Consumers and Markets Group

Economic regulation of Heathrow Airport Limited: response to its request for a covid-19 related RAB adjustment – Appendices

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Contents

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 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

Glossary

Acronym/ term	Definition
ADP	Airport operator Groupe ADP, formerly Aéroports de Paris, based in Paris.
ADR	Airport operator ADR Group or Aeroporti di Roma, based in Rome.
Aena	Airport operator Aena SME, based in Spain.
AOC	Airline Operators’ Committee (for Heathrow), a private company limited by guarantee.
AOS	Airport operation services, as defined in section 68 CAA12.
Asset beta	A measure of the perceived riskiness of a company’s assets, taking into account both debt and equity financing, compared to the equity market as a whole.
BA/IAG	British Airways plc/International Airlines Group (owner of British Airways).
Base case	This represents the scenario HAL has presented under its Revised Business Plan under which it assumes it receives the full RAB adjustment requested.
BBU High	HAL’s scenario for H7 constructive engagement with relatively rapid recovery in traffic. See also “Prolonged Contraction”.
bps	Basis points are a unit of measure to describe the percentage change in the value or rate of a financial instrument. One basis point is equivalent to 0.01% (1/100th of a percent) or 0.0001 in decimal form.
CAA (“us”/”we”)	The Civil Aviation Authority.
CAA12	Civil Aviation Act 2012.
Capex	Capital expenditure.
CMA	The Competition and Markets Authority.
Commercial deal or Commercial Agreement	The Agreement entered into between HAL and airlines that applies in 2020 and 2021 and provides for:

	• a "fixed rebate" to all airlines currently operating from Heathrow totalling £260 million, split into two equal payments of £130 million for 2020 and 2021; • a further volume rebate if the number of passengers rises above certain thresholds in 2020 and 2021; • if passenger numbers were to turn out significantly lower than expected, the commercial deal also provides for some downside protection for HAL (in these circumstances the fixed rebate to airlines would be reduced); and • default arrangements for any airlines that did not sign the commercial deal, so that those "non-signatory" airlines would receive an appropriate share of the fixed rebate but would not benefit from the volume rebate. Further details and discussion of the commercial deal are set out in CAP1852, "Economic regulation of Heathrow Airport Limited from January 2020: notice of licence modifications". See www.caa.co.uk/CAP1852.
Commercial revenues	Revenues HAL derives from services to passengers, such as retail, food and beverage, *bureaux de change*, advertising, car parking and car rental, or from services to airlines, check-in desks, office rental, airline lounges and warehousing.
Constructive engagement	The process for engagement between HAL and its airlines customers as part of the H7 price control process.
Consumers	As defined in CAA12, consumers are passengers and cargo owners, both now and in the future.
Covid-19	Coronavirus disease 2019.
Deprecation holiday	A period over which regulatory depreciation is included in aeronautical charges but not removed from the RAB.
Equity beta	A measure of the perceived riskiness of a company's equity compared to the equity market as a whole. Entities with an equity beta of less than one are considered less risky than the market as a whole, while a beta greater than one indicates that the investment is considered more risky than the market as a whole.
ERA	Economic regulation agreement, for ADP.
ex ante	Based on forecast data/before an event.
ex post	Based on actual data/after the event.

Financing platform	The "whole business securitisation" funding arrangements used by HAL to raise debt finance. Details of the arrangements comprising HAL's financing platform can be found at: https://www.heathrow.com/company/investor-centre/offering_related-documents.
Gearing	Ratio of a regulated company's debt to its RAB.
H7	The next HAL price control that we assume will be in place from 1 January 2022. If set for the usual five year period, this will run for the years 2022 to 2026.
H8	The next HAL price control period after H7. If H7 is set for the usual five year period, H8 will start from the year 2027.
HAL	Heathrow Airport Limited, the licence holder and operator of Heathrow airport.
Heathrow Finance Plc	A holding company of HAL, which owns and operates Heathrow airport.
IBP	HAL's "Initial Business Plan" for the expansion of Heathrow Airport. The IBP was provided to the CAA in December 2019 and was prepared in the expectation of a 3rd runway being built.
IdoK	Interim determination of the K factor, a regulatory tool used in the UK water sector.
iH7	Interim H7 price control. Runs from 1 January 2020 until 31 December 2021.
LACC	London (Heathrow) Airline Consultative Committee, set up by IATA to implement a collaborative consultation framework for Heathrow airport.
NERL	NATS En Route plc.
No adjustment scenario	This represents the scenario HAL has presented under its Revised Business Plan under which it assumes it receives no RAB adjustment will be made.
Opex	Operational expenditure.
ORCs	Other Regulated Charges.
PCM	Price Control Model.
Prolonged Contraction	HAL's scenario for the constructive engagement process with airlines which includes a much slower recovery in traffic. See also "BBU High".
Q4 or Q4 price control	The "Q4" price control was the price control for the period from 2003 to 2008. See for example CAA decision document covering Q4 price control available online:

	https://webarchive.nationalarchives.gov.uk/20140605063754/https://www.caa.co.uk/default.aspx?catid=78&pageid=1182.
Q5 or Q5 price control	The "Q5" price control is the price control for the period from 2008 to 2014. See for example CAA decision document covering Q5 price control available online: https://webarchive.nationalarchives.gov.uk/20140605060146/http://www.caa.co.uk/docs/5/ergdocs/20090313StanstedPriceControl.pdf.
Q6 or Q6 price control	The "Q6" price control is the price control for the period from April 2014 to end of December 2018, the approach to which has subsequently been successively extended to cover 2019-2021. For the Q6 final decision, see www.caa.co.uk/cap1138.
QoS	HAL's quality of service, which is regulated through the SQRB scheme in its licence granted under CAA12.
RAB	Regulatory Asset Base.
RAR	Regulated Asset Ratio, defined as the ratio of HAL's debt to its RAB. The Group RAR refers to the ratio of the level of debt held at Group level to the RAB.
RBP	Revised Business Plan.
RoRE	Return on Regulatory Equity, which is a measure of the expected return on the portion of the RAB financed by equity.
Spread (also "bond spread")	The difference between the yield on a corporate bond and the yield on a risk-free security such as a government bond.
SQRB	Service quality rebates and bonuses, a scheme of incentives within HAL's current price control in its licence granted under CAA12.
Star Alliance	An airline alliance with 26 member airlines.
TRS	Traffic risk sharing mechanism.
United	United Airlines.
VAA/Virgin	Virgin Atlantic Airways.
WACC	Weighted Average Cost of Capital.
WTP	Willingness to pay survey.

Appendix C

The impact of the covid-19 pandemic on the cost of equity

Introduction

C1 As we have explained in the main document, it is important to consumers that there are no undue increases in the cost of financing HAL's regulated activities because this would tend to lead to higher airport charges in the future. An important component of HAL's financing costs is the cost of equity finance. This appendix:

- describes information that HAL has provided on these matters (in particular beta values and risk); and
- sets out our initial assessment of this information.

Appendix D deals with related matters, including HAL's arguments that there should be certain limits on the risks that HAL's equity investors bear.

HAL view

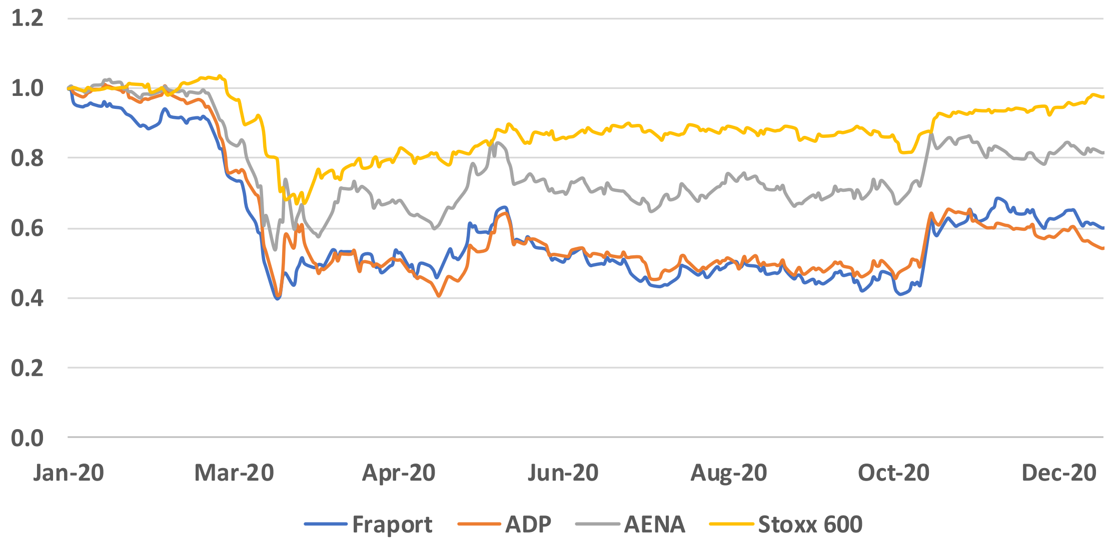
C2 In its response to the October 2020 Consultation, HAL has presented an estimate of the impact of the covid-19 pandemic on the cost of equity in the absence of any intervention by the CAA.[1] HAL estimates that the covid-19 pandemic has increased HAL's asset beta by 0.38 and contributed to an increase in its post-tax cost of equity from 8.30% (IBP) to 16.79% (RBP). It further estimates that the RAB adjustment would reduce the impact of the covid-19 pandemic on the asset beta by 0.16 and on the real, post-tax cost of equity by 3.14% to 13.65%.

[1] HAL (2020), "Economic regulation of Heathrow: response to its request for a covid-19 related RAB adjustment (CAP1966): Heathrow's response", November, paragraphs 249 to 251.

CAA assessment

C3 We agree with the premise of HAL's assessment that, absent any intervention by the CAA, investors' required returns could increase, potentially significantly. At the same time, HAL's estimate could be seen as towards the upper end of the plausible range of estimates. For example, under HAL's analysis, if the covid-19 pandemic were assumed to be a one in 100-year event, the increase in the asset beta would be only 0.14. In addition, it is not clear that investors would reflect the full impact of the crisis in an increase in the asset beta: investors may consider some of the impact of the crisis can be mitigated by holding a diverse portfolio of assets[2]. This is particularly the case given that stock returns have exhibited a noticeably different dynamic from airports' equity returns, as is shown in Figure 1 below:

Figure 1: Relative performance of airport share price and the Stoxx 600 (price at 1 Jan 2020 rebased to 1.0)



Source: Eikon, CAA analysis

C4 Nonetheless, we consider that it is plausible that HAL's cost of equity will increase in the absence of any regulatory intervention, and that this increase

[2] CAPM assumes that investors only require compensation for the systematic or non-diversifiable component of total risk. Therefore, under CAPM, the proportion of the increase in return volatility that is diversifiable will not be reflected in the beta. Only the non-diversifiable proportion of the increase in return volatility will be reflected in beta. It is difficult to robustly estimate the proportion of return volatility that is diversifiable, but this is likely to be below 100%.

could be quite significant. The extent of the increase is unclear and depends on a number of variables that are difficult to measure robustly. These include, in particular:

- how frequently investors expect crises of similar magnitude to recur; and
- the extent to which investors expect the impact of such crises to be mitigated by holding diverse portfolios of assets.

C5 We noted in the October 2020 Consultation[3] that traffic risk sharing (“TRS”) was, at that time, being considered as part of constructive engagement between HAL and airlines on HAL’s RBP. The form and calibration of any prospective TRS mechanism has yet to be developed as part of the H7 price control review. We nonetheless consider that an appropriately specified TRS mechanism could fully or partially mitigate any increase in the cost of equity due to the impact of the covid-19 pandemic.

C6 In its response to the October 2020 Consultation, HAL disagreed that a TRS mechanism would substantially mitigate the increase in the cost of equity it had estimated. In paragraph 60 of its response, it said:

> “*A potential approach to H7 the CAA may consider is to propose a mechanism to reduce risk for H7 onwards, without making the adjustments that the mechanism would imply for 2020 and 2021. We consider that such an approach would have no mitigation impact on investors’ perception of risk because of the impact on regulator credibility. This is because a failure to implement any adjustment in the current truly exceptional circumstances would lead investors to believe that, in practice, regulators would avoid making any such an adjustment in future - irrespective of the specified mechanics. Even were the mechanism to be tightly prescribed with no scope for regulatory intervention, investors would worry about regulators taking other steps to counter the mechanism. Put simply, if a regulator with the explicit power to act cannot act in the midst of at the greatest crisis aviation has ever seen and the*

[3] CAP1966, Paragraph 3.5.

greatest deviation from settlement assumptions ever seen, then it lacks the credibility to act at any point [in the?] future."[4]

C7 In support of its view, HAL has commissioned a paper by Economic Insight[5] to examine whether there is

"*Evidence that specifying a mechanism to reduce risk in the next price control (i.e., a new ex-ante mechanism), as currently being considered by the CAA, in the absence of adjustments for historical performance in 2020 or 2021, would have no impact on investors' perceptions of risk (or more broadly, that this ex-ante approach would be inferior to acting 'now', as HAL requests)*".

C8 To reflect the possibility that a TRS mechanism would be insufficient on its own to mitigate the increases in the cost of equity due to the covid-19 pandemic, we are consulting on a range of additional interventions that could support and supplement a TRS in managing investor expectations on future returns.

C9 We disagree with HAL's argument, as summarised in paragraph C6 above, that introducing a TRS mechanism would have no mitigating impact on investors' perception of risk. We consider that it is entirely credible for a regulator to apply a new mechanism to future performance without it applying it to the past. We also disagree that introducing a new mechanism to shield HAL from future traffic constitutes "failing to act". On the contrary, we consider that introducing such a mechanism represents proportionate and targeted action given the circumstances.

C10 The Q6 and iH7 price control frameworks allocated traffic risk to HAL (and so its shareholders). An adjustment to forecast revenues to reflect potential shocks in traffic levels (referred to as a "shock adjustment") was explicitly included to compensate for this risk. Nonetheless, the Q6 price control documents also explained that we could reopen the price control to deal with exceptional circumstances.

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[4] HAL (2020), "Economic regulation of Heathrow: response to its request for a covid-19 related RAB adjustment (CAP1966): Heathrow's response", November, paragraph 60.

[5] Economic Insight (2021), "Impact of *Ex Ante* Mechanisms on Investor Risk Perceptions", January.

C11 If a new TRS mechanism were to be implemented, we consider that investors could readily distinguish between the framework that applied in Q6 and iH7 and any forward-looking TRS mechanism. By contrast, amending a previously agreed regulatory mechanism after the event could have precisely the opposite impact to that argued for by HAL. This is because it could be more damaging to the credibility of the regulatory framework than adhering to what was previously agreed: it could signal to stakeholders that settled regulatory mechanisms could be subjected to uncertain change and amendment during their period of operation as a result of the application regulatory discretion.

C12 As for the Economic Insight report:

- We do not consider that the findings of this report support HAL's conclusion that a TRS mechanism would have no impact on investors' perceptions of risk. The report illustrates that Government support may have been effective in mitigating the financing costs of the limited sample of companies considered in the report. Whilst intuitive, this finding does not appear to have a direct implication for how best to determine the balance between a retrospective adjustment for 2020 and 2021 and new TRS arrangements for HAL; and
- In terms of the detail of the report, the sample considered by Economic Insight is very small, being, at most, 15 observations. As such, even the finding that Government support may have been effective in mitigating the financing costs of the sample of companies considered may not carry across to the broader economy or to HAL.

C13 In summary, we agree that a substantial increase in the cost of equity could occur if the CAA does not act, but that such action could include introducing a forward looking TRS mechanism. We consider that the scale of the increase estimated by HAL is likely to be towards the higher end of the plausible range. For example, we consider that a lower estimate could be justified on the basis of a lower expected frequency of such crises. Our present view is that an appropriately specified and calibrated TRS mechanism could substantially or fully mitigate any increase in the cost of equity. We will consider any further representations we get on these matters and carry out further analysis, including as part of the H7 price control review.

Appendix D

Investor expectations at Q6/iH7

Introduction

D1 This appendix follows on from Appendix C and deals with HAL's arguments that there should be limits on the risk that its equity investors bear. If this is the case, they should receive substantial compensation for the impact of the covid-19 pandemic on shareholder returns.

HAL view

D2 HAL has said in its response to the October 2020 Consultation that

> "*the WACC set at Q6 included assumptions about the level of risk to which shareholders in Heathrow were exposed and the appropriate return for bearing that risk*"[6]. *It goes on to suggest that "given [the level of the allowed return in Q6/iH7], there is an implied upper limit to the amount of risk that Heathrow was expected to bear*"[7].

D3 It has referred specifically to a number of observations that it considers support the view that there is an implied upper limit to the amount of risk that HAL can be reasonably expected to bear, including:

- **Q6 comparator companies**: HAL has said that the equity beta used in the Q6 settlement was based on comparator companies whose regulatory frameworks included traffic risk sharing mechanisms. This led investors to expect a degree of implicit protection by CAA in the event of a significant traffic shock;

[6] HAL (2020), "Economic regulation of Heathrow: response to its request for a covid-19 related RAB adjustment (CAP1966): Heathrow's response", November, paragraph 125.

[7] HAL (2020), "Economic regulation of Heathrow: response to its request for a covid-19 related RAB adjustment (CAP1966): Heathrow's response", November, paragraph 126.

- **NERL**: HAL has said that the asset beta of NERL (0.525 to 0.625) is consistent with a regulatory framework that provides protection against downside shocks of greater than 10% of revenue. It infers from this that the relative values of HAL's and NERL's beta imply an expectation of protection from traffic risk in HAL's case;
- **Market volatility analysis:** HAL has said that investors inherently discount losses "*beyond a certain scale*". On this basis, they consider that "*it is not appropriate for a regulated company to be expected to bear downside impacts that occur less frequently than once every 20-years;*"[8] and
- **Return on regulatory equity (RoRE) approaches:** HAL has also suggested that certain levels of RoRE represent floors on the appropriate level of return that it should earn.

CAA assessment

D4 To reflect the possibility that investors perceived an upper limit to the level of risk to which they would be exposed in practice, we are consulting in this document on an intervention option that is explicitly targeted at protecting specific revenue building blocks within the iH7 price control.

D5 That said, we consider that it is far from clear that investors had any basis for assuming either:

- that there was an upper limit to the level of traffic risk to which they were exposed under the Q6 settlement;
- or that we would intervene to protect HAL from traffic risk events.

D6 The Q6 and iH7 price control frameworks were clear regarding the allocation of traffic risk: these were to be borne by HAL and its shareholders. The Q6 decision was also clear that we would consider requests to re-open the price control in exceptional circumstances. We said we would do this, having regard to our

[8] HAL (2020), "Economic regulation of Heathrow: response to its request for a covid-19 related RAB adjustment (CAP1966): Heathrow's response", November, paragraph 141.

duties and the prevailing circumstances at the time, rather than stating that we would adopt a particular approach in response to the circumstances.

D7 In this light, it is reasonable to assume that investors' expectations would have reflected the prospect of low-probability, high-impact events or crises, such as the current pandemic, and this would have influenced their required returns.[9]

D8 As for HAL's observations in support of its view, our thoughts are as follows:

- **Q6 comparator companies:** we are not persuaded that the use of comparator companies as a point of reference for the Q6 equity beta provided any basis for an expectation that the CAA would intervene in the event of a significant traffic shock. Firstly, as HAL itself has observed, we did not directly use the values of the comparator betas to estimate the Q6 beta. We used the relative stability of comparator betas as a basis for our conclusion that the beta of Heathrow did not need to be increased from Q5. Secondly, the comparator betas are driven by a large number of underlying characteristics of the airports in question, of which TRS arrangements are only one. We do not consider that investors could derive from this single factor any precise expectation regarding the action that we would take in the event of an event having a significant impact on the level of traffic. We also note that neither ADP nor Fraport currently appear to be recovering their substantial losses as a result of the impact of the covid-19 pandemic. More detail of this is set out in Appendix E.
- **NERL:** we do not consider that the arrangements applicable to NERL provide any insight into investor expectations for HAL at Q6/iH7. NERL and HAL are very different businesses, and TRS represents only one factor driving the beta and required return. The fact that NERL benefits from TRS and nonetheless benefits from a higher asset beta than HAL could be driven by a range of factors. These include:

[9] We note that this risk is explicitly cited in debt prospectuses issued by HAL, so we would expect that lenders and shareholders would have been cognisant of this risk. See, for example Heathrow Finance plc prospectus, 15 November 2019 at page 23 https://www.heathrow.com/content/dam/heathrow/web/common/documents/company/investor/offering-related-documents/finance/Nov_19_Heathrow_Finance_plc_Final_Prospectus.pdf.

(i) HAL has correctly referred to operational gearing, but other factors such as size, the nature of activities and NERL's financial history are also relevant. As such, we consider that it is unlikely that HAL's investors made any inferences regarding prospective CAA interventions in the case of a traffic shock based on the level of asset beta for NERL; and

(ii) the CMA decision on NERL's RP3 price control occurred after the iH7 price control settlement had been agreed, so could not have influenced investor expectations before it was made.

- **Market volatility analysis:** HAL's argument lacks any obvious foundation in financial theory. The Q6 price control allowed return was based on the capital asset pricing model ("CAPM"). CAPM assumes that investors' return expectations conform to a normal distribution and do not include a lower bound or "floor". Even alternative distributions incorporating skewed returns such as lognormal distributions do not behave in the manner suggested by HAL.[10] We therefore see no basis for investors assuming that there was a binding upper limit to the level of traffic risk to which they were exposed.
- **RoRE analysis:** UK regulators have in recent years presented illustrative calculations to demonstrate the range of returns on regulated equity that correspond to outcomes at various percentiles within the distribution of potential return outcomes. These are often presented at the 90th or 95th percentile. Their intention in doing so is to provide an indication of the ranges of returns that might emerge under certain assumptions. This is very different from any sort of guarantee that these levels of returns will be achieved in practice. There is certainly no explicit or implicit part of HAL's current regulatory framework which specifies that CAA should place a floor under HAL's outturn equity returns.

D9 In summary, we are consulting in this document on intervention options to reflect the possibility that investors perceived an upper limit to the level of risk to which

[10] For example, the lognormal distribution is only bounded at -100%, which is considerably lower than HAL's suggested lower bound. For a description of the lognormal distribution, see https://www.investopedia.com/articles/investing/102014/lognormal-and-normal-distribution.asp

they would be exposed in practice. On the other hand, we do not consider that the arguments put forward by HAL support a view that there was such an upper bound. As such, it is far from clear that this is the case.

Appendix E

The impact of the covid-19 pandemic on HAL's financial structure

Introduction

E1 This appendix deals with issues around debt finance, including the pressure on HAL actual debt covenants and credit ratings. It reviews the evidence that HAL has provided on these matters and discusses the calibration of possible interventions. We then set out an initial assessment of HAL's financial position on the basis of the assumptions we made in setting the Q6 price control.

HAL's view

E2 In its response to the October 2020 Consultation[11], HAL has indicated that its financial structure will come under significant pressure in the absence of any intervention by the CAA. It has referred to the possibility of a credit rating downgrade and has signalled that, if the CAA were to delay intervention until the H7 price control review, then this could lead to such a downgrade.

E3 HAL has also presented an estimate of the impact that such a downgrade would have on its cost of debt. It has estimated that a credit rating downgrade will result in an increase in the cost of debt of 110-112bps, resulting in an additional financing cost of c.£300m. This estimate has been based on the current spread of Heathrow's Class A debt (rated BBB+/A-) over its Class B debt (rated BBB-/BBB).

E4 HAL has also referred to pressure on its financial covenants due to the impact of the covid-19 pandemic. It has stated that:

[11] For example, in HAL (2020), "Economic regulation of Heathrow: response to its request for a covid-19 related RAB adjustment (CAP1966): Heathrow's response", November, paragraph 263 states that "*Our application makes clear that we are already in a "particularly difficult" position and that there is already pressure on financeability*".

"*No covenant breach is forecast under current traffic outlook thanks to mitigations put in place or under consideration to reduce costs. However, Heathrow's management remains vigilant in the face of this fast-changing situation*".[12]

E5 This is further elaborated on in its December Investor Report, which states that,

"*Compliance with debt covenants is not dependent on adjustment, but urgent action remains critical to demonstrate the good functioning of our regulatory framework and assumptions, ensure an appropriate balance of risk and rewards for investors and to continue investing for the benefit of consumers.*"[13].

E6 Our understanding is, therefore, that HAL is not explicitly requesting action targeted at alleviating pressure on its financial covenants, but rather to avoid deteriorations in HAL's position against key credit metrics and a possible credit rating downgrade.

Pressure on HAL's financial covenants

E7 The CAA's assessment is that the covenant in HAL's financing platform for which compliance is likely to come under the most pressure is the Group RAR covenant, which is a measure of debt to the RAB. The limited headroom above HAL's Group RAR covenant is a potential cause for concern, since a breach of this covenant could trigger a default and lead to costs for consumers. In its December 2020 investor report[14], HAL projected group RAR at 31 December

[12] HAL (2020), "Economic regulation of Heathrow: response to its request for a covid-19 related RAB adjustment (CAP1966): Heathrow's response", November, paragraph 231. Available online: https://www.caa.co.uk/uploadedFiles/CAA/Content/Accordion/Standard_Content/Commercial/Airports/H7/Heathrow%20Airport%20Limited%20(CAP1966).pdf

[13] HAL (2020), "Heathrow (SP) Limited And Heathrow Finance Plc: Investor Report December 2020", p4. Available online: https://www.heathrow.com/content/dam/heathrow/web/common/documents/company/investor/reports-and-presentations/investor-reports/2020_Heathrow_SP_investor_report_dec_2020.pdf

[14] HAL (2020), "Heathrow (SP) Limited And Heathrow Finance Plc: Investor Report December 2020", p4. Available online: https://www.heathrow.com/content/dam/heathrow/web/common/documents/company/investor/reports-and-presentations/investor-reports/2020_Heathrow_SP_investor_report_dec_2020.pdf

2021 to be 78.8% if it receives a RAB adjustment and 92.8% if it does not receive a RAB adjustment. A group RAR of 93.5% or higher on that date would be an event of default under the terms of the financing platform. This means that, without a RAB adjustment, HAL would be expected to have less than 1% headroom against a breach of this covenant in 2021.

E8 Although HAL has not explicitly justified its request for intervention on the basis of providing headroom in respect of this covenant, we have nonetheless estimated the scale of the RAB adjustment that might be required to provide additional headroom to avoid a breach.

E9 The appropriate degree of headroom required above HAL's RAR covenant in 2021 requires a degree of judgment. We note that HAL agreed with its bond holders that the permitted maximum debt ratio under this covenant would be 95.0% for 2020. In practice, it achieved a level of 91.7%, providing the equivalent of 3.2% headroom. In this light, we have consider the scale of the RAB adjustment that would be necessary to provide an additional 1%-3% headroom over the Group RAR covenant.

E10 Based on HAL's forecast of its year-average RAB in 2021 in the RBP (£17,963m), we estimate that a RAB adjustment of £200m-£600m would be required to produce a 1%-3% headroom. We note that this is very considerably less than the RAB adjustment that HAL has proposed.

E11 Making an adjustment to remedy concerns in relation to features of HAL's actual financial structure (namely the covenants) would also be a material departure from the established regulatory precedent of assessing price control settlements on the basis of a notional company, leaving responsibility for the actual financing structure and level of gearing with the directors and shareholders of the regulated company. We would also need to take account of the potential dampening of incentives on HAL to manage its finances prudently that intervention might cause, especially as this could result in consumers implicitly underwriting HAL's highly-leveraged financial structure. It is not clear that this approach would be in consumers' interests.

E12 We also note that shareholders could remedy the issues with HAL's RAR covenant by making a suitable injection of new equity finance.

Actual versus notional financial structure

E13 HAL's estimate of the impact of the covid-19 pandemic on the cost of debt is based on an examination of the trading yields on its actual debt portfolio.

E14 More generally, our present view is that HAL has focussed on the possibility of a credit rating downgrade of its actual debt portfolio. We retain the view which we have adopted in previous price control determinations, that the relevant consideration from a regulatory perspective is HAL's performance under the notional financial structure. HAL's performance under its actual financial structure is a matter for HAL and its shareholders. As noted above, this distinction is important, because it prevents consumers from being exposed to adverse consequences associated with financing choices made by HAL or its shareholders. In particular, HAL's present choice to adopt a leverage model brings with it a considerably higher level of gearing compared with the assumption we used for the financing of the notional company at the Q6 price control review.[15]

E15 The notional financial structure represents a consistent benchmark that can be used to estimate the cost of capital on the assumption of a reasonable level of leverage. If HAL considers that it can achieve a lower cost of capital by adopting higher leverage, it is at liberty to do so: but the corollary of this is that HAL must bear the consequences if its cost of capital is higher than what would be the case under the notional assumption.

E16 The remainder of the discussion in this section focusses on the impact of the covid-19 pandemic on HAL under the notional financial structure.

[15] This issue is linked to the point above about covenants, since the covenants are a necessary enabler, in HAL's actual structure, of its high level of gearing.

Impact of RAB adjustment on the likelihood of a credit rating downgrade

E17 HAL's RBP includes a submission of the CAA's price control model ("PCM").[16] The PCM presents forecasts of HAL's performance against key credit metrics under the notional financial structure with and without its proposed RAB adjustment. We are still in the process of reviewing the RBP and expect to engage further with HAL and other stakeholders on a number of the key assumptions that support the RBP. Nonetheless, at this stage our analysis is based on HAL's RBP/PCM submission out of practical necessity, given that it represents the latest submission from HAL. This should not be seen as an endorsement of the RBP.

E18 The forecasts in HAL's RBP/PCM demonstrate that, regardless of whether or not a RAB adjustment is implemented, several key credit metrics will come under pressure between 2020 and 2022, before returning to levels consistent with a BBB+/Baa2 or A-/Baa1 level during H7.

E19 A simple comparison of these scenarios suggests that HAL's performance against key credit metrics will be worse in the RAB adjustment scenario from 2022 onwards, which is somewhat counterintuitive. Table 1 illustrates the observed trends for the credit metrics considered by S&P. A similar trend can be observed for Moody's and Fitch metrics.

[16] We are still awaiting a reconciliation of the PCM to the other financial model submitted by HAL as part of its RBP. The requirement for such a reconciliation was set out in our guidance for the RBP in CAP 1940.

Table 1: S&P credit metrics: HAL RBP No adjustment case vs with adjustment

		2020	2021	2022	2023	2024	2025	2026
FFO to debt	w/ adjustment	-5.0%	-2.3%	5.5%	7.2%	8.1%	9.1%	9.5%
	w/o adjustment	-6.0%	-2.0%	10.9%	13.9%	16.4%	19.5%	21.9%
Debt to EBITDA	w/ adjustment	100.5	25.2	8.6	7.2	6.6	6.1	5.9
	w/o adjustment	-409.7	25.7	5.4	4.5	3.9	3.4	3.1
RAR	w/ adjustment	66.1%	59.6%	60.0%	60.0%	60.0%	60.0%	60.0%
	w/o adjustment	66.9%	70.7%	60.0%	60.0%	60.0%	60.0%	60.0%
EBITDA margin	w/ adjustment	9.5%	31.9%	56.1%	59.7%	61.3%	63.5%	64.4%
	w/o adjustment	-2.3%	31.6%	62.9%	65.6%	66.7%	68.2%	68.7%
FFO interest cover	w/ adjustment	0.17	0.59	2.01	2.36	2.57	2.80	2.94
	w/o adjustment	-0.04	0.62	2.85	3.51	4.06	4.67	5.16

Source: CAA analysis of HAL's RBP

Notes: Figures depicted in red denote ratios that fall below the level consistent with an investment grade rating; figures in orange denote ratios consistent with a BBB credit rating; figures in yellow denote ratios consistent with a BBB+ credit rating; and figures in green denote ratios consistent with an A- credit rating.

E20 The observed trends are driven by several differences in the assumptions underpinning each scenario. Specifically, in H7, HAL's Base Case (which includes its proposed RAB adjustment), as compared with the "No Adjustment" scenario where there is no RAB adjustment, includes:

- a cost of capital assumption that is 1.5% lower;
- a depreciation charge that is 73% lower;
- a capex forecast that is 77% higher;
- a forecast of passenger numbers that is 4% higher;
- a forecast of non-aeronautical revenues that is 6% higher; and
- an opex forecast that is 0.4% higher.

E21 In addition, the Base Case scenario reflects an assumption that HAL will issue a greater quantum of debt than in the No Adjustment scenario in each of 2020 and 2021, but that no equity injection is needed. By contrast, the No Adjustment scenario reflects an assumption that shareholders will make an equity injection of £765m in 2022.

E22 If the No Adjustment scenario were to be adjusted to remove the assumed equity injection and, instead, notional gearing is permitted to be higher in 2023, the credit metrics would be as follows:

Table 2 S&P credit metrics: HAL RBP No adjustment case vs with adjustment (no assumed equity injection)

		2020	2021	2022	2023	2024	2025	2026
FFO to debt	w/ adjustment	-5.0%	-2.3%	5.5%	7.2%	8.1%	9.1%	9.5%
	w/o adjustment	-6.0%	-2.0%	10.1%	14.0%	16.4%	19.6%	21.9%
Debt to EBITDA	w/ adjustment	100.5	25.2	8.6	7.2	6.6	6.1	5.9
	w/o adjustment	-409.7	25.7	5.8	4.4	3.9	3.4	3.1
RAR	w/ adjustment	66.1%	59.6%	60.0%	60.0%	60.0%	60.0%	60.0%
	w/o adjustment	66.9%	70.7%	65.0%	60.0%	60.0%	60.0%	60.0%
EBITDA margin	w/ adjustment	9.5%	31.9%	56.1%	59.7%	61.3%	63.5%	64.4%
	w/o adjustment	-2.3%	31.6%	62.9%	65.6%	66.7%	68.2%	68.7%
FFO interest cover	w/ adjustment	0.17	0.59	2.01	2.36	2.57	2.80	2.94
	w/o adjustment	-0.04	0.62	2.85	3.51	4.06	4.67	5.17

Source: CAA analysis of HAL's RBP
Notes: Figures depicted in red denote ratios that fall below the level consistent with an investment grade rating; figures in orange denote ratios consistent with a BBB credit rating; figures in yellow denote ratios consistent with a BBB+ credit rating; and figures in green denote ratios consistent with an A- credit rating.

E23 The metrics continue to be worse under the RAB adjustment scenario from 2022 onwards, with the sole exception of gearing (RAR).

E24 We have also carried out a comparison between the two scenarios which assumes that the same assumptions for all of the variables listed in paragraph E20 above apply in both scenarios. We also assume that the same quantum of debt is issued in both scenarios, and no equity injection is assumed in either scenario.

E25 Under these assumptions, the RAB adjustment marginally improves HAL's performance against key credit metrics from 2022 onwards. However, as before, there is no improvement in 2020 and 2021, since the iH7 allowed revenues are not affected by the RAB adjustment. Moreover, the improvement in metrics from 2022 onwards does not appear likely to result in a change to the rating overall: HAL remains within the same thresholds for every metric other than gearing and debt to EBITDA in every year.

Table 3: S&P credit metrics: HAL RBP No adjustment case vs with adjustment (comparison assuming same input assumptions)

		2020	2021	2022	2023	2024	2025	2026
FFO to debt	w/ adjustment	-6.0%	-2.0%	11.8%	16.3%	19.0%	22.6%	25.4%
	w/o adjustment	-6.0%	-2.0%	10.1%	14.0%	16.4%	19.6%	21.9%
Debt to EBITDA	w/ adjustment	-409.7	25.7	5.2	3.9	3.5	3.0	2.7
	w/o adjustment	-409.7	25.7	5.8	4.4	3.9	3.4	3.1
RAR	w/ adjustment	66.9%	59.9%	54.6%	50.0%	49.7%	49.3%	48.9%
	w/o adjustment	66.9%	70.7%	65.0%	60.0%	60.0%	60.0%	60.0%
EBITDA margin	w/ adjustment	-2.3%	31.6%	65.6%	68.1%	69.1%	70.6%	71.0%
	w/o adjustment	-2.3%	31.6%	62.9%	65.6%	66.7%	68.2%	68.7%
FFO interest cover	w/ adjustment	-0.04	0.62	3.17	3.90	4.52	5.22	5.81
	w/o adjustment	-0.04	0.62	2.85	3.51	4.06	4.67	5.17

Source: CAA analysis of HAL's RBP

Note: Figures depicted in red denote ratios that fall below the level consistent with an investment grade rating; figures in orange denote ratios consistent with a BBB credit rating; figures in yellow denote ratios consistent with a BBB+ credit rating; and figures in green denote ratios consistent with an A- credit rating.

E26 None of the comparisons we have considered demonstrates that HAL's proposed RAB adjustment materially improves the key credit metrics that come under pressure due to the impact of the covid-19 pandemic.[17]

E27 This is because the metrics that come under pressure are those that largely capture the availability of cashflow to fund interest costs. The RAB adjustment

[17] We note that gearing is lower under the RAB adjustment case in Table 3: however, we do not consider that gearing comes under pressure due to the impact of the covid-19 pandemic. There is also a one-notch improvement in the debt to EBITDA metric in 2022 in Table 3: this alone is unlikely to constitute a significant improvement.

does little to generate additional cashflow over the period where cashflows are constrained, and hence does little to improve performance against these metrics. This observation is at odds with HAL's suggestion that the RAB adjustment will be effective in preventing a credit rating downgrade. It is even more at odds with HAL's assertion that the adjustment is needed immediately to prevent a downgrade.

E28 It is conceivable that rating agencies would give credit in the qualitative part of their ratings assessment for a RAB adjustment. If they did, it could potentially reduce the risk of a rating downgrade despite credit metrics deteriorating. However, this is conjecture and it does not appear to provide a sufficiently reliable evidential basis for making a large RAB adjustment which would certainly lead to a large cost for consumers. It is also possible that rating agencies would consider an equity injection by HAL's shareholders as credit positive, and HAL and its shareholders may decide to adopt such an approach. We also consider that our approach to reviewing any appropriate interventions in the round as part of the H7 price review is a consistent, credible and transparent regulatory approach: these are factors the rating agencies consider in their qualitative assessment.

E29 The duration of the pressure on the credit metrics is also relevant. Under both scenarios, HAL's credit metrics come under pressure for the period 2020 to 2022 before returning to levels consistent with a BBB+/Baa2 or A-/Baa1 level in 2023. There is, therefore, a question as to whether credit rating agencies would "look past" the immediate period of financial stress and focus on the longer-term prospects for the airport when determining whether to alter the rating for the notional entity. We consider it plausible that the credit rating agencies would maintain the rating on the basis of the long-term creditworthiness of the airport, although we do not take this for granted.

E30 The appropriate assumption for the creditworthiness of the notional entity will be considered in further detail as part of the H7 price control process. However, on the basis of the above, it does not appear that a RAB adjustment, whether implemented immediately or as part of H7, would be effective in improving HAL's financial position under the notional financial structure.

Impact of the covid-19 pandemic on HAL's notional gearing

E31 HAL has indicated that "*without the RAB adjustment, gearing remains well above the starting level [during H7]*".[18] Table 2 above shows that, even in the absence of any equity injection, notional gearing can be restored to 60% by 2023 by dividend forbearance under HAL's own RBP scenarios. We are, therefore, unclear why the data in Figure 3 of HAL's response to CAP1966 depicts a different outcome, and would welcome clarity from HAL on this point.

E32 Even if gearing were to remain above 60% for most or all of H7, we have seen no convincing evidence to suggest that this would lead to materially adverse effects for HAL's cost of capital, credit metrics or financial structure more generally. We think that it is reasonable for HAL to attempt to return the company to its target gearing level as quickly as is reasonably practicable, but we do not consider that a RAB adjustment would be warranted on this basis alone.

Impact of a downgrade on the cost of debt

E33 HAL's estimate of the impact of a credit rating downgrade on the cost of debt is based on the difference in the cost of classes of debt that have credit ratings that are two "notches" apart. So, they do not[19] reflect a one-notch downgrade.

E34 We also have some concerns regarding HAL's comparison between senior and subordinated bonds as a basis for their estimate of the cost of a downgrade. Our understanding is that the difference in trading yields between subordinated securitisation bonds and corresponding senior bonds tends to be greater than between "vanilla" bonds of the equivalent rating. In our view, a more appropriate comparison would be between the trading yields of bond indices of the relevant rating. Our indicative analysis suggests that this differential could be significantly

[18] HAL (2020), "Economic regulation of Heathrow: response to its request for a covid-19 related RAB adjustment (CAP1966): Heathrow's response", November, paragraph 85.

[19] HAL's Class A debt is currently rated BBB+ by S&P, whilst its Class B debt is currently rated BBB-: a difference of two notches. An example of a single-notch difference would be between BBB+ and BBB, or between BBB and BBB-.

lower than HAL's estimate. Table 4 suggests that the impact of a two-notch downgrade could be between 38.5 and 56.7 basis points.

Table 4: comparison of trading yields between A and BBB-rated bond indices (basis points)

	1 year	2 years	5 years
iBoxx £ Corporates A 15+	146.90	145.66	150.47
iBoxx £ Corporates BBB 15+	203.59	198.37	188.98
Difference	56.69	52.71	38.50

Source: IHS markit, CAA analysis

E35 The appropriate assumption for the creditworthiness of the notional entity will be considered in further detail as part of the H7 price control process. If this assessment suggests that a lower credit rating assumption is appropriate, this will need to be reflected in the cost of new debt for the H7 price control period.

Summary

E36 We are concerned that HAL's Group RAR covenant will come under pressure in 2021. So, we are consulting on an intervention that could provide additional financial flexibility for HAL. At the same time, we note our reservations in respect of this option, given the adverse effect this could have on HAL's incentives to manage its financial structure prudently. We also note that HAL could itself provide financial flexibility by injecting equity.

E37 We agree with HAL that its notional credit metrics for 2020-22 will come under pressure due to the impact of covid-19. However, the evidence we have seen does not suggest that a RAB adjustment would materially improve HAL's performance against these credit metrics. We therefore do not view HAL's projected performance against its credit metrics as a reason to apply a RAB adjustment. We will carefully consider the appropriate assumption for HAL's notional credit rating in the context of the H7 price control process, and if a lower notional credit rating assumption is appropriate, we will reflect this in our assumption for the cost of new debt accordingly.

Appendix F

The relationship between the RAB adjustment and H7 airport charges

HAL's view

F1 In its response to the October 2020 Consultation, HAL indicated that its proposed RAB adjustment will facilitate lower airport charges compared to a scenario in which no adjustment is implemented.

F2 For example, in paragraph 59, HAL states that:

> "*Table 1 shows that with an adjustment charges will be around £6 to £7 lower per passenger than otherwise without an adjustment.*"[20]

F3 This is reflected in HAL's RBP submissions of the PCM, which shows the following profile of charges with and without a RAB adjustment:

Table 5: Comparison of airport charges with and without the RAB adjustment

CPI-Real[21], 2020 prices	2022	2023	2024	2025	2026
With RAB adjustment	£32.39	£32.38	£32.70	£33.02	£33.35
No RAB adjustment	£41.95	£41.94	£42.35	£42.77	£43.19

HAL's RBP assumes that charges are held flat (X=0) in both with and without adjustment cases
Source: HAL's RBP

CAA assessment

F4 The lower charges in the RBP scenario in which a RAB adjustment is applied are driven by differences in the assumed value of a number of variables, summarised in paragraph E20 above. We are in the process of evaluating the

[20] HAL (2020), "Economic regulation of Heathrow: response to its request for a covid-19 related RAB adjustment (CAP1966): Heathrow's response", November, paragraph 59.

[21] The prices in this table have been rebased using CPI as this is a better measure of inflation than RPI. We note that the RBP rebases prices using RPI.

forecasts in HAL's RBP and will comment on the appropriateness of HAL's assumptions under each scenario in due course. We have already indicated that we consider that the increase in the cost of capital can be substantially mitigated by more proportionate interventions, particularly the introduction of a TRS.

F5 We have also examined airport charges under a comparison where the same assumptions regarding the variables set out in paragraph E20 are applied in both scenarios. We have also assumed the same debt drawdown in both scenarios.

Table 6: comparison of airport charges with and without the RAB adjustment (comparison assuming same input assumptions)

CPI-Real[22], 2020 prices	2022	2023	2024	2025	2026
With RAB adjustment	£46.45	£46.44	£46.90	£47.36	£47.82
No RAB adjustment	£41.39	£41.38	£41.78	£42.19	£42.60

Charges have been assumed to be flat (X=0) in both with and without adjustment cases
Source: HAL's RBP and CAA analysis.

F6 Under this set of assumptions, airport charges would be higher in the RAB adjustment scenario. This shows how sensitive the indicative airport charges in the RBP are to the estimated impact of the RAB adjustment on the key input assumptions set out in paragraph E20.

F7 HAL has also indicated that:

> "*there is no scope to reduce depreciation in the event there is no adjustment made*".[23]

F8 We disagree with this view. We have examined the impact on HAL's credit metrics if the same depreciation profile is adopted in both scenarios. This is summarised in Table 7 below:

[22] The prices in this table have been rebased using CPI as this is a better measure of inflation than RPI. We note that the RBP rebases prices using RPI.

[23] HAL (2020), "Economic regulation of Heathrow: response to its request for a covid-19 related RAB adjustment (CAP1966): Heathrow's response", November, paragraph 56.

Table 7 S&P credit metrics: HAL RBP vs No adjustment with depreciation adjustment

		2020	2021	2022	2023	2024	2025	2026
FFO to debt	w/ adjustment	-5.0%	-2.3%	5.5%	7.2%	8.1%	9.1%	9.5%
	w/o adjustment	-6.0%	-2.0%	6.6%	9.3%	10.4%	11.7%	12.1%
Debt to EBITDA	w/ adjustment	100.5	25.2	8.6	7.2	6.6	6.1	5.9
	w/o adjustment	-409.7	25.7	7.8	6.1	5.6	5.2	5.0
RAR	w/ adjustment	66.1%	59.6%	60.0%	60.0%	60.0%	60.0%	60.0%
	w/o adjustment	66.9%	70.7%	65.4%	60.0%	60.0%	60.0%	60.0%
EBITDA margin	w/ adjustment	9.5%	31.9%	56.1%	59.7%	61.3%	63.5%	64.4%
	w/o adjustment	-2.3%	31.6%	56.6%	59.5%	60.5%	62.1%	62.5%
FFO interest cover	w/ adjustment	0.17	0.59	2.01	2.36	2.57	2.80	2.94
	w/o adjustment	-0.04	0.62	2.26	2.76	3.10	3.37	3.49

Figures depicted in red denote ratios that fall below the level consistent with an investment grade rating; figures in orange denote ratios consistent with a BBB credit rating; figures in yellow denote ratios consistent with a BBB+ credit rating; and figures in green denote ratios consistent with an A- credit rating.
Source: HAL RBP and CAA analysis

F9 This demonstrates that depreciation can be reduced in the No Adjustment scenario while maintaining credit metrics that are comparable or superior to those in the scenario where a RAB adjustment is applied. Furthermore, we note that the difference in airport charges in H7 across the scenarios is substantially reduced if a depreciation adjustment was to be applied in both scenarios.

Table 8: comparison of airport charges with and without the RAB adjustment (depreciation adjustment applied in both scenarios)

CPI-Real, 2020 prices	2022	2023	2024	2025	2026
With RAB adjustment	£32.39	£32.38	£32.70	£33.02	£33.35
No RAB adjustment	£33.54	£33.32	£33.43	£33.55	£33.67

Charges have been assumed to be flat (X=0) in both with and without adjustment cases
Source: HAL RBP and CAA analysis

Appendix G

The impact of lower investment on HAL's capex programme and service quality

HAL's view

G1 This appendix deals with HAL's capex, opex and service quality.

G2 HAL has said that, without a RAB adjustment ahead of the H7 price control review, it will not be able to carry out particular capital and operating expenditures in 2021 and 2022 that would be in the interests of consumers. HAL has identified around £218 million of additional capex and £9 million of additional opex that it would plan to spend in 2021 if it were to receive its proposed RAB adjustment now. HAL says that a failure to incur this expenditure could:

- reduce the resilience of its services;
- reduce the level of service quality it delivers; and
- delay the timely reopening of terminal capacity when demand increases.

G3 To protect consumers, it is important that we ensure that HAL's regulatory framework is both consistent with, and promotes an appropriate quality and resilience of, the services that HAL provides to consumers. To facilitate our assessment of the evidence HAL has provided, we made a request for further information from HAL seeking further detail on its investment programme and delivery of service quality.

G4 In response, HAL provided additional evidence to support its view of the impacts on consumers if it did not carry out this additional investment. For example, it indicated that not undertaking this investment would lead to:

- delays in delivering security improvements such as CT scanners;
- the possibility of some SQRB standards not being met in 2021/22. In particular, HAL said delivery of specific performance standards such as

security queue length, pier service, passenger sensitive equipment, and overall satisfaction would be at risk;

- terminal reopening being delayed, affecting overall capacity at Heathrow. Terminal 4 seems to be at particular risk, as critical maintenance is required in advance of its reopening;
- recruitment for security staff will be delayed, which could affect security queue length, as above; and
- maintenance of assets could be delayed, which increases risks of asset failures/downtime.

G5 To help assess these matters, we have engaged with airlines to understand their views.

Airline views

G6 Airlines have provided detailed views on HAL's proposals regarding investment in service quality in the absence of a RAB adjustment and set out significant concerns over some of the information and explanations that HAL has provided.

G7 Airlines considered that HAL's assessment of investment and service quality is not driven by genuine need. Airlines suggested that HAL linked its RAB adjustment to consumer facing service quality metrics for the CAA, but this does not reflect the reality at the airport.

G8 Airlines also do not recognise all the projects that HAL has identified as being delayed or cancelled in the absence of a RAB adjustment. They say that discussion on priorities for 2021 investment have been ongoing and HAL has not included all the additional projects that it plans to undertake in these discussions. While airlines recognise the possible benefits of the identified projects, their view is these are mainly 'enhancement' projects, and that HAL has not set out a case as to these projects being urgent, pressing, or essential for service quality.

G9 Airlines also consider that some of HAL's evidence is not credible. For example, HAL and airlines have agreed "triggers" for the reopening of terminals, and thus airlines are sceptical with HAL's forecast for low pier service availability in 2021-22, given that there are strong links between terminals and pier service.

G10 Airlines also stress the view that HAL's current financial concerns are caused by its highly leveraged financial structure. As a result, they consider that HAL should be looking to shareholders, not passengers, to address these concerns. Airlines are particularly concerned by previous media reports that HAL would look to pay dividends to its shareholders in 2022. They cite this as evidence that HAL is not directing capital towards supporting service quality.

G11 Finally, airlines are concerned with the implication that HAL is not efficiently maintaining and managing its assets. For example, HAL had not engaged airlines on any potential delays to reopening Terminal 4 prior to our engagement about the RAB adjustment. Airlines are concerned by this suggestion and reiterate the importance of HAL appropriately maintaining its assets.

CAA assessment

G12 We have considered the further submissions from HAL on the implications for service quality, and benefits for consumers, if HAL does not carry out this additional capex in 2021.

G13 We have carried out a top-down review of this evidence to consider whether it supports interventions that allow further investment that would have clear benefits to consumers. We have not sought to review the business cases for particular investments on a bottom-up basis, particularly given:

- that there is a clear capex governance process in place between HAL and airlines; and
- the high degree of uncertainty around traffic levels in 2021.

G14 Instead, we have sought views from airlines and carried out a high-level assessment of the evidence provided. This has highlighted that:

- it appears to be plausible that the additional capex that HAL has set out would deliver benefits to consumers earlier in 2021 and 2022 if these projects were started earlier than they might otherwise have been; but
- the scale of these benefits appears highly uncertain and not proportionate to the proposed RAB adjustment.

G15 In general, HAL has provided little quantitative evidence in setting out its view the investments are in the interests of consumers. For example, HAL has asserted that specific projects are important to consumers without providing a benefits case or other evidence to reflect this view. HAL has not demonstrated the trade-offs that it has balanced to determine which projects are continuing and which are at risk of being delayed or cancelled. We have not seen estimates for the quantified benefits or modelling that links particular capex with these consumer benefits. Even so, it seems most unlikely that the incremental benefits of starting these projects earlier than might otherwise be the case would be to the same magnitude as the proposed RAB adjustment of £2.7 billion. We would also expect the benefits to be highly uncertain given the recent travel restrictions and resulting uncertainty around the speed of traffic recovery in 2021 and beyond.

G16 Further:

- we note that, if demand significantly exceeds forecasts, HAL's ability to deliver capex investment and service quality standards would probably be hampered even if it did receive a RAB adjustment;
- we are not clear that HAL would incur this additional capex if the RAB adjustment is less than HAL has proposed. HAL has indicated in correspondence with us that it may not carry out this capex unless the full adjustment is made;
- the capex HAL is arguing for is additional to the capex programme that has been developed and agreed by HAL with airlines for 2021, and thus is not supported by airlines or been through the usual capex governance process. We would expect any efficiently incurred capex in 2021 to have been agreed as part of this process and engagement with airlines. We note airlines have provided constructive and detailed views in response to HAL's evidence, and that they have clear and strong concerns with some of the information that HAL has provided;
- we note that other mechanisms and processes exist to support service delivery, including regulatory mechanisms such as the current service quality incentive regime (SQRB), and the incentive effects of the potential for the CAA to take enforcement action where appropriate (although such

processes may not lead to a quick resolution of any issues identified). While there have been recent discussions around whether the SQRB incentives should be alleviated in the short-term, we are not aware of concerns that these incentives are likely to drive the wrong behaviours for consumers as traffic levels recover;

- HAL is also able to include efficient capex in the RAB and is incentivised by the nature of its price control to meet demand so that it can increase its revenues. This latter incentive may be particularly strong in the current circumstances; and
- we understand that HAL may face constraints on incurring this additional capex as a result of the impact on its gearing covenants. As we have explained in Appendix E, a significantly smaller adjustment to HAL's RAB than that it has proposed could address these issues, as could an equity injection by its shareholders.

G17 Given our concerns set out above, our initial assessment is that the impact of lower investment in the absence of a RAB adjustment on service quality is unclear. Further, we do not consider that the adjustment proposed by HAL would be well targeted at protecting efficient investment and protecting service levels, nor would it be proportionate to the size of any benefits to consumers that might arise from it.

G18 Nonetheless, we also note a number of references by HAL to the possibility it would delay maintenance of assets which may increase whole life cost. While we do not have evidence that points clearly to consumer detriment, we are concerned that if HAL were to delay certain maintenance work then this may mean it cannot react in a timely way to increases in demand, including in relation to the reopening of terminals.

G19 We have considered whether there are potential interventions to strengthen the incentives in place to carry out efficient and necessary investment in a targeted way. At this stage we have not identified options that would unambiguously improve on the existing incentives that are already in place for 2021. Nonetheless, we will monitor investment and service quality over 2021, and if there are issues, we will seek and resolve these matters in a timely way. This may include assessing whether HAL is complying with the requirements of Condition B3 of its Licence. These include for HAL to conduct its activities relating to the provision of AOS so as to secure the economical and efficient operation and maintenance of the airport, and in so doing:

1) seek to secure the reasonable demands of users are met in consultation with users, airlines and other stakeholders; and
2) take account of all relevant circumstances including the need for it finance its activities at Heathrow.

Appendix H

The impact of early intervention ahead of the H7 price review

Introduction

H1 HAL has sought to justify intervention by the CAA prior to H7 as being necessary for the following reasons:

- **the need to enhance "credibility":** HAL has suggested that intervening ahead of H7 will have the effect of

  "*Providing a clear signal to investors and rating agencies that the regulatory regime is consistent and that the mismatch between risk and reward will be addressed. This will considerably ease access to additional finance*";

- **risk of downgrade:** in paragraph 54 of its response to the October 2020 Consultation, HAL stated that

  "*No action now significantly increases the likelihood of a credit rating downgrade*"; and

- **constraints on investment:** in paragraph 63 of its response, HAL suggested that it will cut capex in the absence of a RAB adjustment:

  "*Without this, the uncertain extent and depth of the impact of the pandemic on aviation means that Heathrow will have to preserve liquidity by reducing capital and operating expenditure to the lowest levels possible*".

CAA assessment

H2 We do not consider that these reasons provide adequate justification for early intervention ahead of the H7 price review. Our reasons for taking this view are set out below, taking each of HAL's arguments in turn:

- **The need to enhance credibility**: we are not persuaded that considering the appropriate intervention (if any) as part of the H7 price control process will materially diminish the credibility of either the regulatory framework or our intention to appropriately balance risk and reward. On the contrary, allowing time for the development of a robust and considered approach alongside other relevant issues such as passenger forecasts increases the robustness, and hence credibility, of the framework. So, we see no material benefit to implementing any of the options under objective 1 prior to H7, since we consider that these options would be sufficiently effective in demonstrating credibility if they were implemented as part of the H7 price control process.
- **Risk of downgrade**: we acknowledge that HAL's credit metrics are likely to come under pressure between 2021 and 2022 because of cashflow constraints. However, we have seen no evidence to suggest that HAL's proposed intervention will materially improve the cashflow position of the notional entity in these years. In fact, if HAL's proposed re-profiling of depreciation were to be implemented, the RAB adjustment would have no impact on cashflow at all. We therefore do not consider that intervention prior to H7 is warranted on the basis of credit rating alone.
- **Constraints on investment**: as indicated above, we have concerns regarding the resilience and flexibility of HAL's service provision in the face of constraints on capital spending. On the other hand, we do not consider that an approach that would see the CAA choosing what investment should take place in 2021 would be appropriate. We would urge HAL to work with the airlines to address these issues and identify appropriate priorities for capex during 2021. Overall, we do not consider constraints on investment warrant any intervention ahead of the H7 price control, although we welcome views from stakeholders on this matter.

Appendix I

Description of options for intervention considered by the CAA

Introduction

I1 We have identified three possible options for intervention under packages 1[24] and 2[25] which are designed to meet objective 1 ("protect consumers by ensuring no undue increase in the cost of equity finance"). These options assume that intervention is necessary to reduce investors' perceptions of regulatory risk in the future. The three options are:

- Option 1A: compensate investors for the costs of providing new equity to restore HAL's notional financial position to that in place before the covid-19 pandemic;
- Option 1B: provide funding necessary to restore HAL's notional gearing to 60% by the start of H7 without an equity injection; and
- Option 1C: place a "floor" under the equity losses of the notional company.

This appendix describes each of these three options in more detail below.

Description of options

Option 1A: compensate investors for the costs of providing new equity to restore HAL's financial position to that in place before the covid-19 pandemic

I2 This approach assumes that investors based their expectations for returns on their investments in HAL solely on the TRS arrangements that were explicitly in place during Q6/iH7. This would imply that they had no expectation of compensation for direct traffic-related losses, but that the CAA would allow HAL to fund the additional direct costs associated with issuing new equity.

[24] No intervention before H7, but consider interventions at H7

[25] Targeted intervention now and consider further intervention at H7

I3 In support of this view, we note that HAL has already injected £750 million of equity into the regulated company in 2020 in response to the impact of the pandemic.

I4 We recognise that there may be two barriers to HAL issuing of new equity:

- firstly, issuing equity involves incurring "fixed" costs that HAL would not currently be able to recover under the existing regulatory framework, but which it might be reasonable for consumers to fund; and
- secondly, HAL's current cost of equity may be higher than the Q6/iH7 allowed return: this could disincentivise prospective investors from committing new equity to HAL. We have reviewed evidence from HAL that suggests the current cost of equity in the allowed cost of capital for Q6/iH7 is below the current required cost of equity capital. This is because the current required cost of equity capital reflects the higher risks currently seen in the market. On balance, we do not consider that it would be practical or appropriate to attempt to estimate a cost of equity for 2021 alone. The framework for the economic regulation of HAL works on setting average returns for each price control period and not adjusting the returns for the particular circumstances of any individual year.

I5 As such, we have focussed on the direct costs of raising new equity. Our current calculations suggest these costs could be in the range £40-£65 million, based on estimates for the current cost of equity and regulatory precedent for the fixed costs of issuing equity.[26]

Option 1B: provide funding necessary to restore HAL's notional gearing to 60% by the start of H7 without an equity injection

I6 This approach assumes that investors expect that the cost of restoring notional gearing to Q6 levels (60%) will be shared between consumers and HAL's

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[26] Evidence from Ofgem (see https://www.ofgem.gov.uk/ofgem-publications/52015/cost-raising-equity-cepa-2010pdf) suggests that these costs could be around 5% of the amounts issued. HAL's RBP suggests that an equity injection of £765m is needed to restore gearing of 60% in 2022. HAL's RBP assumes an allowed return of 9.6% in the No Adjustment scenario. If instead a 5% allowed return is assumed, the required equity injection increases to £1,270m. 5%*£765m= £38m and 5%*£1,270m=£64m.

shareholders. This could assume, for example, that the shareholders of the notional company would expect to forgo dividends for a prolonged period to restore notional gearing in a timely way during H7, with charges to consumers funding the remaining balance.

I7 This approach would preserve the value of notional equity capital in H7 and directly takes into account the cost savings that HAL is able to make to mitigate the impact of the covid-19 pandemic in 2020 and 2021. This approach would be important where investors expect that regulatory intervention will act to prevent erosion in the value of equity capital. At the same time, it is reasonable to expect that investors will act to preserve equity capital through dividend forbearance.

I8 To calibrate this option, we would also consider to what extent any regulatory intervention should reflect the overall performance by the notional company during Q6. We consider this is relevant, as it contributes to the overall returns earned by investors over the whole period of the regulatory settlement in which the current traffic shock occurred. However, we note that HAL has disputed that it has outperformed the Q6 settlement and provided extensive argumentation in support of its position. We have not considered these points or provided updated estimates of outperformance in this document, but we would need to do so before reaching a decision to implement this intervention.

I9 That said, this approach could require a substantial regulatory intervention. Based on information in HAL's RBP an estimate of the scale of intervention from this approach would be around £1.4 billion,[27] although the size of intervention may be much lower if we were to assume a greater level of dividend forbearance and/or took into account a potential further equity injection by HAL and/or outperformance in Q6.

Option 1C: place a "floor" under the equity losses for the notional company

I10 This approach assumes that investors expect CAA to intervene to fund the under-recovery of specific price control revenue building blocks in 2020 and

[27] Based on the PCM submitted alongside HAL's RBP, under the "No Adjustment" scenario. The figure represents the scale of the RAB adjustment necessary in 2021 to bring notional gearing down to 60% in 2022.

2021, and so would create a floor or cap on the losses that equity investors would suffer.

I11 We have estimated below the forecast losses for HAL in 2020 and 2021 as a result of the impact of the covid-19 pandemic. This uses information from HAL's RBP and is based on the notionally financed company (so is consistent with the assumptions we used to set the Q6 price control). The total losses in these calculations comprise:

- regulatory depreciation, which we further decompose into two separate components: the return of debt and return of equity capital respectively; plus
- return on debt and equity (remunerated through the allowed cost of capital); less
- EBITDA, which is the balance between regulated revenue less operating expenditure.

Table 9: iH7 return on/of capital, and estimated losses from the impact of the covid-19 pandemic

£m (2018 prices)	2020	2021	Total
A. Return of debt (the debt "portion" of regulatory depreciation)	498	512	1,010
B. Return of equity **(the equity "portion" of regulatory depreciation)**	332	341	673
C. Return on debt (**the** allowed return on notional debt)	417	415	832
D. Return on equity **(the allowed return on notional equity)**	497	547	1,044
E. EBITDA (revenue less operating costs)	-27	453	426
Total losses (=A+B+C+D-E)	1,771	1,363	3,134

Source: CAA analysis of HAL's RBP

I12 We have then considered the extent to which it would be reasonable for investors to expect recovery of each of these revenue building blocks in the context of an exceptional traffic shock as follows:

- It could be argued that loss of equity return is an inherent risk of providing equity finance for any business. This would also hold for HAL, particularly as the Q6 equity beta was assumed to be 1.1 and so equity finance was assumed to be more risky than the market average. We have also seen other airports and aviation sector companies cut dividends in response to the crisis. Therefore, it seems reasonably to take the view that equity investors would not expect recovery of the equity return in the face of an exceptional traffic shock.

- The case for regulatory protection of the return of equity capital is mixed. On the one hand, equity capital is at risk in most commercial businesses, and capital losses are a prospect any equity investor must face. At the same time, it may not be proportionate, or in consumers' interests, for the return of equity capital in any given year to be completely wiped out by an unanticipated shock where management has relatively little control over the impact of the shock on the regulated business.
- There is arguably a stronger case for regulatory protection of notional debt costs because the notional entity must pay interest on its debts in order to remain solvent, and investors may expect that the regulator will act to ensure revenues are sufficient to cover these costs. As the present circumstances are outside HAL's control, there may be a reasonable expectation that the CAA would take steps to make sure the notional company is resilient for the future. Adopting this approach would see both (i) the CAA taking regulatory actions so that the notional company can meet its debt costs and (ii) a mixture of regulatory interventions and HAL shareholder actions to restore notional financeability and a resilient capital structure in a timely way. So, this approach would share the costs of providing resilience between HAL and consumers.

I13 On balance, we think that it is most reasonable for investors to expect recovery of notional company debt costs in 2020 and 2021. This is because:

- it is in consumers interests that the notional company should be able to meet its debt obligations to remain financeable, even in exceptional circumstances; and
- consumers should not be required to fund the consequences of the particular financing choices made by HAL and its shareholders.

I14 We note, however, that any such "floor" could be argued to be inconsistent with the provisions Q6 price control. It is also inconsistent with investor expectations for businesses operating in competitive markets. This is because businesses in competitive markets can suffer losses that are only bounded by the continued solvency of the entity in question. As a result, this option arguably provides a greater degree of protection for investors than would be appropriate as it would provide more extensive protection than could have reasonably expected at the time the CAA set the Q6 price control.

I15 Based on the analysis in Table 9, we estimate that this intervention could be up to around £1.4 billion.[28] However, similar to option 1B, in reaching a final view on these intervention options, we would need to determine whether, and to what extent, it would be reasonable to reduce the scale of the intervention options to take account of outperformance in Q6.

[28] This is equal to the sum of the return on debt (£832m) and return of debt (£1,010m) less HAL's realised EBITDA in 2020 and 2021 (£426m) = £1,416m.

Appendix J

Competition issues

Introduction

J1 This Appendix addresses the comments made by some respondents to the October 2020 Consultation on the potential for a RAB adjustment to have an impact on competition between airports.

Stakeholders' views

J2 Manchester Airports Group said that it will be important for us to consider the impact on competition and market structure of providing sizeable financial support to an airport with substantial market power. This should include:

- the impact on market structure and competition in the short, medium and long term;
- the impact on HAL's financing costs; and
- the impact on HAL's continued ability to invest.

J3 HAL stated that it considered a RAB adjustment would not negatively affect competition and that, if anything, refusing its request would hinder proper competitive dynamics.

Our assessment

J4 We considered a number of possible ways that a RAB adjustment might affect competition between UK airports including:

- the likely impact on charges;
- the risk of financial distress, and
- the impact on ongoing investment and financing costs.

J5 Our overall conclusion is that we would not expect a RAB adjustment to have a material impact on competition.

J6 In the short-to-medium term, we consider that any impacts would be relatively modest. In the medium term there could be disadvantages for HAL, for example, if they led to HAL's charges being higher than they otherwise would be. While, in theory, a RAB adjustment might allow HAL to continue spending money where other airports cannot, it seems very unlikely that such expenditure could have a material impact on passengers' or airlines' choices of airport, especially in the context of Heathrow's existing strong advantages. For passengers, these include a convenient location with easy access to London and a wide choice or airlines and routes. For airlines, Heathrow is the UK's only major hub, take-off and landing slots are valuable assets that airlines wish to retain, and many airlines are able to charge premium fares on routes to and from Heathrow).

J7 Even if there were an impact on competition, we note that this would likely reflect the different commercial framework applying to HAL as compared with other UK airports. In particular, price cap regulation can mean that HAL could face a more limited range of possible outcomes (on both the downside and the upside) than many airports that are not subject to economic regulation. This would be more likely to be the case particularly in H7 (from 2022) if we were to adopt traffic risk-sharing mechanisms for HAL.

J8 It is also important to note that once traffic levels have recovered, HAL's ability to attract additional airlines and passengers from other UK airports (and therefore its ability to benefit from any potential competitive advantage) is likely to be limited by capacity constraints, which (in the absence of capacity expansion) will be the same regardless of whether or not HAL benefits from a RAB adjustment.

Appendix K

Regulatory Precedent

Introduction

K1 In considering the case for a RAB adjustment for HAL, and HAL's response to the October 2020 Consultation, we have considered whether there is relevant regulatory precedent that may be relevant to our assessment at other airports, or in other regulated sectors.

K2 The October 2020 Consultation noted that the evidence as to how airports and regulators were responding to the impact of the covid-19 pandemic was mixed. We said it was too soon to draw lessons regarding risk sharing mechanisms, and that other airports are responding in different ways. We also noted that comparing the regulation of Heathrow airport with the approach at other European airports could not be relied upon because there are numerous factors and differences to consider between each airport.

K3 In its response, HAL provided additional evidence on the approaches being taken at different major airports, including regulatory responses and government support. HAL also cited evidence from other UK regulated companies, such as NERL and Thames Tideway. HAL is concerned that the CAA, in taking no action, is doing less than other regulators.

K4 In this section, we set out an update on the regulatory precedent and the findings in the October 2020 Consultation. In general, we have found that:

- the experience in commercial and regulatory responses across different airports and regulated sectors continues to be mixed and the processes for many regulatory decisions are ongoing;
- we have found that the actions we have so far taken in response to the impact of the covid-19 pandemic, such as agreeing to the temporary alleviation of service quality targets, and discussing the appropriate

recovery of other regulated charges appear to be broadly comparable with the actions being taken at other international airports; and

- we have not seen evidence that another regulated company has yet asked for and received such a sizeable regulatory adjustment in response to the revenue losses arising from the impact of the covid-19 pandemic.

K5 We also consider that there should be limited read-across between NERL and HAL and we set out our rationale for this below.

Update on regulatory precedent

European airports

K6 As we set out in October 2020 Consultation, evidence of other airports implementing new TRS arrangements in response to the impact of the covid-19 pandemic is mixed. In its response, HAL cited the Commission for Aviation Regulation (“CAR”), Aeroport de Paris (ADP), Fraport and Aena as regulators or regulated companies which were making adjustments in response to the impact of the covid-19 pandemic, and that these were relevant regulatory precedent for us to consider.

K7 We have reviewed the latest positions on these airports and regulators below:

- CAR issued an interim review for 2020/2021, which had a narrow focus on elements of Dublin airport’s price control which were no longer sensible due to the impact of the covid-19 pandemic, such as incentives to deliver investment. This review has not revisited price cap levels, or TRS arrangements.
- ADP did not change its 2020 tariffs from those applied in 2019, and thus has faced losses due to the reduction in traffic. For 2021, ADP had proposed, and has accepted, a small increase in charges under a new pricing agreement. We understand that this increase in charges does not reflect the TRS mechanism in place under the previous pricing agreements and does not recover the losses to revenue as a result of the impact of the

covid-19 pandemic.[29] We understand that the French regulator is assessing proposals from Lyon and Marseille airports for larger price increases, though these have not yet been accepted.

- Fraport's airport charges for 2021 were frozen at 2020 levels, and to date it has not sought to recoup losses due to lower traffic through airport charges.[30]
- Aena had pre-existing TRS arrangements in place. These arrangements included that an adjustment can be considered if traffic volumes depart from forecast by more than 10 per cent. While this threshold has been reached, we have not been able to establish what the current next steps are for Aena and to what extent it will be able to recover the revenue losses from impact of the covid-19 pandemic.

K8 In summary, we do not consider that the approaches which are being adopted by other regulated airports and their regulators provide convincing current evidence that they are seeking, or providing, compensation in relation to the reduction in traffic volumes experienced. We note also that no other airport currently appears to be requesting compensation in the form of a RAB adjustment.

K9 HAL has also provided a substantial amount of new evidence on government support for different airports. For example, Germany has introduced an aid scheme to support airports which involves both direct compensation and liquidity support in the form of grants, loan guarantees and deferrals of certain taxes.[31] While there have been significant differences in the form and level of government support provided to the aviation sector in different countries, it appears to be the case that internationally, government support has been particularly targeted at airlines, rather than airports.

[29] https://www.autorite-transports.fr/wp-content/uploads/2021/01/version-publique_decision-2020-083_adp-tarifs-2021.pdf

[30] https://aviationcharges.iata.org/covid19.xhtml

[31] https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1472

NERL

K10 In its request for a RAB adjustment, HAL cited NERL as a comparator it considered relevant to its request.

K11 We note that NERL had existing traffic risk sharing arrangements in place as part of its price control for RP3 (the period covering 2020 to 2023), prior to the covid-19 pandemic. We have recently consulted on reasonable, temporary changes to the mechanism in the light of the circumstances of the covid-19 pandemic and by reference to the changes made by the European Commission to spread the recovery of revenues recovered through TRS over a longer period for equivalent businesses in the EU. These are fundamentally different regulatory arrangements from those applicable to HAL for Q6 and iH7, so caution is needed in drawing any direct comparisons. That said, we note that we are exploring options for traffic risk-sharing arrangements for HAL as part of the H7 price review.

Other UK regulated sectors

K12 We have further considered precedents in other sectors, noting that the impact of the covid-19 pandemic on the aviation sector has been more significant than on most other regulated sectors in the UK. Given regulators and regulated companies are still responding to the impact of impact of the covid-19 pandemic, we will keep this under review.

K13 HAL previously noted that Ofwat had made adjustments to the regulatory process for Thames Tideway. There is currently no detailed publicly available information on any steps Ofwat are considering with respect to a covid-related adjustment.