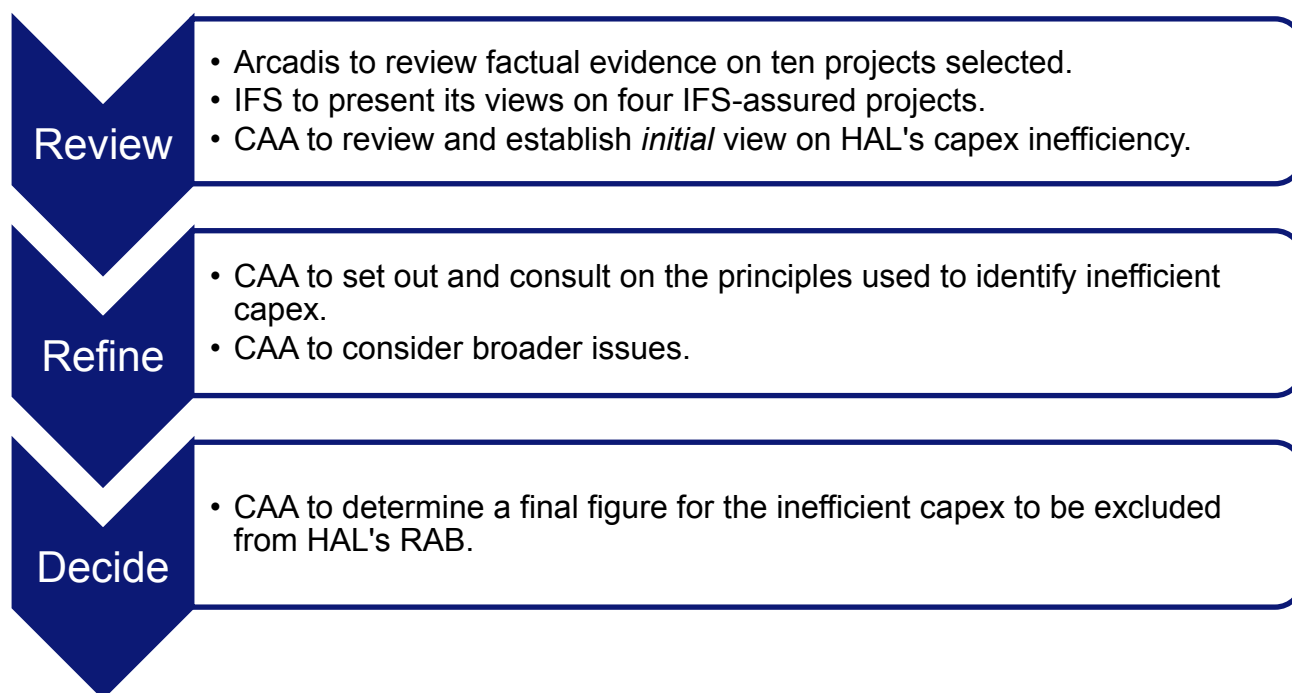
³ The assessment of early expansion costs also includes reviewing whether the costs submitted by HAL are correctly categorised as expansion costs (versus "Business as Usual"). Our assessment approach for early expansion costs is explained in more detail in chapter 4.

provide further details of our developing policy on incentives for capital efficiency in the Way Forward Document, which is published alongside this document.

5. We recognise the stretch on resources that HAL, airlines and other stakeholders are currently experiencing. This working paper includes background information on our detailed assessment of early costs. While this ensures a high level of transparency in our approach, we recognise that some stakeholders may appreciate a more focused discussion of key issues. Bearing this in mind, we are very happy to present our approach to stakeholders and explain key issues.
6. Please contact Alex.Bobocica@caa.co.uk or Mantas.Aleksa@caa.co.uk if you would find it helpful to discuss the material in this working paper. We will also engage further with HAL and airline stakeholders to help finalise our approach to both reviews during the remainder of 2021.

Q6 capex review

7. In the September 2020 Working Paper, we reviewed ten of HAL's capex projects that were completed or were in progress during the Q6 price control. We also considered a number of broader issues around the delivery of HAL's wider capex envelope during this period.
8. In this paper, we provide an overview of stakeholder responses received to the September 2020 Working Paper as well as an update on the key policy areas and our emerging conclusions.
9. The current regulatory framework for capex includes an *ex post* review for the Q6 period, so that expenditure is subject to an efficiency assessment at the end of the price control period. Any capex that is determined to be inefficient under this assessment may be "disallowed" from HAL's RAB and, therefore, excluded from the calculation of airport charges for the following ("H7") price control. The current framework also has other features designed to encourage capex efficiency, such as airport/airline engagement on capex and the work of the Independent Fund Surveyor ("IFS").
10. Our high-level approach to the Q6 efficiency review remains as set out in the September 2020 Working Paper. This is summarised in Figure 1 below. This update focuses on the "Refine" and "Decide" stages.

Figure 1: Proposed Q6 capex adjustment framework

Source: CAA

11. The September 2020 Working Paper sought stakeholder views on the following main issues:
- our use of the DIWE framework⁴ for assessing the efficiency of projects;
 - the evidence relating to the Cargo Tunnel project and our approach to identifying an initial estimate of inefficient spending on this project;
 - the differences between the issues raised by our review of the evidence on the Main Tunnel project and the overall conclusions reached by our consultants, Arcadis;
 - our view that any concerns relating to Terminal 3 Integrated Baggage (T3IB), Terminal 5 Western Baggage Upgrade (T5WBU) and the six non-IFS projects reviewed (representing approximately 65% of the total spending assessed, based on the last approved budget) were insufficient to warrant a finding of inefficiency using the DIWE criteria; and

⁴ See, for example, UREGNI's guidance "Guidance on the interpretation and application of the Demonstrably Inefficient or Wasteful Expenditure (DIWE) Provision", 27 July 2017: <https://www.uregni.gov.uk/sites/uregni/files/media-files/Guidance%20on%20the%20interpretation%20and%20application%20of%20Demonstrably%20Inefficient%20or%20Wasteful%20Expenditure.pdf>

- broader issues relating to the delivery of the Q6 capex envelope, including (i) the possible extrapolation of findings on the projects we reviewed in detail to make further adjustments for inefficiency across HAL's capex programme (ii) capital overheads and (iii) the wider issues identified by the Transport Study.

Summary of this policy update

12. This paper confirms our earlier view that the evidence we have suggests inefficiency in the Cargo Tunnel project. On the basis of Arcadis' previously identified range for the level of this inefficiency (between £0 to £12.7m), we consider that the level of inefficiency is at the upper end of this estimate (representing approximately 28% of historical spending for this project). We have also considered the additional evidence that was submitted by HAL in relation to questions raised by the Transport Study, but do not consider that this justifies changing our estimate of the inefficiency associated with the Cargo Tunnel project.
13. In addition, we propose to continue monitoring both the Cargo and Main Tunnel projects until they are completed and the benefits to consumers are delivered. Once these projects are complete, we may review them again, depending on the final costs of delivery and whether new information emerges on either efficiency or inefficiency. As such, our conclusions on the Main and Cargo Tunnels projects should be considered as interim.
14. We also note that, given both the evidence and the outcome of this review, there may be a benefit in updating the Capital Efficiency Handbook as well as other relevant governance documents. This is in addition to continuing our work on developing new forward-looking incentives for capital efficiency as noted above and in September 2020 Working Paper.

Review of early expansion costs

15. On 27 February 2020, the Court of Appeal delivered its judgment that the Airports National Policy Statement ("NPS") had not been lawfully produced⁵ and then HAL paused its capacity expansion programme. This judgment was appealed by HAL to the Supreme Court which ruled on 16 December 2020⁶ that the Government's decision to designate the NPS had been lawful, reversing the decision of the Court of Appeal. HAL subsequently issued a statement that it will now take the necessary time to consult with stakeholders before taking decisions on what happens next on capacity expansion.

⁵ See: *R (Friends of the Earth) v Secretary of State for Transport and Others* [2020] EWCA Civ 214.

⁶ See *R (on the application of Friends of the Earth Ltd and others) (Respondents) v Heathrow Airport Ltd* (Appellant). <https://www.supremecourt.uk/cases/uksc-2020-0042.html>

16. This working paper provides an update on our policy in relation to early expansion costs, and on our initial assessment of the efficiency of costs incurred by HAL before end of February 2020. Our policy covers whether HAL can add efficiently incurred costs to the RAB, the return HAL can earn on those costs and the timing of any RAB additions. Our assessment focuses on whether costs were efficiently incurred and the quantum of costs that can be added to the RAB, in accordance with the rules established by our policy.
17. Prior to 2020, we issued several consultations on the regulatory treatment of early expansion costs in relation to both Category B (planning) and Category C (construction) costs.⁷ In the June 2020 Consultation we set out a re-focused and simplified approach for the recovery of early costs incurred before HAL paused its work on expansion (that is, costs incurred before March 2020). The table below provides a summary of these costs.

Table 1: Summary of early costs incurred by HAL between 2017 and February 2020

£m	2017	2018	2019	Jan-Feb 2020 ²	Total
Category B ¹	78	118	167	21	384
Category C	6	11	71	21	109
Total	84	129	238	42	493

Source: HAL data.

¹ Category B costs for 2017 and 2018 are not in the scope of our review as part of this working paper; they have already been reviewed by the Independent Planning Costs Reviewer ("IPCR").⁸

² Jan-Feb 2020 data is based on HAL's internal accounting information.

18. HAL has continued to incur costs associated with the expansion programme after the Court of Appeal's judgment. The costs that HAL has incurred after 1 March 2020 include costs of pausing and demobilising its expansion programme, which we refer to as "wind-down costs", and which HAL has most recently estimated to be in the region of £30m, for the period between March 2020 and December 2020. They also include the costs associated with HAL's appeal against the Court of Appeal's judgement, which HAL has estimated to be approximately £1.1m (incurred between March 2020 and December 2020).
19. In this working paper, we are setting out the following final policy proposals in relation to early expansion costs. These final policy proposals are consistent with the proposals set out in the June 2020 Consultation, including:

⁷ See the December 2019 consultation, the July 2019 consultation, and earlier consultations in relation to capacity expansion.

⁸ See Appendix B of the July 2019 Consultation, and Appendix D of the June 2020 Consultation.

- i. costs incurred by HAL before March 2020 can be added to the RAB at the beginning of 2022, subject to the efficiency review that we are currently undertaking;
 - ii. risk sharing arrangements and recovery caps are no longer appropriate and will, therefore, not apply to these costs; and
 - iii. we will make an allowance for financing costs for costs incurred before March 2020 as follows:
 - a. the Q6 cost of capital of 5.35% for the period up to the end of 2019; and
 - b. the iH7 cost of capital of 4.83% for the period after January 2020.
20. We are also confirming our June 2020 proposal to allow HAL to recover costs incurred in winding down the expansion programme over the course of 2020 and 2021 if relevant, subject to an efficiency review.
21. As HAL is still incurring a small amount of costs in relation to programme wind-down (specifically associated with property purchases), we are not in a position to start our assessment of these costs yet. We will confirm in due course the timing and process for this assessment.
22. We also set out the findings from our initial assessment of early expansion costs incurred before March 2020 (see chapter 4). This assessment identifies areas where HAL has yet to provide sufficient information to support its view that costs have been efficiently incurred. If HAL does not provide appropriate further information and evidence in relation to these matters, then it is likely that we would reach a finding of inefficiency. In these circumstances, we would assess and quantify the level of inefficiency based on available evidence. Based on that assessment and quantification, we would then decide whether some of the spend in relation to these areas should be excluded from the RAB at the beginning of H7.

Structure and consultation questions

23. This working paper is structured as follows.

Q6 capex review

- Chapter 1 outlines stakeholders' feedback to the September 2020 Working Paper and provides an update to our policy.

Review of Early expansion costs

- Chapter 2 sets out our final policy on Category B and early Category C early expansion costs incurred before March 2020;

- Chapter 3 provides an update on wind-down and Supreme Court appeal costs incurred by HAL during 2020; and
- Chapter 4 sets out our assessment, including findings, of early expansion costs incurred before the March 2020.

24. This working paper also sets out a number of consultation questions, including:

Chapter 1: we would welcome views from stakeholders on any aspect of our work on the Q6 capex efficiency review and in particular:

- our conclusions that the outcome of this review on the Main and Cargo Tunnels projects should be considered as interim;
- our view that, given the information currently available on the inefficiency attributable to HAL in the Cargo Tunnel project, the adjustment to HAL's RAB should be at or towards the top of Arcadis' previously identified range of £0 to £12.7m; and
- our view that the Capital Efficiency Handbook (and other relevant governance documents) would benefit from being updated in the light of the conclusions of this review.

Chapter 3: we welcome views on our approach to allowing the recovery of HAL's early costs incurred after March 2021, including our proposal to carry out an efficiency assessment later this year, and on any other issues raised in the chapter.

Chapter 4: we welcome views on any aspect of our approach to the efficiency assessment of early costs and in particular:

- the initial findings of our review of Category B and Category C costs, including in relation to the findings of potential inefficiency;
- the cross-cutting issues we have identified and any implications of these for our assessment of efficiency; and
- whether there is any additional evidence we should consider in relation to our initial findings.

Chapter 1

Update on the Q6 capex efficiency review

Introduction

- 1.1 This chapter provides an update on our work on the efficiency review of HAL's Q6 capex. In particular it:
- sets out the feedback we received to the September 2020 Working Paper on the DIWE framework and our conclusions on these matters;
 - discusses stakeholders' feedback on a sample of Q6 capex projects and updates our assessment of them. We also set out our views on a number of related policy areas; and
 - summarises our main decisions, further recommendations and seeks views on key issues.

The DIWE framework

Stakeholder responses

- 1.2 We received eight responses. Two of these responses were from the airline community (LACC/AOC and British Airways), one from HAL, three from campaign groups with an interest in capacity expansion and two from individuals who are affiliated to campaign groups. Campaign groups that responded were Richmond Heathrow Campaign, No 3rd Runway Coalition and Heathrow Hub Limited.
- 1.3 BA's response supported the introduction of the DIWE criteria and agreed that HAL cannot "contract out" responsibility for project delivery. However, it also said that the introduction of the DIWE framework would "inadvertently" shift the burden of proof, so capex would be deemed efficient unless shown to be inefficient. BA went to say we should consider the approach to the DIWE framework that had been adopted by Northern Ireland Authority for Utility Regulation (UREGNI).
- 1.4 AOC/LACC noted that the Capital Efficiency Handbook (especially the efficiency aspects of it) should have been given greater consideration in our review. They also said that their approval is subject to all relevant projects following the capital governance process.
- 1.5 Campaign groups broadly supported our overall approach. However, the 3rd Runway Coalition noted that the framework could be further strengthened by placing the onus on HAL to prove that capex was efficient in the first instance.

- 1.6 HAL was concerned that we had moved from our established processes for assessing capital efficiency that were agreed at the start of Q6, by introducing the DIWE framework now. It noted that the DIWE framework should only be applied from a time when it would be reasonable for HAL to have understood the framework and developed a compliance strategy.

Our views

- 1.7 We explicitly considered the merits of using the DIWE principles and compared them to the principles in the Capital Efficiency Handbook in the September 2020 Working Paper. We highlighted that the DIWE approach:
- provides an explicit, structured set of criteria for the *ex post* assessment of the efficiency of capex projects, accepted across regulated sectors and recognised independently as good practice by CMA;
 - builds on the current framework described in the Capital Efficiency Handbook; and
 - explicitly recognises that HAL cannot contract out responsibility for project development and delivery, so that inefficiency by one of HAL's contractors on a project is treated in the same way as inefficiency by HAL's own personnel.
- 1.8 On the question of whether we should assume that capex is efficient unless demonstrated otherwise, and the approach used by UREGNI, we reiterate that we are adopting an approach endorsed by CMA in the context of its work on NERL, rather than applying the approach implemented by UREGNI (which was specific to the arrangements applicable at the time for System Operator for Northern Ireland (SONI)).
- 1.9 Bearing in mind the similarities in approach to the Capital Efficiency Handbook, the wider advantages of the DIWE framework and the precedent established by the CMA, we will not be making further changes to our use of the DIWE approach.

The assessment of individual projects

Cargo Tunnel

- 1.10 Each of BA and AOC/LACC noted that our conclusions on the Cargo Tunnel project should be interim and finalised only upon the projects' completion. BA also noted that all spending to date should be disallowed as inefficient, while AOC/LACC added that the top range of inefficiency should not be capped at £12.7million. The 3rd Runway Coalition said that all £12.7million of inefficiencies identified by Arcadis should be disallowed from HAL's RAB.
- 1.11 By contrast, HAL considered that it had managed the project proactively and that there was no evidence that it had contributed to any inefficiency. It also added that hindsight should not be used to examine decisions that were right for the

moment when they had been made and had been taken after consultation with stakeholders.

Our views

- 1.12 Given the materiality of this project (the latest forecast total cost is around £200m) and the current and past issues identified, our conclusions on the Cargo Tunnel should be regarded as interim. We propose to continue monitoring the project throughout its delivery through various governance forums and the reports released by IFS. Once the project is complete, if there is substantive new evidence relating to efficiency or inefficiency, we may decide to conduct a further assessment of this project.
- 1.13 We remain of the view that the range derived by Arcadis for the estimates of inefficiency remains appropriate and proportionate. In the September 2020 Working Paper, we noted that the project faced several delivery issues including a lack of alignment between budget and solution, a lack of reporting on final cost, and that there was no ongoing review of the schedule. In addition, the project is currently paused and going through a re-planning process. Taken together these factors suggest some of the costs incurred to date are likely to be inefficient.
- 1.14 In the September 2020 Working Paper, we noted the Arcadis' view that the cost of £12.3m incurred as part of surveying, design and planning works is the main element of inefficient spending, and the further inclusion of "stand back review" costs of £0.5m (that is, reassessment of the project requirements, benefits and business case) represents additional inefficient spending. We note also:
- the airlines' view that all of the sunk cost on the project of around £40m could be considered inefficient; and
 - an update provided by HAL in a January 2021 airport-airline governance forum (Capital Portfolio Board), that some of the historically incurred costs on this project related to design packages, materials and other costs are likely to be written off/impaired by HAL in future.
- 1.15 On the basis of the evidence and our analysis, we consider that the level of inefficiency could lie in the upper part of the £0 to £12.7m range proposed by Arcadis, with any expected adjustment to be made to HAL's RAB likely to lie in the range £12.3m - £12.7m. This figure also takes account of the significant cost over-runs and other difficulties associated with this project. We have also considered the evidence submitted by HAL in relation to the Transport Study (which is covered in greater detail later in this Chapter). In summary, this supports us in continuing to take a proportionate approach to our estimates of inefficiency and does not justify either increasing or decreasing the estimate of project specific inefficiency.
- 1.16 As noted above and in the September 2020 Working Paper, we consider that, as the project is not yet complete, this finding should be treated as interim. Once the

project is complete (or not later than end of H7 to provide a backstop date in the case of further delays) HAL should have an opportunity to make the case that the spending is efficient, and we will consider whether there is further information on over-runs or inefficiency.

- 1.17 In summary, our present intention is for an adjustment to the H7 opening RAB in the range £12.3m - £12.7m (based on Arcadis' previously identified range), but we do not rule out further adjustments for this project once information is available on its final cost.

Main Tunnel

- 1.18 Airline respondents broadly consider that the Main Tunnel project meets the requirements for identifying inefficiencies. In particular, AOC/LACC noted that the CAA should consider further issues in relation to this project as part of its efficiency review, including:
- overspending against the budget;
 - late timing of HAL's realisation and reporting of the issues;
 - significant delays; and
 - poor supplier performance.
- 1.19 BA stated that it would have expected both Tunnel projects to have been delivered to the previously agreed scope and price. Some other respondents had similar views to airlines. For example, Heathrow Hub noted that it is difficult to reconcile the evidence in Arcadis' report with their conclusions that the project was "efficiently delivered".
- 1.20 HAL expressed surprise that we had requested further evidence and views on this project. It considered that the process in developing our initial conclusion had not been transparent given the evidence it had previously provided. It also noted that airlines wanted more competition between contractors for construction projects at the airport and so it had been a background consideration in determining its contracting strategy with respect to this project. Overall, HAL agreed with Arcadis' view that it did not contribute to any capital inefficiency.

Our views

- 1.21 In response to the September 2020 Working Paper we have received relatively little additional factual evidence on the Main Tunnel project. We also note the continuing differences of opinion between Arcadis and the views of each of the airlines and HAL.
- 1.22 Having reviewed all the evidence and views provided by Arcadis, airlines, HAL and other respondents, we do not consider that, at present, there is sufficient evidence of inefficiency to disallow any of the capex incurred on this project.

However, as with the Cargo Tunnel, we propose that, once the project is complete (or not later than the end of H7 to provide a backstop date in the case of further delays), if there appears to be new evidence of inefficiency, we would review this project further, noting that stakeholders have identified ongoing concerns on the efficiency of the project as it progresses.

T3IB and T5WBU

- 1.23 AOC/LACC and BA consider that each of these projects display inefficiencies and that these should be considered further. For instance, on the T3IB, AOC/LACC considered that there had been poor planning and resourcing and that HAL had not learned from mistakes it made in Q5. They also took the view that certain elements of spend on that project from Q5 should be reassessed. Concerns were also expressed about the sudden increase in spending of £40m against the budget of £90m. They considered that this demonstrated HAL's failure to adhere to the governance arrangements and is a clear demonstration of inefficiency under the DIWE framework. In addition, Heathrow Hub noted difficulties in reconciling the evidence discussed in Arcadis' report with Arcadis' conclusion on the T3IB project.
- 1.24 HAL, on the other hand, welcomed our view that there had not been inefficiency on the T3IB and T5WBU projects. It also noted that it would not be in the interests of consumers to stifle innovation, by making such a finding on either or both of these project/s.

Our views

- 1.25 Given the absence of additional factual evidence being presented, we remain of the view that the issues with these projects are not sufficient to warrant a finding of inefficiency under the DIWE criteria.
- 1.26 However, we were concerned about the points raised on HAL's compliance with the agreed governance processes. We have requested minutes of relevant meetings from airlines for further review which confirmed that the issue was discussed. Based on this further evidence, and the IFS's findings on Q6, we consider that compliance with the relevant governance was, at times, a problematic issue during Q6, particularly for larger or more complex projects.
- 1.27 We expect that HAL will adhere to the agreed capex governance framework arrangements, both for existing arrangements in iH7 and the updated arrangements for H7. If there are further instances of HAL not adhering to the framework, we would expect to use such evidence in future reviews in forming our views on capital efficiency, where this is an appropriate and proportionate approach.

Non-IFS assured projects

- 1.28 AOC/LACC noted that their key concerns were around the four major IFS assured projects rather than the non-IFS projects. Heathrow Hub questioned details of Arcadis' review, enquiring why HAL had not undertaken a ground condition survey at the design stage on the Northern Perimeter parking project before undertaking any work. On the other hand, HAL welcomed Arcadis's finding that all six projects had been delivered efficiently.

Our views

- 1.29 We note the detailed point raised on the Northern Perimeter parking project. This issue has previously been queried by us with Arcadis, but this did not lead to a change in Arcadis' conclusions that:
- value for money was provided; and
 - this project was adequately managed throughout.
- 1.30 Overall, and having considered stakeholders' responses, we have decided not to consider these projects further and there is insufficient evidence to support a finding that HAL's expenditure was DIWE.

Other issues

Extrapolating our findings across HAL's capex portfolio

- 1.31 BA did not support making adjustments to estimates of inefficiency either by extrapolating the results of sampling or taking account of wider evidence (as discussed further below). HAL by and large agreed that extrapolation of our findings from the small sample of projects is not appropriate.
- 1.32 Having considered respondents' views, and consistent with the approach set out in the September 2020 Working Paper we will not extrapolate the results of our assessments across HAL's capex portfolio.

Capital overheads

- 1.33 Airlines broadly welcomed our views on capital overheads and the need to review this area as part of H7 process. The 3rd Runway Coalition agreed with the key concerns we expressed in this area and noted that this appears to be a device for HAL recouping opex rather than being essential for capex delivery. Richmond Heathrow Campaign Group stressed that these costs should be efficient and that their apportionment and allocation to capex projects should be fully justified.
- 1.34 HAL noted that capital overhead costs will be a topic for ongoing discussion over the coming months, as both the portfolio and the capex incentives are developed.

- 1.35 Having considered the feedback we have received, we confirm our view that we will consider these matters as part of our work on the H7 price control review.

Additional Information

- 1.36 Each of BA and AOC/LACC agreed that the questions we raised in the September 2020 Working Paper on the Transport Study framework appeared sensible and worth considering. However, they each expressed concerns about our willingness to revise the level of disallowed inefficiency downwards should the evidence presented by HAL be considered as “exceptional”.
- 1.37 The 3rd Runway Coalition noted that it is essential that HAL should provide any relevant information it has on significant outperformance and the wider issues raised by the Transport Study or the CAA’s concerns over HAL’s delivery of complex projects.
- 1.38 HAL agreed that the Transport Study framework is a relevant reference point and submitted evidence on the questions raised.

Our views

- 1.39 We have sought advice from Arcadis on the additional evidence submitted by HAL. In particular, we asked Arcadis to review whether the submitted examples of projects and processes that were undertaken by HAL during Q6 were “exceptional” against a range of benchmarks.
- 1.40 In considering this additional evidence, Arcadis’ reviewed the examples submitted by HAL through a “Q6 lens” and not by reference to today’s industry practice. It also considered whether the practices implemented by HAL added value and how HAL delivered these through its projects and the possible impacts in terms of costs savings, time savings or quality improvements.
- 1.41 Arcadis concluded that there is no evidence that HAL demonstrated a very significant outperformance over expected industry practice during the Q6 price control. It also added that HAL’s performance was in line with how other major transport providers (and those highlighted in the Transport Study) have developed their programmes. Many of the practices adopted by HAL were already in use or have been developed by these organisations. In addition, Arcadis’ opinion was that Q6 was no more of an operational challenge than in previous price control periods which saw completion or major progress on projects such as Terminal 5 and T31B. On the basis of this opinion and our own review, we conclude that the additional evidence submitted by HAL in relation the Transport Study is not ‘exceptional’, and no further adjustment is required as a result.

Risk allowances

- 1.42 Respondents raised various points around the treatment of risk allowances. For example, BA noted that, if risks are properly accounted for at the planning stage, the divergence of out-turn costs within the programme as a whole should be normally distributed around a mean. Richmond Heathrow Campaign Group requested for more references to be made to risks and contingency cost management in our document. Similar points were noted in Heathrow's Hub response. In addition, HAL highlighted that projects are priced at the P50 level and not P95 as the latter would not be in the interests of consumers.
- 1.43 Examining the approach to risk allowances has not been a key focus of this review, which has looked for evidence of inefficiency. We will be undertaking further work on risk allowances as part of our work on the H7 price control.

Areas outside the scope of this document

- 1.44 We note that several respondents have raised additional points relating to HAL's third runway scheme and HAL's regulatory framework more widely. These topics fall outside of the scope of this paper and, therefore, are not considered here.

Summary of our main decisions

- 1.45 In summary:
- we will be retaining our proposal to use the DIWE framework as outlined in the September 2020 Working Paper;
 - we have made interim conclusions on the Cargo and Main Tunnel projects. We proposed that once these projects are complete (or at the end of the H7 price control period if this is earlier), if there appears to be new evidence that suggests a greater level of efficiency or inefficiency, we will review these matters further;
 - the evidence currently available suggests inefficiency/a downward adjustment to HAL's RAB in the range £12.3m - £12.7m for the Cargo Tunnel at the start of the H7 price control period i.e. at or towards the top of Arcadis' previously identified inefficiency range of £0 to £12.7m . We are currently not proposing an adjustment for the Main Tunnel;
 - we reiterate the need for HAL to adhere to the existing capex governance arrangements;
 - we are not proposing inefficiency adjustments or to carry out further work on T3IB, T5WBU or the non-IFS projects;
 - we have not made adjustments for exceptional performance in relation to the Transport Study framework; and

- we retain our view that capital overheads are an important area and further work will be carried out as part of H7 price control review.

Further recommendations

- 1.46 We note that the impact of the covid-19 pandemic and associated drop in passenger numbers has led HAL to cancel and/or pause many capex projects. Given the scale of change, we will continue monitoring the situation, but expect HAL to provide structured reporting of its plans and estimates for the portfolio of paused projects.
- 1.47 In addition, based on the outcome of this review, we consider that there are number of issues where we would expect HAL to improve its performance on in H7 price control.
- we remain concerned about HAL's delivery of more complex projects as demonstrated by the issues identified in the Main and Cargo Tunnels projects; and
 - we also note the importance of good planning in the project delivery process and consider that more resources should be devoted to this activity where it is proportionate (and note the concerns expressed by Arcadis that the scope of certain projects lacked appropriate definition at the time HAL entered into contracts with its contractors).
- 1.48 To help address these issues, we consider that the Capital Efficiency Handbook (and other relevant governance documents) would benefit from being updated as part of our work on H7 price control to reflect the lessons learned from this review. We also remain committed to work on improving the capital efficiency incentives for the H7 price control, building on the successful elements of the current framework.
- 1.49 In addition, we note that several capital projects have finished/will finish in 2019-2021, and that there are several projects that will continue in to H7. In line with the discussion in the September 2020 Working Paper, we will consider if there is a case for carrying out further reviews of the efficiency of these projects. For projects that continue into H7, we would expect any further *ex post* reviews to take place towards the end of H7 period. For example, we would consider a further review if the IFS (or other stakeholders) identifies potential inefficiencies with projects delivered during the period.

Views invited

- 1.50 We would welcome views from stakeholders on any aspect of our work on the Q6 capex efficiency review and in particular:
- our conclusions that the outcome of this review on the Main and Cargo Tunnels projects should be regarded as interim;