

Economic regulation of Heathrow Airport: H8 Initial Proposals Section 3: financial issues and calculating the price cap

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Aviation House
Beehive Ring Road
Crawley
West Sussex
RH6 0YR

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Enquiries regarding the content of this publication should be addressed to: robert.toal@caa.co.uk

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Chapter 9

Cost of capital

- 9.1 The allowance for the weighted average cost of capital (WACC) is a key building block in our calculation of the H8 price control. It represents a return on the RAB and acts as a payment to investors for the capital that they have committed to the business to support investment in the airport. Setting an appropriate WACC furthers the interests of consumers by helping to ensure that:
- HAL is able to finance the investment it needs to carry out its activities and meet the reasonable demands for AOS through providing a resilient and good quality airport experience; and
 - no more than efficient financing costs are reflected in the price control.
- 9.2 Setting an appropriate WACC is also one of the means by which we have regard to the need to secure that HAL is able to finance its activities at Heathrow Airport and helps promote economy and efficiency on the part of HAL in the way it finances those activities.
- 9.3 The WACC is calculated as a weighted average of the cost of equity and the cost of debt. The weights assigned to each are based on the proportion of debt and equity that we assume the notional (or efficiently financed) company would have in its financial structure. The notional company is discussed further in Chapter 10 (Financial framework).
- 9.4 The cost of equity represents the expected return that the shareholders in a notionally financed airport operator would require in order to induce them to commit equity capital to the business. This expected return is not observable and so is estimated based on asset pricing models. We have estimated the cost of equity for the notional company based on the Capital Asset Pricing Model (“CAPM”). This model is used by economic regulators in the UK and has been used by other stakeholders in their submissions to date. CAPM estimates the cost of equity on the basis of three parameters:
- the “equity beta”;
 - the “risk free rate”; and
 - the “total market return”.
- 9.5 The cost of debt provides HAL with an allowance to cover its efficiently incurred borrowing costs. In estimating the cost of debt, we take account of both of the following parameters:
- the cost of existing or “embedded” debt; and

- the cost of new debt.
- 9.6 We also take account of additional costs that would be incurred by the notional company in connection with its debt issuance and other financing costs required in the course of its day-to-day activities: for example, maintaining sufficient liquidity for its operations.
- 9.7 In carrying out our analysis, we reflect the inherent uncertainty in estimating values for each parameter, and hence for the WACC as a whole, by determining a reasonable range of estimates. We then determine a point estimate for the WACC based on considerations outlined in paragraphs 9.334-9.347 below.
- 9.8 To support our assessment, we have commissioned a report by our advisors, FTI Consulting (the “FTI report”), which is published alongside these initial proposals.
- 9.9 The remainder of this chapter is structured as follows:
- we set out background information that is relevant to the estimate of the WACC;
 - this is followed by our analysis for each of the WACC parameters noted above, including responding to the views that stakeholders have already provided in relation to these matters; and
 - finally we make initial proposals for the appropriate point estimate for the WACC and set out next steps.

Background

Evidence provided to date

- 9.10 We previously published a report by our advisors, FTI Consulting, alongside our Draft H8 Method Statement and business plan guidance in November 2024 (the “FTI November report”)¹. We received responses from stakeholders to the Method Statement and FTI November report in January 2025.
- 9.11 HAL provided the following reports by its advisors:
- a report by KPMG² which set out a relative risk assessment of HAL compared with its peers and considered implications of HAL’s risks for the estimation of H8 beta; and

¹ CAP3044a, November 2024.

² KPMG (2025), “A relative risk assessment of HAL at H8”, January.

- a report by Oxera³, which reviewed the approach we and our advisors proposed to estimate the total market return and provided Oxera's estimate of the total market return for H8.
- 9.12 IATA commissioned a report by CEPA⁴, which provided views on the asset beta and cost of debt.
- 9.13 HAL provided further evidence in respect of the cost of capital alongside its Business Plan in July 2025, including further reports by its advisors:
 - a report by KPMG⁵ in respect of the cost of debt, which undertook analysis of HAL's cost of embedded and new debt based on its debt book and the latest market data; and
 - a further report by KPMG⁶ which updated and provided further detail in respect of its analysis of HAL's systematic risk relative to other listed airports.
- 9.14 In response to HAL's Business Plan, IATA commissioned a further report by its consultants, CEPA, (the "CEPA October report")⁷, which provided an alternative estimate of HAL's WACC.

Macroeconomic developments

- 9.15 The broader UK and global macroeconomy has continued to evolve since we set the H7 price control.

Interest rates

- 9.16 As we noted in the H8 Method Statement, UK interest rates, both real and nominal, have increased significantly since the start of the H7 period. Since the publication of the H8 Method Statement, average 20-year index-linked gilt yields have increased to 2.21% in October 2025, compared with 1.91% in March 2025. The 20-year nominal gilt yield increased to 5.38% in October 2025 compared with 5.26% in March 2025.

³ Oxera (2025), "*H8 Cost of Capital Guidance: Total Market Return*", January.

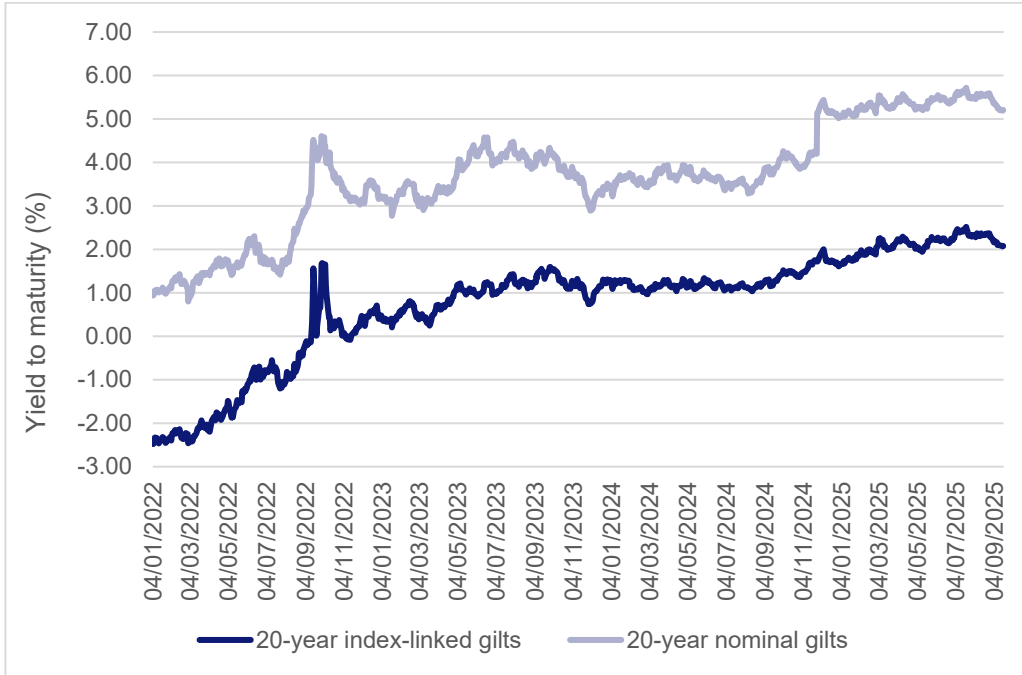
⁴ CEPA (2025), "*Virgin Atlantic Response to CAP3044A: Cost of capital, and FTI Consulting's report - Cost of Capital Strategy for H8*", January.

⁵ KPMG (2025), "*Estimating the Cost of Embedded and New Debt for H8*", July.

⁶ KPMG (2025), "*Relative risk analysis and beta estimation at H8*", July.

⁷ CEPA (2025), "*Estimating the H8 cost of capital*", October.

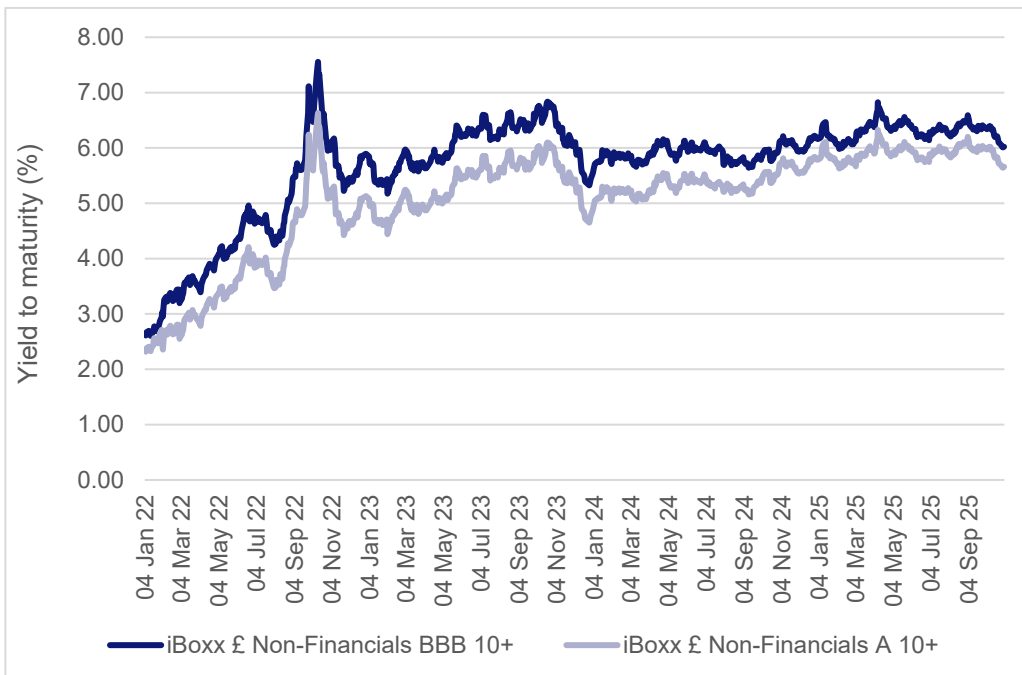
Figure 9.1: Yield-to-maturity on 20-year gilts in H7



Source: Bank of England spot curves

9.17 Corporate borrowing rates also remain at broadly comparable levels compared with their levels at the time we published the H8 Method Statement. Yields to maturity on the iBoxx non-financials A 10+ years index were 5.84% in October 2025 compared to 5.88% in March 2025. The corresponding values for the iBoxx non-financials BBB 10+ years index are 6.21% and 6.32%.

Figure 9.2: Yield-to-maturity on corporate bond indices in H7



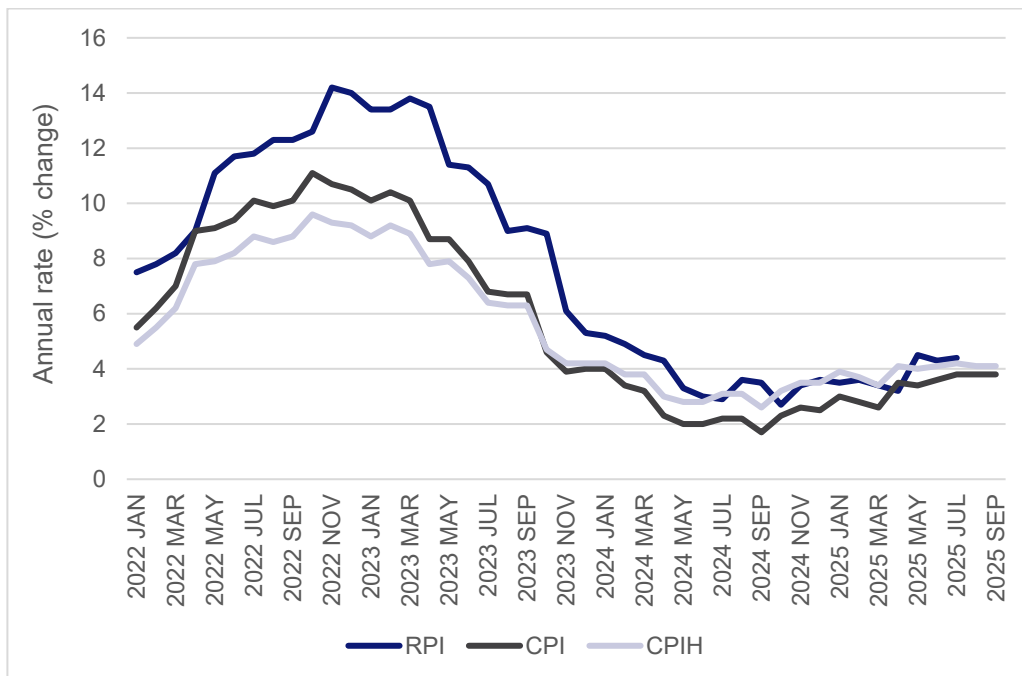
Source: IHS Markit

9.18 The implications for the allowed return on equity that we set for the H8 price control is less clear, as the relationship between interest rates and equity returns is not straightforward to determine. We note that this matter has been extensively discussed in various recent price control determinations, including in the context of the CMA’s redetermination of the PR24 price control determination. We discuss these matters further in paragraphs 9.186-9.190 and 9.349-9.352 below.

Inflation

9.19 Inflation also continues to be above the above the Bank of England’s target of 2%, with CPI at 3.8% in September 2025. Nonetheless, inflation is significantly lower than at the start of the H7 period.

Figure 9.3: Inflation over H7



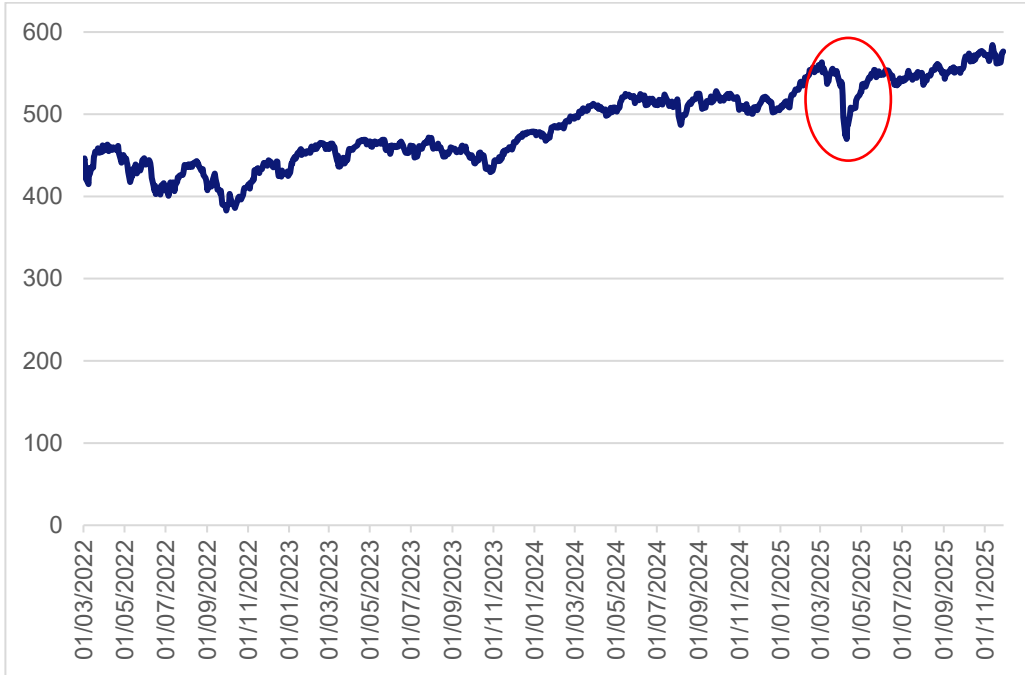
Source: Office for National Statistics.

9.20 Where the cost of embedded debt is fixed in nominal terms, higher inflation implies a lower real cost of embedded debt.

Equity markets

9.21 There have also been observed shocks to equity markets. In early 2025, the Eurostoxx 600 index (which we used to estimate the equity beta of listed comparator airports in H7) exhibited a pronounced, though temporary, fall in price. This fall coincided with the announcement of tariffs by the US Government to be imposed on exports by various countries. The magnitude of this reduction was larger than any other observed during H7 and has potential implications for our estimate of the cost of equity. This is considered further in paragraphs 9.70-9.77 below.

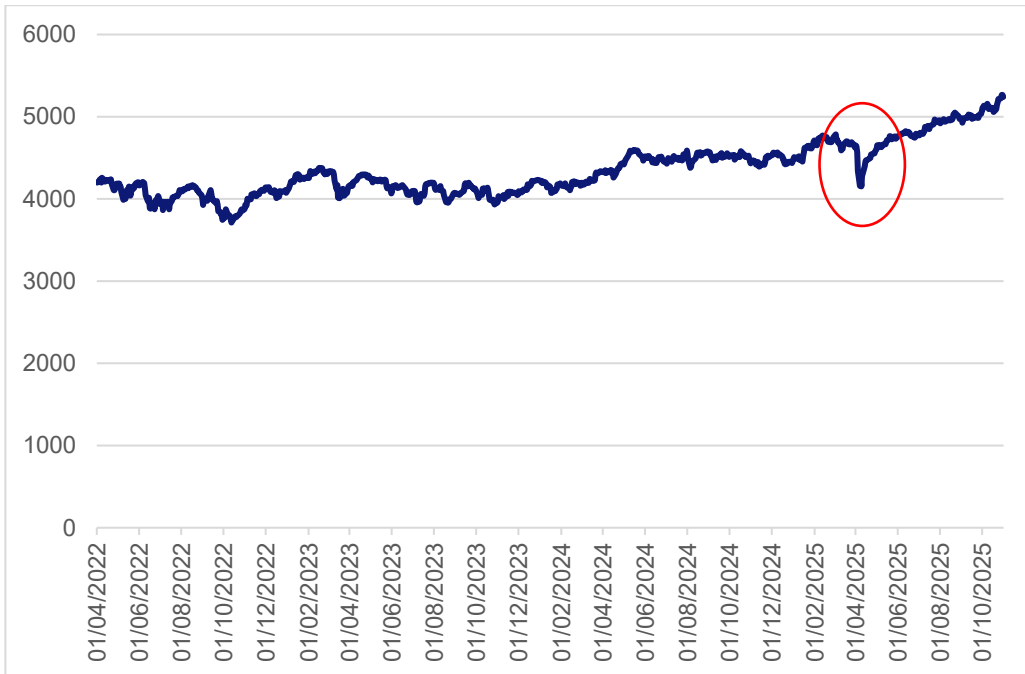
Figure 9.4: Evolution of the Eurostoxx 600 index over H7



Source: FactSet

9.22 Similar trends have been observed in respect of UK equity markets.

Figure 9.5: Evolution of the FTSE All-Share index over H7



Source: FactSet

Broader regulatory developments

9.23 There have also been the following developments in other regulated sectors that are relevant to our estimate of the WACC:

- On the 18th March 2025, Ofwat referred its price control determinations for the period 2025-2030 (“AMP8”) for five water companies to the CMA. A sixth company, Thames Water, has rejected Ofwat’s determination, but its price control determination has not yet been referred to the CMA.
- On the 15th September 2025, the CMA published its provisional determinations for the PR24 appeals. This included the CMA’s determination of the WACC for those five companies.
- In parallel with this process, the Independent Water Commission published its Final Report in respect of the comprehensive review of the water sector in July 2025. This included a recommendation that the CMA should take on responsibility for setting a common WACC methodology for all UK regulated sectors, including issuing new guidance, as well as monitoring and enforcing its application.
- On the 1st July 2025, Ofgem published its Draft Determinations for the Electricity Transmission, Gas Distribution and Gas Transmission sectors for the period April 2026-March 2031 (“RIIO-T3/GD3”). Following this, Ofgem published its Final Determinations on 4th December 2025. Since this took place following the cut-off date for our assessment, we have not taken the Final Determinations into account in this document (through we have considered the Draft Determinations). We intend to take stock of this evidence in developing our final proposals.
- On 8th October 2025, Ofgem published its Sector Specific Methodology Consultation for the Electricity Distribution sectors for the period 1 April 2028 to 31 March 2033.

9.24 These developments are consistent with a broad theme that it is important that regulators take a reasonably transparent, consistent and predictable approach to setting the WACC. This would enable investors to more easily understand how regulation functions in the UK and so may enable access to a wider pool of capital by regulated businesses. It may also reduce perceptions of regulatory risk.

9.25 These considerations are likely to be particularly important in the context of significant expected capital expenditure at Heathrow Airport during the H8 period and beyond. We propose to adopt the following approach to these matters:

- We align our approach with the UKRN cost of capital guidance⁸, unless there is a clear reason why this would not be appropriate. For example, we no longer apply a “convenience yield”⁹ when estimating the risk free rate, in line with that guidance.
- We retain our approach from the H7 price control, unless there is a clear reason why this would not be appropriate. For example, we continue to use a notional gearing assumption of 60% as we did for H7.
- Where new issues or evidence emerge that are not adequately addressed by either the UKRN cost of capital guidance or our H7 approach, we exercise our judgement taking into account the available evidence, including the CMA’s Provisional Determination of the PR24 price control. For example, we have considered new evidence in respect of the impact of non-core holdings by comparator airports and in relation to the impact of the “single till” we use to regulate HAL.
- Where it is practicable and reasonable, we have sought to simplify our approach and avoid relying on approaches that rely excessively on subjective assumptions. For example, we set a high bar for applying relative risk adjustments to comparator asset beta estimates.

Capacity expansion at Heathrow

- 9.26 The focus of the H8 price control review is HAL’s operation of the two runway airport. Bearing this in mind, we have estimated a “baseline” WACC on the assumption that Heathrow will continue to operate under a two-runway configuration for the duration of H8.
- 9.27 We will separately consider the impact that expansion might have on the WACC as part of our wider review of Heathrow expansion. This impact is likely to be dependent on several factors that are not yet known with certainty, including the timing of different phases of expansion, and the scale of necessary capex and the regulatory arrangements that will apply to capacity expansion.

Notional gearing

- 9.28 “Notional gearing” represents an assumption regarding how the notional company finances itself in terms of the proportions of debt and equity in its financial structure. It is important, as notional gearing:

⁸ UKRN (2023), “UKRN guidance for regulators on the methodology for setting the cost of capital”, March.

⁹ This refers to a yield discount that investors are willing to accept due to the convenient attributes of government bonds (e.g. money-like safety and liquidity characteristics).

- determines the relative weight we assign to each of the cost of debt and the cost of equity when estimating the WACC;
- determines how we control for differences in leverage between the comparator companies we used to estimate the equity beta;
- is relevant for the estimation of the cost of debt, since the cost of debt should be consistent with the level of gearing and the associated degree of implied financial risk;
- is relevant to our estimate of the efficient tax allowance for the notional company; and
- is relevant to our financeability assessment.

Stakeholder views

HAL

9.29 In its H8 Business Plan, HAL assumed a 60% notional gearing level, in line with our approach in setting price controls from the Q5 period onwards.

IATA

9.30 CEPA, on behalf of IATA, proposed a 50% notional gearing level. CEPA's said this would provide more "headroom" to accommodate any equity risks faced by HAL.

9.31 It noted that other regulators have lowered their notional gearing assumptions in recent determinations. For example, it noted that Ofwat adopted a lower gearing assumption (55%) in the PR24 Final Determinations compared to the PR19 Final Determination (60%). It also referred to the CMA's determination of the RP3 price control for NERL, where the CMA assumed a 30% notional gearing assumption compared with the 60% notional gearing level that we had assumed.

9.32 It cautioned against relying on HAL's actual financial structure, which it described as "aggressive".

9.33 It examined how the gearing levels for three airport companies (AdP, AENA and Fraport) had evolved over time. It concluded that its 50% notional gearing assumption would be consistent with these values.

Our views

9.34 We have given further consideration to the appropriate notional gearing assumption for H8 and note the following relevant issues.

- **Impact of the notional gearing assumption on the WACC:** the Modigliani and Miller capital structure irrelevance hypothesis suggests that the WACC should be invariant to the level of gearing. In practice, the level of gearing can affect the estimated WACC due to the way in which the underlying parameters are estimated¹⁰. Moreover, a higher notional gearing assumption can result in a higher or lower WACC, depending on the value of the underlying parameters. For the H7 period, a higher level of notional gearing was associated with a higher estimated WACC. By contrast, CEPA noted that a lower level of notional gearing is associated with a higher WACC under its proposals.
- **Consistency of the notional gearing assumption used to estimate the WACC with that used for the purposes of testing the financeability of the notional company:** in the context of the NR23 price control determination, we noted that it can be reasonable to use a different notional gearing assumption for the purposes of estimating the WACC from the notional gearing assumption used for the purposes of testing the financeability of the notional company. This remains our position, but we also note that in the circumstances of the H8 price control it is not clear that there is a compelling reason to adopt a different approach to the level of gearing used to estimate the WACC and that used in our assessment of HAL's financeability.
- **Consistency of the notional gearing assumption with previous determinations:** We see merit in promoting regulatory predictability and transparency by not amending parameter estimates unless there is a clear reason to do so.

9.35 Overall, we do not consider there to be a strong case for moving away from the notional gearing assumption that we used for the H7 price control (60%).

Our Initial Proposals

9.36 We propose to assume a **60% notional gearing level** for the H8 Initial Proposals.

Equity beta

9.37 The equity beta is a measure of the “systematic” risk to which a company’s shareholders are exposed. This is the proportion of total risk that cannot be eliminated by holding a diverse portfolio of assets. It is an important input into our

¹⁰ We set out the reasons for this in our NR23 Initial Proposals: “*The CMA’s analysis at RP3 and our own assessment in this document suggests that the process of re-levering and delevering distorts the estimate of the WACC due to the presence of embedded debt, rather than being indicative of a positive relationship between WACC and gearing*”, see CAP2394b, paragraph C43.

cost of capital calculation because, under the CAPM, it is the parameter that determines shareholders' required return for holding a stock in a specific business, in this case the notional company.

9.38 Because HAL is not a listed company, we must estimate its equity beta indirectly: for example, based on equity beta estimates for other, listed companies. Where we use the equity beta for other listed companies to estimate the equity beta of the notional company, we need to consider how best to control for differences in gearing between the selected comparators and the notional company. We do this in three steps.

- We firstly estimate the “asset beta” for each comparator company: this is equivalent to the equity beta of a company with no debt. This is calculated as:

$$\text{Asset beta} = \text{Equity beta} * (1 - \text{gearing}) + \text{debt beta} * \text{gearing}$$

Where the debt beta represents the proportion of a company's systematic risk to which a company's creditors are exposed.

- We then determine the asset beta for HAL based on the estimated comparator asset betas. This requires us to make a judgement regarding how HAL compares to the comparator companies in terms of systematic risk exposure.
- Finally, we translate the asset beta for HAL into an equity beta based on the assumed gearing of the notional company, together with an assumption regarding the debt beta for the notional company. This is calculated as:

$$\text{Equity beta} = \frac{\text{Asset beta} - \text{debt beta} * \text{gearing}}{(1 - \text{gearing})}$$

Stakeholder views

HAL

9.39 In its H8 Business Plan, HAL proposed the following values for the equity beta:

Table 9.1: Equity beta estimates in HAL's H8 Business Plan

	Low	Mid	High
Asset beta	0.58	0.61	0.62
Debt beta	0.05	0.075	0.10
Equity beta	1.38	1.39	1.40

Note: HAL subsequently provided us with updated values for the asset beta based on additional data. We have not presented these here.

Source: Heathrow Airport Limited, "Heathrow's H8 Business Plan 2027-2031"

- 9.40 The lower bound of this estimate was based on equity betas estimated for four listed comparators: ADP, AENA, Fraport and Zurich. For each comparator, HAL estimated daily equity betas using 2-year and 10-year windows over a two-year period. It then aggregated these values into a single equity beta estimate based on the average of these values.
- 9.41 An asset beta for HAL was then calculated based on these comparators' average gearing level over a three-year period and a debt beta of 0.05.
- 9.42 The upper bound of this estimate was based on equity betas estimated for ADP, AENA and Zurich. These equity betas were calculated based on the same basis as under the lower bound.
- 9.43 HAL referred to KPMG's assessment that Heathrow and Zurich have high risk relative to the other airports in the sample, with Heathrow subject to relatively high regulatory risk and Zurich subject to high opex and revenue risk.
- 9.44 It considered that KPMG's analysis suggests that the comparators in aggregate may underestimate the asset beta of Heathrow. It stated that Fraport is the least appropriate comparator, and that a beta estimate based on ADP, AENA and Zurich would be more accurate.
- 9.45 It also said that adjusting beta values because HAL's regulatory arrangements include a TRS mechanism is unnecessary since it is only one of many differences in risk between Heathrow and comparator airports. It stated that other risks are cumulatively more material than traffic risk.
- 9.46 HAL also noted that its proposed range for its asset beta lies below the asset beta range proposed by KPMG (0.67-0.69).

IATA

- 9.47 CEPA, on behalf of IATA, estimated the following values for the equity beta:

Table 9.2: Equity beta estimates proposed in the CEPA October report

	Low	Mid (P50)	High
Asset beta	0.41	0.43	0.45
Debt beta	0.10	0.075	0.05
Equity beta (50% gearing)	0.72	0.79	0.85

Source: CEPA (2025), "Estimating the H8 cost of capital"

- 9.48 The assumptions on which these estimates were based are set out below.

Comparator selection

- 9.49 CEPA used AENA, ADP and Fraport as the main comparators for HAL because they are large, listed European airport groups. It noted that this is consistent with the three airports considered by the CMA in the RP3 redetermination.
- 9.50 CEPA indicated that it did not consider it was appropriate to include Zurich while placing lower weight on Fraport. It considered this to be “cherry picking” of a high asset beta stock while removing a lower beta stock. It also noted issues with the use of Zurich as a comparator:
- the use of a price monitoring framework;
 - currency issues between Zurich’s national currency using the Swiss Franc and comparison to a European index; and
 - differences in traffic mix relative to Heathrow; and
 - the operation of both Zurich airport and Geneva airport as hubs by Swiss International Air Lines.
- 9.51 It therefore excluded Zurich from the comparator set. It considered that Fraport remained a valid comparator and stated that data on Sydney Airport for the pre-pandemic period is more informative than that for Zurich.

Estimate of comparator betas

- 9.52 CEPA’s estimated equity beta values for comparator airports using:
- daily data;
 - rolling two-year windows over two periods: the “pre-pandemic” period from 5 January 2012 to 31 January 2020; and the “post-pandemic” period from 1 December 2022 to 31 July 2025; and
 - the use of the STOXX600 market index.
- 9.53 It then translated these into asset beta estimates using comparator net debt estimated over the same period as the “raw” equity betas.
- 9.54 CEPA presented a range of asset betas based on different sample windows within the pre-pandemic and post-pandemic periods. It considered lower quartile, median and upper quartile values for each comparator, and for the average across the three comparators in its sample.
- 9.55 CEPA then estimated a range for comparator company asset betas based on the lower quartile average comparator betas from the pre-pandemic period and the upper quartile average comparator betas from the post-pandemic period. This resulted in an estimate of 0.51 to 0.64.

Relative risk assessment

- 9.56 CEPA considered that HAL is less exposed to systematic risk relative to the comparator airports in its sample. It presented two main factors that it considers drives this difference.
- **Traffic volatility:** it noted that HAL is less exposed to fluctuations in traffic volumes due to the presence of excess demand, that it considers is not the case for comparator airports. It highlighted that traffic volatility has historically been lower for HAL than for other airports. It also noted that the comparators considered represent airport groups capturing risk from a wider range of markets and conditions, and which can lead to airport group betas overstating HAL's risk exposure.
 - **The single till mechanism:** CEPA noted that the comparator airport companies it considered, operate under a dual till mechanism, whereas HAL operates under a single till mechanism. CEPA considered that a single till mechanism insulates HAL from risk compared with a dual till mechanism. CEPA explained that this is because companies operating under dual till mechanisms continue to be exposed to volatility in commercial revenues across successive price control determinations.
- 9.57 To reflect these differences, CEPA applied a downward adjustment to its estimate of comparator asset betas of 0.05-0.15, resulting in an estimate of the asset beta for HAL of 0.46-0.49, before the impact of the TRS mechanism is considered.
- 9.58 CEPA noted that we applied a relative risk adjustment of 0.05 (at the midpoint) in H7, which forms the basis for its lower bound assumption. The upper bound was then calculated to yield a midpoint estimate of 0.10. The midpoint estimate was based on CEPA's estimate of the asset beta for the Paris airports under a single-till mechanism. This involved a series of assumptions and estimates to adjust for the impact of international holdings and the dual-till mechanism applied to the Paris airports. These included estimates of the:
- asset beta for AdP Group of 0.58;
 - "international" segment asset beta of AdP Group of 0.64, based on an estimate of the asset beta for TAV Airport and GMR;
 - weight to be applied to the "International" segment asset beta of AdP Group based on J.P. Morgan's sum of the parts valuation;
 - asset beta for the Paris airports based on a decomposition of the AdP Group;

- non-aeronautical asset beta for the Paris airports under a dual till mechanism of 0.66, based on the “Real Estate (Development)” asset beta estimate published by Aswath Damodaran, and adjusted for an assumed debt beta of 0.075;
- aeronautical asset beta for the Paris airports (assumed to be the same under a single-till and dual-till mechanism), based on a decomposition of the overall asset beta for the Paris airports;
- non-aeronautical asset beta for the Paris airports under a single till mechanism, based on a scaling of the aeronautical asset beta for the Paris airports;
- weight to be assigned to the non-aeronautical asset beta for Paris airport under a dual till mechanism, based on J.P. Morgan’s sum of the parts valuation, expressed as a proportion of the Paris airports total; and
- Paris airports’ asset beta based on a weighted average of the aeronautical asset beta for the Paris airports and the non-aeronautical asset beta for the Paris airports under a single-till mechanism.

9.59 CEPA noted that if the “International” segment asset beta of AdP Group is assumed to be equal to the group beta, the resulting relative risk adjustment is 0.06, which it considered to be broadly consistent with its lower bound estimate.

Impact of the TRS mechanism

9.60 CEPA applied a further downward adjustment to the pre-TRS asset beta for HAL to reflect the impact of the TRS mechanism. This was based on a similar calculation to that which we applied in H7, but used different parameter estimates:

- a counterfactual asset beta assumption of 0.3625, which we interpret as the asset beta for a hypothetical airport operator with no exposure to traffic risk; and
- an assumption that the TRS reduces the proportion of the asset beta attributable to volume risk by 60%. We understand that this reflects a judgement regarding the TRS mechanism we will put in place for the H8 price control.

9.61 This results in a downward adjustment of 0.04-0.05.

9.62 CEPA’s overall estimate of the asset beta for HAL is set out in the table below.

Table 9.3: Asset beta estimates proposed in the CEPA October report

	Low	High
Comparator asset betas	0.51	0.64

	Low	High
Relative risk adjustment	0.05	0.15
TRS adjustment	0.05	0.04
HAL asset beta	0.41	0.45

Source: CEPA (2025), “*Estimating the H8 cost of capital*”

Debt beta

9.63 CEPA applied a debt beta of 0.075, which it indicated matches the approach adopted in the H7 determination.

Our views

9.64 Having taken account of stakeholder views, we consider below the:

- selection of listed comparators;
- estimation of the equity and asset betas for listed comparators;
- systematic risk of the “core” airports within listed airport companies compared with the broader group;
- systematic risk of HAL compared with the core airports within listed airport companies, before consideration of the TRS mechanism; and
- impact of the TRS mechanism; and
- estimation of the debt beta for HAL.

Selection of comparators

9.65 In line with our approach for the H7 price control, we consider that listed airport companies represent the most relevant comparators for HAL. Although regulated network utilities could, in principle, also be included in the comparator set, we consider that the absence of demand risk faced by these entities means that they are not suitable as a starting point for the estimation of the equity beta. This is in line with the view expressed by the CMA in the context of the RP3 price control determination that, “*we did not believe that including [UK utilities] as a lower bound added meaningfully to the accuracy of our analysis*”¹¹.

9.66 We also do not consider that equity beta estimates for companies operating in other sectors, for example, airlines and telecoms firms, represent appropriate comparators for HAL, since they are subject to considerable differences in their underlying business models and operating circumstances.

¹¹ CMA (2020), “NATS (En Route) Plc/CAA Regulatory Appeal: Final report”, paragraph 13.52.

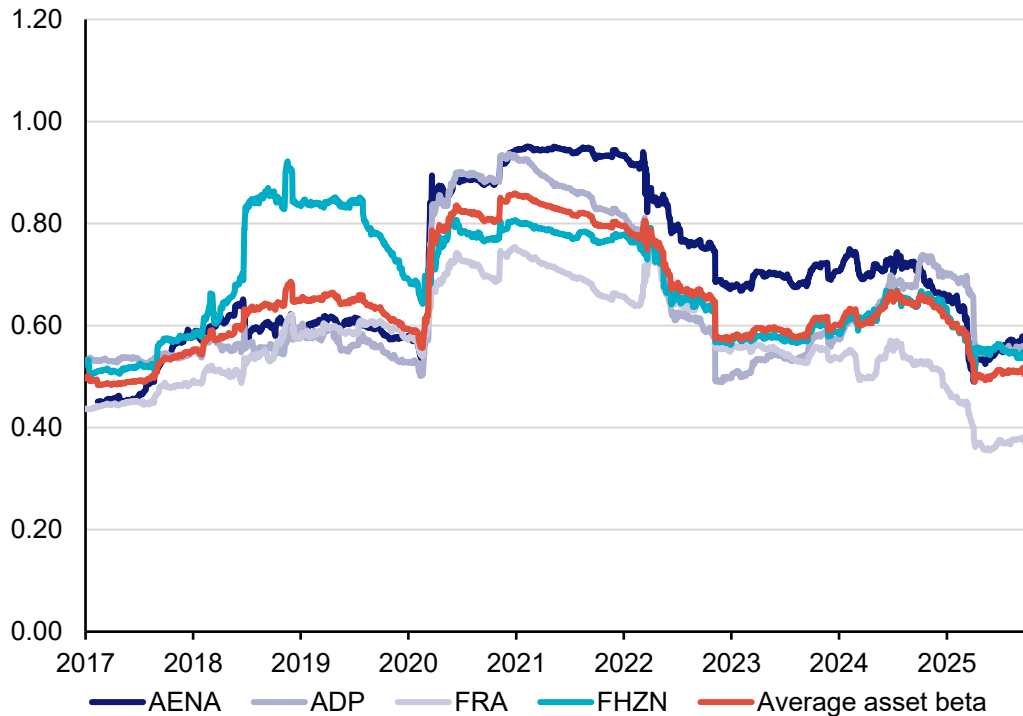
- 9.67 We have considered whether it would be appropriate to include Zurich within the set of comparator airports. We note that we placed some weight on Zurich in our H7 Final Decision. In addition, the FTI November report recommended that we should consider including Zurich within our comparator set.
- 9.68 We note CEPA's observations regarding the limitations of Zurich airport as a comparator for HAL. However, we consider that it also has the advantage that a relatively small proportion of its revenues (less than 10%¹²) are earned from non-core segments compared with AdP, AENA and Fraport. Moreover, several of the highlighted drawbacks are also applicable to these three airports. For example:
- Fraport also employs a price monitoring framework;
 - all three comparators exhibit differences in traffic mix relative to Heathrow; and
 - Lufthansa operates both Frankfurt and Munich as hub airports.
- 9.69 Given the limited number of listed European airport comparators available, we consider that the inclusion of Zurich materially improves the robustness of our assessment. We therefore include it within our comparator set.

Estimation of equity and asset betas for listed airport comparators

- 9.70 Equity and asset betas¹³ for the listed comparator airports have shown significant instability over the previous two price control periods. The impact of the pandemic was extensively considered as part of the H7 Final Decision and resulted in a marked increase in both equity and asset beta estimates at that time. This impact partially reversed following the pandemic.
- 9.71 Since the pandemic, equity and asset betas for comparator airports have continued to show significant instability. This has, in part, been driven by market-wide developments, as highlighted in paragraph 9.21 above. Figure 9.6 below illustrates the evolution of comparator airport equity betas since the pandemic.

¹² See p171 of the Integrated Report 2024 for Zurich Airport Ltd.

¹³ Asset betas are considered in this context, as they control for changes in comparator airports' leverage, and hence provide a clearer view on underlying business risk.

Figure 9.6: Evolution of 2-year, daily asset betas for listed airport companies

Note: The data above represents the longest period over which data for all four listed comparators is available (data for AENA is only available from February 2015, which means 2-year equity betas can only be estimated from February 2017).

Source: Capital IQ.

- 9.72 Figure 9.6 shows that listed airport asset betas have fallen sharply since the beginning of 2025. The timing of this reduction coincides with the pronounced, though temporary, fall in European stock markets and the announcement of tariffs by the US Government to be imposed on exports by various countries.
- 9.73 The question of what weight to place on data from different time periods is, therefore, significant. While we adopted a re-weighting approach for the H7 price control review, to reflect the special circumstances of the impact of the pandemic, there is now less reason to adopt this approach. The FTI November report recommended against “re-weighting” of data to reflect judgements regarding the salience of this data in future periods. We agree with this recommendation, on the basis that such judgements are likely to be relatively arbitrary in the context of asset beta estimates that are subject to significant shocks in both directions.
- 9.74 Instead, we propose to rely on unweighted estimates of listed airport company equity betas estimated over different estimation windows. This is consistent with the UKRN Cost of Capital Guidance, which states:

“In estimating betas, there is a trade-off between relevance and reliability. Recent data may be more relevant to market expectations of future risk

than historical data, but the longer the sample of observations used, the more reliable (statistically robust) estimates will be, and the less heavily influenced by atypical and transient events which may not be representative of the ensuing control period. Considering a range of lengths of estimation window (for example, 2 year, 5 year and 10 year) should be sufficient to balance the dual objectives of minimising unrepresentative noise from small samples of data and recent data relevant to a forecast.”¹⁴

9.75 We, therefore, estimate equity betas for listed airport companies based on two-year, five-year and ten-year estimation windows based on daily share price data. We regress equity returns for these companies against daily returns on the STOXX 600 index for the corresponding period, in line with our approach at H7.

9.76 We then estimate asset betas for the listed airport companies in line with our H7 approach:

- a gearing assumption based on the listed comparator companies’ market capitalisation and the book value of net debt over the corresponding period; and
- a debt beta of 0.075.

9.77 The resulting asset beta estimates are as follows:

Table 9.4: Spot 2-year, daily asset beta estimates for listed airport companies

	AENA	ADP	Fraport	Zurich	Simple average	Weighted average
Equity beta	0.60	0.88	0.81	0.57	0.72	0.68
Debt beta	0.075	0.075	0.075	0.075	0.075	0.075
Gearing	17%	43%	63%	14%	34%	26%
Asset beta	0.51	0.53	0.34	0.50	0.47	0.50

Source: Capital IQ.

¹⁴ UKRN (2023), “UKRN guidance for regulators on the methodology for setting the cost of capital”, page 23.

Table 9.5: Spot 5-year, daily asset beta estimates for listed airport companies

	AENA	ADP	Fraport	Zurich	Simple average	Weighted average
Equity beta	0.87	0.93	1.26	0.73	0.95	0.91
Debt beta	0.075	0.075	0.075	0.075	0.075	0.075
Gearing	22%	41%	62%	18%	36%	31%
Asset beta	0.70	0.58	0.52	0.61	0.60	0.64

Source: Capital IQ.

Table 9.6: Spot 10-year, daily asset beta estimates for listed airport companies

	AENA	ADP	Fraport	Zurich	Simple average	Weighted average
Equity beta	0.95	0.97	1.12	0.78	0.96	0.96
Debt beta	0.075	0.075	0.075	0.075	0.075	0.075
Gearing	24%	33%	51%	15%	31%	29%
Asset beta	0.74	0.68	0.58	0.68	0.67	0.70

Source: Capital IQ.

9.78 The resulting asset beta estimates span a wide range, which results from:

- instability in the underlying estimates over time; and
- the fact that the comparator airports are exposed to different levels of systematic risk given their differing business and operating profiles.

Relative risk of “core” airports compared with broader airport groups

9.79 We have considered the evidence provided by the airlines/CEPA (as set out in paragraphs 9.59-9.62 above) regarding the systematic risk of the core airports that are most comparable to HAL relative to the systematic risk of the broader listed companies within which they operate.

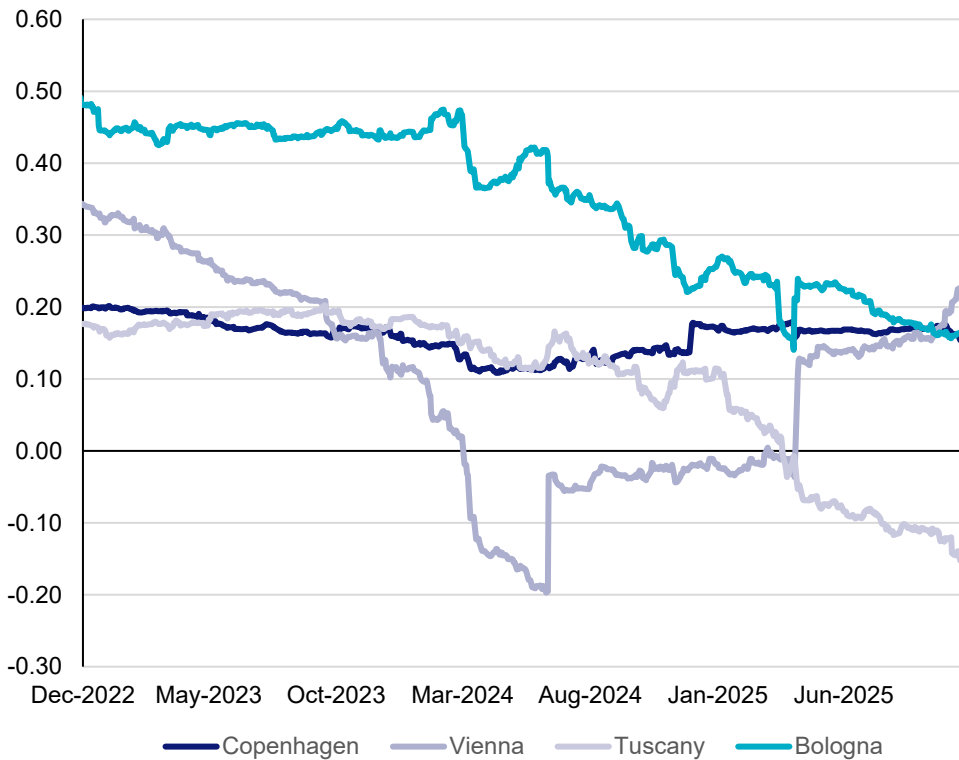
9.80 In our H7 Final Proposals, we stated that

“it is not obvious that [the presence of non-core holdings] introduces a systematic bias into our assessment. On the one hand, the comparator betas may be higher due to the presence of smaller, and presumably riskier, airports in less-developed markets. On the other hand, because these holdings are in economies outside of Europe, their contribution to

the observed group beta, which is measured against a European index, may reduce the observed beta.”¹⁵

9.81 We have further considered this view. We have firstly examined the equity and asset betas for listed companies that primarily own smaller European airports. In several cases, these comprise a single airport. The asset betas for these companies are set out in Figure 9.7 below.

Figure 9.7: Spot 2-year, daily asset beta estimates for listed companies owning smaller European airports



Source: CapitalIQ.

9.82 The data does not obviously indicate that these smaller airports exhibit a higher asset beta than the listed airport comparators that form the basis of our estimate for HAL.

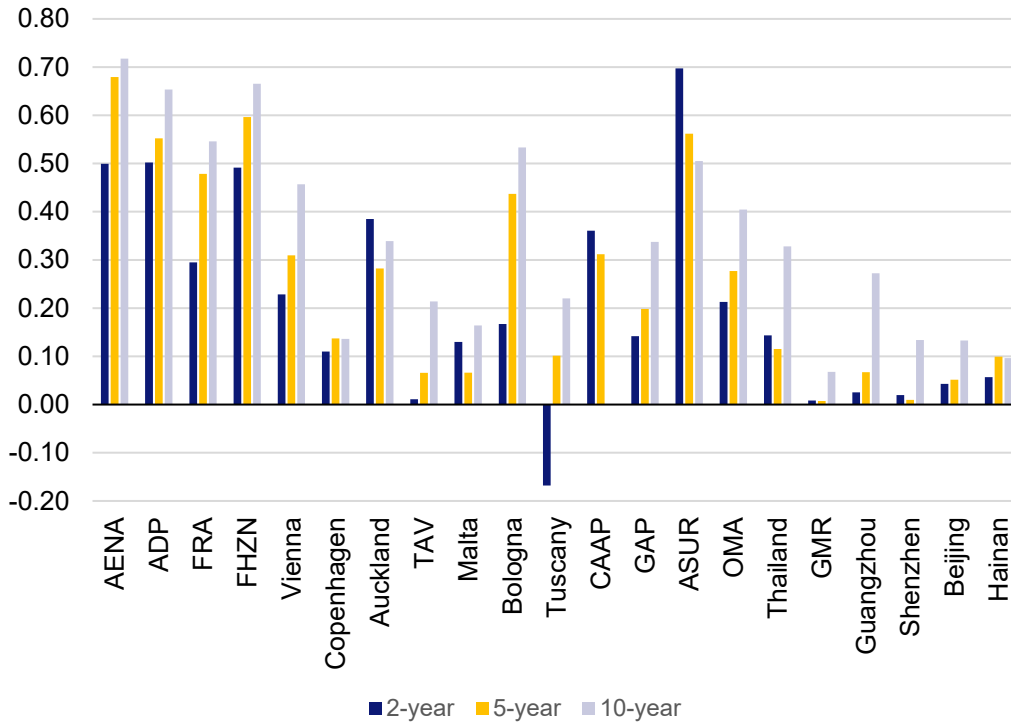
9.83 We have secondly considered the equity and asset beta for listed airport companies that own portfolios of non-European airports. Importantly, we estimate the equity and asset betas for these companies with reference to the Eurostoxx 600, as opposed to a local index.

9.84 This is because we are considering the impact of owning non-European airports from the perspective of a European investor that primarily owns a portfolio of European equities. This ensures that we capture the impact of global

¹⁵ CAP2365D, paragraph 9.67.

diversification to which we referred at H7. The asset betas for these companies are set out in Figure 9.8 below.

Figure 9.8: Spot daily asset beta estimates for the top 20 publically listed airport groups by market capitalisation



Source: CapitalIQ.

- 9.85 The data suggests that listed non-European airport companies generally exhibit lower betas compared with the listed airport comparators that we use to estimate HAL’s equity beta.
- 9.86 We are cautious in respect of the conclusions that can be drawn from this evidence. The listed non-European airport companies often span several different countries and assets that may not be directly comparable to the non-European airport holdings owned by the listed comparator airport companies. At the same time, the available evidence does not obviously indicate that non-European airport holdings materially increase the equity betas of listed European airport groups.
- 9.87 All else being equal, this evidence would suggest that the non-core airport holdings within the listed comparator companies do not materially increase their equity betas. As such, we do not consider that an adjustment to reflect the risk of non-core holdings is warranted. Further detail of this analysis is set out in the FTI report.

Relative risk of HAL compared to core airports within listed airport companies

9.88 Having estimated the asset beta for listed comparator airports, it is necessary to infer an asset beta for HAL based on these values. Recognising that there is no “perfect” comparator for HAL, and noting the wide range of estimates highlighted in Table 9.4 to Table 9.6, we propose to estimate a range for HAL’s asset beta (prior to the application of an adjustment in respect of the TRS mechanism) based on averages of the individual airport asset betas:

- we estimate a lower bound for the asset beta based on the simple average of the 2-year, daily comparator asset betas; and
- we estimate an upper bound for the asset beta based on the weighted¹⁶ average of the 10-year, daily comparator asset betas.

9.89 This implies a range of 0.47-0.70 before the impact of the TRS mechanism is taken into account. We note that the simple and weighted average values for 5-year, daily comparator asset betas lie within this range.

9.90 We then consider whether we should apply an adjustment to these values to reflect potential differences in HAL’s systematic risk exposure compared with the listed comparator companies. In our view, a high evidentiary threshold should be applied when determining whether to adopt a different value than the estimate for listed comparator companies.

9.91 This is because applying such adjustments can:

- reduce the reliability of the asset beta estimate for HAL by introducing additional uncertainty and measurement error;
- be impractical and disproportionate to implement; and
- lack transparency.

9.92 In determining whether to apply a relative risk adjustment, we therefore consider that a proposed risk driver must meet three criteria before an adjustment should be applied. The risk driver must be:

- **systematic:** there must be good reason to expect that the risk cannot be mitigated by an investor holding a diverse portfolio of equities;
- **measurable:** the risk driver must be quantifiable with a reasonable degree of accuracy; and
- **material:** there must be compelling evidence to suggest that comparator airports differ materially from HAL in respect of the risk driver in question.

¹⁶ By market capitalisation.

9.93 We have therefore considered the following risk drivers and whether they warrant an adjustment in respect of relative risk:

- capacity constraints and demand risk;
- capex and opex risk;
- till structure;
- government support; and
- regulatory framework.

Capacity constraints and demand risk

9.94 We have consistently said that demand risk represents an important source of systematic risk exposure for HAL. In previous price control decisions, we have made explicit adjustments to comparator airport asset betas to reflect our historical view that HAL has been subject to lower demand risk due to the presence of capacity constraints and excess demand at Heathrow Airport.

9.95 At Q6, we estimated an asset beta for HAL (0.42-0.52) that was below the estimated asset betas for Fraport (0.52-0.55) and ADP (0.59-0.60), and in line with the Q5 estimate (which was based on BAA's share price data).

9.96 In our H7 Final Proposals, we said that,

“the onset of the pandemic means that HAL is not expected to benefit from significantly greater levels of excess demand than comparator airports in H7 overall”¹⁷.

9.97 We also noted that,

“there is evidence (such as from the CMA's RP3 determination) to suggest that capacity constraints at comparator airports were becoming more binding prior to the pandemic. This could be seen as implying that comparator airports were, like Heathrow, becoming more insulated from business-as-usual fluctuations in demand risk due to the presence of excess demand. This in turn would suggest that capacity constraints were diminishing in importance as a distinguishing factor between HAL and comparator airports.”¹⁸

9.98 We therefore assumed that HAL's asset beta was in line with that of listed airport comparators prior to consideration of the impact of the TRS mechanism.

9.99 Passenger volumes and ATMs at the core airports within listed airport companies have now exceeded their pre-pandemic levels, to the extent that

¹⁷ CAP2365d, paragraph 9.52.

¹⁸ CAP2365d, paragraph 9.63.

some of these airports now face binding capacity constraints in a similar manner to HAL. For example, Barcelona Airport is now operating at around 100% of its capacity, and Madrid Airport is operating at about 95% of its capacity¹⁹.

- 9.100 This is further evidenced by the significant scale of capital investment being carried out at comparator airports that is specifically intended to alleviate capacity constraints. For example, AENA is proposing to undertake a EUR13 billion capital programme²⁰, of which the majority is targeted at capacity enhancing projects, in particular the construction of a new terminal and runway extension at Barcelona Airport.
- 9.101 We also understand²¹ that there is some spare capacity at Zurich Airport, though capacity is constrained during peak periods. At the same time, it is difficult to determine the impact that this has had on Zurich's equity and asset betas. Zurich Airport's 2-year and 10-year daily asset betas both lie below the respective values for AENA, which does not obviously indicate that capacity constraints have had a material impact on the asset beta for comparator airports.
- 9.102 Given these observations, we do not propose to introduce a relative risk adjustment in respect of capacity constraints and excess demand at Heathrow Airport. We consider the impact of aspects of demand risk in our discussion of the impact of the TRS mechanism below.

Capex and opex risk

- 9.103 KPMG defined capex risk as *"the potential for capital expenditure costs to exceed forecasts or for project delays due to factors such as design complexity, project scale, and timescales"*²². It defined opex risk as *"the potential for operational costs to exceed forecasts due to factors such as inflation, changes in input prices, or unexpected operational challenges."*²³
- 9.104 When defined in these terms, we do not consider that either capex or opex risk represents a plausible driver of systematic risk. Although variations in capex and opex relative to forecasts can materially influence cashflow volatility, it is reasonable to assume that this risk is diversifiable: there is no reason to expect that cost overruns at Heathrow are more likely to occur during periods of poor market performance.

¹⁹ Based on bilateral discussions with the Spanish Comisión Nacional de los Mercados y la Competencia.

²⁰ See, for example: <https://www.aena.es/en/press/aena-proposes-investments-of-approximately-13-billion-for-airports-in-spain.html&p=1575086693589>

²¹ Based on bilateral discussions with the Swiss Federal Office of Civil Aviation.

²² KPMG (2025), "Relative risk analysis and beta estimation at H8", July, Table 4.

²³ KPMG (2025), "Relative risk analysis and beta estimation at H8", July, Table 4.

- 9.105 Conversely, we consider that operational gearing can, in principle, influence systematic risk. We define operational gearing as the extent to which a company is exposed to the under-recovery of its capital and operating costs in the presence of a demand shock. This is because it can amplify airports' exposure to demand shocks, the latter of which are likely to be systematic in nature, since they are strongly influenced by economic conditions.
- 9.106 Operational gearing is difficult to measure robustly. In principle, it should reflect the "fixity" of costs in the presence of a demand shock, on the basis that companies may have some ability to mitigate demand shocks by reducing their costs. It is noteworthy that HAL was able to reduce its cost base during the pandemic, though not sufficiently to avoid significant losses.
- 9.107 Simple comparisons of opex and capex to revenues are imperfect proxies for operational gearing, since they do not provide information on the extent to which costs can be reduced in the presence of a demand shock. In principle, it might be argued that capex intensity (that is, the scale of capex relative to the existing asset base) represents a closer measure of operational gearing than opex intensity, since capex can represent "sunk" costs that cannot be easily recovered once reversed.
- 9.108 On this basis, there are potential benchmarks that could be used to quantify the impact of operational gearing on the asset beta: for example, the asset betas of companies operating in relatively capital-intensive industries such as construction or single-asset entities that are within the construction phase of their lifecycle.
- 9.109 However, we do not consider that the available evidence conclusively demonstrates that HAL exhibits materially higher operational gearing than the comparator airports on which we base our equity beta estimate. For example, KPMG indicated that HAL's capex intensity is higher than AENA and AdP's, but lower than Fraport and Zurich's²⁴. Similarly, it indicated that HAL's opex intensity is comparable to or lower than all four comparator airports.
- 9.110 Even if the scale of capex and opex relative to revenues or assets can be considered a good measure of operational gearing, the evidence presented by KPMG suggests that HAL does not exhibit materially higher levels of capex and opex intensity compared with the listed comparator airports²⁵. As such, we do not consider that an adjustment in respect of capex and opex risk is warranted.

²⁴ KPMG (2025), "Relative risk analysis and beta estimation at H8", July, Figure 6.

²⁵ See KPMG (2025), "Relative risk analysis and beta estimation at H8", Figures 6 and 8.

Till structure

9.111 It is not clear that the use of a single till²⁶ or dual till²⁷ framework materially influences systematic risk exposure. We note CEPA's rationale for why the till structure might be the case:

*“Under a dual till framework, the risk profile of aeronautical assets and non-aeronautical assets can differ, as the risk associated with investments in the non-aeronautical assets may be entirely unmitigated. Under a single till framework, the risk exposure of the non-aeronautical assets can be mitigated by the regulatory treatment.”*²⁸

9.112 CEPA specifically noted that:

*“Under the CAA’s application of the single till framework, revenues from investments in commercial assets are reflected in the commercial revenue forecast. Deviations from this forecast during a regulatory period are at HAL’s risk, while subsequently those deviations (if sustained) will be factored into future forecasts.”*²⁹

9.113 An implicit assumption underpinning these statements is that the “reset” of forecasts under a period review acts purely as a risk mitigation mechanism. Where forecasts are not reset – such as for commercial revenues under a dual-till mechanism – the company is exposed to higher risk. We agree that forecast error represents a relevant risk exposure for regulated entities. However, this ignores countervailing benefits associated with less frequent reviews.

9.114 For example, investors may perceive benefits associated with the absence of regulatory discretion, and the inability to alter allowances with the benefit of hindsight. There is evidence that investors currently prefer less frequent reviews: for example, equity analysts have reacted positively to the prospect of a lengthening of the price control to up to ten years in the context of Paris Charles de Gaulle airport.³⁰ As such, it is not clear that a single till structure is inherently less risky than a dual till structure.

9.115 We have reviewed CEPA's analysis and do not consider that this represents a sufficient basis for introducing a relative risk adjustment in respect of the single

²⁶ Under a single till framework, required revenues for the airport as a whole, inclusive of non-aeronautical activities are estimated. Allowed aeronautical revenues are then calculated as total required revenues less a forecast of non-aeronautical revenues.

²⁷ Under a dual till framework, required revenues for aeronautical activities are estimated directly based on an allocation of costs between aeronautical and non-aeronautical activities.

²⁸ CEPA (2025), “Estimating the H8 cost of capital”, p15.

²⁹ CEPA (2025), “Estimating the H8 cost of capital”, p43.

³⁰ See, for example, Barclays (2025), “Reasonable Paris trading, FX and tax weigh as warned”, July 31st, which states that “we welcome the path towards a long-term, up to ten-year, regulatory agreement”.

till framework for HAL. This analysis relies on a large number of assumptions, and, in each case, other credible alternative assumptions can be made that significantly affect CEPA's estimates. In some cases, alternative assumptions reverse the directional impact of CEPA's adjustments or result in implausible estimated values. This is consistent with the broader conceptual challenges we have identified above in respect of estimating the impact of the till structure on the asset beta.

9.116 We have identified the following specific issues with CEPA's assessment.

- The assumed asset beta for the AdP Group of 0.58 represents one possible value within a broad range of estimates. If we were to use the two-year daily asset beta for AdP of 0.52 instead of CEPA's starting point of 0.58, and keep all other input assumptions unchanged, this would result in an estimate of the Paris airport's asset beta under a single-till structure of 0.27. This is below the asset beta estimates for listed regulated network companies with little or no exposure to demand risk, which we do not view as credible.
- The "Real Estate (Development)" asset beta published by Aswath Damodaran appears to be for US firms. The corresponding value for European firms is 0.48, or 0.54 when corrected for cash. Either value would imply that the asset beta for the core AdP airports would lie above that of the group asset beta.
- Alternative proxies exist for the non-aeronautical asset beta under a dual-till structure. For example, the asset beta for Retail (General) for European firms is 0.81 when corrected for cash. If we were to use this value and keep all other inputs unchanged, this would imply an asset beta for the Paris airports under a single-till structure of 0.29. This is below the asset beta estimates for listed regulated network companies with little or no exposure to demand risk, which we do not view as credible.
- Credible alternative assumptions exist to CEPA's assumed scaling factor of 1.2 applied to the estimated aeronautical asset beta. For example, CEPA indicated that an alternative proxy for this scaling factor may be given by the relative elasticity of airport commercial revenues to passenger numbers. At H7, we estimated a value for this elasticity of 0.83. Substituting this value for CEPA's assumption would result in a non-aeronautical asset beta under a single-till structure that is lower than the aeronautical asset beta. This is both counterintuitive and contrary to CEPA's premise that non-aeronautical revenues are more risky than aeronautical revenues.

- While not critical to the assessment, we note that alternative assumptions exist with respect to CEPA's estimate of the weight to be applied to the "Retail & Services" segment asset beta, which introduces further sensitivity into its analysis. For example, weighting could be applied based on relative shares of revenues or profits, or valuations estimated by other practitioners.

9.117 Overall, we do not consider that an adjustment to comparator asset betas to reflect the single till framework is warranted.

Government support

9.118 We agree with CEPA that, in principle, the presence or absence of perceived government support can influence systematic risk exposure. This is because, where investors perceive that a company benefits from implicit or explicit government support, this might reasonably be expected to mitigate exposure to economic downturns. However, for the comparator airports on which we base our assessment, we do not consider that it is possible to robustly quantify its impact, or to determine whether this impact is material.

9.119 The extent to which investors perceive that the listed comparators benefit from government support is difficult to ascertain with confidence. During the pandemic, each of the comparator airports (and HAL) benefitted from some form of implicit or explicit government support. At the same time, direct support was generally provided on market terms, within the restrictions imposed by State Aid rules. It is, therefore, not obvious whether investors perceived (and continue to perceive) that some comparators benefit from government support to a greater extent than others.

9.120 Even if it was possible to ascertain how investors perceive the degree of government support provided to each comparator, it is not obvious how we could isolate this effect from other factors that influence the beta.

9.121 As such, overall, we do not consider that an adjustment to comparator asset betas to reflect government support is warranted.

Regulatory framework

9.122 We agree with KPMG that regulatory frameworks can, in principle, expose regulated companies to a greater or lesser degree of systematic risk. We further agree that the principal source of this systematic risk exposure is the scope of regulatory discretion in setting and applying rules. This is because investors could reasonably perceive that regulators that are afforded a greater degree of discretion may face pressure to reduce charges during market downturns, which strengthens the correlation between company and market-wide performance.

9.123 As with government support, the extent to which investors perceive that the regulatory framework contributes to comparator companies' systematic risk exposure is difficult to ascertain with confidence. Firstly, the systematic risk

exposure created by a regulatory framework cannot easily be separated from the extent to which it is exposed to competition. Regulatory frameworks generally act as a substitute for effective competition, and the need for a stringent regulatory framework is often less where competition exists.

- 9.124 For example, we agree with KPMG that Fraport is subject to a regulatory framework where intervention occurs only under specific conditions and is restricted by law. However, Frankfurt Airport also competes with Munich Airport to attract hub traffic and, hence, a stringent regulatory framework is arguably less necessary. A similar observation can be made in respect of Zurich airport and its competition with Geneva airport.
- 9.125 We further consider that KPMG's characterisation of airport companies' regulatory risk exposure requires additional nuance. We accept that aspects of the statutory framework under which we operate provide us with a greater degree of discretion in setting price controls compared with our counterparts that regulate the comparator companies.
- 9.126 For example, we note that certain aspects of the regulatory frameworks for AENA, AdP and Zurich are enshrined in law and, hence, the regulator must adopt a prescribed approach in these areas. At the same time, we consider that we have historically exercised and will continue to exercise our discretion in a predictable and transparent manner. We also have a statutory duty to have regard to the need to secure that each licensee can finance its licensed activities. We consider that these factors limit the additional degree of relative risk faced by HAL compared with the comparator companies.
- 9.127 Overall, we therefore do not consider that a relative risk adjustment is warranted in respect of regulatory risk.

Impact of TRS mechanism

- 9.128 We have also considered whether and how we should apply a relative risk to reflect the impact of the TRS mechanism.
- 9.129 KPMG has suggested that the impact of the TRS mechanism is already reflected in the relative risk analysis carried out above. In our view, HAL faces a similar level of demand risk to the comparator airports before the TRS mechanism is taken into account. The TRS mechanism then adds a further layer of protection and so should be reflected in a further adjustment.
- 9.130 We propose to adopt a similar approach to estimating the impact of the TRS mechanism on the asset beta for notional company to that used in the H7 price control determination.

- 9.131 This approach involves estimating a counterfactual asset beta for a hypothetical airport operator with no exposure to traffic risk³¹. To do this, we propose to adopt a benchmark based on network utilities. We propose to use a value of 0.36, which is the average of:
- the asset beta of 0.375 estimated in the RIIO-3 Draft Determination for the gas distribution and electricity transmission companies in Great Britain³²; and
 - the asset beta of 0.35 estimated by the CMA in its Provisional Determination of the PR24 price control³³.
- 9.132 We must then form a judgement in respect of how the notional company with no traffic risk exposure compares to this benchmark. For the H7 price control, we noted that factors other than traffic risk could account for the difference in asset beta between the notional company and network utilities. Having updated our assessment of the relative risk between notional company and comparator airports, it is necessary for us to do so in a consistent manner with the network utilities, based on the same risk factors.

Capex and opex risk

- 9.133 We consider that it is difficult to draw robust conclusions regarding the extent to which HAL is exposed to capex and opex risk compared with network utilities. Both network utilities and HAL are expected to undertake significant capex programmes in future years, even if HAL is assumed to operate under a two-runway configuration. Evidence provided by KPMG suggests that HAL and network utilities exhibit similar levels of opex intensity. Moreover, as indicated above, the extent to which capex and opex intensity influences the asset beta is unclear.

Till structure

- 9.134 As indicated above, we do not consider that the till structure significantly influences the asset beta. However, we note that commercial revenues comprise a significantly greater proportion of HAL's revenues than those of network utilities. Commercial revenues could be seen as exposed to a greater degree of risk than regulated charges, as, from the consumers' perspective, they may be

³¹ Note: we refer to traffic risk in this context, as distinct from demand risk. This is because traffic risk comprises only one component of demand risk. An entity that is exposed to no traffic risk may still be exposed to demand risk: for example, because consumers spend less on goods and services at the airport.

³² Ofgem (2025), "RIIO-3 Draft Determinations - Finance Annex", July, paragraph 3.61.

³³ CMA (2025), "Water PR24 References, Provisional Determinations Volume 4: Allowed Return, Risk & Return, Provisional Determinations, Next steps - Chapters 7–10", October, Table 7.11. Note that the CMA assumed a debt beta of 0.05-0.15. We have therefore adjusted the resulting asset beta estimates to reflect our assumption of 0.075, as set out in paragraphs 9.140-9.144 below.

seen as more discretionary, even once the effect of traffic risk is controlled for. This factor was highlighted in the context of the H7 price control appeals as being one possible difference between HAL and network utilities³⁴. This could suggest that the notional company's asset beta would be higher than network utilities, even in the absence of traffic risk.

Government support

9.135 In line with our view in respect of comparator airports, the extent to which HAL is perceived to benefit from government support to a greater or less extent than network utilities is not obvious. Both represent critical national infrastructure assets and there is no clear precedent for government intervention in either case.

Regulatory framework

9.136 We consider that it is difficult to draw robust conclusions on the extent to which the regulatory framework under which HAL and network utilities operate influence their respective asset betas. For example, we agree with KPMG that network utilities face stronger incentives with respect to capex, but weaker incentives with respect to opex.

Conclusion in respect of relative risk compared to network utilities

9.137 Overall, we consider that, even if the notional company was fully insulated from traffic risk, it is still reasonable to expect that network utilities might exhibit a lower asset beta than the notional company. However, the extent to which this is the case is subject to significant uncertainty. In our view, this uncertainty means that we should assume that traffic risk accounts for a larger proportion of the difference in asset beta between notional company and network utilities than we did for the H7 price control. We therefore assume that traffic risk accounts for between 70% and 90% of this difference, compared with our assumption of 50%-90% for the H7 price control. This implies that a hypothetical airport operator with no exposure to traffic risk would have an asset beta of 0.37-0.46.

9.138 Finally, we assume that the TRS mechanism will reduce traffic risk exposure by 50%, in line with our proposals for the parameters of the TRS mechanism for the H8 price control, as discussed in chapter 10 (Financial framework).

9.139 We summarise the calculation of the TRS adjustment in Table 9.7 below. Our approach implies that the TRS mechanism reduces the asset beta for the notional company by 0.05-0.12, and results in a post-TRS asset beta for the notional company of 0.42-0.58.

³⁴ CMA (2023), "H7 Heathrow Airport Licence Modification Appeals: Final Determinations", October, Paragraphs 6.192, 6.216 and 6.230-6.231.

Table 9.7: Impact of TRS mechanism on HAL's asset beta

	Low	High
A. Pre-TRS asset beta for the notional company	0.47	0.70
B. Asset beta for network utilities	0.36	0.36
C. Proportion of difference in asset beta explained by traffic risk	90%	70%
D. Asset beta for a hypothetical airport operator with no exposure to traffic risk (= $B + ((A-B) \times (1-C))$)	0.37	0.46
E. Proportion of traffic risk mitigated by TRS mechanism	50%	50%
F. Impact of TRS (= $(A-B) \times C \times E$)	0.05	0.12
G. Post-TRS asset beta for the notional company	0.42	0.58

Source: CAA calculations

Debt beta

- 9.140 The debt beta represents the proportion of a company's systematic risk exposure that is attributable to debt. When a company is partly financed with debt, attributing the systematic risk exposure of the company entirely to equity will generally overstate the company's equity risk, since some of this risk will be borne by creditors.
- 9.141 We have previously noted that several approaches are available with which to estimate the debt beta, and a wide range of possible values is plausible for the debt beta, depending on the approach used. We do not consider that material new evidence has emerged since H7 to warrant changing our estimate for the debt beta of the notional company set out in the H7 price control.
- 9.142 We therefore assume a debt beta of 0.075 for the notional company, in line with the midpoint of our H7 range of 0.05-0.10. Adopting a single value, as opposed to a range, allows for a simpler estimate of the equity beta for notional company.
- 9.143 We have reconsidered our approach to estimating the debt beta for comparator airports. At H7, we assumed a debt beta of 0.05 for comparator companies, which was at the bottom of the range for the notional company. We adopted this approach because comparator companies exhibited lower gearing than what we assumed for the notional company. However, we also noted that the relationship between gearing and the debt beta was not clear, and we noted some evidence to suggest that debt beta was more closely related to credit rating. We further note that the level of gearing varies considerably between comparators, ranging from 12%-71% in H7 depending on the time period and company chosen. As such, we no longer consider that there is a compelling case for adopting different

debt beta assumptions for comparator companies relative to the notional company.

- 9.144 Our advisors, FTI Consulting, have proposed a range of 0.05-0.15. We further note that our proposed assumption lies within its proposed range. In light of the considerable degree of uncertainty regarding the “correct” value for the debt beta, we see value in maintaining consistency with our H7 assumption, which would also support predictability and transparency in our wider approach.

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- 9.145 We summarise our overall view of the equity beta for the H8 price control in the table below.

Table 9.8: Summary of equity beta estimate for the H8 price control

	Low	High
Asset beta estimates for comparator airports	0.47	0.70
Impact of the TRS mechanism	0.05	0.12
Asset beta estimate	0.42	0.58
Debt beta assumption	0.075	0.075
Notional gearing assumption	60%	60%
Equity beta estimate for the H8 price control	0.94	1.34

Source: CAA calculations

Risk free rate

- 9.146 The risk free rate is the return that an investor would expect to earn on a risk free asset. It is an input into the calculation of the cost of equity under the CAPM. It is a market-wide parameter that is not materially influenced by company-specific factors.
- 9.147 Taking a transparent, consistent and predictable approach is particularly important in the context of market-wide parameters, since the methodology for determining these parameters would not be expected to vary substantially across regulated sectors and price control determinations in the absence of material new evidence and/or research. As such, we rely to a greater extent on precedent from other sectors, the CMA and UKRN guidance in developing our view of market-wide parameters than we do for company-specific parameters.
- 9.148 As set out in chapter 10 (Financial framework) we are indexing the RAB and price control by CPIH, which is the Consumer Prices Index, including Owner

Occupier Housing costs. As such, it is necessary to estimate the risk free rate in CPIH-real terms.

Stakeholder views

HAL

- 9.149 HAL has estimated the CPIH-real risk free rate based on the average yield on 20-year RPI-linked gilts in March 2025. It has not applied any adjustment for a convenience yield, different borrowing/saving rates or forward rates.
- 9.150 It considered two approaches to estimating a CPIH/RPI wedge:
- an implied wedge based on Office for Budget Responsibility (“OBR”) forecasts from March 2025 to 2029, and assuming that both RPI and CPIH are equal to the long-term CPI target of 2% thereafter. HAL estimated the wedge based on a 20-year geometric mean of these values. HAL stated that this results in an estimate of the CPIH/RPI wedge of less than 0.01%; and
 - a comparison of swap rates on 20-year RPI and CPI swaps, where HAL again assumes that CPI is equal to CPIH over this period. HAL indicated that this produces an estimate of the CPIH/RPI wedge of 0.53%.
- 9.151 HAL has used the former of these approaches to estimate the wedge. HAL’s proposed risk free rate is 1.91% in CPIH-real terms.

IATA

- 9.152 CEPA, on behalf of IATA, estimated the risk free rate with reference to 20-year RPI-linked gilts. It did not apply any adjustment for a convenience yield, different borrowing/saving rates or forward rates. It estimated the yield on the reference instruments over July 2025. It applied a CPI/RPI wedge based on a simple average of two approaches:
- the difference in implied inflation rates based on zero-coupon RPI and CPI swaps (0.28%); and
 - the annualised average wedge between the Office for Budget Responsibility’s forecasts for RPI and CPI inflation rates, with additional assumptions surrounding the expected 2030 convergence of RPI and CPIH (0.26%).
- 9.153 On this basis, CEPA estimated an RPI/CPI wedge of 0.27%.
- 9.154 CEPA proposed a CPI-real risk free rate of 2.53%.

Our views

- 9.155 We set out our views below on the:

- reference instrument we use to estimate the risk free rate; and
- applicable tenor and averaging period; and
- inflation wedge to apply to convert RPI-linked values to CPIH-linked values.

Reference instrument

- 9.156 We agree with stakeholders that we should estimate the risk free rate based on the yield on RPI-linked gilts without adjustments for convenience yields, different borrowing/saving rates or forward rates.
- 9.157 This differs from our approach at H7 where we included an adjustment to reflect a convenience yield. Since then, further evidence has been put forward that has called into question the reliability of different approaches to estimating convenience yields or the impact of different borrowing/savings rates³⁵. This new evidence also suggests that the case for including a convenience yield adjustment may be less strong now due to changes in prevailing circumstances. For example, tighter monetary policy and persistently large fiscal deficits may have reduced the perceived value of gilts as a safe asset.
- 9.158 In light of this new evidence, we consider that it is no longer appropriate to adjust the estimate of the risk free rate for convenience yields.
- 9.159 We further note that this approach is in line with the UKRN cost of capital guidance, which states that: “*Regulators should use long-dated index-linked gilts at the assumed investment horizon in their sector as their risk-free proxy*”³⁶.

Tenor and trailing average period

- 9.160 We have seen no additional evidence to warrant changing our approach in respect of these parameters since H7. We therefore continue to estimate the risk free rate based on 20-year tenor instruments and a one-month averaging period to 1st November 2025.
- 9.161 This results in an estimated RPI-real risk free rate of 2.21%. This is higher than HAL’s estimate, reflecting increases in real gilt yields since the publication of HAL’s H8 business plan.

Inflation wedge

- 9.162 Given that we are intending to index HAL’s RAB to CPIH inflation, we agree with stakeholders that it is necessary to apply an adjustment to the yield on RPI-linked gilts to translate these into CPIH-real equivalent yields. We further agree

³⁵ Examples of such evidence is set out in paragraphs 7.176 to 7.182 of the CMA (2025), “*Provisional Determinations Volume 4: Allowed Return, Risk & Return, Provisional Determinations, Next steps - Chapters 7–10*”, October.

³⁶ UKRN (2023), “*UKRN guidance for regulators on the methodology for setting the cost of capital*”, March, p14.

that the two most suitable approaches are to base this on inflation swaps and official forecasts, respectively.

- 9.163 With respect to the official forecast approach, we note that there are alternative ways in which the wedge can be calculated. These are set out in detail in the FTI report. We propose to adopt the approach used by Ofwat and the CMA in the context of the PR24 price control, using inflation forecasts aligned with the tenor of the relevant instrument (20 years). This results in an estimated wedge of 0.20%.
- 9.164 With respect to the swap-based approach, we estimate the wedge in two steps. We firstly estimate an RPI-CPI wedge of 0.17% based on the average difference in the prices of 20-year RPI zero-coupon swaps and 20-year CPI zero-coupon swaps during October 2025. We then estimate a CPIH-CPI wedge of 0.14%, which is estimated based on 20-year forecasts of CPIH and CPI. We deduct the CPI-CPIH wedge from the RPI-CPI wedge to derive an RPI-CPIH wedge of 0.03%.
- 9.165 Based on the average of these values, we estimate an RPI-CPIH wedge of 0.11%.

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- 9.166 We estimate a CPIH-real risk free rate of **2.33%**.

Total market return

- 9.167 The total market return is the return expected by the marginal investor from holding a diversified portfolio of securities. UK regulators have tended to use a broad index of equities as a proxy for the market of investible securities: for example, the UK FTSE-All Share.
- 9.168 The equity risk premium is the difference between the total market return and the risk free rate. It represents the additional compensation that investors require from investing in equity markets instead of the risk-free asset.
- 9.169 There is a long-standing practice among UK regulators to assume that the total market return is a more stable component of the cost of equity than the equity risk premium. In part, this approach is informed by long-run empirical evidence which suggests that equity returns are more stable over time than the equity risk premium³⁷. So, regulators have typically focused on estimating the total market return directly, often relying on long-run historical data. The equity risk premium

³⁷ See, for example, Smithers and Co Ltd (2003), "A Study into certain aspects of the cost of capital for regulated utilities in the UK".

is then calculated as the difference between the estimated total market return and the risk free rate.

- 9.170 An alternative approach is to assume that the equity risk premium remains broadly stable over time. This approach is used by international regulators, for instance, in continental Europe and Australia³⁸. The equity risk premium is then estimated directly, as opposed to estimating the total market return and deducting an estimate of the risk free rate. We discuss the relative merits of each approach in paragraphs 9.186-9.190 below.
- 9.171 The total market return is typically estimated based on one or more of the following three approaches:
- “Historical *ex post*” approaches use observed historical equity returns as a benchmark for investors' current expectations for the total market return;
 - “Historical *ex ante*” approaches also use observed historical returns to infer the expected total market return but adjust them for historical factors which are unlikely to be repeated; and
 - “Forward-looking” approaches use more recent market data, such as current market valuations and surveys of market practitioners to infer the expected rate of return on the market index.
- 9.172 All regulators have historically placed weight on historical *ex post* approaches and many of them have also placed weight on historical *ex ante* approaches. Some regulators have also considered forward-looking evidence.

Stakeholder views

HAL

- 9.173 HAL estimated a range for the total market return based on two points of reference³⁹:
- a lower bound based on Oxera’s estimate of the historical *ex ante* total market return of 6.85% (CPIH-real); and
 - an upper bound of 7% (CPIH-real), based on its observation that there was agreement between Ofwat and the water companies in the context of the PR24 price control determination that the historical total market return is only slightly below 7%.

³⁸ See, for example, BERC guidance for the calculation of the cost of capital for legacy infrastructure in telecoms, BERC Report on WACC parameter calculations according to the European Commission's WACC notice of 6th November 2019, updated June 2021; and IPART, New South Wales, Review of our WACC method, February 2018.

³⁹ HAL (2025), “Heathrow’s H8 Business Plan 2027-2031”, p185.

- 9.174 HAL noted that the midpoint of this range is consistent with Oxera's estimate of the *ex post* total market return of 6.96% (CPIH-real), which HAL considered to be more credible than the *ex ante* approach.
- 9.175 Oxera estimated the *ex ante* total market return based on the "DMS⁴⁰ *decompositional approach*"⁴¹. Oxera described this approach as attempting to identify investors' reasonable expectations of returns by making adjustments to the historical series of returns. These adjustments try to identify one-off outcomes of good or bad "luck": that is, those that investors might not expect to be repeated in the future.
- 9.176 Oxera noted that the results of *ex ante* approaches in general are more subjective than the results of the *ex post* approach, and that no weight should be put on such approaches in deriving the expected range for historical equity returns.
- 9.177 HAL did not consider any evidence from forward-looking approaches.

IATA

- 9.178 CEPA, on behalf of IATA, estimated a range for the total market return based on two points of reference:
- a lower bound based on an estimate of the *ex ante* total market return of 6.22% (CPI-real); and
 - an upper bound based on an estimate of the *ex post* total market return of 6.76% (CPI-real).
- 9.179 CEPA did not consider any evidence from forward-looking approaches.
- 9.180 CEPA estimated historical *ex post* returns based on the nominal returns set out in the 2025 Global Investment Returns Yearbook. It then deflated these into CPI-real values based on a long-run historical CPI inflation series consisting of current and back-casted CPI inflation from the Office for National Statistics, and historical CPI data constructed by O'Donoghue et al⁴².
- 9.181 It aggregates these CPI-real figures into an estimate of the historical *ex post* total market return based on various estimators which provide a range of estimates ranging from 5.12% to 6.76%.

⁴⁰ DMS refers to the authors of the Global Investment Returns Yearbook: Professor Paul Marsh, Dr Mike Staunton and Professor Elroy Dimson. The Yearbook is a publication that assesses the returns and risks from investing in equities, bonds, cash, currencies and factors in 35 countries and in five different composite indexes since 1900.

⁴¹ Oxera (2025), "H8 Cost of Capital Guidance: Total Market Return", January, section 2.2.1.

⁴² O'Donoghue et al. (2004), Consumer Price Inflation since 1750, p38.

- 9.182 CEPA used the top end of this range to inform its overall estimate of the CPI-real total market return. This value corresponds to the arithmetic average of 1-year returns for the full data sample.
- 9.183 CEPA's estimate of the historical *ex ante* approach was based on the Fama French dividend growth model. This model decomposes observed historical equity returns into an underlying expected return, equal to the average dividend yield plus the average dividend growth rate, and an unexpected return (comprising capital gain in excess of the rate of dividend growth). The total market return is then estimated based on the underlying expected return.
- 9.184 CEPA indicated that it used the average of *ex ante* returns between 1899 and 2024 as its historical *ex ante* estimate of the total market return.

Our views

- 9.185 We set out our views below on the following issues:
- parameter stability and the broad approach to estimating the total market return;
 - use of *ex post*, *ex ante* and forward-looking evidence;
 - treatment of inflation;
 - our approach for estimating historical *ex post* returns; and
 - our approaches for estimating historical *ex ante* returns.

Parameter stability and broad approach to estimation

- 9.186 We agree with stakeholders that it is preferable to estimate the total market return, and to then derive the equity risk premium by deducting our estimate of the risk free rate from this value.
- 9.187 The CMA, in its PR24 Provisional Determination, has estimated the upper bound of its estimated range for the total market return based on the sum of the historical *ex post* equity risk premium and the risk free rate. Noting that the CMA has yet to produce its final determination on these matters, we do not consider that these provisional findings warrant a change in approach. The available evidence suggests that the total market return is more stable than the equity risk premium⁴³.
- 9.188 While we acknowledge that the total market return may not be fully invariant to the risk free rate, we consider that the assumption of a one-to-one covariance is an extreme assumption, and one that is not observed in the historical data.

⁴³ See, for example, Wright and Smithers (2014), "The Cost of Equity Capital for Regulated Companies: A Review for Ofgem", pp. 13-16.

- 9.189 Further, Government⁴⁴ and industry stakeholders⁴⁵ have both expressed a view that consistency – both over time and across regulators – is an important consideration for investors.
- 9.190 Therefore, for these Initial Proposals we have adopted an approach consistent with that at H7, which involves estimating historical equity market returns, rather than directly estimating the equity risk premium.

Use of *ex post*, *ex ante* and forward-looking evidence

- 9.191 We agree with stakeholders that we should base our estimate of the range for the total market return on both historical *ex post* and *ex ante* estimation approaches, as we did in H7.
- 9.192 We note the view expressed by Oxera that historical *ex ante* approaches rely excessively on subjective judgements regarding the proportion of historical returns that can be attributed to “good or bad luck”. We acknowledge that there is a degree of subjectivity regarding these judgements.
- 9.193 However, while the extent of good or bad luck is uncertain, we consider that at least some proportion of historical returns was “unexpected”. This is consistent with evidence in respect of the “Equity Premium Puzzle”.⁴⁶
- 9.194 The authors of the Global Investment Returns Yearbook also note that using the historical risk premium of equities as a guide to future return expectations is liable to be misleading if it is not adjusted to reflect elements of good or bad luck.⁴⁷ It is, therefore, necessary to form a judgement regarding the extent to which this might be the case.
- 9.195 We further agree with stakeholders that it would not be appropriate for us to place weight on forward-looking approaches. As noted by the CMA in its PR24 Provisional Determination, “*Forward looking approaches to estimate TMR require subjective judgements and different input assumptions can result in a wide TMR range.*”⁴⁸ This is also in line with UKRN guidance⁴⁹.

⁴⁴ See, for example, BEIS: Economic regulation policy paper, p.20. See Annex 2 for the terms of reference from BEIS.

⁴⁵ See, for example, Independent Water Commission (2025), “Final report”, footnote 526.

⁴⁶ See, for example, Mehra, R. (2007), “The equity premium puzzle: A review.” *Foundations and Trends in Finance* 2.1, pp1-81.

⁴⁷ Dimson et al (2006), “The worldwide equity premium: A smaller puzzle”, Chapter 11 of R Mehra (ed) (2008), “Handbook of the Equity Risk Premium”, Elsevier, pp. 467-514.

⁴⁸ CMA (2015), “Water PR24 References, Provisional Determinations Volume 4: Allowed Return, Risk & Return, Provisional Determinations, Next steps - Chapters 7–10”, paragraph 7.259.

⁴⁹ UKRN (2023), “UKRN guidance for regulators on the methodology for setting the cost of capital”, p21.

Treatment of inflation

- 9.196 As noted previously, stakeholders have adopted differing views in respect of the appropriate index that should be used to inflate the RAB. HAL has proposed the use of CPIH and the airlines have proposed the use of CPI. In chapter 10 (Financial framework) we confirm our intention to use CPIH as the basis for inflating the RAB.
- 9.197 Estimates of historical returns based on different inflation indices result in different estimates of the H8 total market return when combined with forward-looking inflation forecasts. This is because historic levels of inflation have differed from forecast levels for the H8 period.
- 9.198 The arithmetic average of annual CPI inflation values was 3.95% between 1900 and 2023⁵⁰, but CPI inflation is forecast to be 2.02% in H8⁵¹. The arithmetic average of annual CPIH inflation values was 3.78% historically⁵², but is forecast to be 2.12% in H8⁵³. This means that CPI has historically been higher in the past than CPIH, but is expected to be lower than CPIH in the H8 period.
- 9.199 To illustrate this, we have estimated CPI-real and CPIH-real historical returns based on one-year arithmetic averages. We have then translated the CPI-real returns into expected CPIH-equivalent returns based on forward-looking forecasts of CPI and CPIH inflation. This is set out in Table 9.9 below.

⁵⁰ Based on the Bank of England Millenium dataset for values between 1900 and 1949; the Office for National Statistics CPI backcast for values between 1950 and 1988; and the ONS CPI index 00 for values between 1988 and 2023. The geometric average is 3.85%.

⁵¹ Based on the Office for Budgetary Responsibility's November 2025 Economic and Fiscal Outlook, together with an assumption that CPI will be equal to its long-term target in 2031.

⁵² Based on the Bank of England Millenium dataset for values between 1900 and 1949; the Office for National Statistics CPIH backcast for values between 1950 and 1988; and the ONS CPIH index 00 for values between 1988 and 2023. The geometric average is 3.69%.

⁵³ Based on the Office for Budgetary Responsibility's November 2025 Economic and Fiscal Outlook, together with an assumption that CPIH will be equal to its 2030 value in 2031.

Table 9.9: Comparison of CPIH-real returns

Historical CPI-real returns	A	6.73%
Historical CPIH-real returns	B	6.92%
Forward-looking CPI inflation	C	1.98%
Forward-looking CPIH inflation	D	2.18%
Expected forward-looking CPIH-real returns (based on historical CPI-real returns)	$= (1+A)*(1+C)/(1+D)$	6.53%
Expected forward-looking CPIH-real returns (based on historical CPIH-real returns)	= B	6.92%

Source: Global Investment Returns Yearbook (2025), OBR Economic and Fiscal Outlook (March 2025)

9.200 There is a material difference between the CPIH-real returns when estimated using historical CPI and historical CPIH inflation respectively. It is not immediately obvious which of these measures of CPIH-real returns most accurately captures investors' required returns on a forward-looking basis. However, we highlight the following observations:

- Given that we are intending to index HAL's RAB to CPIH, it seems logical to set the allowed return based on historical CPIH-real returns, as opposed to estimating historical CPI-real returns and translating these into an CPIH equivalent; and
- Most other regulators⁵⁴ based their estimates on historical CPIH-real returns, including the CMA in its Provisional Determination of the PR24 price controls. Given the importance that has been ascribed to consistency in approach across regulators, particularly with respect to the market-wide parameters, this represents a strong case for following this approach.

9.201 As such, we do not place weight on total market return estimates derived from historical CPI-real returns for the purposes of these Initial Proposals and rely exclusively on historical CPIH-real returns.

⁵⁴ Including Ofwat in the PR24 Final Determination, Ofgem in the RIIO-T3/GD3 Draft Determination, and the Utility Regulator for Northern Ireland in the RP7 Final Determination. We note that Ofcom used a CPI-real return in its Telecoms Access Review 2026 Draft Determination. We are not aware of any other UK regulatory determinations that used CPI-real returns.

Our approach for estimating historical *ex post* returns

- 9.202 We estimate historical *ex post* returns using equity returns data published in the Global Investment Returns Yearbook (2025) between 1900 and 2024, which is the full period for which data is available from this source.
- 9.203 We estimate annual CPIH-real returns by deflating nominal returns by an estimate of annual inflation in each year.

Deflator

- 9.204 In line with other regulators, including the CMA's approach in its Provisional Findings for the redetermination of the PR24 price control,⁵⁵ we estimate historical CPIH values based on a composite of:
- historical values of CPIH published by the Office for National Statistics⁵⁶ from 1988-2024;
 - CPIH "backcast" data produced by the Office for National Statistics⁵⁷ from 1950-88. This represents an extension to the values published by the Office for National Statistics after 1988 using new data sources and modelling to extend this series back in time; and
 - a dataset published by the Bank of England titled, "A millenium of macroeconomic data"⁵⁸, which estimates consumer prices over multiple centuries based on various studies and data sources, for the period 1900-1950.

Averaging approach

- 9.205 We propose to aggregate annual CPIH-deflated equity returns into a single measure of historical returns using an arithmetic average of one-year returns. This is in line with the CMA's approach in its Provisional Findings for the redetermination of the PR24 price control⁵⁹.
- 9.206 We note that there are multiple additional candidates for the averaging approaches that could be used, and that some of these can lead to estimates of the historical *ex post* return that are lower than that implied by an arithmetic average of one-year returns.

⁵⁵ CMA (2015), "Water PR24 References, Provisional Determinations Volume 4: Allowed Return, Risk & Return, Provisional Determinations, Next steps - Chapters 7–10", paragraph 7.226.

⁵⁶ Office for National Statistics (2025), "CPI INDEX 00: ALL ITEMS 2015=100"

⁵⁷ Office for National Statistics (2022), "Consumer price inflation, historical estimates and recent trends, UK: 1950 to 2022"

⁵⁸ <https://www.bankofengland.co.uk/statistics/research-datasets>

⁵⁹ CMA (2015), "Water PR24 References, Provisional Determinations Volume 4: Allowed Return, Risk & Return, Provisional Determinations, Next steps - Chapters 7–10", paragraph 7.226.

- 9.207 The UKRN guidance states that regulators should base their estimates of the historical returns on estimation windows that are consistent with the assumed investment horizon for the notional company. For the purposes of estimating the H8 WACC, we have assumed an investment horizon of 20 years, which is broadly in line with the average asset lives for airport capital investment. Hence, in principle, we should consider 20-year estimation windows.
- 9.208 It has previously been noted⁶⁰ that the arithmetic average of one-year returns will lead to an overstatement of aggregate historical returns where returns are serially correlated: that is, where the returns in one period are correlated with returns in the previous period.
- 9.209 However, as noted by the CMA, the 20-year overlapping arithmetic average⁶¹ currently lies above the arithmetic average of one-year returns and that it is, therefore, not obvious that longer-period averages materially improve the reliability of the historical *ex post* return estimates.
- 9.210 We also consider that the arithmetic average of single-year returns has the value of simplicity and transparency relative to both longer-period averages and alternative estimators⁶² such as the Blume⁶³ and JKM⁶⁴ estimators.

Estimate of *ex post* historical returns

- 9.211 Based on the approach set out above, we estimate an *ex post* historical return of 6.92% (CPIH-real).

Our approaches for estimating historical *ex ante* returns

- 9.212 There are two primary methodologies for estimating historical *ex ante* returns, the DMS decompositional methodology and the Fama French dividend growth model.
- 9.213 The DMS decompositional methodology infers historical returns by breaking down the historical equity premium into elements that correspond to investor expectations and elements of non-repeatable good or bad luck. These elements are the mean dividend yield, the growth rate of real dividends and the expansion of the price/dividend ratio. The first two elements are taken to inform investors'

⁶⁰ See, for example, CMA (2021), "PR19 Final report", paragraph 9.329.

⁶¹ The 20-year overlapping arithmetic average involves estimating average returns for each 20-year period within the sample, including where these periods overlap. So, for example, both the period 2004-2024 and the period 2003-2023 would be included.

⁶² An estimator refers to an approach to aggregating annual values into a single, period-wide measurement.

⁶³ This refers to estimators set out in Blume (1979), "Unbiased estimators of long-run expected rates of return".

⁶⁴ This refers to estimators set out in Jacquier, Kane, and Marcus (2005), "Optimal estimation of the risk premium for the long run and asset allocation: a case of compounded estimation risk."

expectations, while the latter is considered to be “non-repeatable”, at least in expectation.

- 9.214 Fama and French use a dividend growth model to break-down historical returns into an underlying expected return, equal to the average dividend yield plus the average dividend growth rate, and an unexpected return (comprising capital gain in excess of the rate of dividend growth).
- 9.215 We consider that both methodologies represent plausible estimates of the historical *ex ante* return, and that weight should therefore be placed on both. In line with Ofwat and the CMA in their respective determinations of the PR24 price control, we propose to use these estimates as the upper and lower bounds of the range for the historical *ex ante* return.
- 9.216 We apply the same methodologies used in Ofwat’s Final Determination and the CMA’s Provisional Determination of the PR24 price control. Our estimates are based on the same underlying data as that used by the CMA, and hence produce the same numerical values, which are set out in Table 9.10 and Table 9.11 below.

Table 9.10: DMS decompositional approach (CPIH-real)

Geometric mean dividend yield	4.55%
Growth rate of real dividends	0.64%
Geometric-to-arithmetic conversion	1.61%
Historic <i>ex ante</i> return	6.79%

Source: Global Investment Returns Yearbook (2025), Office for National Statistics (2025), “CPIH INDEX 00: ALL ITEMS 2015=100”, Office for National Statistics (2022), “Consumer price inflation, historical estimates and recent trends, UK: 1950 to 2022”, Bank of England (2017), “A millennium of macroeconomic data”.

Table 9.11: Fama French dividend growth model (CPIH-real)

Average dividend yield	4.41%
Average dividend growth rate	1.72%
Bias adjustment	0.53%
Historic <i>ex ante</i> return	6.65%

Source: Global Investment Returns Yearbook (2025), Office for National Statistics (2025), “CPIH INDEX 00: ALL ITEMS 2015=100”, Office for National Statistics (2022), “Consumer price inflation, historical estimates and recent trends, UK: 1950 to 2022”, Bank of England (2017), “A millennium of macroeconomic data”.

Estimate of *ex ante* historical returns

9.217 Based on the approach set out above, we estimate an *ex ante* historical return of between 6.65% and 6.79% (CPIH-real).

Our Initial Proposals

9.218 We propose a range for the Total Market Return of **6.72%-6.92%**. The lower bound of this range corresponds to the average of values implied by the DMS decompositional approach and Fama-French dividend growth model. The upper bound of this range corresponds to our estimate of historical *ex post* returns.

Cost of embedded debt

9.219 As explained earlier in this chapter, we estimate the WACC by reference to the costs that would be incurred under a notional financing structure. Embedded debt is defined as debt that the notionally company would already have issued at the start of H8 (that is, by 31 December 2026). The cost of embedded debt provides HAL with an allowance for servicing this debt.

Stakeholder views

HAL

9.220 HAL stated that its debt has been efficient, given the profile of issuance. It therefore considered that the most robust approach to estimating the allowed for the cost of embedded debt is to base this on its actual cost of embedded debt. This included forecast issuance through to the end of H7 assumed to be priced at the same level as the iBoxx non-financials A/BBB 10+ year index plus a HAL-specific premium of 0.43%⁶⁵. Based on this approach, it proposed a value of 2.56% CPIH-real for the cost of embedded debt.

9.221 It cross-checked this estimate against a notional embedded debt benchmark. This assumed that the notional company issued debt in line with HAL's actual timing of issuance, tenor, and debt mix. It then assumed a cost of each instrument based on a series of assumptions regarding the yield at issuance of HAL's bonds, the yields on various corporate bond indices, and swap and SONIA⁶⁶ rates.

9.222 It found that the cost of embedded debt implied by this benchmark was 4.30% in nominal terms, which was slightly more than HAL's actual nominal cost of

⁶⁵ The premium was calculated based on a rating and tenor-matched comparison between the yield at issuance on each of HAL's bonds with the corresponding yield on the relevant iBoxx index.

⁶⁶ SONIA refers to the Sterling Overnight Index Average for which the Bank of England is the administrator. It is based on actual transactions and reflects the average of the interest rates that banks pay to borrow sterling overnight from other financial institutions and other institutional investors.

embedded debt of 4.29%. It said that this demonstrated that HAL's cost of embedded debt is not materially inefficient.

9.223 In support of its assessment, HAL commissioned a report by KPMG which:

- carried out a detailed analysis of HAL's actual cost of debt, including sensitivity testing to determine how this would vary under different macroeconomic scenarios;
- examined how HAL's actual cost of debt compared with KPMG's view of a reasonable notional benchmark; and
- considered how HAL's cost of debt would change under different assumptions regarding its financing structure (KPMG describes these as "counterfactual scenarios").

9.224 KPMG considered three counterfactual scenarios:

- Counterfactual 1: this simulated HAL's cost of debt on a single-class senior unsecured basis, with net debt equivalent to the "factual" scenario (around 72% of RAB);
- Counterfactual 2: this simulated HAL's cost of debt on a single-class senior unsecured basis, with net debt reduced to the notional level (60% of RAB); and
- Counterfactual 3: this begins with HAL's actual debt profile and re-prices each swap leg as if it were a standalone bond of the same type, using KPMG's view of notional, like-for-like pricing.

9.225 In each case, KPMG estimated the values for credit metrics that would prevail, assuming that the benefits of HAL's whole business securitisation are excluded. Based on the resulting credit metric projections, KPMG estimated a counterfactual credit rating based on its interpretation of credit rating agency methodologies. From this, KPMG derived a resulting nominal cost of debt based on yields on bonds issued by non-financial corporates at different issuer credit ratings.

9.226 It concluded that:

- there is no case for excluding either junior debt or swaps (except for swap restructurings undertaken during the pandemic);
- HAL's actual cost of debt is efficient by comparison to its preferred notional benchmark;
- under each of the alternative assumptions regarding HAL's financing structure, HAL's cost of debt would be higher: in some cases, significantly so.

IATA

- 9.227 CEPA, on behalf of IATA, estimated the cost of embedded debt for the notional company using a benchmark index. It stated that allowing HAL to recover actual debt costs, for example through an adjustment to benchmark indices, creates moral hazard: that is, it would provide an incentive for HAL to raise debt inefficiently, since higher debt costs would be passed through to consumers.
- 9.228 CEPA estimated the notional benchmark based on the iBoxx non-financials A and BBB-rated 10-15 year indices. It did not apply a HAL-specific adjustment to the benchmark index, on the basis that:
- HAL's actual gearing is significantly above CEPA's notional gearing assumption. CEPA stated that higher gearing weakens the creditworthiness of existing debt and leads to higher interest costs;
 - HAL's actual cost of debt may be influenced by capacity expansion considerations, which are inconsistent with a two-runway price control; and
 - the use of HAL's actual cost of debt creates moral hazard, as it will not bear the consequences of higher debt costs which are borne by consumers.
- 9.229 CEPA estimated the cost of nominal debt using a collapsing average over the course of H8. The averaging period used is 13.5 years at the start of H8 and 8.5 years at the end.
- 9.230 On this basis, CEPA estimated a nominal cost of embedded debt of 3.87%.
- 9.231 CEPA then used the following assumptions to estimate a CPI-real cost of embedded debt:
- a value of 2% to deflate the nominal cost of fixed rate debt;
 - the average of daily values derived from 10-year and 15-year CPI swaps to deflate index-linked debt; and
 - an assumption that fixed rate debt will comprise 75% of total embedded debt in H8.
- 9.232 This results in the following CPI-real estimates:
- CPI-real cost of fixed-rate embedded debt of 1.83%;
 - CPI-real cost of index-linked embedded debt of 0.90%-0.96%; and
 - a range for the CPI-real cost of embedded debt of 1.60%-1.62%.

Our views

- 9.233 Unlike in sectors with multiple regulated companies that can be benchmarked against each other, there are no obvious close benchmarks for HAL's debt costs:

- regulated network utilities are not subject to demand risk, and hence are unlikely to be comparable to HAL;
- large airport companies in other countries generally exhibit considerably lower gearing levels than our notional gearing assumption;
- other UK airports have substantially different business models to HAL, and hence are unlikely to be comparable to HAL; and
- broad samples of similarly-rated corporate bonds reflect a diverse range of business and financial risks that are unlikely to closely resemble those faced by HAL.

9.234 We therefore consider that it is appropriate to consider carefully the advantages and disadvantages of basing assumptions on the cost of embedded debt for the notional company on HAL's actual financial structure.

Our approach for the H7 price control

9.235 For the H7 price control, we estimated the cost of embedded debt based on a trailing average of yields on a corporate bond index, adjusted upwards to reflect a HAL-specific premium. The premium was calculated based on the average difference in yield between HAL's Class A bonds and the index at the point that HAL's bonds were issued.

9.236 While this approach was calibrated with respect to HAL's actual cost of Class A bonds, the use of a trailing average of adjusted index yields effectively implied an assumption that the notional company issued debt continuously. We have reconsidered this approach, and, in our view, this assumption is unlikely to be realistic. Issuing bonds is costly, and continuous bond issuance is unlikely to be efficient, and may not be possible at all in practice.

9.237 We also note the CMA's comments in this respect in its Final Determination of the H7 appeals:

*"[index-based approaches] assume that the notional company would issue debt in a relatively mechanistic way (in similar amounts and with similar maturity year after year), which is unlikely to be case for most real-world companies. Market conditions and other treasury policies would likely affect the timing of debt issuance and the choice of specific instruments."*⁶⁷

9.238 The use of a benchmark index results in the cost of embedded debt estimate being sensitive to the length of the trailing average period.

9.239 This was highlighted by the CMA in its Final Determination of the H7 appeal:

⁶⁷ CMA (2023), "H7 Heathrow Airport Licence Modification Appeals: Final Determinations", October, Paragraph 7.329.

“the choice of a trailing average is necessarily a crude approximation of how debt is likely to be issued in practice. It supports the view that the calibration of the average involves a choice, taking account of relevant factors, between alternatives none of which is a precise guide to an answer that is clearly superior to any other”.⁶⁸

9.240 In the context of H8, it is not obvious what the appropriate trailing average period should be.

Possible alternative assumptions

9.241 In the light of these observations, we have considered three alternative options for setting the cost of embedded debt:

- using HAL’s actual cost of debt, inclusive of swaps and junior debt;
- using HAL’s actual cost of debt, but based on a subset of its debt instruments: specifically, its cost of senior debt; and
- making an estimate of HAL’s cost of senior debt based on a corporate bond index, weighted to reflect the actual timing of junior and senior debt issuance.

Use of HAL’s actual cost of debt, inclusive of swaps and junior debt

9.242 KPMG estimated HAL’s actual nominal cost of debt, inclusive of swaps and Class B debt, to be 4.61%. We have carried out analysis of KPMG’s estimate and have been able to replicate this figure based on the source data provided, so are satisfied that this represents an accurate estimate as at the point that HAL’s business plan was submitted.

9.243 Setting the cost of embedded debt allowance is the most likely of the three options to ensure that the notional company is able to recovery its efficiently-incurred cost of debt. This is because it is based on an observably achievable benchmark and it is, therefore, reasonable to expect that an efficient company would incur costs that are equal to or lower than the benchmark.

9.244 However, we are concerned about the adverse incentives that would result from this option, and the resulting exposure of consumers. This option would provide:

- no incentives on HAL to moderate its leverage at the level of the regulated entity, since all debt classes would be included in the estimate;

⁶⁸ CMA (2023), “H7 Heathrow Airport Licence Modification Appeals: Final Determinations”, October, Paragraph 7.244.

- a limited incentive on HAL to issue debt efficiently, since the cost of new debt would effectively be passed through to consumers once it became embedded debt in future price control periods; and
- no incentive to issue derivatives responsibly, since consumers would ultimately bear the cost if HAL's derivative portfolio were to be "out of the money".

9.245 In light of these concerns, we do not consider this option to be in the interest of consumers.

Use of HAL's actual cost of senior debt

9.246 We have asked FTI Consulting to estimate the nominal cost of HAL's senior debt, which they find is 4.94%. This is higher than that estimated by KPMG for several reasons⁶⁹:

- HAL's Class B debt was raised during a period when interest rates were low by comparison with their level over the period over which HAL has raised debt overall. This means that the exclusion of Class B debt results in an increase in the cost of embedded debt;
- HAL's swaps can be considered "in the money", in the sense that their exclusion results in an increase in the cost of embedded debt; and
- an assumption of a constant 60% notional gearing level results in a higher assumed level of debt issuance in 2025 and 2026 than KPMG has assumed. Since this debt is relatively expensive compared with HAL's existing debt, this results in a higher cost of embedded debt overall. FTI Consulting has also assumed a slightly higher cost of debt issued in these years compared with KPMG's estimate⁷⁰.

9.247 We consider that this option has both merits and drawbacks. It implies a higher cost of embedded debt than HAL's cost of debt inclusive of junior debt and derivatives. There is also a limited incentive on HAL to issue senior debt efficiently, since the cost of new senior debt would effectively be passed through to consumers once it became embedded debt in future price control periods.

9.248 However, it protects consumers from the impact of higher leverage on the cost of debt. This is because there are limitations on HAL's ability to raise senior debt under its debt documentation. For example, there is a trigger event if the level of

⁶⁹ FTI Consulting also make certain additional amendments to HAL's actual financial structure: specifically, it replaces HAL's floating rate issuance with fixed rate equivalents; and it assumes that index-linked bondholders will not be compensated for the RPI-CPIH transition. These amendments reduce the resulting estimate of the cost of embedded debt. The rationale for these amendments are set out in the FTI report.

⁷⁰ The rationale for this is set out in the FTI report.

senior debt exceeds 72.5% of RAB. It also provides an incentive on HAL to issue derivatives responsibly and protects consumers from the cost of these instruments if they become “out of the money”.

Use of a weighted average of yields on a corporate bond index

- 9.249 FTI Consulting has also estimated the cost of embedded debt using the iBoxx non-financials A/BBB 10+ years composite index, weighted based on HAL’s actual senior and junior debt issuance. FTI Consulting estimates the cost of embedded debt to be 4.89%⁷¹ under this approach. This is marginally lower than FTI Consulting’s estimate of HAL’s actual nominal cost of senior debt.
- 9.250 This option has the disadvantage that it involves subjective assumptions regarding the terms on which HAL could have issued debt at each point in time. This is because it relies on a benchmark index that reflects a broad range of business risk profiles that may not be representative of the risk of the notional company.
- 9.251 We are, therefore, concerned that this option may not provide an accurate estimate of HAL’s “efficient” cost of debt, and could lead to either an overestimate or underestimate of the efficient cost of debt in future. An overestimate would lead to consumers bearing higher charges than necessary, while an underestimate could undermine HAL’s cost-effective access to debt financing. We therefore do not consider that this option would be in the interest of consumers.

Conclusion in respect of the nominal cost of embedded debt for the notional company

- 9.252 On balance we consider that HAL’s cost of senior debt is the most appropriate benchmark. This avoids some of the difficulties with using benchmark indices and protects consumers from possible higher costs of junior debt in the future. Nonetheless, decisions on these matters are relatively finely balanced and we will continue to consider whether this approach best protects consumers and appropriately discharges are duty to have regard to HAL’s financeability.
- 9.253 For the purposes of these Initial Proposals, we therefore propose to base the cost of embedded debt on HAL’s senior debt only. This results in a nominal value of 4.94%.

Treatment of inflation

- 9.254 Consistent with our approach for the H7 price control, we deflate the estimated nominal cost of embedded debt by forecast CPIH inflation in H8, based on the November 2025 Economic and Fiscal Outlook published by the Office for Budget

⁷¹ FTI Consulting add a HAL-specific premium of 12bps to their estimate, resulting in a cost of embedded debt of 5.01%. For the purposes of our assessment, we exclude this premium.

Responsibility⁷² for 2027-2030. We assume that CPIH is equal to its 2030 value 2.13% in 2031.

- 9.255 We note that the CMA found that our decision to use medium-term inflation forecasts as the basis for deflating the nominal cost of embedded debt was not wrong⁷³.
- 9.256 We estimate a CPIH-real cost of embedded debt for each year and then estimate a CPIH-real cost of embedded debt for H8 as the weighted average of the annual embedded debt costs⁷⁴.

Our Initial Proposals

- 9.257 We estimate a CPIH-real cost of embedded debt of **2.77%**.

Cost of new debt

- 9.258 New debt is defined as debt that we would expect HAL to issue in the course of H8 under the notional financial structure. The cost of new debt provides HAL with an allowance for servicing this debt. Unlike the cost of embedded debt⁷⁵, HAL's cost of new debt is not currently observable and must be forecast.

Stakeholder views

HAL

- 9.259 HAL estimated a nominal cost of new debt of 6.53% based on:
- an assumed cost of Class A debt calculated as the average yield on the iBoxx A/BBB 10+ year index for March 2025, together with a HAL-specific premium of 0.41%;
 - an assumed cost of Class B debt calculated as the average yield on the iBoxx BBB 10+ year index, together with a HAL-specific premium of 0.63%; and
 - an assumed mix of 90% Class A debt and 10% Class B debt.
- 9.260 The HAL specific premiums were calculated in the same manner as those applied to the forecast cost of new debt for the remainder of H7.

⁷² <https://obr.uk/efo/economic-and-fiscal-outlook-november-2025/>

⁷³ CMA (2023), "H7 Heathrow Airport Licence Modification Appeals: Final Determinations", December, Paragraph 7.164.

⁷⁴ Weighted by the nominal embedded debt principal in each year.

⁷⁵ With the caveat that embedded debt issued in 2025 and 2026 must also be forecast at this stage.

9.261 This was then deflated using a CPI⁷⁶ assumption of 2% in H8, resulting in a CPIH-real cost of new debt of 4.44%.

IATA

9.262 CEPA, on behalf of IATA, estimated the nominal yield on new debt based on the average yield on the iBoxx A/BBB 10-15 year index for July 2025. It did not include a HAL-specific premium, in line with its approach to the cost of embedded debt.

9.263 It then translated this into a CPI-real value as follows:

- for fixed-rate debt, it deflated the nominal cost by 2%, resulting in a CPI-real cost of fixed-rate new debt of 3.76%;
- for index-linked debt, it deflated the nominal cost based on 10-year and 15-year CPI swaps respectively, implying a forecast of CPI inflation of 2.71%-2.82%. This resulted in a cost of index-linked new debt of 2.93%-3.04%; and
- it assumed that fixed-rate debt comprises 75% of total debt, in line with its assumption in respect of embedded debt.

9.264 This results in a CPI-real cost of new debt of 3.55%-3.58%.

Our views

9.265 We agree with stakeholders that the logical starting point for the cost of new debt is the yield on corporate bond indices. This is because the timing of bond issuance is less relevant when forecasting the future cost of debt.

9.266 However, as with the cost of embedded debt, we are concerned that exclusive reliance on corporate bond indices could lead to a cost of new debt that is not representative of the business and financial risks faced by the notional company. This in turn could result in HAL making windfall gains or losses, which would not be in the interests of consumers.

9.267 As such, we estimate a HAL-specific adjustment to the yields on corporate bond indices. We agree with HAL that, in the absence of appropriate external benchmarks, this should be based on historical premiums of HAL's actual debt issuance over the relevant corporate bond indices.

9.268 We further agree with HAL that the relevant reference points are:

⁷⁶ HAL used the CPI forecast as a proxy for CPIH, on the basis that the OBR CPI forecast has historically been a more accurate forecast of CPIH out-turn than of CPI out-turn.

- primary market analysis: under this approach, we compare the yields at issuance on HAL's bonds to rating and tenor-matched corporate bond indices, and then derive a premium based on the weighted average⁷⁷ difference; and
- secondary market analysis: where we compare the traded yields on HAL's bonds to rating and tenor-matched corporate bond indices at our cut-off date of 1st November 2025 and then derive a premium based on the weighted average⁷⁸ difference.

Nominal cost of new debt

9.269 We have asked FTI Consulting to estimate the nominal cost of new debt under each approach.

9.270 FTI Consulting adopt the same broad approach as HAL. However, its analysis differs in certain detailed respects that collectively result in a materially lower estimate of the HAL-specific premium. Specifically, FTI Consulting's approach differs from HAL's in the following areas.

- **Selection of bonds:** FTI Consulting has used GBP-denominated bonds, whereas HAL also included foreign currency-denominated bonds. FTI Consulting note that it is not straightforward to derive a sterling-equivalent yield for foreign currency denominated bonds. For the H7 price control, we derived a sterling-equivalent yield by pricing a currency swap at issuance for each bond and we will consider whether to adopt a similar approach for our final proposals. FTI Consulting also included a bond issued in September 2018 that is not included in HAL's analysis.
- **Tenor matching:** FTI Consulting compare the yield at issuance on HAL's bonds to the closest tenor iBoxx non-financials index. By contrast, HAL constructed a synthetic benchmark for each bond based on interpolation between iBoxx indices of different tenors to match the tenor of the bond. FTI Consulting considers that this approach is speculative and lacks transparency and instead matched each bond to the iBoxx index with the closest available maturity.

⁷⁷ Weighted by bond principal value at issuance.

⁷⁸ Weighted by debt book principal for each year in the H8 period.

- **Credit rating matching:** FTI Consulting compare the yield on HAL's bonds to the A/BBB composite index, which is the index against which the adjustment will be applied. By contrast, HAL compared bonds to reference indices of matching credit rating: for example, bonds that are rated A- at the point of issuance are compared with the iBoxx non-financials A-rated 10+ years index. FTI Consulting have suggested that this is likely to provide an upward-biased estimate of the HAL-specific premium⁷⁹. This is illustrated in Figure 9.9 below.

Figure 9.9: Stylised illustration of HAL-specific premium estimates

Assume that HAL has issued two bonds:

- a £100m bond rated A-, with a yield at issuance of 5%; and
- a £50m bond rated BBB+, with a yield at issuance of 6%.

So, HAL's interest cost is $£100m * 5% + £50m * 6% = £8m$.

Assume that the yield on the iBoxx A index at that time is 4.5%, and the yield on the iBoxx BBB index at that time is 6.5%. So, the yield on the composite A/BBB index would be 5.5%.

Under FTI Consulting's approach, the HAL-specific premium would be estimated as $(£100m * (5% - 5.5%) + £50m * (6% - 5.5%)) / £150m = -0.2%$

If we add the HAL-specific premium under FTI Consulting's approach to the yield on the composite index, we can replicate HAL's interest cost: $(-0.2% + 5.5%) * £150m = £8m$

Under HAL's approach, the HAL-specific premium would be estimated as $(£100m * (5% - 4.5%) + £50m * (6% - 6.5%)) / £150m = 0.2%$

If we add the HAL-specific premium under HAL's approach to the yield on the composite index, we overestimate HAL's interest cost: $(0.2% + 5.5%) * £150m = £8.5m$

Source: CAA calculations

9.271 FTI Consulting start by comparing the average secondary market yields at each point in time with the corresponding yield on the benchmark index. It finds that HAL's bonds exhibit a discount of 0.01% relative to the index.

9.272 FTI Consulting then consider whether HAL's bonds have exhibited a new issuance premium: that is, whether HAL has had to issue bonds at a higher yield than the corresponding yield on bonds trading in the secondary market at that

⁷⁹ This is the case because HAL has issued a greater quantum of debt that is rated A- compared with BBB+. If the reverse was the case, HAL's approach would lead to a downward bias.

time. It finds that the New Issuance Premium has varied between -0.55% and 0.59% over time, with a weighted average⁸⁰ value of 0.12%.

- 9.273 This differs from our estimate of the new issuance premium assumed at H7, which was based on a selection of bonds from a broad range of sectors. We have updated our view and now consider that it is more appropriate to focus on the new issuance premium exhibited by HAL's bonds specifically.
- 9.274 Based on the above, FTI Consulting estimate a HAL-specific premium of 0.10%, which it adds to the average yields on the iBoxx non-financials A/BBB 10+ year index for October 2025 of 6.03%, to arrive at a nominal cost of new debt of 6.13%.

Deflation of nominal yields

- 9.275 As with the cost of embedded debt, we deflate the nominal cost of new debt by the Office for Budget Responsibility's November 2025 forecast of CPIH inflation. We estimate a CPIH-real cost of new debt in each year of H8 and then estimate the H8 cost of new debt as the weighted average of these values. This results in a CPIH-real cost of new debt of 3.93%.

Our Initial Proposals

- 9.276 We estimate a CPIH-real cost of new debt of **3.93%**.

Proportion of new debt

- 9.277 In order to develop an estimate of the cost of debt, it is necessary to determine the weight to apply to the cost of embedded debt and new debt respectively. Since both we and stakeholders estimate the cost of new debt to be higher than the cost of embedded debt, a higher proportion of new debt implies a higher WACC, all else being equal.

Stakeholder views

HAL

- 9.278 HAL estimated new debt as a proportion of total debt in each year of H8 based on its projections of funding requirements under the projections in its H8 Business Plan (and assuming a constant 60% notional gearing level).
- 9.279 It then weighted these proportions by the level of RAB in each year. It assumed linear RAB growth in each year, in line with our approach in the H7 price control. As a cross-check, it calculated weights based on its actual forecast of RAB growth in each year.

⁸⁰ Based on debt principal at each point in time.

9.280 Based on this, it estimated a proportion of new debt as follows:

Table 9.12: HAL estimate of the proportion of new debt in H8

	2027	2028	2029	2030	2031
Proportion of new debt (in year)	14%	21%	29%	38%	44%
RAB weight (linear growth)	18%	19%	20%	21%	22%
RAB weight (actual)	18%	18%	20%	21%	23%
Proportion of new debt (linear growth)	30.04%				
Proportion of new debt (actual)	30.12%				

Source: HAL Business Plan Appendix A8.2 – WACC technical appendix

IATA

9.281 CEPA, on behalf of IATA, applied a 20% weight on new debt, as a holding assumption subject to an appropriate capex envelope.

Our views

9.282 We have used the following steps to estimate the proportion of new debt:

- we estimate opening embedded debt assuming a 60% notional gearing level is applied to the closing H7 RAB value;
- we estimate the quantum of HAL's senior debt that is due to be refinanced each year, in line with our approach to the cost of embedded debt. This includes an estimate of accretions on embedded, index-linked debt;
- We estimate the closing balance of embedded debt in each year by deducting maturing debt from the opening embedded debt balance;
- we forecast the closing RAB using the projections implied by our H8 Initial Proposals. We will update this approach for our Final Proposals to be consistent with our projections of HAL's RAB over the H8 period;
- we then calculate the quantum of debt needed to maintain a 60% notional gearing assumption based on the RAB value in each year;
- We calculate the new debt balance in each year based on the difference between the closing embedded debt balance and the debt balance needed to maintain a 60% notional gearing level;
- We calculate the proportion of new debt in each year by dividing the quantum of new debt by the total quantum of debt in that year; and

- we estimate a weighted average of the proportion of new debt, weighted on the basis of the forecast closing RAB for each year in the H8 period.

9.283 This is summarised in Table 9.13 below.

Table 9.13: Estimated proportions of new debt in the H8 period

	2027	2028	2029	2030	2031
Opening embedded net debt	13,007	12,499	12,054	11,412	10,248
Accretion on embedded IL debt	37	35	37	30	28
Debt refinancing	597	525	744	1,314	1,194
Closing H8 Embedded net debt balance	13,821	13,329	12,619	11,333	10,164
Forecast Closing RAB	22,223	22,923	23,602	23,862	23,967
Debt required for 60% gearing	13,334	13,754	14,161	14,317	14,380
Total new debt	924	1,880	3,040	4,500	5,737
New debt as % of total (by year)	2.8%	8.4%	14.1%	21.6%	28.5%
New debt as % of total (H8)	15.4%				

Note: £m nominal, unless stated otherwise.

Source: HAL debt book, CAA assumptions

Our Initial Proposals

9.284 We estimate the proportion of new debt to be **15.4%** in the H8 period.

Additional debt costs

9.285 We would expect that the notional company will incur additional costs associated with issuing debt that is not captured directly within the base cost of the debt allowance. Examples include issuance fees to financial intermediaries and costs associated with maintaining sufficient liquidity to raise debt at competitive interest rates.

Stakeholder views

HAL

9.286 HAL estimated various types of additional debt costs, largely based on its actual costs incurred historically and applied to forecast debt in the H8 period. These are grouped and summarised below.

Issuance and platform costs

- **Debt platform costs:** fees associated with maintaining a debt issuance platform. This includes Bond Trustee fees, professional fees related to the annual update of its European Medium Term Notes platform, and ongoing credit rating agency monitoring fees.
- **Consent exercise:** costs associated with periodic changes to financing documentation.
- **Cost of raising debt:** upfront costs associated with raising debt including bank bookrunner fees, legal fees, accountancy fees, and credit rating fees.

Facility costs

- **RCF⁸¹ commitment fees:** HAL estimated these based on actual costs incurred historically and the estimated RCF size during the H8 period; and
- **Arrangement and ongoing fees:** HAL indicated that these include upfront arrangement fees, agency fees and fees associated with a Liquidity Facility. This was based on actual costs incurred.

Cost of carry

- **Credit spread - debt interest cost:** this represents the cost of raising debt in advance and holding the proceeds as cash for use as a liquidity buffer. HAL estimated this based on the credit spread of HAL's actual debt over SONIA in May 2025.
- **Deposit rate - interest income:** this represents the interest income HAL earns on cash balances. HAL estimated this based on its actual interest rates earned in May 2025.

IATA

9.287 CEPA, on behalf of IATA, included an 0.11% allowance, based on the allowance we provided in the H7 price control, but excluding the component pertaining to pandemic-related cash balances.

Our views

9.288 We consider the following categories of additional debt:

- issuance costs; and
- liquidity costs.

⁸¹ This refers to a Revolving Credit Facility, which is a flexible, pre-approved borrowing arrangement that allows businesses to draw down, repay, and re-borrow funds up to a set limit repeatedly without reapplying.

- 9.289 This categorisation is consistent with our approach at H7, with the exception that we no longer include an allowance for funding pandemic-period cash balances. As we indicated in the H7 Final Proposals, this was a one-off allowance that we have allowed due to the unique circumstances of the pandemic and its immediate aftermath. We indicated that we would not expect to provide this allowance in future price controls unless there are similarly exceptional circumstances.
- 9.290 These categories of additional debt cost are also largely consistent with HAL's proposed categorisation, with our issuance cost category being broadly equivalent to HAL's issuance and platform costs, and our liquidity cost category being broadly equivalent to HAL's facility costs and cost of carry categories. However, we re-categorise certain cost items between these categories, as outlined below.

Issuance costs

- 9.291 We do not see a compelling reason to move away from the approach we adopted in calculating the H7 price control in respect of base issuance costs. This was calibrated on basis of external benchmarks that we consider should adequately remunerate the notional company for its costs incurred, for the reasons we previously set out: namely that these benchmarks were of similar size and credit rating⁸².
- 9.292 We have not seen evidence to suggest that this cost has materially changed as a proportion of total debt costs since we implemented the H7 price control. We therefore retain a base issuance cost of 0.04%.
- 9.293 It is also reasonable to include an allowance for the costs of retaining access to a Revolving Credit Facility. We consider that a notional company could reasonably be expected to have such a facility in place to manage liquidity requirements. In implementing the H7 price control, we included set-up costs in respect of the Revolving Credit Facility in liquidity costs.
- 9.294 We consider that it would be more appropriate to include these within the issuance cost allowance in the H8 period, since these are essentially a cost of accessing Revolving Credit.
- 9.295 We estimate these costs as follows:

⁸² CAP2365D, Paragraph 9.365.

Table 9.14: Estimate of Revolving Credit Facility set-up costs

Component	Reference	Values	Source
Revolving Credit Facility	A	£1,436m	HAL ⁸³
Gross debt	B	£16,260m	HAL ⁸⁴
Fees	C	0.15%	H7 Final Proposals ⁸⁵
Set-up cost allowance	= C * A / B	0.01%	Calculation ⁸⁶

9.296 Based on this, we estimate total issuance costs of 0.05%, comprising the sum of a base issuance cost of 0.04% and an estimate of Revolving Credit Facility set-up costs of 0.01%.

Liquidity costs

9.297 We consider that the notional company would source its liquidity buffer from two sources: drawn balances on the Revolving Credit Facility and cash balances sourced from bond issuance in advance of cash requirements.

9.298 We have estimated the cash liquidity allowance based on HAL's actual cash balances in 2024 (which is the most recent year for which this data is available), together with an assumption in respect of the cost of holding cash. In doing so we assume the notional company:

- funds cash balances at the three-year average of the iBoxx non-financials A/BBB 10+ years index plus the HAL-specific premium estimated in paragraph 9.274.
- earns interest on these balances, estimated as the three-year average of the Overnight Index Swap three-month spot rate.

9.299 The resulting cost of holding cash is estimated as follows:

⁸³ HAL 2024 Annual Report, page 18.

⁸⁴ HAL 2024 Annual Report, pages 179 and 197, and HAL 2024 Annual Report, page 230. We use HAL's reported RAB (£20,422m), multiplied by its total net debt to RAB (0.72), to obtain consolidated net debt. We then use the sum of consolidated net debt (£14,704m), cash and cash equivalents (£1,131m), and term deposits (£425m) to obtain gross debt (£16,260m).

⁸⁵ CAP2365 (FP), Paragraph 9.377. We use HAL's provided set-up cost of 0.75% and scale by a 5-year facility life to obtain 0.15%.

⁸⁶ Calculation based on the CMA's approach to calculating the RCF allowance within its liquidity calculation. Water PR24 References, Provisional Determinations Volume 4, Paragraph 7.727(a).

Table 9.15: Cost of holding cash

Component	Reference	Values	Source
Overnight Index Swap rate	A	4.63%	Bank of England
Benchmark index rate	B	5.86%	S&P IHS Markit
Cost of holding cash	$C = B - A$	1.23%	Calculation
HAL cash balance as a % of gross debt	D	9.57%	HAL 2024 annual report ⁸⁷
Cash liquidity allowance	$E = C \times D$	0.12%	Calculation

Note: The Overnight Index Swap rate and the Benchmark index rate are nominal values. Because the cost of holding cash represents the difference between two nominal values, we treat this value and the cash liquidity allowance, as CPIH-real values.

9.300 We add to this an allowance for the cost of drawn balances on a Revolving Credit Facility based on the size of HAL's actual facility as a proportion of its gross debt in 2024. This is set out below.

Table 9.16: Cost of drawn balances on Revolving Credit Facility

Component	Reference	Values	Source
RCF size	A	£1,436m	HAL ⁸⁸
Gross debt	B	£16,260m	HAL ⁸⁹
RCF size as a % of gross debt	$C = A / B$	8.83%	Calculation
RCF commitment fee	D	0.25%	HAL H7 submission
RCF commitment fee allowance	$E = C \times D$	0.02%	Calculation

9.301 This results in an allowance of 0.02%.

Our Initial Proposals

9.302 We estimate an allowance for additional debt costs of **0.19%**, calculated as follows:

⁸⁷ We calculate this using the sum of cash and cash equivalents and term deposits (£1,556m) as a proportion of the gross debt (£16,260m) calculated in footnote **Error! Bookmark not defined.**

⁸⁸ HAL 2024 Annual Report, page 18.

⁸⁹ HAL 2024 Annual Report, pages 179 and 197, and HAML 2024 Annual Report, page 230.

Table 9.17: Allowance for additional debt costs

Component	Reference	Values
Issuance costs	A	0.04%
Revolving Credit Facility set-up costs	B	0.01%
Total issuance costs	C = A + B	0.05%
Cash liquidity allowance	D	0.12%
Revolving Credit Facility liquidity allowance	E	0.02%
Total liquidity costs	F = D + E	0.14%
Additional debt costs	G = C + F	0.19%

Source: CAA estimates.

Cross checks on the WACC

9.303 Estimates of the WACC are inevitably subject to a significant degree of uncertainty, as evidenced by the range of possible values within which it may lie. UK economic regulators often consider certain cross-checks on the proposed values to inform the choice of point estimate from within this range.

Stakeholder views

HAL

9.304 HAL used two cross-checks on its estimate of the cost of equity. The first examined the implications of the recent sale of 37.62% of the share capital of FGP Topco Ltd (which ultimately owns HAL) to Ardian and PIF for £3,259m. We refer to this as the Market Asset Ratio⁹⁰ analysis.

9.305 The second is based on a comparison of the cost of equity to the cost of debt.

Market Asset Ratios

9.306 HAL noted that the Market Asset Ratio implied by the equity transactions referred to above was between 1.223 and 1.295. It noted that it is common for large, regulated UK companies to exhibit Market Asset Ratios above 1. It further noted that RAB growth in the H8 period and due to expansion could explain the

⁹⁰ The Market Asset Ratio is defined as the ratio of the market value of a regulated company to its Regulated Asset Base. In principle, a Market Asset Ratio in excess of 1 can imply that investors expect the regulated company to earn more than its required return over time.

observed premium, but that the level of growth is too uncertain to provide a sufficiently precise measure of the implied cost of equity.

Comparison of the cost of equity to the cost of debt

9.307 HAL said that it can be determined whether the allowed cost of equity is too low by considering the spread of the unlevered cost of equity over the cost of new debt. The unlevered cost of equity represents the cost of equity for a company with no debt, and can be calculated as:

$$\text{Risk free rate} + \text{equity risk premium} * \text{asset beta}$$

9.308 HAL noted that the unlevered cost of equity must be higher than the cost of new debt. HAL estimated that the CPIH-real unlevered cost of equity is 4.92% on the basis of its proposed parameter values. This compared to HAL's estimate of 4.14% for the CPIH-real cost of new debt.

IATA

9.309 CEPA, on behalf of IATA, set out three cross checks:

- Market Asset Ratios;
- a comparison of the Asset Risk Premium to the Debt Risk Premium; and
- a comparison of its proposed WACC to Ofwat's PR24 Final Determination.

Market Asset Ratios

9.310 CEPA stated that the Ferrovial transaction implied a greater than 50% premium on regulated equity, which it considered was consistent with expected outperformance of the allowed return.

Comparison of the Asset Risk Premium to the Debt Risk Premium

9.311 CEPA also examined the difference between the Asset Risk Premium (defined as the equity risk premium multiplied by the asset beta) and the Debt Risk Premium (defined as the cost of new debt minus the risk free rate minus the expected loss on debt). It noted that logically, the Asset Risk Premium should be higher than the Debt Risk Premium.

9.312 It estimated an Asset Risk Premium of 1.29% to 1.84% based on its unlevered beta estimate of 0.35 to 0.44 and its estimated Equity Risk Premium of 3.69% to 4.23%.

9.313 It then estimated a Debt Risk Premium of 0.79% to 1.23%, based on the difference between the yield on the iBoxx non-financials A/BBB 10-15 years index in July 2025 to the corresponding yield on UK 10-year and 15-year gilts in this period.

9.314 It concluded that its estimated Asset Risk Premium is above the estimated Debt Risk Premium, and so passes this cross-check.

Comparison to Ofwat's PR24 Final Determination

9.315 CEPA noted that its proposed cost of equity is above that proposed by Ofwat for PR24 when estimated based on the same notional gearing assumption, but that its cost of debt is below Ofwat's estimate.

9.316 It attributed the lower cost of debt to:

- its use of a benchmark index, compared with Ofwat's use of actual industry costs of debt;
- the use of higher assumed inflation to estimate the cost of index-linked embedded debt;
- the use of a longer-tenor reference index to estimate the cost of new debt; and
- the use of shorter trailing averages of the benchmark index compared with Ofwat when estimating the cost of new debt.

Our views

9.317 We consider the following cross-checks:

- Market Asset Ratios;
- a comparison of the Asset Risk Premium to the Debt Risk Premium⁹¹; and
- a comparison of our WACC range to the CMA's PR24 Provisional Determination.

Market Asset Ratios

9.318 Unlike in other regulated sectors, there are no publicly traded benchmarks that can form the basis of a Market Asset Ratio estimate since HAL's equity is not publicly traded.

9.319 In the absence of such information, we can assess corporate transactions that have happened previously. The latest available corporate transaction for which we can calculate a Market Asset Ratio was the sale of equity in FGP TopCo Limited to Ardian and PIF, which was completed in February 2025. At that point in time, the latest available regulatory determination of the WACC was the H7 allowed return.

⁹¹ Note: this is closely related to the comparison of the unlevered cost of equity to the cost of new debt undertaken by HAL. The asset risk premium is equal to the unlevered cost of equity less the risk free rate. The debt risk premium is equal to the cost of new debt less the risk free rate and an estimate of the expected loss implied by the cost of new debt. Given the similarity between these cross-checks, we do not carry out a separate comparison of the cost of new debt to the unlevered cost of equity in the manner carried out by HAL.

- 9.320 The sale of equity in FGP Topco Limited took place in stages, with a sale 37.62% of equity being completed in December 2024 for £3,259m, and a further sale of 10% of equity being completed in February 2025 for approximately £890m.
- 9.321 We estimate the equity value of FGP Topco based on the combined consideration for both sales (£4,949m) together with the aggregate percentage of the equity of the company that was sold (48%). This implies an equity valuation of £8,712m.
- 9.322 The assets owned by FGP Topco Limited are broadly equivalent to those owned by HAL, so the enterprise value for FGP Topco Limited can be considered to be approximately equal to that for HAL.
- 9.323 To estimate HAL's enterprise value, it is necessary to combine the market valuation of FGP Topco Limited's equity with an estimate of its other liabilities. This is not straightforward for two reasons:
- information on the market value of HAL's (non-equity) liabilities is not generally available, so we must rely on book valuations of these liabilities; and
 - it is necessary to exercise judgement in determining which types of liability should be included when estimating the enterprise value: for example, the CMA used a measure of net debt to estimate the enterprise value for the water companies in its PR24 Provisional Determination. In the context of the H8 price control, FGP Topco Limited's net debt (£16,565m⁹²) differs significantly from its total liabilities (£21,824m⁹³), for example, due to the presence of derivative and deferred tax liabilities. This has a significant impact on the estimate of the enterprise value of the company.
- 9.324 FGP Topco Limited's enterprise value could therefore be estimated as being between £25,278m and £30,537m, depending on which measure of liabilities is used. When compared with the closing RAB for 2024 of £20,422m⁹⁴, this implies a Market Asset Ratio of between 1.24 and 1.50.
- 9.325 It is noteworthy that both estimates imply a substantial premium to RAB. As noted by the CMA in its Provisional Determination of the PR24 price control, there could be a number of drivers for a Market Asset Ratio deviating from one⁹⁵.

⁹² See FGP Topco Limited, Annual Report 2024, based on the sum of current and non-current borrowings less cash and cash equivalents.

⁹³ See FGP Topco Limited, Annual Report 2024.

⁹⁴ HAL (2025), "Annual Report 2024", p11.

⁹⁵ CMA (2015), "Water PR24 References, Provisional Determinations Volume 4: Allowed Return, Risk & Return, Provisional Determinations, Next steps - Chapters 7–10", paragraph 7.449

Nonetheless, the available evidence suggests that HAL's cost of equity has not been underestimated.

Comparison of the Asset Risk Premium to the Debt Risk Premium

- 9.326 We estimate that the Asset Risk Premium is 1.9% to 2.7% based on our estimates of the asset beta (0.42 to 0.58) and Total Market Return (6.72% to 6.92%).
- 9.327 We estimate the Debt Risk Premium as the cost of new debt, less the risk free rate and an estimate of the expected loss implied by the cost of new debt. We assume an expected loss of 0.30% using annualised default rates consistent with an A/BBB credit rating based on Feldhütter and Schaeffer (2018)⁹⁶. The Debt Risk Premium is then calculated as follows:

Table 9.18: Estimate of the Debt Risk Premium

Component	Reference	Values
Cost of new debt	A	3.93%
Risk free rate	B	2.33%
Expected loss	C	0.30%
Debt Risk Premium	D = A – B – C	1.30%

Source: CAA assumptions, Feldhütter, P, Schaefer, S (2013), "The Myth of the Credit Spread Puzzle"

- 9.328 The estimated Asset Risk Premium is therefore 0.55% to 1.36% above the estimated Debt Risk Premium. This suggests that our cost of equity and cost of debt estimates are internally consistent.
- 9.329 This comparison does not provide insight regarding the amount by which the Asset Risk Premium should exceed the Debt Risk Premium. However, we consider that the difference we have estimated is substantial and does not obviously present a case for setting a cost of equity in the upper half of the range.

Comparison to the CMA's PR24 Provisional Determination

- 9.330 We compare our proposed range for the cost of equity and cost of debt to the CMA's Provisional Determination of these parameters in the context of the PR24 price control below:

⁹⁶ Feldhütter, P, Schaefer, S (2013), "The Myth of the Credit Spread Puzzle".

Table 9.19: Comparison between our H8 Initial Proposals and the CMA's Provisional Determination for PR24

	CAA H8 IPs	CMA PR24 PDs
Cost of equity	6.46% to 8.47%	5.07% to 6.13%
Cost of debt	3.14%	2.98%
Vanilla WACC	4.47% to 5.27%	3.92% to 4.40%

Source: CAA, CMA (2015), "Water PR24 References, Provisional Determinations Volume 4: Allowed Return, Risk & Return, Provisional Determinations, Next steps - Chapters 7–10", Table 7.27.

- 9.331 Our estimates lie strictly above the CMA's values for PR24, with no overlap between the ranges for the cost of equity, cost of debt or the WACC overall.
- 9.332 In our view, this is consistent with HAL being exposed to demand risk and higher investor perceptions of risk associated with airports compared with regulated network utilities more generally. This comparison does not present a compelling case for adopting a point estimate in the upper half of the cost of equity range.

Our Initial Proposals

- 9.333 The cross-checks we have considered appear consistent with our proposed parameter estimates, and do not warrant adopting a point estimate in the upper half of the range for the cost of equity.

Choice of point estimate

- 9.334 Based on the evidence we have examined, we propose the following range of parameter values for the H8 WACC:

Table 9.20: Range for H8 WACC parameter estimates (CPIH-real)

Parameter	Low	High
Notional gearing	60%	60%
Asset beta	0.42	0.58
Equity beta	0.94	1.34
Risk free rate	2.33%	2.33%
Total Market Return	6.72%	6.92%
Equity Risk Premium	4.39%	4.59%
Cost of equity	6.46%	8.47%
Cost of embedded debt	2.77%	2.77%
Cost of new debt	3.93%	3.93%
Share of new debt	15.4%	15.4%
Additional debt costs	0.19%	0.19%
Cost of debt	3.14%	3.14%
Vanilla WACC	4.47%	5.27%

Source: CAA estimates

9.335 To determine a point estimate from the range, we apply the framework set out in the UKRN cost of capital guidance⁹⁷, which considers:

- cross-checks from market evidence;
- welfare impacts from under-investment;
- asymmetry in the package of incentives;
- asymmetry in the choice of parameters; and
- financeability.

9.336 At the same time, the guidance is clear that we should only deviate from the mid-point of the CAPM cost of equity range if there are strong reasons to do so.

⁹⁷ UKRN (2023), "UKRN guidance for regulators on the methodology for setting the cost of capital", March, pp26-30.

Cross-checks from market evidence

9.337 As noted above there are significant limitations with respect to the evidence in respect of cross-checks on the WACC and at this stage we are not proposing to move away from the mid-point on the basis of wider market evidence.

Welfare impacts from under-investment

9.338 In the H7 Final Decision, we indicated that a degree of “aiming up” was warranted due to welfare effect and investment considerations in the specific circumstances of the H7 price control. However, we highlighted that we were not necessarily persuaded that this would be the case at H8 and future price control reviews⁹⁸.

9.339 The guidance indicates that, while welfare impacts from under-investment are a valid concern, there are elements of most regulatory frameworks that can serve to mitigate this impact. This is the case with the H8 price control, where we have recently put in place a system of *ex ante* capex incentives, which include delivery obligations. We also note HAL’s H8 business plan set out proposals for a relatively large capex programme.

9.340 On balance we do not see evidence that HAL has been discouraged from bringing forward needed investment in the H8 period.

Asymmetry in the package of incentives

9.341 Consistent with our position in the H7 Final Decision⁹⁹, we do not consider that there is any material uncompensated asymmetry within the H8 price control. Although we consider that HAL is subject to significant asymmetric risk associated with passenger volumes due to one-off shocks, we have explicitly taken account of this through the application of a shock factor and asymmetric risk allowance.

9.342 We therefore do not consider that there are any other material sources of asymmetric risk within these initial proposals.

Asymmetry in the choice of parameters

9.343 We do not consider that there is any material asymmetry in the parameters we have adopted in estimating the WACC.

⁹⁸ CAP2365D, paragraph 9.406.

⁹⁹ CAP2365D, paragraph 9.412.

Financeability

9.344 We set out the results of our financeability analysis in Chapter 11 (Price cap and financeability) This shows no evidence of a financeability issue that would require an adjustment to the WACC.

9.345 Even if we had identified any such issues, we agree with the UKRN guidance that:

“it is not clear that cash flow shortfalls or the need to meet specified levels of financial ratios indicates a need to adjust the allowed return on equity. Debt financial ratios are heavily influenced by assumptions on historical debt costs and capital structure. There is no clear link between these assumptions and the forward-looking cost of equity. For this reason, alternatives to uplifting the allowed return on equity (e.g. assuming equity injections) are likely to be more suitable remedies for resolving financeability issues.”¹⁰⁰

9.346 We therefore do not consider that financeability considerations warrant a departure from the midpoint of the cost of equity range.

Overall conclusion and point estimate

9.347 We have not identified a compelling reason to depart from the midpoint of the range for the cost of equity or WACC. We therefore propose to adopt the midpoint of the range as our point estimate. This implies a CPIH-real cost of equity of **7.46%** and a CPIH-real vanilla WACC of **4.87%**.

Comparison to the H7 price control

9.348 We present below a comparison of our proposed H8 WACC parameters with the corresponding values for the H7 price control. As indicated in the FTI November report, comparisons of this nature are complicated by differences in the price base of the respective price controls. To facilitate a high-level comparison, we have added an RPI-CPIH wedge of 0.90% to the RPI-real values to translate these into CPIH-real terms.

¹⁰⁰ UKRN (2023), “UKRN guidance for regulators on the methodology for setting the cost of capital”, March, pp29-30.

Table 9.21: Comparison of H7 and H8 WACC estimates

Parameter (CPIH-real)	H7 midpoint	H8 midpoint
Notional gearing	60%	60%
Asset beta	0.53	0.50
Equity beta	1.21	1.14
Risk free rate	1.50%	2.33%
Total Market Return	6.80%	6.82%
Equity Risk Premium	5.26%	4.49%
Cost of equity	7.85%	7.45%
Cost of embedded debt	0.78%	2.77%
Cost of new debt	5.11%	3.93%
Share of new debt	11.61%	15.40%
Additional debt costs	0.25%	0.19%
Cost of debt	1.53%	3.14%
Vanilla WACC	4.06%	4.87%

Note: Values may not sum precisely due to rounding.

Source: FTI November report, Table-4-1, CAA assumptions and calculations

- 9.349 The cost of equity has marginally declined since the H7 Final Decision. This is largely attributable to a decline in the asset beta, driven in part by a higher assumed impact of the TRS mechanism at the lower end of the range. Assuming a similar asset beta to that used for the H7 price control would result in a similar cost of equity.
- 9.350 We note that our estimate of the Equity Risk Premium has declined significantly since the H7 Final Decision. This is the result of higher interest rates together with the assumption that the Total Market Return does not vary significantly with interest rates and an equity beta estimate that is higher than one.
- 9.351 In its Provisional Determination for the PR24 price control, the CMA estimated an Equity Risk Premium of 4.21%-4.81%, with a midpoint of 4.51%. This is close to our estimate of the Equity Risk Premium for the H8 period.
- 9.352 The marginal reduction in the cost of equity has been more than offset by an increase in the cost of debt. This is largely due to an increase in interest rates

since the H7 Final Decision and is consistent with similar observations in the FTI November report.

- 9.353 Overall, our comparison of the WACC estimate in the H7 Final Decision and our proposed H8 WACC estimate can be clearly explained and does not present any clear reason for amending our current approach.

Key issues for consultation

We welcome views from stakeholder on any matters relating to our estimate of the WACC and in particular:

- our notional gearing assumption and the rationale for adopting this value;
- the selection of comparators we have used to estimate the equity beta of the notional company and our estimates of the equity and asset betas for listed comparators;
- the application of an adjustment to reflect the impact of the TRS mechanism, and our approach to calculating this adjustment;
- our approach to estimating the debt beta for the notional company;
- our choice of reference instrument, tenor and trailing average period for estimating the risk free rate;
- our approach to translating RPI-real yields into CPIH-real yields for the purposes of estimating risk free rate;
- our view that we should estimate the total market return directly, and then calculate the equity risk premium by deducting the risk free rate from this estimate;
- our broad approach to calculating the total market return, in respect of the use of *ex post*, *ex ante* and forward-looking evidence, and our proposed treatment of inflation;
- our proposal to estimate the nominal cost of embedded debt based exclusively on HAL's actual cost of senior debt, excluding junior debt and swaps;
- our proposal to deflate nominal yields using medium-term inflation to estimate a CPIH-real cost of embedded debt;
- our approach to estimating the nominal cost of new debt for the notional company based on the application of a HAL-specific premium to a short-term trailing average of yields on a broad index of corporate bonds;
- our approach in respect of the selection of bonds, and matching bonds based on tenor and credit rating;

- our proposal to deflate nominal yields using medium-term inflation to estimate a CPIH-real cost of new debt;
- our broad approach to estimating the proportion of new debt in H8;
- our approach to estimating issuance and liquidity costs;
- the selection of cross-checks we have undertaken, our approach to estimating these and our interpretation of what they mean for our WACC estimate overall; and
- our choice of the midpoint as our point estimate for the WACC and our rationale for doing so.

Chapter 10

Financial framework

Introduction

- 10.1 The financial framework that we use to support the work we do to set HAL's price control is a key aspect of our approach to protecting the interests of consumers, as it supports the efficient financing of investment and helps ensure airport charges are no higher than necessary. In setting this framework, we also have regard to the need to secure that HAL can finance its activities at Heathrow Airport.
- 10.2 Our overall approach to the financial framework is designed to secure that HAL can finance its activities in a cost effective and efficient way through an appropriate mixture of debt and equity. As part of this, we have retained our focus on a "notional company" (which is based on our assumptions about efficient financing, rather than the actual financing structure adopted by HAL).
- 10.3 As well as these matters, this chapter deals with:
- the allowances we make for regulatory depreciation, which "smooths" the recovery of capital costs over time;
 - how we propose to make allowances for corporation tax; and
 - the treatment of inflation and passenger traffic risk (that is fluctuations in passenger numbers compared to the forecast levels discussed in chapter 2 (Passenger forecasts)).
- 10.4 All these matters are important to the efficient financing and operation of the airport and to the financing of HAL's activities and making assumptions consistent with an efficient approach to these matters also further the interests of consumers.
- 10.5 In this chapter we discuss:
- the financial framework set out in the H8 Method Statement and Business Plan Guidance;
 - the notional capital structure (in particular, our approach to the financing structure of the notional company and the associated level of gearing);
 - setting the allowance for regulatory depreciation;
 - setting the allowance for corporation tax;.
 - inflation indexation;

- the traffic risk sharing mechanism;
- the asymmetric risk allowance; and
- the regulatory asset base over H7 and H8.

10.6 Where appropriate, we have sought to act consistently with, or build on, the approach adopted in the H7 price control.

H8 Method Statement and Business Plan Guidance

- 10.7 In our Method Statement and Business Plan Guidance document, we confirmed that we:
- had developed a model for the H8 price control review that employs the same approach to gearing as we used in setting the H7 price control, namely to model a notional company with a simplified capital structure;
 - would adopt an approach to regulatory depreciation that seeks to secure that any growth in HAL's RAB is sustainable, supports a reasonable level of airport charges both in the short and longer term, and is consistent with our approach to HAL's financeability;
 - would retain the approach from H7 of uplifting the cost of capital for an allowance for tax costs, subject to checking this provides a reasonable assessment of tax costs;
 - intended to move away from RAB indexation by reference to RPI to indexation by reference to CPI as the primary measure of inflation for the H8 period, on the basis that there are now a number of medium-term forecasts available for CPI from recognised sources;
 - would examine the advantages and drawbacks of applying a nominal cost of debt in these initial proposals, and if we did not consider that this is appropriate, a "cap and collar" mechanism or sharing mechanism; and
 - would consider the design and calibration of the Traffic Risk Sharing ("TRS") mechanism and traffic risks in our initial proposals, only implementing changes where it would be reasonable and practicable to do so.

The Notional Company and Gearing

Background

10.8 The CAA12 requires us to have regard to the need to secure that HAL is able to finance its activities. Part of the way in which we discharge this duty is by conducting financial modelling to understand how the price control might affect the finances of a "notional" efficiently financed airport operator. Appendix J provides detail on why we model a notional company.

- 10.9 When modelling the notional company, we need to make an assumption about its capital structure. In the H7 and previous price controls, we assumed that the notional company had a single class of debt and that its level of debt finance (known as gearing) was 60%.

Stakeholder views

- 10.10 HAL's H8 Business Plan assumed that it would have gearing of 60% and proposed that the CAA's financeability analysis should be conducted on the basis of a notional company.
- 10.11 Airlines also implicitly endorsed the notional company approach. They commissioned CEPA to provide advice on the WACC and supported CEPA's assumption of 50% gearing in order to 'ensure financeability and in line with regulatory practice and HAL's comparators'.

Our views

- 10.12 Bearing in mind the advantages of assuming a notional financial structure discussed in appendix J, we consider that our approach to the H8 price control review should continue to be based on the "notional company". It is a reliable and proven way to assess financeability, without introducing perverse incentives that might damage the interests of consumers.
- 10.13 We have also considered options that build on our approach in the H7 price control review. In particular, we considered the possibility of using a more sophisticated capital structure, comprising, for example, a mix of different classes of debt, but concluded that this does not appear to offer any meaningful benefits to consumers in the context of the "business as usual" operation of the airport, which is the basis for the H8 review.
- 10.14 As for the assumption on the level of gearing, we have considered the airlines' proposal of moving to 50% gearing for the notional company. It is not obvious how a lower gearing assumption would be compatible with the assumptions we have made previously about the notional company's use of debt. Nor does there appear to be strong evidence that suggests such an approach is necessary to support HAL's financeability or would be in the interests of consumers.
- 10.15 We have also considered the approach that we adopted for the last NERL price control review where we assumed a varying level of gearing over the NR23 period. However, this was in the context of a business that was recovering significant additional revenues from traffic risk sharing arrangements, so is not directly relevant to the H8 price control review.

Our Initial Proposals

- 10.16 Our initial proposals are to maintain the notional company approach and to assume a 60% gearing.

Regulatory depreciation

Background

- 10.17 Regulatory depreciation is one of the main building blocks of allowed revenues and provides for the smoothed return of capital costs. The allowance for regulatory depreciation is material: in the H7 price control, it accounted for about one third of the gross revenue requirement.¹⁰¹
- 10.18 Our policy in the H7 price control was to set an allowance for regulatory depreciation that follows closely HAL's accounting depreciation. We did this by taking HAL's regulatory depreciation figures from its H7 Business Plan and scaling *pro rata* to reflect differences between HAL's forecast capex for the H7 period and our assumption on HAL's capex envelope for this period.

Stakeholder views

HAL

- 10.19 In HAL's H8 Business Plan regulatory depreciation is derived from accounting depreciation. HAL's proposed figures for regulatory depreciation are scaled up from the accounting depreciation figures to reflect the fact that the value of the RAB is larger than the total value of the assets recorded in its accounting records. The key reasons for the RAB being larger than the accounting value of assets are that:
- i) some additions to the RAB¹⁰² have no corresponding figure in the accounting records; and
 - ii) the RAB is uplifted in line with inflation annually while there is no corresponding uplift in accounting records.
- 10.20 By scaling up in this way, HAL's figures ensure that, over time, the entire balance of the RAB will be subject to depreciation.

Airlines

- 10.21 In the Airline Alternative Plan prepared by airlines the regulatory depreciation figures proposed are approximately £1 billion less than those proposed by HAL over the course of the H8 period. This reflects the airlines' proposal that regulatory depreciation is modelled with an assumption that the RAB has an average remaining life of 20 years, which they contrast to HAL's assumption of an average remaining life for the RAB of 18 years.

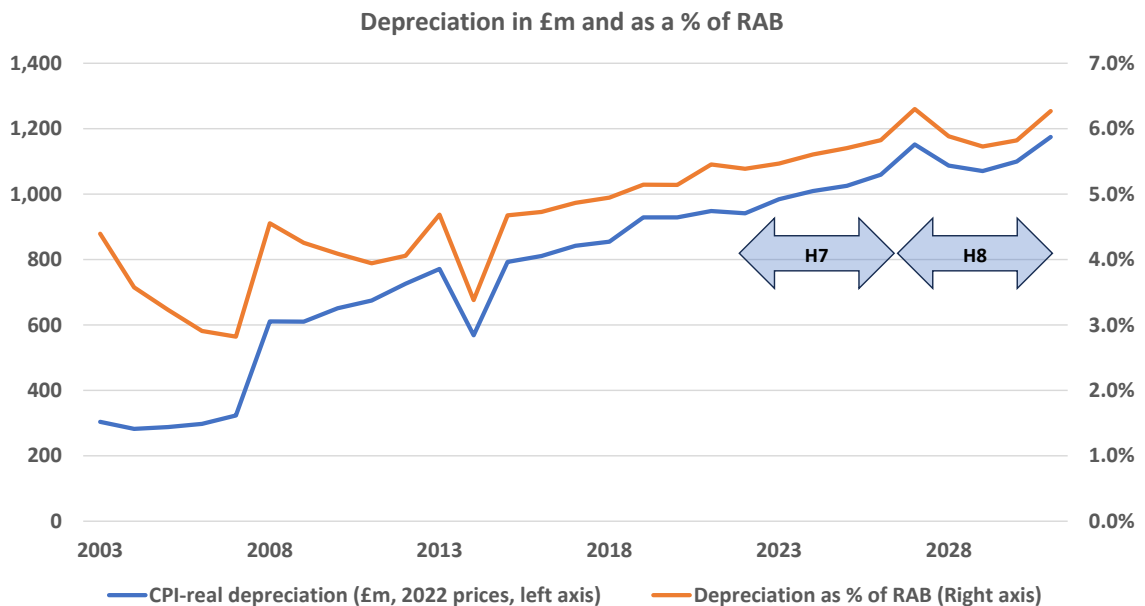
¹⁰¹ See table 13.1 from our H7 Final Proposals which shows that depreciation amounted to £4,629m out of a total gross revenue requirement of £13,905m.

¹⁰² Such as the £300m adjustment in response to the Covid-19 pandemic

Our views

- 10.22 The approach we adopted to regulatory depreciation for the H7 price control was pragmatic and consistent with a reasonable level of airport charges over the H7 period, allowed HAL to finance its activities and protected consumers from the adverse longer term consequences of any undue growth in HAL’s RAB.
- 10.23 Figure 10.1 below shows trends in regulatory depreciation over time and the assumptions in HAL’s H8 Business Plan for the H8 period. Figure 10.1 shows that HAL’s proposal for regulatory depreciation for the H8 period is slightly lower in real terms than the allowance for the H7 period. However, when viewed as a percentage of the RAB, the rate of depreciation is slightly higher than that for the H7 period, which reflects the long-term trend of a gradually rising rate of depreciation. This gradually rising rate of depreciation mainly reflects changes in the underlying lives of HAL’s basket of assets.

Figure 10.1: Regulatory depreciation in absolute terms and as a percentage of the RAB



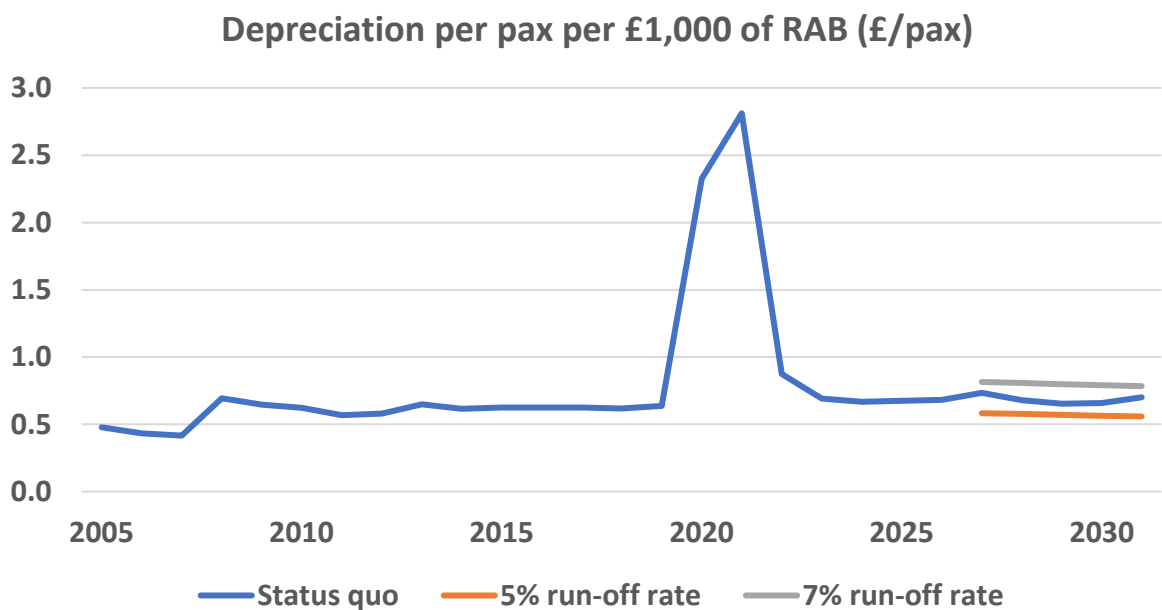
Source: CAA analysis of HAL’s H8 business plan

- 10.24 We have reviewed our depreciation policy for the H8 price control to assess potential improvements. We considered both output-based and input-based approaches. An output-based approach would set depreciation to achieve a particular outcome, such as targeting a specific cash-flow level. An input-based approach would derive depreciation from defined inputs, either a standard rate applied to the RAB, or allowances linked to asset usage and asset lives.
- 10.25 An input-based approach could make charges more cost-reflective by more explicitly linking depreciation to asset costs and usage, helping ensure cash flows remain sufficient to support long-term asset replacement. However,

although some versions of this approach would be straightforward to implement, it is unclear what additional benefits they would provide, particularly as the current approach is itself an input-based method as it is derived closely from HAL’s own accounting records of depreciation.

- 10.26 An output-based approach could help target charges to a desired level, but may negatively affect financeability if depreciation is reduced to achieve that target.
- 10.27 We have quantified two possible alternatives to the current approach. These alternatives both assume that depreciation is calculated as a fixed percentage of the opening RAB. This approach has parallels with the approach adopted by Ofwat in which the fixed percentage is referred to as the “run-off rate”. The use of an inputs-based or outputs-based approach differs only in that they are different ways to establish the value of the run-off rate. For this analysis, we have examined run-off rates of 5% and 7% to illustrate the impact of these alternatives with the results shown in Figure 10.2 below.
- 10.28 Figure 10.2 shows that the impact of depreciation on charges has been fairly stable over the last 25 years, once we account for the impact of the increasing RAB. In particular we can see that, since 2008, the charge per passenger per £1,000 of RAB has varied between 57 pence and 87 pence. The exception to this was the year 2020 and 2021, where the figure was significantly inflated due to the lower passenger volumes caused by the covid-19 pandemic.

Figure 10.2: comparison of different depreciation policies in terms of their impact on charges per passenger per £1,000 of RAB



Source: CAA analysis

- 10.29 Figure 10.2 also shows that a fixed percentage run-off rate would produce a fairly flat profile of depreciation with the level of depreciation being directly linked to the run-off rate. A 5% run-off rate would produce depreciation figures which are below the level of the current approach while those of a 7% run-off rate would be above the profile produced by the current approach.
- 10.30 Based on the above analysis we can observe that different depreciation policies are possible and there may be more than one approach which could be justified. Given that the current approach is logical, transparent, understood by stakeholders and produces a stable profile, we consider that it remains an appropriate basis for determining the allowance for regulatory depreciation.
- 10.31 We do not consider that the airlines' proposal for a longer asset life is sufficiently evidenced to justify a change of approach, but remain open to considering any evidence provided later in the price control process in relation to these matters.

Our Initial Proposals

- 10.32 Our initial proposals are based on the regulatory depreciation figures HAL has proposed in its business plan. We have then adjusted HAL's figures downwards to take account of the difference between HAL's capex forecasts and our proposed H8 capex envelope.

Corporation tax

Background

- 10.33 As well as incurring operating and capital costs and providing a return on investment, HAL will need during the H8 period to fund payments of corporation tax. We make an allowance for such payments in setting the price control.
- 10.34 In previous airport price controls, we have given an allowance for corporation tax costs by setting a pre-tax WACC allowance in which we 'gross up' the allowed cost of equity with a simple "tax wedge" adjustment. In the H7 price control review, we considered a possible change of approach. This was, in part, motivated by the possibility that the timing of capex related to capacity expansion might mean that HAL would derive some short-term benefit from a pre-tax allowance (as the allowance might remunerate HAL for tax payments well before the actual tax expense arose).
- 10.35 An alternative to giving an allowance for tax costs through the WACC is to calculate the expected tax cost using a typical tax calculation and then give an allowance for that amount. We refer to this as the "tax calculation" approach.
- 10.36 For the H7 price control we considered both possible approaches to setting an allowance for corporation tax costs. We proposed to retain the pre-tax WACC approach as, by the time we made proposals, capacity expansion was no longer

a near term prospect. This approach was also partly driven by the simplicity and transparency of the use for a pre-tax WACC allowance. Whereas the tax calculation approach requires assumptions about detailed accounting information and tax management strategies and fully worked up tax calculations over the period of the new price control, the pre-tax WACC approach only requires an assumption about the rates of corporation tax in future years and necessitates a simple scaling up of the cost of equity. Hence this approach is much simpler and transparent.

- 10.37 In the H7 price control review, we also considered the possibility of a “tax clawback” mechanism which would take back the benefit that HAL might derive from having a higher gearing than the notional company. We chose not to implement such a mechanism on the grounds it may not be appropriately targeted or proportionate.
- 10.38 Nonetheless, we did include in the H7 price control review a tax uncertainty mechanism so that we could update the tax allowance retrospectively to reflect outturn corporate tax rates if these ended up being different from those assumed. In practice, corporation tax rates have turned out to be as expected and so this mechanism has not been activated.

Stakeholder views

HAL

- 10.39 In its H8 Business Plan HAL specifically stated that it expected that the corporation tax uncertainty mechanism would continue in the H8 price control and has set out its business plan on the basis of a pre-tax WACC. HAL did not elaborate further on its thinking in regards to tax. We understand this to mean that HAL is accepting and endorsing a continuation of the current approach.

Airlines

- 10.40 Airlines presented both pre-tax and “vanilla” versions of the WACC. They also did not express a preference one way or the other over the approach to setting an allowance for tax costs. Airlines did note that HAL had not provided all the information that airlines had requested in respect of corporation tax.
- 10.41 Airlines also submitted a report by CEPA which noted that a pre-tax WACC may incentivise HAL to increase gearing above the notional level. CEPA also proposed that a tax adjustment mechanism be considered for H8.

Our views

- 10.42 We have considered whether to set a pre-tax WACC or adopt the tax calculation approach in the context of setting the H8 price control on the basis of a two runway airport.

- 10.43 The pre-tax WACC policy continues to be viewed favourably, or at least is acceptable to stakeholders and the same considerations from the H7 price control review remain relevant. Specifically, the pre-tax WACC approach is transparent, consistent and simple.
- 10.44 We have conducted analysis of the potential impacts of a tax calculation approach. The analysis found that such an approach could potentially track costs more accurately from year to year. Such cost reflectivity could be useful in supporting financeability though, to the extent it was material, it would introduce charge volatility which we do not consider to be desirable. However, we would not intend to pick an approach to remunerating tax costs based solely on the degree to which it supports financeability.
- 10.45 We also note the difficulty in trying reliably to forecast tax costs and issues with transparency. Any company's tax arrangements can be complicated and may involve specific agreements with HMRC in respect of particular transactions. Were we to examine HAL's tax affairs in the level of detail required for the tax calculation approach we risk potentially not being fully transparent. Further, in the context of a relatively stable profile of capital expenditure, it is likely that the additional analysis would not be proportionate to the benefit it produces.

Our Initial Proposals

- 10.46 We propose to maintain the pre-tax WACC approach for the H8 price control, given that it is a "two runway" price control with a level of capex which is comparable to the H7 period. We note that a significant increase in capex, as could occur with capacity expansion, may mean that a different approach to the calculation of the tax allowance is appropriate in the future.
- 10.47 Stakeholders have not raised this policy area or proposed any change from the current approach. If stakeholders provide evidence to suggest that an alternative approach is appropriate, we will consider these representations ahead of our Final Proposals.

Indexation policy

- 10.48 In setting HAL's price control, we index the RAB to inflation to preserve its real value over time. Consistent with this, we deflate the cost of capital by inflation to give a real WACC, so that, in overall terms, our assumptions for HAL's allowed returns are reasonable and consistent with efficient financing costs.
- 10.49 In the H7 price control, and at previous price reviews, HAL's RAB was indexed to the Retail Prices Index ("RPI") measure of inflation.
- 10.50 In our H8 Draft Method Statement, we said that we would expect to move away from RPI indexation of the RAB and adopt either the Consumer Prices Index ("CPI") or the Consumer Prices Index including owner occupiers' housing costs

(“CPIH”) for calculating the H8 price control. This change follows reviews conducted by the National Statistician and the UK Statistics Authority, which identified significant flaws in the calculation method for RPI.¹⁰³ As a result of these reviews, RPI is no longer classified as a national statistic.

- 10.51 In the H8 Method Statement, we noted that the choice between CPI and CPIH is finely balanced. Our intention at that time was to use CPI as the primary measure of inflation for calculating the H8 price control. This was largely based on medium-term forecasts being available for CPI from recognised sources, whereas equivalent forecasts for CPIH remained limited.
- 10.52 We also said that we would consider whether wider changes to the indexation of HAL’s RAB may be appropriate to support HAL’s financeability and airline concerns about the size of HAL’s RAB. This included further consideration of suggestions previously raised by BA, which included applying a nominal cost of debt to a portion of the RAB that would then not be indexed in line with inflation.
- 10.53 Under the existing approach, the RAB is indexed to outturn inflation while a significant proportion of a regulated company’s financing can be in nominal fixed-rate debt, which does not adjust with inflation. In this context, in periods where outturn inflation is higher (or lower) than expected, the RAB uplifts fully, but the cost of servicing nominal debt does not change. This creates the potential for the regulated company to recover more (or less) than its effective cost of debt.

Stakeholder views

- 10.54 We received substantive stakeholder comments on inflation.

HAL

Choice of inflation index

- 10.55 In its H8 Business Plan, HAL proposed several reasons in support of adopting CPIH indexation, including:
- when looking at data from 2009 to 2024, analysis suggests that CPI forecasts have lower forecast error when used to predict CPIH outturn inflation than when predicting CPI out-turn;
 - the fact that CPIH will map more closely to RPI, as they both include housing costs;
 - the alignment of RPI to CPIH by the UK Statistics Authority expected by February 2030; and

¹⁰³ UKSA (2015), [“UK Consumer Price Statistics: A Review”](#), January.

- regulatory precedent from Ofwat and Ofgem both using CPIH in their respective PR24 and RIIO-3 determinations.

IATA

Choice of inflation index

10.56 The Airline Alternative Plan assumed CPI RAB indexation, in line with our H8 Method Statement.

Inflation treatment in setting the allowed return on debt

10.57 In a report for the airlines, CEPA commented that fixed-rate cost of debt can be exposed to an inflation mismatch risk when converting nominal fixed-rate debt into real terms. They noted that this occurs if the inflation rate used to deflate the nominal debt yield differs from the inflation expectation implicitly embedded into the fixed rate itself, which could lead to a company recovering more or less than its actual cost of debt. CEPA acknowledged our use of five year medium-term inflation forecasts to deflate nominal fixed-rate debt yields in the H7 price control, to mitigate this risk.

10.58 To address this inflation mismatch risk, CEPA assumed that a proportion of the RAB in line with fixed rate debt would not be linked to outturn inflation, instead indexing this portion to a long-run 2% CPI assumption. They stated this would have the advantage of keeping the WACC in real terms for presentational purposes. However, they noted that, if the debt RAB continued to be indexed by outturn inflation, it would propose a suitable measure to deflate fixed rate nominal debt at H8, such as a market-based inflation measure to capture the value investors placed on inflation protection.

10.59 In response to the H8 Draft Method Statement, BA noted that the use of forecasts to deflate the cost of debt has often underestimated outturn inflation. BA made several suggestions to address impacts arising from inflation inconsistencies between what is applied to the RAB and fixed rate debt, including:

- a nominal cost of debt and removing indexation to part of the RAB financed by debt;
- a “cap and collar” mechanism to address scope of inflation driven returns; and
- a risk sharing mechanism to allow customers to benefit when inflation windfall gains occur from outturn inflation being higher than forecast

Our views

10.60 We set out our views below on the following issues:

- the choice of inflation index, given our intention to move away from RPI indexation, inflation indexation of the RAB and setting the allowed return on debt; and
- the treatment of inflation in the price control licence condition and in the calculation of the runway operational resilience service quality rebates.

Choice of inflation index

- 10.61 While HAL's analysis comparing CPI and CPIH forecast error provides some context, we do not consider it is sufficient on its own to support a move from CPI to CPIH inflation.
- 10.62 Nonetheless, we recognise that the choice between CPI and CPIH is finely balanced. CPIH has an advantage in being the UK's headline measure of inflation, as designated by the Office of National Statistics ("ONS"). It also provides a more comprehensive measure of household inflation by including owner occupiers' housing costs, and its' broader coverage may better track domestic cost pressures in the economy and provide a more appropriate basis for maintaining the real value of the RAB going forward.
- 10.63 Furthermore, RPI is expected to transition to align with CPIH by 2030, so aligning the RAB with CPIH at this stage would ensure consistency through that transition and would remove the need for considering any basis risk adjustment between RPI-linked debt and the inflation measure to which the RAB is indexed.
- 10.64 We also acknowledge the precedent set by other regulators such as Ofwat and Ofgem in adopting CPIH for their price controls. While this is not, in itself, a decisive factor, it provides helpful assurance that CPIH is an established and credible measure for regulatory purposes.
- 10.65 Our approach was also previously affected by the limited availability of CPIH medium-term forecasts from recognised sources such as the Office for Budget Responsibility ("OBR"). This difficulty has now been addressed by publication of medium-term forecasts for CPIH by the OBR as part of its twice yearly Economic and Fiscal Outlook reports. We have confirmed with the OBR that it considers these CPIH forecasts to be comparably robust to its CPI forecast series.
- 10.66 We are, therefore, minded to index the RAB to CPIH for the H8 price control, given the broader considerations set out above and that the primary constraint previously identified around CPIH forecast availability has been removed.
- 10.67 Switching from RPI RAB indexation in the H7 price control to CPIH for the upcoming H8 price control would bring forward allowed revenues, given that RPI has historically been higher and more volatile than CPIH. This will result in higher charges in the short term compared to an RPI-indexed counterfactual scenario, which primarily reflects changes in the timing of cost recovery (for example, higher early-period charges offset by reduced inflation indexation in later years).

- 10.68 Our indicative modelling suggests that the additional front-loading charge impact could result in an additional charge per passenger of £0.43 - £0.72 in each year of the H8 period, but with lower charges in the longer-term.¹⁰⁴ We consider that these short-term charge profiling impacts are outweighed by the benefits of transitioning to CPIH, given it would reduce exposure to the limitations of the RPI, including the ‘formula effect’, which can amplify volatility in measured RPI inflation independently of actual underlying price movements. As a result, CPIH RAB indexation is expected to result in a more stable and predictable charge profile over time.

Inflation treatment in setting the allowed return on debt

- 10.69 We have considered further BA’s proposals on addressing potential impacts arising from inflation mismatches between indexation applied to the RAB and fixed rate debt.
- 10.70 Starting with the proposals on i) a cap and collar mechanism for inflation driven returns and ii) a risk sharing mechanism to allow customers to benefit when inflation windfall gains occur, we are of the view that neither of these options are appropriate to consider further. Both of these options would introduce significant complexity compared to other options we are considering, given that they would require the monitoring of inflation mismatches and correcting steps. They would also require further considerations to be addressed on how any adjustments would be recovered, whether through an additional term in the price cap formula within period, at the end of the price control, or by some other mechanism.
- 10.71 Under a nominal cost of debt approach, the RAB is only partially indexed to outturn inflation (that which is assumed to be funded by equity and index-linked debt), while the remaining portion (assumed to be funded by fixed-rate debt) is no longer indexed to any inflation metric at all.
- 10.72 This is particularly relevant during periods of upwards inflationary shocks, where significant windfall gains could occur depending on the policy used; for example, during the H7 period when the Russia-Ukraine conflict started.
- 10.73 Nonetheless, there are disadvantages of a nominal cost of debt approach. The indexation approach of the RAB under this policy would require our WACC for the H8 period to be expressed in semi-nominal terms, rather than real terms. This will result in higher charges for airport users when compared with both the current approach and other policy options considered further below.
- 10.74 An alternative approach would be to apply a medium-term inflation forecast in determining the allowed cost of debt, rather than relying on a long-term

¹⁰⁴ This solely focuses on allowed return impacts given it represents one of the more inflation sensitive building block elements.

assumption. This was the approach adopted at H7 and provides a proportionate and low-complexity means of addressing likely inflation mismatches. During the H7 price control period, the use of medium-term inflation forecasts substantially mitigated the windfall gains that may have arisen due to inflation shocks, compared with using a long-term inflation assumption. It is notable that during the appeals against the H7 Final Decision, the CMA concluded that our use of medium-term inflation forecasts was reasonable.¹⁰⁵

- 10.75 We have conducted analysis which supports using this approach for the H8 price control, comparing historical outturn inflation against both a long-term 2% inflation assumption and OBR medium-term CPI forecasts since they began being produced.¹⁰⁶ Over 2009-2024 period, the average absolute difference between outturn inflation and medium-term forecasts is about 0.5 percentage points lower than the difference between outturn inflation and the long-term inflation assumption. This analysis also suggests that the long-term inflation did not exhibit mean reversion over this 15-year period and, hence, any windfall gains and losses that accrued from inflation mismatches over this period did not offset each other.
- 10.76 Medium term forecasts remain subject to some degree of forecast error, particularly during periods of economic disruption. For example, while the OBR's March 2022 RPI forecasts used in H7 captured elements of the inflationary spikes, recent data indicates that these forecasts performed less well in capturing the elevated outturn inflation in 2025. Despite these limitations, along with recognising that the analysis above is backwards looking, the medium-term forecasts have historically delivered lower forecast error than relying on a long-term inflation assumption.
- 10.77 The OBR's November 2025 Economic and Fiscal Outlook notes that inflation risks remain elevated, with persistent domestic pressures and geopolitical factors likely to lead to further volatility.¹⁰⁷ Our assessment is that medium-term forecasts may better eliminate the likelihood of windfall gains or losses occurring in each price control period, rather than assuming that these offset each other in the long run.
- 10.78 We also acknowledge that the OBR's October 2024 forecast set the long term CPIH-CPI wedge at 0.4%, implying that if CPI inflation remains at its long-run assumption of 2%, CPIH is now expected to average around 2.4% in the long term.¹⁰⁸ For the CMA's Provisional Determination of the PR24 price control, this

¹⁰⁵ CMA (2023), "[H7 Heathrow Airport License Modification Appeals Final Determinations](#)", October.

¹⁰⁶ We focus on the CPI inflation index for this exercise given the OBR has not produced direct CPIH forecasts for almost all of the 2010 to 2024 period in which we look at.

¹⁰⁷ OBR (2025), "[Economic and fiscal outlook](#)", November, paragraph 2.34.

¹⁰⁸ OBR (2024), "[The long-run difference between RPI and CPI inflation](#)", October.

updated assumption was used in in estimating its real allowed cost of debt, though CMA stated it will continue to monitor for new evidence between its provisional and final decisions to inform the final assumption it uses.¹⁰⁹

- 10.79 While there is the option to use the updated long-term 2.4% assumption instead, we consider that medium-term forecasts may be appropriate at this stage though we will be keeping this under review ahead of making our final proposals.
- 10.80 We are also proposing to consider further a variation of the approach of allowing a nominal cost of debt, which was suggested by BA. Under this approach, fixed rate debt could be deflated by a fixed inflation forecast and the same fixed inflation forecast could be applied to a portion of the RAB (for example, the portion of the RAB that is assumed to be funded by fixed rate debt). The remaining portion of the RAB, assumed to be funded by equity and index-linked debt, would continue to be indexed to outturn inflation.
- 10.81 When compared to solely using medium-term inflation forecasts, this approach may more effectively minimise the likelihood of windfall gains or losses arising from inflation mismatches, to the extent that medium-term forecasts may not sufficiently capture all of the deviation from outturn inflation. It would also allow the WACC to remain in fully real CPIH terms and would therefore not have any “front-loading” charge impacts in the H8 period, unlike a nominal cost of debt approach.

Inflation treatment in other aspects of the H8 price control

- 10.82 More broadly we also propose to make the following updates for CPIH inflation:
- inflation uplift in the profiled charge that calculates the maximum allowable yield¹¹⁰, moving from CPI to CPIH;
 - inflation uplift of capex in the calculation of the Allowed capex adjustment¹¹¹, moving from RPI to CPIH;
 - inflation uplift of capex in the calculation of the Trigger factor¹¹², moving from RPI to CPIH;
 - inflation uplift in the calculation of Traffic risk sharing adjustment¹¹³, moving from RPI to CPIH; and

¹⁰⁹ CMA (2025), “[WATER PR24 REFERENCES Provisional Determinations Volume 4: Allowed Return, Risk & Return, Provisional Determinations, Next steps - Chapters 7–10](#)”, October, paragraph 7.51.

¹¹⁰ Condition C1.4(c), C1.5(c) and C1.6(b) of HAL’s licence.

¹¹¹ Condition C1.10 to C1.11 of HAL’s licence.

¹¹² Condition C1.16 of HAL’s licence.

¹¹³ Condition C1.20 and C1.21 of HAL’s licence.

- inflation uplift in the calculation of rebate payments for the Runway Operational Resilience measure¹¹⁴, moving from CPI to CPIH.

Our Initial Proposals

- 10.83 We propose to move from RPI to CPIH indexation of the RAB, and move all references to inflation adjustment in HAL's licence from either RPI or CPI to CPIH.
- 10.84 We have a preference for the use of medium-term inflation forecasts, but will also consider further the merits of a policy approach where we would index a portion of the RAB to a fixed inflation assumption.

Traffic risk sharing

- 10.85 The H7 price control implemented a TRS mechanism that:
- reduces the risk of significant gains or losses for HAL that could arise from changes in passenger numbers over which it has only limited control;
 - avoids unnecessary upward pressure on HAL's cost of capital; and
 - helps to clarify the risks that HAL is expected to bear during that period.
- 10.86 It was calibrated as follows.
- For each calendar year, the difference between outturn allowed revenues and forecast allowed revenues is calculated by multiplying the maximum allowable airport charge (excluding the correction factor and other adjustment factors) for that year by the difference between outturn passenger numbers and our forecast of passenger numbers.
 - The amount of risk to be shared for that year is set as:
 - 50 per cent of any difference up to 10 per cent of forecast allowed revenues; and
 - 105 per cent of any difference above 10 per cent of forecast allowed revenues.
- 10.87 We also provided for TRS adjustments to be implemented as follows.
- The risk shared for each year ("t") will be recovered over a period of 10 years from year t+2 to year t+11. For those years that fall within the price control period, the adjustment will be implemented through an additional term in the price control formula. For the remaining years, there will be an adjustment to HAL's RAB.

¹¹⁴ Paragraph 5.13 of Schedule 1 of HAL's licence.

- The adjustment to the opening RAB for the H8 price control will be calculated as the sum of the remaining TRS adjustments (that is, those that have not already been reflected in higher or lower charges during the H7 period) uplifted using the real WACC and general price inflation for the period between the original divergence between outturn and forecast traffic levels and the start of the H8 price control.
- The adjustments to the opening RAB for the H8 price control period will then be depreciated over a period of between eight and ten years. For example, any adjustment to reflect outturn traffic in 2023, will be depreciated over eight years (as there will have already been two years of adjustments to charges during the H7 price control period). Any adjustments to reflect outturn traffic in 2025 and 2026 will be depreciated over ten years (as there will not have been any corresponding adjustments to charges during the H7 period).

10.88 In our H8 Method Statement, we reiterated our position that our approach to making traffic forecasts, the TRS, the asymmetric risk allowance and the allowed rate of return do not provide multiple overlapping layers of protection, a view supported by the CMA in its Final Determinations on the H7 Appeals. We also said that we will consider the design and calibration of the TRS mechanism and traffic risks in our initial proposals and implement changes where it is reasonable and practicable to do so. However, we stated that we did not plan to reconsider the overall approach to traffic risks.

Stakeholder views

10.89 In response to the H8 Method Statement, CEPA, in a report for IATA accompanying the Airline Alternative Plan, proposed a narrower outer band for risk sharing, set at 5%. This would mean that if passenger volumes:

- are within +/- 5% of forecasts, 50% in the difference between aeronautical revenue per passenger is shared with users (note that this is narrower than the calibration for the H7 price control of +/-5%); and
- are outside of the 5% outer band, 105% in the difference between aeronautical revenue per passenger is shared with users.

10.90 In response to the H8 Draft Method Statement, CEPA provided an analysis of the costs and benefits to HAL of bearing traffic risk on the assumption of a 10% traffic shock, and concluded that HAL is being overcompensated.

Our views

- 10.91 Maintaining an outer band with strong risk sharing is important both to clarify HAL's risk exposure and to provide a relatively high (but not complete) degree of protection from the impact of extreme events.
- 10.92 Were the outer band to be reduced to 5%, it may become more likely for the outer band 105% risk sharing levels to be triggered for less extreme traffic perturbations, which could introduce greater volatility in TRS adjustments, reducing predictability for both HAL and consumers.
- 10.93 Business-as-usual traffic shock events are already catered for through existing traffic risk policies such as the "shock factor" adjustment in our traffic forecasts for the H8 period, see Chapter 2 (Passenger forecasting). Reducing the outer band to 5% could risk the TRS overlapping with existing traffic risk policies designed to deal with less extreme traffic deviations.
- 10.94 We have considered CEPA's stylised analysis of the costs and benefits to HAL of bearing traffic risk under an illustrative 10% reduction in passenger volumes, which suggests that HAL may be overcompensated. We recognise that such analysis may indicate that the current allocation of traffic risk could appear misaligned, but note that CEPA's analysis focuses only on the financial consequences of traffic variations of up to +/-10%. However, in practice, HAL is exposed to a much wider distribution of potential traffic outcomes, including low probability, high impact shocks such as those experienced during the pandemic, and in taking account of these wider circumstances, we are not convinced that the TRS should be recalibrated.
- 10.95 Where regulatory depreciation is concerned we can clarify that the H7 policy would not apply to negative TRS adjustments (that is, those where outturn traffic exceeds forecasts), as these represent a one-off reduction to the RAB and do not require changes to depreciation policy.
- 10.96 For positive TRS adjustments (that is, where outturn traffic is lower than forecast), we consider our approach to regulatory depreciation from the H7 price control is more relevant in the context of pandemic scale events, such as the impacts of the covid-19 pandemic. Should a similar event occur again with the TRS mechanism in place, applying the depreciation policy used for the H7 price control would enable larger TRS adjustments to be depreciated gradually over time.
- 10.97 Where deviations between forecast and outturn traffic reflect business as usual outcomes, we do not consider it proportionate to apply a specific TRS depreciation policy. In these cases, RAB adjustments for the TRS mechanism are likely to be smaller in magnitude and adequately addressed through our overall approach to regulatory depreciation. We also consider it appropriate to

consider at the time whether a traffic shock should constitute an exceptional event and so whether the TRS regulatory depreciation policy should apply.

Our Initial Proposals

- 10.98 We propose to retain our H7 approach to the calibration of the TRS mechanism and only apply TRS specific regulatory depreciation policy in exceptional circumstances.

Asymmetric risk allowance

- 10.99 Historical experience of passenger forecasting suggests that the risk that HAL could encounter sudden shocks to traffic are asymmetric. That is to say that the risk that HAL could encounter a major downside shock, like that experienced during the covid-19 pandemic, is not likely to be accompanied by an equal and offsetting set of possible upside events. This is, in part, because the increased passenger numbers that would be needed to produce such upside events are constrained by the number of flights that Heathrow Airport can accommodate as a result of planning and capacity restrictions. It is also important to note that the TRS mechanism does not fully protect HAL from downside risks.
- 10.100 In the light of the above, for the H7 price control, we developed an allowance for asymmetric risk. This was designed to deal with these risks in a targeted way and prevent what otherwise would be upward pressure on HAL's cost if capital and airport charges, which would not be in the interests of consumers.

Stakeholder views

- 10.101 We received limited responses on the asymmetric risk allowance in response to the H8 Method Statement from HAL or airlines. HAL included an asymmetric risk allowance for the H8 period in its business plan, whilst airlines did not.

Our views

- 10.102 We consider that retaining the asymmetric risk allowance of the kind established for the H7 price control is appropriate, and is consistent with the interests of consumers.
- 10.103 The calculation steps for the asymmetric risk allowance, are outlined below¹¹⁵:
- step 1: estimate the traffic loss that HAL might expect to encounter if a pandemic-magnitude events occurs;

¹¹⁵ CAA (2022), [“Economic regulation of Heathrow Airport Limited: H7 Final Proposals Section 3: Financial issues and implementation”](#), June, paragraphs 11.33 – 11.44.

- step 2: calculate the annual losses of profit that HAL would suffer if a pandemic-magnitude event was to crystallise in any given year of the H8 price control period (taking into account the moderating impact of the TRS);
- step 3: evaluate how frequently a pandemic-magnitude event might be expected to occur in the future, and calculate the equivalent probability of one occurring in any given year; and
- step 4: weigh the losses of profit identified in step 2 by the probability identified in step 3 and add these amounts to HAL's aeronautical revenue allowance for the H8 period.

10.104 The asymmetric risk allowance is estimated based on the assumption that future pandemic-like events would:

- result in a similar percentage loss of passengers over a similar time period as the covid-19 pandemic, with corresponding impacts on opex and commercial revenues; and
- occur with a 3.5% probability in each year.

10.105 We have used the above approach to estimate an asymmetric risk allowance for H8.

Our Initial Proposals

10.106 Table 10.1 sets out the value of our proposed asymmetric risk allowance for these the initial proposals.

Table 10.1: Initial Proposals asymmetric risk allowance (£ million CPIH-real, 2024 prices)

	2027	2028	2029	2030	2031	H8 Total
Asymmetric risk allowance	10	19	26	26	26	106

Source: CAA analysis

The Regulatory Asset Base

10.107 The regulatory asset base ("RAB") reflects the value of the investments that HAL has made in the regulated business. We set price controls on the basis that HAL can expect (but does not have a guarantee) that it will:

- recover its efficiently incurred investments over the life of the relevant assets, through the allowances we make for regulatory depreciation; and
- earn a return on that investment each year on the undepreciated part of the investment that remains in the RAB.

- 10.108 The use of a RAB helps us to further the interests of consumers as it:
- supports HAL’s access to cost effective finance and allows us to make assumptions in setting HAL’s price control that the financing costs of investment are no higher than is necessary; and
 - helps secure that the reasonable demands of consumers are met by supporting new investment.

10.109 This section sets out how we have calculated the value of HAL’s RAB for the H8 price control period. These calculations are broadly consistent with the approach adopted at H7.

H7 RAB roll forward

10.110 Table 10.2 below shows the H7 RAB “roll-forward”. We use the 2026 “closing” RAB calculated below as the H8 “opening” RAB in the price control modelling for these initial proposals.

Table 10.2 Calculation of the H7 Closing RAB

£ million, current year prices	Price base	2022	2023	2024	2025	2026
Opening RAB	£m, Year (t-1) Dec RPI-real prices	17,477	19,314	19,803	20,421	21,039
Additions in year		454	633	1,121	1,049	1,279
Proceeds from disposals		0	0	-1	0	0
Category C costs	£m, Year (t) annual average RPI-real prices	3	3	1	0	0
Assumed ordinary depreciation		-941	-1,046	-1,122	-1,230	-1,332
Traffic Risk Sharing adjustment		-	-90	-64	-52	-52
Indexation to December		2,320	989	684	851	697
Cost of new debt indexation		0	0	0	0	6
ex post capex efficiency adjustment	£m, Year (t) annual average RPI-real prices	0	0	0	TBC	TBC
ex ante capex efficiency adjustment		0	0	0	TBC	TBC
Closing Basic RAB (without profiling adjustment)	£m, Year (t)-Dec RPI-real prices	19,314	19,803	20,421	21,039	21,637

Source: CAA analysis

10.111 For “Additions in year” we allow efficiently-incurred capex to be added to the RAB. We have used outturn capex for 2022 to 2025 (as published in HAL’s regulatory accounts), and a forecast from HAL¹¹⁶ for 2026. It is important to note that, as the final results of the new capex incentives and previous ex post capex reviews have not yet been finalised, we have not included any adjustments for these final results in the financial modelling for these initial proposals. Appendix

¹¹⁶ HAL H8 submission.

F (Application of historical capex incentives) sets out further details on the next steps for this assessment.

- 10.112 For the items, “Proceeds from disposals”, “Category C costs” and the “Traffic Risk Sharing adjustment”, we have reviewed HAL’s analysis of these items and are adopting it in full.¹¹⁷
- 10.113 HAL also proposed in its H8 business plan that there should be a reduction of £85 million, 2020 CPI prices (equivalent to £104 million in 2024 CPI prices) to the 2026 RAB to account for the logging up of business rates in the H7 period. As this is an opex item, we do not support the proposal to deal with this through the RAB and have instead dealt with this through our proposals for opex. See Chapter 4 (Operating Expenditure).
- 10.114 Where possible, we have used outturns for deriving the H7 closing RAB. Some outturns for 2025 and all outturns for 2026 are not available in time for these initial proposals and, therefore, estimates have been used. When the outturns become available, we intend to perform a true-up in 2027 and include the results in the 2026 closing RAB.
- 10.115 We introduced the “cost of new debt indexation” policy for the H7 period, with a view to ensuring that the allowance for the cost of new debt raised over the course of the H7 period would be more accurately estimated. In the H7 Final Decision, we stated that we would true up the iBoxx indices and adjust the H7 closing RAB accordingly. Having performed that update, we calculate that the end of period addition to the RAB should be around £6.28 million based on the following:
- the updated WACC figure from 4.04% to 4.01% in light of the CMA’s Final Determination on the H7 Appeals¹¹⁸;
 - outturn figures of iBoxx indices, RPI inflation and the RAB up to the end of 2025;
 - iBoxx indices as forecast in H7 for 2026; and
 - latest forecasts of RPI inflation and the RAB for 2026¹¹⁹.
- 10.116 We intend to true up for the 2026 outturns to the 2027 RAB when the outturns become available. At this stage, we have not included this adjustment in the financial modelling for these initial proposals.

¹¹⁷ HAL provided these figures in response to an information request from the CAA.

¹¹⁸ CAA, [CAP3001](#), Economic regulation of Heathrow Airport: H7 final issues – decision, July 2024.

¹¹⁹ As shown in Table 10.2 above.

H8 RAB roll forward

10.117 Based on our PCM modelling, the H8 RAB roll-forward is presented below in Table 10.3¹²⁰.

Table 10.3 Calculation of the forecast H8 RAB¹²¹

£ million, current year prices	2027	2028	2029	2030	2031
Opening RAB	21,637	22,383	23,088	23,772	24,034
Additions in year	1,425	1,446	1,515	1,151	1,062
Assumed ordinary depreciation	-1,131	-1,218	-1,320	-1,395	-1,468
Traffic Risk Sharing adjustment	0	0	0	0	0
Indexation to December	453	477	489	506	510
<i>ex post</i> capex efficiency adjustment	0	0	0	0	0
<i>ex ante</i> capex efficiency adjustment	0	0	0	0	0
Closing Basic RAB (without profiling adjustment)	22,383	23,088	23,772	24,034	24,138

Source: CAA estimation

Next steps and implementation

10.118 We welcome stakeholders' views on issues relating to the financial framework that we use to set HAL's price control and in particular whether our approach to setting regulatory depreciation is appropriate. We will take these views into account in developing our final proposals.

¹²⁰ Further details are shown in the RAB roll forward rules in Appendix I.

¹²¹ This is based on the results of our financial modelling. In practice, the outturn RAB roll forward will include adjustments for items such as capex efficiency and traffic risk sharing, and outturn additions in year and indexation.

Chapter 11

Price cap and financeability

Introduction

- 11.1 Setting the level of the price cap is central to the CAA's considerations in discharging its duty to further the interests of present and future consumers. In so doing, we are required by CAA12 to "have regard to" the need to secure that HAL is able to finance its provision of airport operation services at Heathrow Airport. Consistent with the broad approach taken by other economic regulators, as explained in Chapter 10, (Financial framework), we focus on whether an efficiently financed licensee (the "notional company") would be financeable.
- 11.2 Our approach to these matters is designed to allow the notional company to have ongoing access to sufficient capital to allow it to develop, maintain and operate Heathrow airport to be safe, secure and resilient to meet the needs of consumers.
- 11.3 In this chapter we explain how we combine the assumptions we have set out in earlier chapters on the key price control building blocks (operating expenditure, commercial revenues, regulatory depreciation, allowances for returns and the passenger forecast) in our price control model (the "PCM") to calculate the maximum level of charges HAL should be permitted to levy on a per passenger basis.
- 11.4 In testing financeability we are not seeking to ensure that HAL is in all circumstances financeable, but rather, if it finances its activities in a way that is efficient, then it should be able to retain access to cost-effective financing in a reasonably wide range of circumstances. A business of the scale of HAL will typically issue debt by means of publicly traded bonds, which can be done in a cost effective way with the support of an investment grade credit rating. We therefore conduct a similar analysis to that used by the credit rating agencies to assess the financeability of the notional company.
- 11.5 We also consider financeability from the perspective of equity investors to assess whether the overall price control offers investors sufficient incentive to continue to invest. Such investment is critical to further consumers' interests as investment will support the ongoing financial sustainability and the delivery of new capital programmes that will support the customer experience.
- 11.6 The remainder of this chapter:
- summarises what we said in our Final Method Statement on assessing financeability;

- sets out the assumptions we have made to derive our initial proposals for the level and profile of the charges that HAL will be able to levy for the H8 price control;
- presents stakeholders' views in relation to testing financeability;
- summarises our views and initial proposals in relation to testing financeability;
- discusses our assessment of debt and equity financeability in the light of the assumptions we have made on costs and charging levels;
- sets out details of the work that we have done to review the mechanics of the price control condition in the Licence; and
- sets out key issues for consultation and next steps.

Final Method Statement

- 11.7 The H8 Method Statement noted that, as for the H7 price control, our overall approach would be to assess these issues in the round so that the price control is set at an efficient level and charges are no higher than necessary, with this broad approach being designed to further the interests of consumers.
- 11.8 We recognised that lower airport charges and, where passed on to consumers, the resulting lower level of airline prices, can further consumers' interests. Bearing this in mind, the level of charges would continue to be an important metric in our assessment of the price control and we would continue to seek to ensure that airport charges are no higher than is necessary.
- 11.9 We also said we would set out a more detailed approach to our financeability assessment in our initial proposals and would be developing a price control model to be used for setting the H8 price control.

Calculation of the profiled price cap

Determining the level of the price cap

- 11.10 In calculating the price cap for the H8 price control we have used the same building block approach as in past price controls. This approach involves calculating the total gross revenue as the sum of:
- i) operating costs;
 - ii) regulatory depreciation;
 - iii) an allowed return to investors; and
 - iv) an allowance to compensate for asymmetric risk.
- 11.11 From this gross revenue requirement, we deduct anticipated non-aeronautical revenues. We divide the resulting net revenue requirement by the expected

number of passengers to calculate the proposed allowed aeronautical charge per passenger.

- 11.12 For these initial proposals, we have performed this calculation using different values in respect of operating costs, commercial revenues, passengers and the cost of capital to create a range and a mid-point for the likely level of HAL's price control. This reflects that we are at the stage of initial proposals and will finalise our views on the appropriate level for HAL's price control once we have considered the responses to this consultation and carried out the necessary analysis and assessment to support our final proposals.
- 11.13 Table 11.1 below shows a breakdown of the building blocks that we have used to calculate the level of charges for the H8 period.

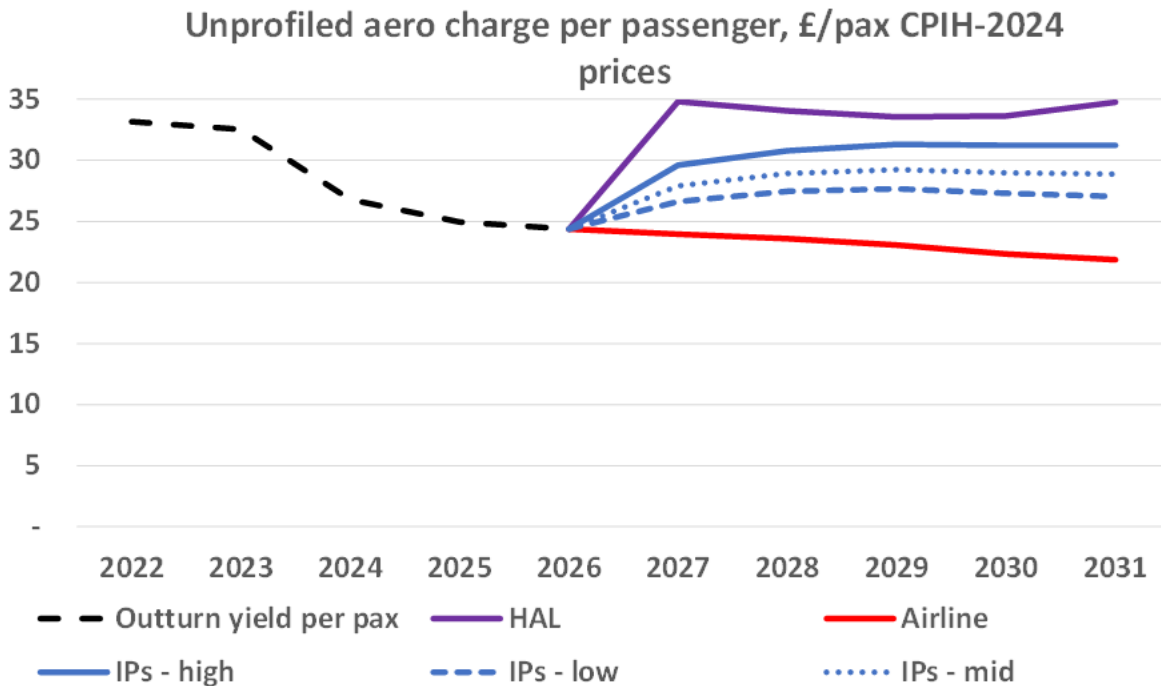
Table 11.1: summary of charges broken down by building block

Totals (£m 2024, CPIH-real)	High	Low	Mid
Operating costs	7,756	7,806	7,790
Regulatory depreciation	5,740	5,740	5,740
Allowance for asymmetric risk	110	101	106
Allowed return (incl. tax)	6,270	5,247	5,760
Gross revenue requirement	19,876	18,894	19,396
Commercial revenues (incl. ORCs)	(6,586)	(6,754)	(6,698)
Cargo revenues	(90)	(90)	(90)
Net revenue requirement	13,201	12,051	12,608
Passengers	429	443	438
Unprofiled yield per pax	30.81	27.20	28.77

Source: CAA analysis

- 11.14 Figure 11.1 below presents the range of charges and also shows the charges proposed by HAL and airlines in their respective business plan submissions. For the purposes of presenting the HAL and airline figures, we have reclassified certain ORCs costs so that they are presented on an equivalent basis as the CAA view of charges, with the intention of facilitating reasonable comparisons.

Figure 11.1: unprofiled charges with HAL and airline comparators



Source: CAA analysis, HAL business plan, Airline Alternative Plan

11.15 The average of the CAA’s mid case over the H8 period represents a 1.5% increase over the average for the H7 period.

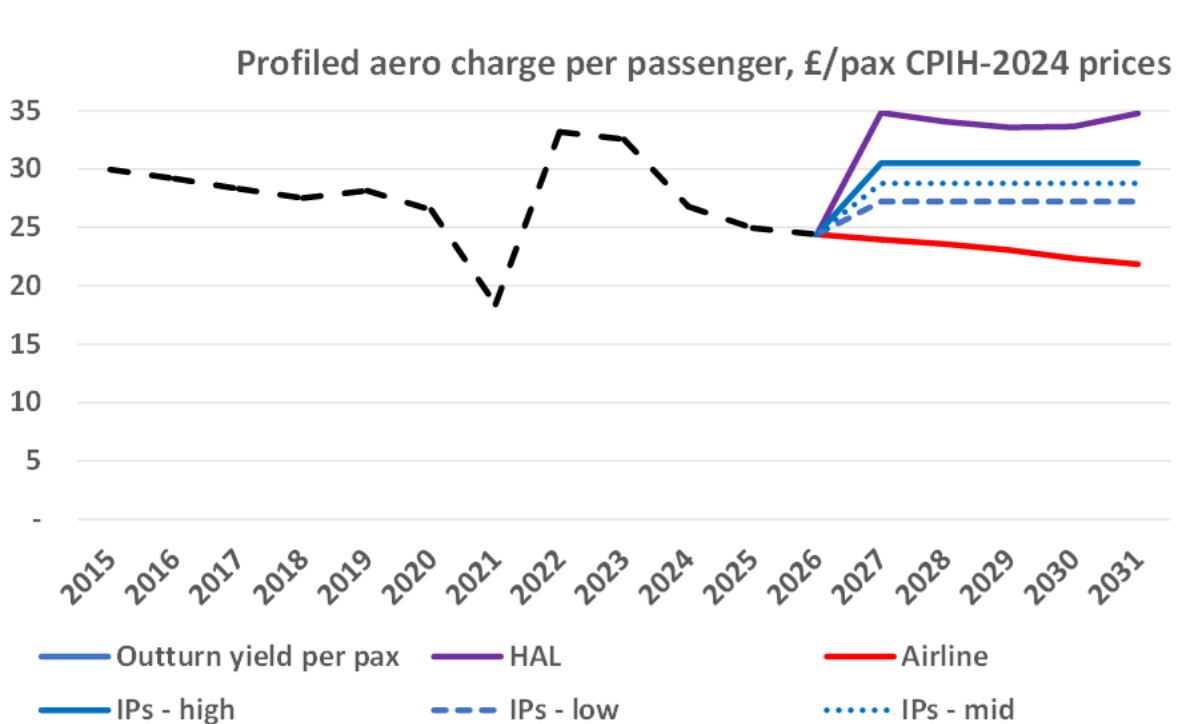
Profile of charges

11.16 The three CAA scenarios shown in Figure 11.1 are unprofiled. That means that the value in each year reflects the underlying building blocks in that year. In the H7 price control, we profiled charges to produce a flatter profile of charges, and we are again considering whether it would be appropriate to profile charges in our decision for the H8 period.

11.17 The “natural” profile of charges observed in Figure 11.1 is already quite close to flat. We see that, in each of our three cases, charges increase in the first two years of the price control and are reasonably stable in the final three years, albeit that the low and mid scenarios decline by a small amount in those years.

11.18 We note the advantages of having a reasonably stable charge as it enables airlines to predict with a greater degree of confidence the average level of airport charges that they will need to factor into their pricing. While the natural profile of charges is already reasonably stable, we have also examined what a flat profile of charges would mean for the level of the charge. To produce the flat profile, we determined the level of charges which, if constant in real terms, would produce the same net present value over the price control period as the unprofiled charges. These flat profiles are shown in Figure 11.2 below.

Figure 11.2: flat profile of charges with HAL and airline comparators

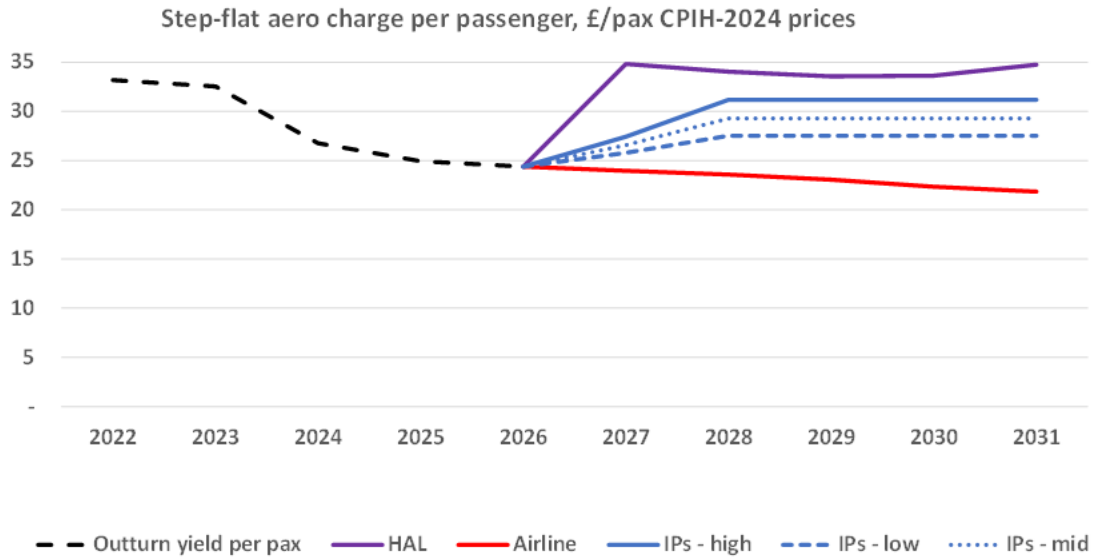


Source: CAA analysis, HAL business plan, Airline community alternative business plan

Note: The HAL and airline charges in Figure 11.2 have been amended to present ORCs on an equivalent basis. Airlines and HAL had differing views from the CAA on which items should be within the scope of ORCs which led to the charges, as submitted, being not directly comparable. The figures in Figure 11.2 above have replaced the HAL and airline view of ORCs with the CAA mid view of ORCs to enable comparison.

- 11.19 The most notable feature of the charge profile shown in Figure 11.2 is that charges now step up by a somewhat larger amount in 2027 compared to the profile shown in Figure 11.1. While the flat profile for the remaining years of the price control period supports stability of charges, the step up in 2027 introduces a somewhat elevated degree of charge volatility in that year.
- 11.20 To strike a balance between stable charges in the years 2028 to 2031, while also not having a large step in charges in 2027, we have examined a third possible charge profile. This alternative charge profile is shown in Figure 11.3. In this profile, the charge for 2027 is set at a level halfway between the 2026 charge and the level of the flat charge shown in Figure 11.2. Charges for 2028 to 2031 are calculated to produce a flat profile for those years.

Figure 11.3: step-flat profile of charges with HAL and airline comparators



Source: CAA analysis, HAL business plan, Airline community alternative business plan

Note: The HAL and airline charges in Figure 11.3 have been amended to present ORCs on an equivalent basis. Airlines and HAL had differing views from the CAA on which items should be within the scope of ORCs which led to the charges, as submitted, being not directly comparable. The figures in Figure 11.3 above have replaced the HAL and airline view of ORCs with the CAA mid view of ORCs to enable comparison.

- 11.21 This profile, which we refer to as “step-flat”, appears to produce a reasonable trajectory of charges between their levels at the end of the H7 period and the level that they need to be in order to recover efficiently incurred costs in the H8 period. This profile also does not involve shifting large amounts of revenue between periods.
- 11.22 We are, therefore, proposing to set charges for the H8 period to reflect the profile shown in Table 11.1 above. The charges in the high and low cases with this profile are shown in Table 11.2 below and represent our initial proposals for charges in the H8 period.

Table 11.2: Initial proposals for charges for the H8 period

CPIH-2024, £/pax	2027	2028	2029	2030	2031	Average
Low	25.79	27.50	27.50	27.50	27.50	27.16
High	27.44	31.20	31.20	31.20	31.20	30.45

Source: CAA analysis

A holding price cap for 2027

- 11.23 The H8 Method Statement¹²² said that we intended to set a “holding cap” for 2027. We stated that we expected that the level of the 2027 holding cap would

¹²² CAA, [CAP3083](#) Method statement and business plan guidance, March 2025, paragraph 2.12

be based on our initial proposals. Since then, we have also published our initial proposals on the early costs of capacity expansion.¹²³

- 11.24 We envisage that the holding cap would consist of a profiled charge element and an add-on to allow for the recovery of expansion early costs. Table 11.2 sets out an indicative level of the profiled charge element of the one-year holding cap. We will consult on the licence modification to implement the one-year holding cap in our draft decision on the early costs of capacity expansion, later in the year. We expect that the figures above will provide relevant context for this consultation.

Assessing financeability

Credit rating

- 11.25 HAL proposed in its business plan that the H8 review should target a BBB+ credit rating for the notional company. HAL also said that this would enable the actual company to obtain an A- rating from its two rating agencies (S&P and Fitch) on its class A debt.¹²⁴ HAL's said that this differential reflects the one notch uplift it receives to its rating in recognition of the creditor protections that it has in its financing documents and that the notional company has no such creditor protections.
- 11.26 It also set out its views in relation to the credit rating and the benefits flowing from a lower cost of debt due to having an A- credit rating rather than a BBB+ rating.
- 11.27 Airlines have not commented on credit rating specifically in their alternative business plan submission.

Credit metrics

- 11.28 HAL proposed that the financeability assessment for H8 should focus on funds from operations ("FFO") to net debt and net debt to EBITDA¹²⁵. These were two key metrics that we used to inform our financeability assessment for the H7 price control, alongside consideration of HAL's debt-to-RAB ratio.
- 11.29 Airlines have not commented specifically on which metrics should be used in the financeability assessment.

¹²³ CAA, [CAP3201](#) Proposals on the regulatory treatment of early costs of capacity expansion at Heathrow airport, December 2025

¹²⁴ HAL is currently rated BBB+ by S&P and A- by Fitch

¹²⁵ EBITDA is a standard term in accounting which refers to earnings before interest, tax, depreciation and amortisation.

Threshold levels for credit metrics

11.30 HAL suggested that the thresholds used to assess credit ratings should align with those that Fitch uses for corporate entities rather than the thresholds that are applied to HAL in practice.¹²⁶ The difference between these threshold levels is shown in Table 11.3 below:

Table 11.3: comparison of Fitch credit metric thresholds

	Corporately financed transport infrastructure methodology	Infrastructure and project finance methodology
Net debt to EBITDA threshold for downgrade from A- to BBB+	8 times	4.7 times

Source: HAL business plan¹²⁷

11.31 Table 11.3 shows that the threshold under the corporate finance transport methodology is almost twice the threshold for project financed entities.

11.32 HAL has said that it is appropriate to use the methodology for corporately financed entities when conducting the financeability analysis on the grounds that the notional company has a simple financial structure. It notes that the financial structure of HAL contains several creditor protections which mean that, from an investor perspective, the actual, rather than the notional company, is more like a project financed entity.

11.33 Airlines have not commented on threshold levels for credit metrics.

Equity financeability

11.34 Neither HAL nor airlines have commented on the metrics or other factors that it would be appropriate to examine when looking at financeability from the perspective of equity investors.

Our views and initial proposals

Credit rating

11.35 We consider that, for the H8 price control to secure that the notional company is financeable, the level of allowed charges needs to be compatible with the

¹²⁶ The thresholds that Fitch applies for HAL are taken from Fitch's rating methodology for infrastructure and project financed entities rather than the methodology for corporately financed transport infrastructure entities.

¹²⁷ HAL notes in its business plan that these figures are derived from extrapolation or interpolation of published rating thresholds.

notional company maintaining a credit rating which would allow it to raise enough debt to finance its activities.

- 11.36 To inform our assessment, we have looked at how much debt the notional company is projected to require in the H8 period. Our analysis shows the notional company will draw £[7.9]billion in the H8 period, primarily to fund capital expenditure, RAB growth and scheduled debt repayments, while targeting a 60% level of net debt to RAB. This amounts to an annual average debt requirement of around £[1.6]billion.
- 11.37 For comparison, HAL's own most recent financial results¹²⁸ show that, over the H8 period, more than £7 billion of debt will mature. For a capital-intensive business such as HAL which needs to fund ongoing capital expenditure, debt that matures will typically be refinanced through the issue of a new bond. We can, therefore, conclude that HAL's expectations for debt issuance in the H8 period at least are comparable to those of the notional company. We note that, during the H7 period, HAL has been able to meet its financing needs with a BBB+ rating¹²⁹ and it seems reasonable to conclude that the notional company would likewise be able to meet its financing requirements with a BBB+ rating.
- 11.38 Our work on the H8 price control is designed for a two-runway airport with a capital plan requiring a somewhat higher rate of expenditure over that in H7. For comparison, in CPIH terms, the H7 capex envelope amounted to £4.3 billion, while our initial proposals for capital expenditure during the H8 period amount to £5.8 billion. This represents a 36% increase over the H7 period. While this increase is more than £1 billion over the price control period, it is not particularly material in the context of the opening RAB for the H8 period being approximately [£21.6 billion].
- 11.39 Taken together, this analysis suggests that the notional company should be financeable at BBB+.

Credit metrics

- 11.40 We agree with HAL that FFO to net debt and net debt to EBITDA are the key metrics as they are used by S&P and Fitch respectively. We also consider that net debt to RAB is important as a way of checking that we are being consistent in our assumptions on the structure of the notional company.

Threshold levels for credit metrics

- 11.41 During the H7 review, we considered that HAL's arguments that the notional company would not benefit from a whole business securitisation ("WBS") and,

¹²⁸ See [Heathrow \(SP\) Ltd results for the year ended 31 December 2025](#)

¹²⁹ From S&P

hence, that it would be inappropriate for us to refer to the thresholds for financial metrics that the rating agencies use when providing ratings for HAL's actual debt. Our view was that there are companies with highly covenanted structures and regulatory ringfences that benefit from rating uplifts without adopting a full WBS structure.

- 11.42 Bearing this in mind we said it was appropriate for us to take into account how the rating agencies assess the credit quality of HAL's actual class A debt, recognising, in particular, that the Class A debt is of a similar amount as used for our assumption for the gearing of the notional company.
- 11.43 We have adopted this approach in these initial proposals and assumed that the notional company is rated in a similar way to HAL's existing senior debt. Our understanding is that, in order to confer a BBB+ rating on HAL's class A debt, the rating agencies will normally expect to see:
- FFO to net debt of no less than 7.0-8.0x; and
 - net debt to EBITDA of no more than 8.0-9.0x.
- 11.44 Recognising that the notional company is not identical to the actual company, we cautiously make use of the lower end and the upper end of these ranges, respectively, in our financeability assessment. A detailed description of how we determined the threshold for the net debt to EBITDA ratio for the notional company and our view on the existence of a one notch differential is provided in Appendix L (Credit metric thresholds).

Equity financeability

- 11.45 We consider that the metrics we looked at in the H7 price control remain relevant. Those metrics were:
- a) Internal rate of return ("IRR")¹³⁰ of cash flows to and from shareholder; and
 - b) dividend profile.F
- 11.46 The IRR provides a rounded assessment of the cash flows to and from shareholders and presents a single figure which can be compared to returns on comparable investments as well as to the allowed cost of equity.
- 11.47 We consider that the dividend profile presents useful information about the timing of cash flows. While finance theory holds that investor value is insensitive to the timing of cash flows, we recognise that, in practice, some investors will have

¹³⁰ The IRR is a measure of returns that is calculated from the initial amount of an investment plus any subsequent cash flows to or from the investor.

cash flow preferences. In this context, it is useful to understand the degree to which the notional company can pay dividends.

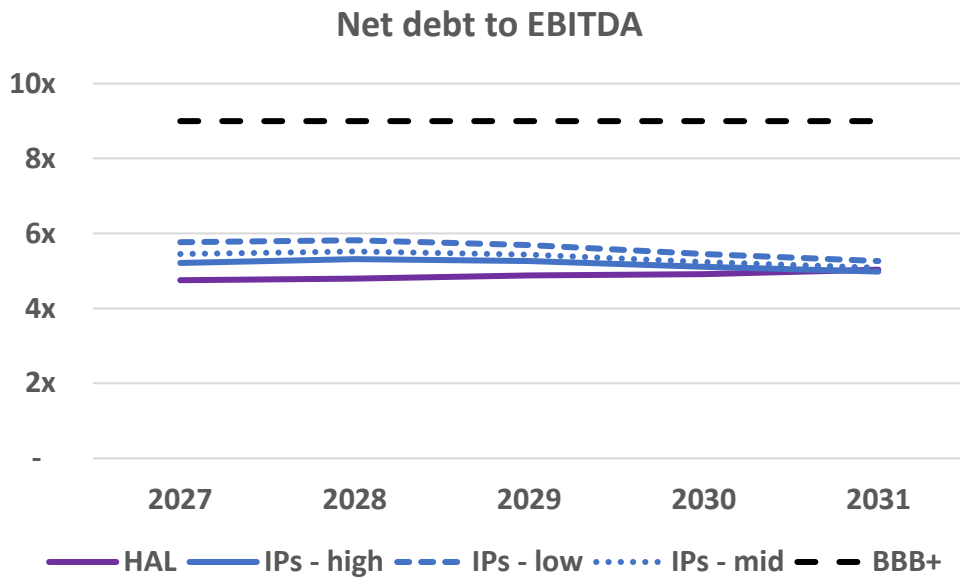
- 11.48 As part of our assessment of equity financeability, we also intend to consider qualitative factors that may be relevant.¹³¹ These may include considering if the overall price control package is set to materially alter the risk profile of equity investment in the notional company.

Assessment of financeability

Debt financeability

- 11.49 We have tested three scenarios (low, mid and high) set out above for financeability on the basis of the approach set out earlier in this chapter. In relation to debt financeability, we have calculated the credit metrics described iabove. The results of this analysis are shown in Figures 11.4 to 11.6 below.

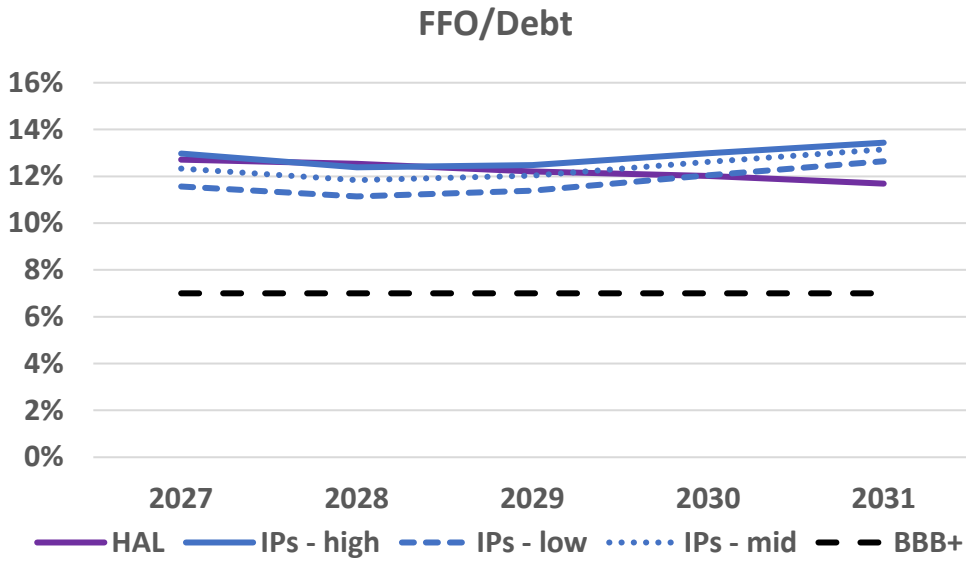
Figure 11.4: Net debt to EBITDA



Source: CAA analysis

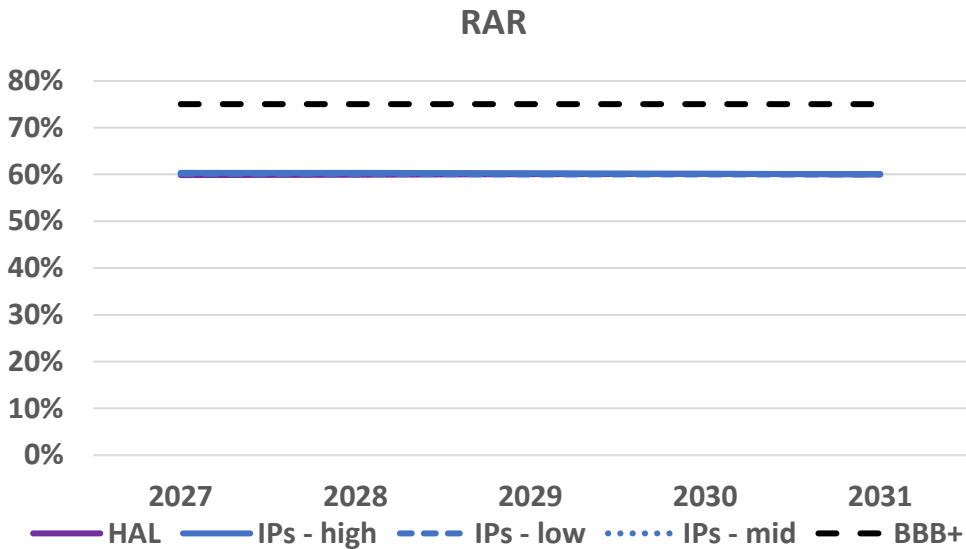
Figure 11.5: FFO to net debt

¹³¹ Given the initial nature of these initial proposals we have not, for now, conducted a qualitative assessment of equity financeability though have looked at equity financeability metrics as described in paragraphs [x].



Source: CAA analysis

Figure 11.6: Net debt to RAB



Source: CAA analysis

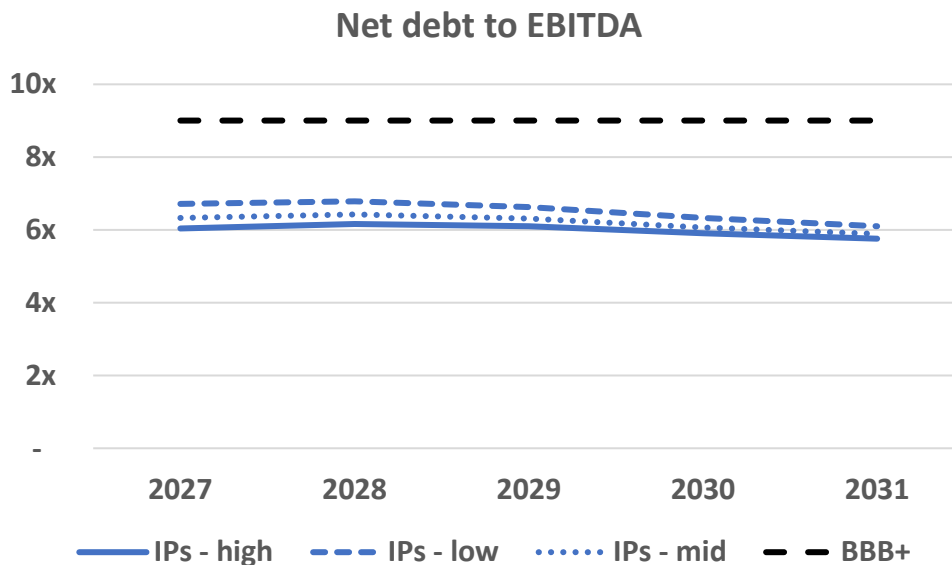
11.50 Figure 11.4 shows the FFO to net debt metric for our low, mid and high cases for initial proposals and how they compare to the threshold level required for the notional company to achieve a BBB+ credit rating. All the cases present credit ratios which are comfortably more than the threshold. Figure [x] shows the net debt to EBITDA metrics for the low, mid and high cases for initial proposals and how they compare to the threshold level required for the notional company to achieve a BBB+ credit rating. All the cases present ratios which are comfortably within the threshold.

- 11.51 Figure 11.4 shows the net debt to RAB metric. In our modelling we target a level of 60% for this ratio as it is a proxy for the gearing of the notional company. We therefore observe that this ratio stays at approximately 60%.
- 11.52 Based on the analysis of credit metrics and on the review of HAL’s bond maturities we conclude that our initial proposals are financeable from the perspective of debt and debt investors. The credit metric analysis suggests that the notional company would be able to support a BBB+ credit rating with adequate headroom. We consider below the degree to which the notional company would have appropriate headroom in relation to these metrics.

Stress testing

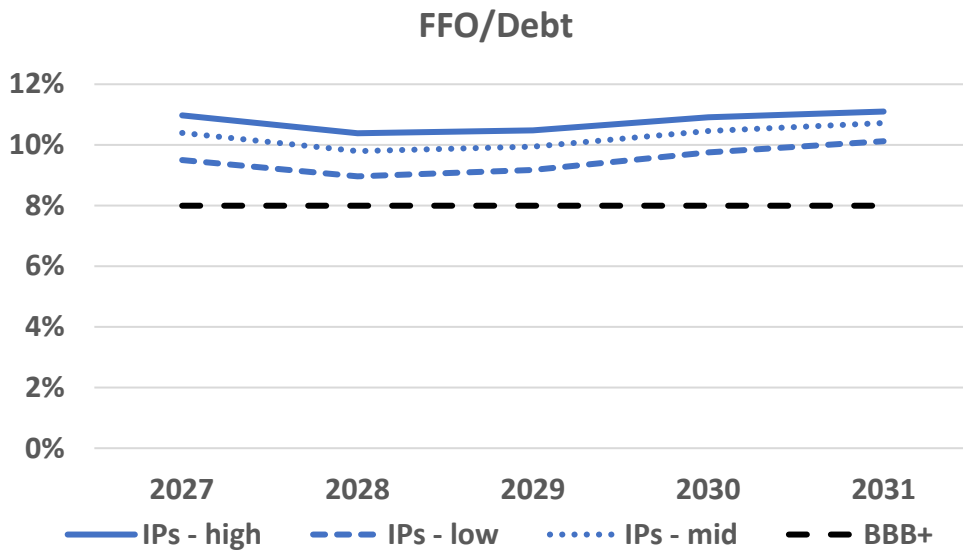
- 11.53 The analysis described above indicates that our initial proposals are financeable in a scenario where actual costs and revenues match the allowances we have made. In practice there is likely to be some variation and it is possible that outturn costs will be higher and/or outturn revenues will be less than in the base case. To assess the risk that lower-than-expected revenues could undermine financeability we have conducted stress test analysis. In this analysis we assume that charges per passenger are the same as in the base case but outturn volumes, costs and revenues differ. Specifically, we have examined a scenario in which passenger volumes are reduced by [10]% and costs and revenues reflect the lower passenger volumes.
- 11.54 We have run the stress test analysis across the high, low and mid cases. All three cases present the same overall picture of the robustness of these initial proposals. The credit metrics resulting from the stressed scenario are shown in figures 11.7 - 11.9 below.

Figure 11.7: Net debt to EBITDA



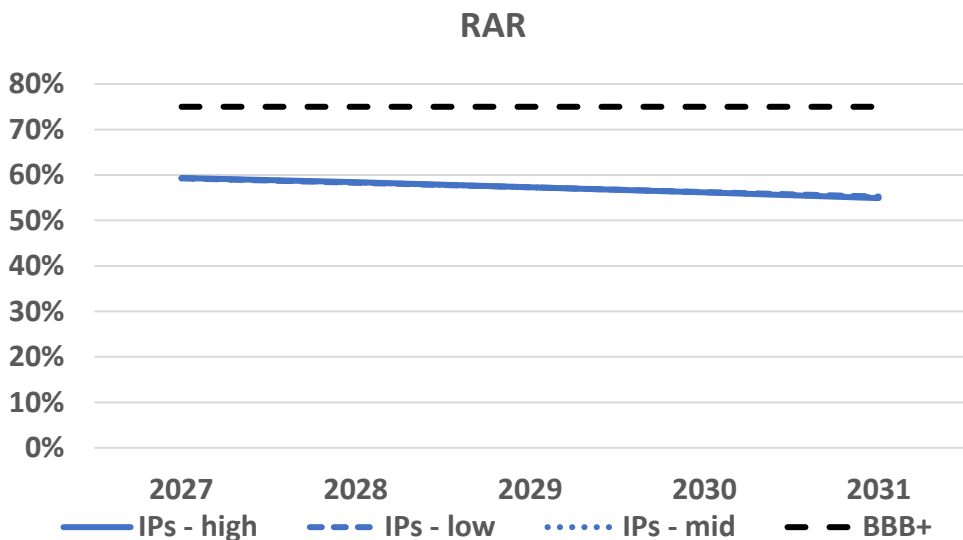
Source: CAA analysis

Figure 11.8: FFO to net debt



Source: CAA analysis

Figure 11.9: Net debt to RAB



Source: CAA analysis

- 11.55 The credit metrics from the stress test analysis show that, even in a situation in which passenger numbers are reduced by 10 percent, the notional company maintains credit metrics consistent with a BBB+ credit rating. Indeed, there is still headroom across all three credit metrics even in the low case.
- 11.56 From these results, we conclude that our initial proposals appear to be financeable for the notional company even in a reasonable downside scenario.

We recognise the possibility that a more extreme downside could occur, although we do not consider it necessary to insulate the notional company from all possible downside risk.

Assessment of equity financeability

11.57 By looking at the price control from the perspective of equity investors, we can consider whether our initial proposals provide reasonable equity returns in terms of the size, timing and likelihood of receiving those returns. This forms part of our overall consideration of financeability.

11.58 As noted above, we examine equity financeability by looking at:

- i) the internal rate of return of cash flows to and from shareholders; and
- ii) the profile of dividends.

11.59 The results of this IRR analysis are shown in Table 11.4 below.

Table 11.4: IRR analysis

	Nominal IRR	CPIH-real IRR	CPIH-real cost of equity
IPs - high	8.1%	5.9%	8.47%
IPs - low	6.8%	4.6%	6.46%
IPs - mid	7.5%	5.3%	7.47%

Source: CAA analysis

11.60 We observe from the results in Table 11.4 that, when comparing on a like-for-like CPIH-real basis, the notional company is able to generate an IRR that is below the allowed cost of equity by approximately 190 to 260 basis points. We acknowledge that this suggests the notional company will generate returns below those provided for the allowed cost of equity.

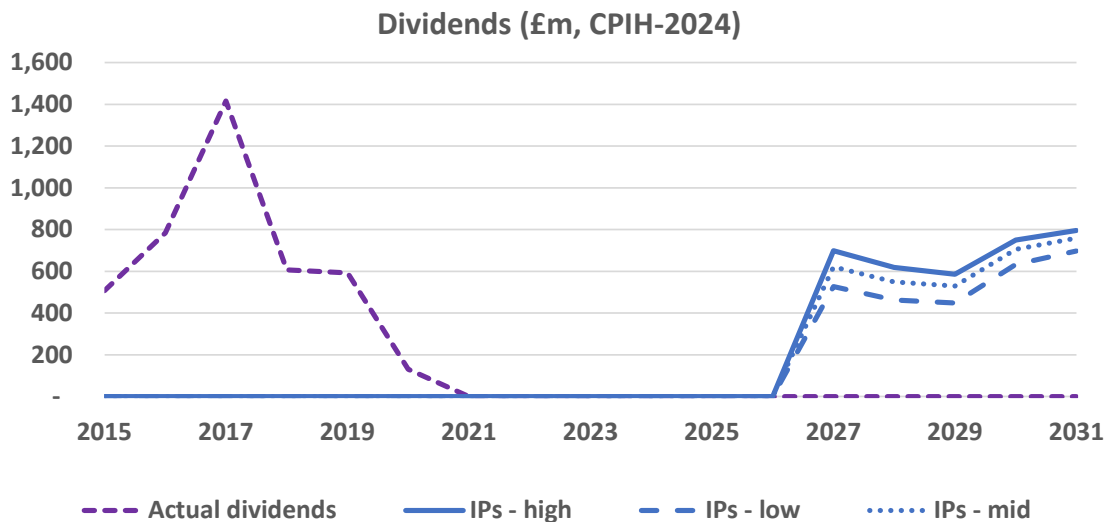
11.61 While some variance between the allowed cost of equity and the IRR is natural, and we also note that investors benefit from the indexation of the RAB by inflation, we are continuing work to verify that the underlying level of equity returns is reasonable.

11.62 The IRR that we have calculated reflects the returns that would be available to investors in the notional company. Actual returns to HAL's shareholders may be higher or lower for a variety of reasons such as:

- i) differences between the actual and notional capital structures;
- ii) accounting or covenant-based restrictions on payment of dividends;
- iii) outturn costs and revenues being different to forecast; and
- iv) different policies in respect of how much cash is maintained within the business.

11.63 The second measure that we examine from an equity financeability perspective is the dividend profile. From a strictly theoretical point of view, investors are indifferent to the timing of dividends as it does not alter shareholder value. However, it is still informative to look at the dividends that the notional company would be expected to pay if it were to maintain a policy of targeting the notional gearing level that we assume. The results of this analysis are shown in Figure 11.10 below:

Figure 11.10: dividend profile



Source: CAA analysis

11.64 Figure 11.10 above shows that, as expected, dividends are higher in the high scenario and lower in the lower scenario. We also observe that the average level of dividends (£633 million on average in the mid case)¹³² is broadly comparable to the level of dividends that were actually paid by HAL prior to the covid-19 pandemic (which averaged £609 million per year over the period 2015-2019).¹³³

11.65 While interpretation of the dividend profile is not an exact science, it does indicate that the notional company could reasonably expect to be able to pay dividends that are broadly consistent with the level that investors in HAL were able to generate prior to the covid-19 pandemic. Several of those investors

¹³² For further context the dividend yield over the H8 period averages at 3.1%

¹³³ The figure of £609m represents the average dividend payments made by Heathrow (SP) Limited. This is distinct from the dividends that Heathrow’s ultimate shareholders will have received due to the nature of HAL’s group structure which includes, among other things, debt raised at the holding company level. We have used Heathrow (SP) Limited as a comparator as it more closely aligns with the capital structure of the notional company. We consider HAL itself is not a suitable comparator as the bond financing is raised elsewhere in the group. Heathrow (SP) Limited is the lowest level within the group structure at which the regulated activities of HAL and the bond debt required to finance those activities are consolidated.

subsequently sold their stake in HAL in 2024, which implies that the track record of dividend payments was at least adequate to attract new shareholders.

- 11.66 We conclude from this analysis that the dividend profile observed for the notional company appears to be consistent with our initial proposals being financeable from an equity perspective.
- 11.67 While we have looked at debt financeability in a stressed case, we do not do so for equity. This is because in a downside scenario shareholders may not receive a return but this lack of return does not threaten the financial stability of the business. Moreover, shareholders enjoy the possibility of any upside in returns because they bear the risk of variability in returns, including the risk of returns being lower than expected.
- 11.68 Based on the above analysis, we conclude that our initial proposals are financeable from an equity investor perspective.

Summary

- 11.69 We have examined financeability from both debt and equity investor perspectives and concluded that both appear to be financeable. Overall, we conclude that our initial proposals provide a reasonable basis for the notional company being able to finance its activities.

Specifying the detail of the price control condition for the H8 price control

- 11.70 HAL's price control licence condition includes the profiled charge and the adjustment terms. The financeability assessments in this chapter correspond to the profiled charge element. This section sets out the work that we have done on the price control condition in the Licence, which includes both the profiled charge and the adjustment terms. We discuss this work in two areas:
- i) overall structure of the price control condition; and
 - ii) a term-by-term review of the price control condition.

Overall structure of the price control condition

Background

- 11.71 In the H7 price control appeals, one of the grounds of appeal was the additional correction ("AK") factor in the H7 price control condition. The CMA concluded that "the CAA was not wrong to have considered that some adjustment through the application of an AK factor should apply", but "...was wrong in law and in the exercise of a discretion in the way it applied the AK factor."¹³⁴ Considering the

¹³⁴ Competition and Markets Authority, [CMA's FD in the H7 Heathrow Airport Licence Modification Appeals](#),

CMA’s final determination, we have subsequently reviewed the application of the AK factor and altered the magnitude of AK in the Licence.¹³⁵

11.72 The CMA’s final determination prompted us to investigate further potential ways to improve the price control condition, with a view to delivering more logical and robust calculations of HAL’s price cap, minimising regulatory burden, and increasing transparency to all stakeholders.

11.73 The H7 price control condition¹³⁶ comprises of two parts, which are the profiled charge and adjustment terms, as shown below:

M_t	=	$Y_{t-1} \times (1 + CPI_t + X_t)$	+	$Y_{t-1} \times B_{t-2} + \frac{AC_t}{Q_t} - \frac{T_t}{Q_t} + \frac{TDO_t}{Q_t} + \frac{TRS_t}{Q_t} - AK_t + H7_t - K_t$
		Profiled charge		Adjustment terms

Y_{t-1}	=	$Y_{t-2} \times (1 + CPI_{t-1} + X_{t-1})$	+	S_{t-1}
		Profiled charge		Adjustment term

11.74 These two parts have different purposes:

- i) The profiled charge is given by the per passenger yield of the previous year Y_{t-1} , inflation uplift CPI_t and X_t . These are all major outputs of the PCM that derive the level of the price cap that enable HAL to recover allowed revenues from aeronautical charges.
- ii) The adjustment terms enable true-up of various quantities within a regulatory period. They are intended to “fine tune” the profiled charge.

11.75 The root cause that led to the CMA appeal on the AK factor was the high sensitivity of most adjustment terms to outturn traffic. For the adjustment terms that have Q_t as the denominator, a small outturn traffic Q_t magnifies the effects of these terms on the profile charge. In the case of covid-19, the substantial traffic shock brought about substantial reductions to the price cap in 2020 and 2021.¹³⁷

11.76 Over the summer of 2025, we discussed with stakeholders options to potentially improve the way the price control condition works. We proposed that the H8 price control condition should consist only of the profiled charge, and all

October 2023, paragraph 10.63 and 10.64.

¹³⁵ CAA, [CAP3001](#) Economic regulation of Heathrow airport: H7 final issues – decision, July 2024.

¹³⁶ As shown in Condition C1 Price Control in the [economic licence of Heathrow Airport Limited \(January 2026\)](#).

¹³⁷ For 2020, from £25.87 to £21.74 (a 16% reduction). For 2021, from £24.03 to £15.46 (a 36% reduction).

adjustment terms should be moved to a new, separate revenue adjustment mechanism. We considered that this proposal could address the three issues we had identified:

- i) Complexity: the price control condition will be simpler than the current form;
- ii) Inaccuracy: moving all adjustment terms in the price control condition to a new mechanism should ensure that the calculation will not give unintended results when outturn passenger traffic deviate from forecast by a large amount (as in the case of covid-19); and
- iii) Inconsistency: there are different treatments to different adjustment terms in the current price control condition. Moving the adjustment terms to a new capmechanism could standardise the way adjustments are made.

Stakeholder views

11.77 HAL, while agreeing on our observations around the issues identified, disagreed with our proposal. HAL took the view that:

- i) a new, separate revenue mechanism will introduce procedural complexity (requiring a duplication of consultation and decision) and this will not reduce regulatory burden;
- ii) several adjustment terms will expire in H7, and the remaining terms (capex trigger T_t , traffic risk sharing TRS_t , terminal drop off charge TDO_t and correction K_t) are proportionate to their respective purposes and ensure transparency to stakeholders;
- iii) using the CAA passenger traffic forecast instead of the outturn traffic in the price cap calculation would prevent traffic shocks from distorting the price cap; and
- iv) HAL will work with us on the formatting and documentation of the charges consultation to improve transparency.

11.78 British Airways said it had reservations about the potentially uncertain outcomes, including for its business planning, of a substantial positive or negative revenue adjustment from the new proposed revenue adjustment mechanism. In addition, if revenue adjustments are to be made over multiple years, it would introduce complications.

Our views

11.79 We have considered stakeholders' views carefully. Although our proposal could address the issues identified, we noted HAL and British Airways's strong preference of retaining the certainty of the current price cap calculation and charges consultation mechanism. We also agree with HAL that a new revenue adjustment mechanism could introduce complexity. Therefore, we have

concluded that we should keep the overall structure of the current price control condition unchanged for the H8 price control and we will not introduce a separate revenue adjustment mechanism.

- 11.80 On enhancing transparency, we welcome HAL's intention to work with us on improving reporting and documentation.
- 11.81 As for HAL's proposed approach of using the CAA's passenger traffic forecast instead of the outturn in the calculation of the price cap, we consider that doing so will effectively remove all HAL's traffic risk exposure from the adjustment terms. This would radically change the risk profile of the H8 price control and will necessitate a complete overhaul of various H8 policies (for instance, the traffic risk sharing, asymmetric risk allowance, WACC allowance). We do not consider a substantial change to HAL's risk exposure in this way is appropriate and we have no evidence that suggests it would further the interests of consumers.
- 11.82 In light of stakeholders' views, after this detailed review of the structure of the price control condition, we are minded to keep the current structure.

Our initial proposals

- 11.83 We propose that we keep the overall structure of the current price control condition unchanged, and work with HAL on enhancing transparency of the consultation process.

A term-by-term review of the price control condition

Background

- 11.84 Following on from the review of the overall structure of the price control condition, we have also investigated each of the terms to assess if they are still fit for purpose for the H8 price control. These variables are:
- i) CPI_t : this term enables annual CPI uplift to the profiled charge;
 - ii) Security factor S_t : this term enables HAL to recover costs because of changes to security and/or health and safety standards;
 - iii) Bonus factor B_t : this term allows HAL to recover service quality bonuses two years after they are earned;
 - iv) Allowed capex adjustment AC_t : this term enables an adjustment of the (RPI-real WACC) return of the difference between outturn and forecast capex;
 - v) Capital trigger factor T_t : this term imposes a trigger payment for each month of capital project delay for pre-determined trigger projects;
 - vi) Terminal drop-off charge factor TDO_t : this term introduces a mechanism for managing legislative risk on terminal drop-off charges;

- vii) Traffic risk sharing factor TRS_t : this term allows for revenue adjustment through aeronautical charges and the RAB for traffic outturn deviating from the CAA's forecast at the beginning of the H7 period;
- viii) Additional correction factor AK_t : this term enables price cap adjustment with respect to revenues over the earlier "iH7" price control period;
- ix) H7 factor $H7_t$: this term enables price cap adjustment with respect to revenues over the H7 period; and
- x) Correction factor K_t : this term allows for true-up of the price cap with a two-year lag when outturns of adjustment terms are available.

Our views

- 11.85 For the profiled charge, we consider that moving indexation uplift from CPI to CPIH will achieve consistency with CPIH indexation of the RAB from H8. We discussed this proposal in more detail in chapter 10 (Financial framework).
- 11.86 For the adjustment terms, our assessments are as follows.
- i) Security factor S_t : the calculation of this term is quite complicated, and it has not been used since the Q5 price control. We are considering options to simplify the calculation, which include exploring the possibility of using allowed capex adjustment AC_t for the purposes this term was intended to address.
 - ii) Bonus factor B_t ¹³⁸: we noted the inconsistent treatment between service quality bonuses (paid through an increase in aeronautical charges) and rebates (settled directly as a lump sum). We are considering options to address this issue, which may include taking the bonus factor B_t out of the profiled charge and making it an adjustment term.
 - iii) Allowed capex adjustment AC_t : this term remains an important feature of H8 capex governance. We are proposing some changes to streamline the process, and details can be found in chapter 8 (Regulatory incentives)
 - iv) Capital trigger factor T_t : this term could be removed if we are certain that all pre-determined trigger projects have reached completion before the H8 period starts.
 - v) Terminal drop-off charge factor TDO_t : this term might be removed depending on developments in our terminal drop-off charge policy, details can be found in chapter 8 (Regulatory Incentives)

¹³⁸ The bonus factor B_t is an outlier among adjustment terms. It is the only adjustment term that is expressed as a percentage of per passenger yield. All other adjustment terms are expressed as a lump sum or yield per passenger.

- vi) Traffic risk sharing factor TRS_t : this term remains an important feature of the approach to traffic risk sharing as described in details can be found in chapter 10 (Financial framework)
- vii) Additional correction factor AK_t : this term expires at the end of H7. There does not appear to be any current need to replace it or extend its use.
- viii) H7 factor $H7_t$: this term expires at the end of H7. There does not appear to be any current need to replace it or extend its use.
- ix) Correction factor K_t : this term remains an important feature of the price control condition as it removes incentives on HAL to over-recover price control revenue.

Our initial proposals

- 11.87 In the price control condition for calculating the maximum allowable yield from 2028 onwards, our initial proposals are:
- i) to move from CPI to CPIH indexation;
 - ii) to explore options to simplify calculations for Security factor S_t , or retain it in its current form if we cannot identify suitable alternatives;
 - iii) to explore options to take the Bonus factor B_t out of the profiled charge or out of the price control condition altogether, or retain it in its current form if we cannot identify suitable alternatives;
 - iv) to update the text for Allowed capex adjustment AC_t to better reflect our capital governance policy;
 - v) to retain Traffic risk sharing factor TRS_t and Correction factor K_t in their current forms;
 - vi) to retain the Capital trigger factor T_t in its current form;
 - vii) explore options for the Terminal drop-off charge factor TDO_t ; and
 - viii) to discontinue the Additional correction factor AK_t and H7 factor $H7_t$.

Key issues for consultation and next steps

- 11.88 We welcome the views of stakeholders on our approach to setting the level and profile of the H8 price control and on assessing financeability, and will consider these carefully as part of our work to develop final proposals.
- 11.89 The calculations of the price control summarised in this chapter will form the basis of the licence modifications that will set out the H8 price control as part of our final proposals. We will continue to develop the price control model ahead of final proposals including by commissioning an independent audit

