FTI Consulting Report on Cost of Capital (via CAP3044)

Response from Heathrow Airport Ltd

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Prepared by: Heathrow Airport Limited

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EXECUTIVE SUMMARY:

1. This document sets out Heathrow Airport Limited's (Heathrow) response to FTI Consulting's report for the CAA (Civil Aviation Authority), on the Cost of Capital Strategy for H8 (CAP3044A).

2. The publication of CAP3044A - as part of the CAA's wider draft H8 method statement and business plan guidance (CAP3044) – sets out a clear trajectory for the weighted average cost of capital (WACC) for the next price control period, H8. Whilst Heathrow acknowledges that the final WACC as outlined by the CAA in its initial proposals and final determination will be based on a range of factors and inputs (not just the FTI analysis), it is nevertheless an important "marker" for Heathrow, the airline community and the CAA as the H8 business plan is considered and further developed.

3. Setting the right WACC is a key aspect of the H8 decision. Significant investment is likely to be required in H8 and beyond as Heathrow addresses the challenge of delivering resilient and sustainable growth to meet the needs of its consumers and customers. Setting the right cost of capital is key in supporting both financeability and investability so that the required investment can be delivered.

4. The FTI report focussed on two areas: updating the WACC parameters for H7 to reflect current market data; and looking at potential updates to the CAA's methodology for WACC in H8.

5. Heathrow considers that FTI has largely correctly updated the real RPI WACC estimate for H8 using the H7 methodology, in particular the impact of a lower inflation outlook. In the below response Heathrow notes two minor corrections that are or will be needed. In respect of the CPI WACC estimate, Heathrow consider that FTI has made an error in their estimate of the CPI real cost of debt that results in it being significantly underestimated. Heathrow explains this error in the full response.

6. In respect of the potential updates to the CAA's methodology for H8, FTI has assessed a wide range of issues in the approach to cost of capital. Heathrow provides specific proposals and evidence around changes in respect of:
   - Asset beta, building on some of the considerations raised by FTI and an assessment of relative risk undertaken on our behalf by KPMG;
   - total market return reflecting updated evidence from Oxera; and
   - the cost of debt.

7. A key aspect not particularly considered by FTI that needs to be reassessed is the appropriate point in the range for the cost of equity. Ofwat has changed its approach in this area at PR24 by selecting a point value above the top of its range for the cost of equity. Key differences for H8 that merit a change in approach are the much higher level of investment likely to be required for H8 and beyond, and the increase in the cost of debt since 2020 (20-year gilts have increased by around 4.5% since then). This increase in the cost of debt also increases the importance that should be attached to cross-checks between the cost of debt and equity.

8. Heathrow plans to provide further evidence to the CAA on some of these matters as Heathrow approach the submission of our Business Plan later this year. Heathrow would welcome continued engagement with the CAA on these matters and ask that the CAA engages on them ahead of the decisions it makes in its initial proposals.

HEATHROW RESPONSE TO FTI CONSULTING REPORT ON COST OF CAPITAL:

OVERALL ANALYSIS AND FTI CONCLUSIONS:

9. The FTI report is an important "first step" for all stakeholders in the H8 process, as it provides a clear, initial assumption by which Heathrow can develop its plans and understand the impact of the suggested WACC on its financeability. As outlined in Heathrow's overall response to CAP3044 submitted in December 2025, addressing these financeability fundamentals, before Heathrow submits its final H8 business plan, provides the certainty and clarity needed.

10. As outlined in Heathrow's response to CAP3044, ensuring Heathrow's financeability is a key enabler of delivering the CAA's primary duty towards consumers. This is achieved by enabling access to cost efficient funding that will unlock billions of investments for the benefit of our passengers and airline partners.

11. In addition, the importance of providing a resilient and stable operation for H8 is a key emerging priority from ongoing H8 constructive engagement. However, delivering resilient growth will require a step change in investment compared to H7. This requires the financeability of the notional company to be calibrated correctly in line with precedent in other regulated sectors and requires CAA targeting a BBB+ rating in the notional company (equivalent to A- senior debt rating in the actual structure). In particular, the financeability for H8 should be assessed by reference to the FFO/debt thresholds linked to the target rating.

12. The FTI report focussed on two areas: updating the WACC parameters for H7 to reflect current market data; and looking at potential updates to the CAA's methodology for WACC in H8. Heathrow have structured our response to address each of these areas.

WACC PARAMETERS AND THEIR ESTIMATION METHODOLOGY IN H7:

13. Overall, Heathrow largely agrees with the conclusions reached in FTI's application of the H7 methodology and with updated H8 market conditions, for their estimate of the RPI real WACC.

14. However, Heathrow note there are a couple of minor errors that need to be considered, albeit these are not particularly material to date:
    - Firstly, the proportion on new debt at the end of H7 should be 25% rather than 24% as reflected in the cost of debt adjustment spreadsheet issued with the CAA's final decision;
    - Secondly, FTI have not taken into account the outturn of corporate debt costs compared to the assumption made in the CAA decision, and as will be reflected in the cost of debt correction mechanism. Given the general upward movements in rates since the decision, this is likely to provide some upward pressure on the cost of debt at the end of 2026. The CAA will need to take account of this in their approach.

15. More importantly, Heathrow consider there is a material error in the assessment of the CPI stripped cost of debt. Essentially, FTI has calculated an RPI stripped cost of debt using short-term RPI forecasts and then converted to a CPI stripped cost of debt by using a long-term CPI-RPI wedge of 0.05%. Instead, it should have calculated the CPI stripped cost of debt by subtracting

forecast CPI directly from the nominal cost of debt as done by all other regulators. The error is illustrated below:

- In their report, FTI calculate the nominal cost of embedded fixed debt as 4.64%;
- This is converted to a real RPI cost of embedded fixed debt of 1.96% based on expected RPI of 2.63%;
- For the estimate of real CPI cost of debt, the cost of embedded fixed debt is assessed to be 2.02% based on adding a wedge of 0.05% to the RPI estimated cost of debt;
- However, both the short run and long run estimate for CPI is around 2.0%;
- The correct way to calculate the CPI cost of debt is to take the nominal cost and deflate by expected CPI;
- Deflating the nominal cost of 4.64% by 2% gives a cost of embedded fixed debt of 2.59% - very different to the FTI estimate of 2.02%.

16. The FTI approach is an error as there is no correct way to obtain a CPI stripped cost of debt of 2.02% from a nominal cost of 4.64% and CPI of 2%. Note that Ofwat's estimate of the CPI real cost of embedded debt for water companies was 2.77%, much higher than the FTI estimate of 2.02% for Heathrow, and also higher than the corrected version of 2.59%.

17. Correcting this error increases the CPI deflated WACC to around 5.0% vanilla. Heathrow would welcome an update of the FTI calculation that addressed this error to be included in the final methodology document. This would assist stakeholders in their assessment of Heathrow's proposals during the H7 process. Heathrow also consider that it would be helpful for the CAA to set out what the charge would be using the Final Decision building blocks for 2026 together with this corrected WACC. This would allow stakeholders to understand factors in our plan that were driving changes to charge separately from factors driven by market changes external to Heathrow.

POTENTIAL UPDATES TO THE CAA'S WACC METHODOLOGY FOR H8:

18. FTI set out assessments on methodology for:
    - Inflation;
    - Risk free rate;
    - Asset Beta;
    - TMR;
    - Cost of debt; and
    - Cross Checks

19. Heathrow sets out comments on each of these areas below. In addition, Heathrow sets out comments on the appropriate point in the range for the cost of equity, and the need for the settlement to be financeable.

Inflation:

20. Heathrow understands the reasons why a change to CPI/CPIH will be required at some point. Heathrow's preference would be for a change to CPIH. This would be consistent with the approach adopted in other sectors and more likely to align index-linked debt costs to the drivers in the underlying regulatory framework allowing lower cost risk management.

21. The impact of a move to CPI/H should be considered carefully. It is important that this transition applies a consistent approach between the RPI-CPI transition in the indexation of the RAB and the calculation of the WACC so that it is net present value neutral to Heathrow.

22. At H7, the CAA used a 5-year forecast of inflation for converting the nominal cost of debt to a real cost of debt. This was in contrast to the previous approach by the CAA that had used a longer-term view. Heathrow argued against this approach noting that it was inconsistent with previous practice by the CAA, and that the CAA had used a long-term approach when this resulted in a lower real cost of debt and then switched to a short-term approach when that instead led to a lower real cost of debt. Heathrow considers that regulatory consistency in approach is important and that a Regulator should be consistent in which approach it takes.

23. In their report FTI argue for a return to a longer-term approach, however they do not consider the issue of consistency in their assessment criteria. Investor credibility could be undermined if the CAA were to change approach for H8 in a manner that again led to a lower real cost of debt than the approach used previously. This needs to be considered carefully by the CAA before they make any changes to their approach.

Risk Free Rate:

24. FTI considered two potential changes to the risk-free rate:
    - Indexation of the risk-free rate; and
    - The removal of the convenience yield uplift.

25. Heathrow does not have particular comments in respect of the FTI analysis of this parameter. Heathrow note that the issue of convenience yield is still a matter of debate, and that there may be developments during 2025 on this issue if any water companies appeal their price controls.

Asset Beta Estimation:

26. FTI considered three issues around asset beta estimation:
    - The choice of comparators;
    - The treatment of the pandemic period; and
    - The adjustment for the TRS mechanism.

27. In respect of the choice of comparators, FTI recommend using the four airports AENA, ADP, Fraport and Zurich. Heathrow agrees that these are an appropriate set of comparator airports, and this view is consistent with advice Heathrow has previously been given by Oxera.

28. Estimation of asset beta at H7 was particularly difficult because of the impact of the pandemic on airport share prices and the increase and volatility that this added to estimates of airport betas together with the uncertainty over whether such changes were likely to persist or temporary.

29. The CAA addressed this by weighting data to get a post-pandemic estimate of beta and then making a downwards adjustment to reflect the impact of TRS. Heathrow considered that both of

these approaches were flawed as they were heavily dependent on judgement and unverifiable assumptions.

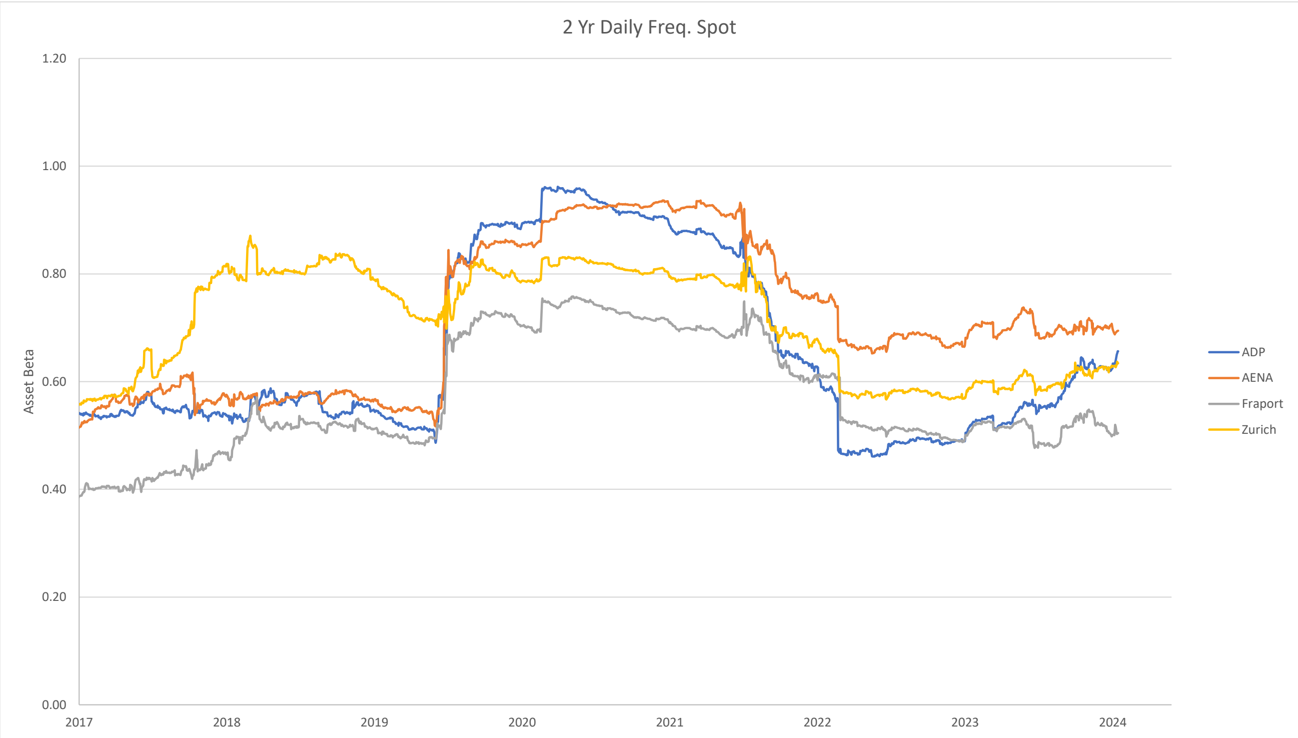
30. In their review, FTI open the door to moving away from this complex approach and relying more on the observed asset beta data. In particular, they note that:

- Since estimates of asset beta appear to have stabilised post-covid, the CAA could consider an approach that does not require explicit weighting of data[1]; and
- The TRS adjustment approach relies on significant judgement, and that in lieu of this approach, the CAA could undertake a modelling exercise to more accurately calibrate the TRS.

31. Heathrow considers that using the market evidence for asset beta post covid is likely to be the most robust way to estimate Heathrow's asset beta. Heathrow consider the key issues are:
    - Is the current market data appropriate for estimating an asset beta for H8; and
    - What is the relative risk of Heathrow (including TRS) compared to the listed airports used to estimate airport asset beta.

32. Figure 1 sets out the 2-year daily spot asset beta of the comparator airports over the last few years. The chart shows the impact of covid in 2020, and then the return to a more stable level from late 2022. Heathrow considers that this stability means that using 2-year spot estimates are an appropriate basis for assessing an asset beta for H8.

Figure 1 - Asset beta estimates



Source: Bloomberg/Heathrow analysis

[1] Para 3.84

33. The other key question is the relative risk of Heathrow compared to the comparator airports. Heathrow commissioned KPMG to provide an initial analysis of Heathrow's relative risk, which Heathrow have included with our response.

34. The KPMG analysis systematically evaluated the key risks faced by Heathrow and its comparators using a comprehensive, bespoke risk framework. It positioned Heathrow within the broader risk spectrum, drawing implications for beta estimation and required pricing of risk at H8. The approach is transparent, structured, and methodical, clearly linking risk exposure to return expectations.

35. The approach separated risk into five categories – capex, opex, revenue, regulatory, and financing – that provide a view of the key risk dimensions contributing to return expectations. These risk categories capture both upfront investment risks (capex), ongoing operational risks (opex), market-driven risks (price and demand), and structural risks related to the regulatory and financing arrangements for the airports.

36. KPMG assessed the systematic risk of Heathrow relative to that of its comparators for each of the risk categories. For some areas the risk was higher, in others lower. Overall, on an unweighted basis KPMG found that Heathrow's risk was at the upper end of the comparator airports, Figure 2, but note that variations in weighting could lead to different outcomes. They concluded that since their analysis included the impact of TRS, there was no requirement to make a TRS adjustment to asset beta estimates obtained from these comparators.

Figure 2 - KPMG Relative Risk Assessment TOBE UPDATED

Categories / Airports	Capex	Opex	Revenue	Regulation	Financing	Weighted risk score
Fraport	3	1	1	1	1	1.40
Zurich	2	3	3	1	1	2.00
AdP	1	2	1	2	2	1.60
Aena	1	2	2	3	1	1.80
Heathrow	2	2	1	3	2	2.00

Legend – risk rating: Low | Med | High

Source: KPMG

37. KPMG made some recommendations for additional analysis that could be undertaken and the potential for incorporating a more quantitative approach. Heathrow will share the results of such an analysis once it is complete.

38. Overall, Heathrow considers that because current estimates of 2-year asset beta are suitable estimates for H8, and the relative risk of Heathrow is similar to the comparator airports, it is appropriate to use estimates of 2-year asset beta to set the asset beta for Heathrow for H8. The table below sets out estimates of asset beta as at end of November 2024. The two-year spot asset

beta, which excludes covid affected data, has a range between 0.50 and 0.69 with an average of 0.62.

Table 1 - Estimates of Asset Beta

Company	2-year spot	5-year spot	7-year spot
AdP	0.66	0.70	0.65
AENA	0.69	0.84	0.79
Zurich	0.63	0.72	0.71
Fraport	0.50	0.49	0.47
Average	0.62	0.69	0.66

Source: Bloomberg/Heathrow analysis

39. Heathrow have also collated estimates of airport asset beta used in regulated airports within Europe. These are set out in Table 2. This shows a range of 0.61 to 0.79.

Table 2 - European Regulatory Decisions on airport asset beta

Airport	Date of Decision	Asset Beta
Brussels	2023	0.77
Aena	2023	0.79
AdP	2023	0.61
Copenhagen	2023	0.65

Source: Brussels Airport, Aena, Aeroport de Paris, Copenhagen Airport

The current 2-year spot evidence suggests a range for Heathrow between 0.50 and 0.69 with an average of 0.62. The range of recent regulatory decisions for airports is higher at 0.61 to 0.79. Both of these ranges are higher than FTI's estimate that the asset beta range for H8 is between 0.44 and 0.61. Heathrow does not consider it credible that the top of the asset beta range for Heathrow is below the mean of comparator companies or at the bottom of those used for other airports.

40. Getting the right asset beta for Heathrow in H8 is a key part of the decisions that the CAA will have to make. It is important that any supporting analysis is robust, and therefore Heathrow encourage the CAA to respond to FTI's suggestion that they undertake a more detailed numerical analysis of Heathrow's risk compared to the listed comparators.

Total Market Return:

41. In its approach for considering change FTI concentrates on whether or not to move away from a stable TMR approach. Heathrow notes that in practice Regulators have reduced their estimates of TMR as interest rates have fallen, and therefore that in practice Regulators have not strictly followed a stable TMR approach. Whilst some of these reductions have been because of improvements in data, others have been motivated by concerns of 'lower for longer' interest rates. Heathrow understand this remains an issue of considerable debate, and that it may be addressed in detail by the CMA during 2025 in the event of any price appeals by water companies.

42. In its report FTI adopts he same value of TMR as CAA, other than adjusting for the move to CPI resulting in a CPI stripped TMR of 6.8%. The CAA TMR was based on the UKRN paper and WACC and the CMA estimate in the 2020 water appeal. However, since this publication, the Office

for National Statistics (ONS) has revised its estimates of historical CPI. In addition, the UKRN report was issued before the large step increase in interest rates.

43. In support of this position, Heathrow commissioned Oxera Consulting to review the FTI report and comment on the estimation of the TMR parameter of the capital asset pricing model framework. The full report has been shared with the CAA as part of Heathrow response.

44. In their report, Oxera conclude the following:

- Significant time has elapsed since the CMA PR19 decision and there have been several developments and discussions with regulators regarding the TMR estimation. Therefore, it is necessary to update the PR19 position to reflect more recent information that is now available, as well as to consider methodological problems contained within the CMA PR19 TMR approach.

- Oxera's analysis sets out that the simple arithmetic average based on a one-year holding period of 6.96% CPI-real to be the most appropriate TMR estimate.

- Oxera do not put weight on longer holding periods due to the significant loss of data points, and consider that an adjustment for serial correlation is inapplicable because there is no statistically significant evidence for its existence in the data. In addition, using the geometric average as a starting point would require the potentially subjective exercise of calculating an uplift to bring it closer to the arithmetic average.

- Historical ex ante TMR approaches lack reliability—for example, due to their inherent subjectivity. Nevertheless, were regulators to apply a historical ex ante methodology, the DMS decompositional approach leads to an ex ante TMR estimate of 6.85% CPI-real.

- Finally, Oxera note a decrease in the TMR allowance set by UK regulators since 2011, suggesting that they responded to the decline in gilt yields by reducing the TMR. However, since early 2022, long-term gilt yields have sharply increased, reaching levels last seen during 2005–11. As the recent increase in gilt yields likely will not have been entirely offset by a reduction in the ERP, it will have led to upward revisions of investors' expectations of market returns. Therefore, a consistent regulatory approach over time necessitates an increase in the TMR allowance in order to account for the higher interest rate environment.

45. Heathrow notes that Ofwat updated its view of the range for TMR in its final decision to 6.68% to 6.98%[2], and in practice used the top of this range for its estimate of the cost of equity. This range is much narrower than the FTI range of 6.3% to 7.0%. Heathrow considers that the Oxera estimate of 6.96% is the most appropriate estimate of TMR to use for H8, and that this is consistent with the estimate used by Ofwat in its decision.

[2] Ofwat, PR24-final-determinations-Aligning-risk-and-return-Allowed-Return-Appendix. Table 8, p37

Cost of Debt:

Cost of Embedded Debt

46. FTI's estimate of the updated cost of embedded debt for Heathrow is 2.02% real CPIH. Correcting the error set out above would increase this to 2.59% real. In its final decision Ofwat set an allowance for water companies of 2.77% real based on the average cost of debt in the water sector. Heathrow have provided evidence to the CAA previously that secondary spreads on Heathrow bonds have been higher than equivalent bonds of water companies for extended periods and notably so at some times. The cost of embedded debt reflects the cost of debt over a historical period. Heathrow's credit spreads were wider than the Ofwat whole business securitisation (WBS) entities until the issues faced by the water sector in the middle of 2023. Therefore a wider credit spread should be reflected in the embedded debt

47. Heathrow considers that its debt has been incurred efficiently, and that therefore the CAA should reflect Heathrow's actual cost of debt. This is a common approach for regulation when one company is being assessed and would result in an allowed cost of embedded debt that was consistent with decisions by other regulators.

48. Heathrow understand that a key difficulty in the CAA adopting this approach in H7 was perceived lack of transparency on Heathrow's actual cost of debt. To address this, Heathrow plan to share a detailed spreadsheet that will allow the CAA to understand our actual cost of debt in detail including the impact of foreign currency debt and swaps.

49. During H7, Heathrow consider there were two key reasons that led to the CAA underestimating Heathrow's cost of debt. The first of these was in the period used to average historical bond costs being too short in comparison to the mix of Heathrow's actual debt. The second was underestimating the cost of Heathrow's actual debt as a result of incorrect estimates of currency costs and not taking into account the higher cost of the class B debt.

50. By adopting a structured approach to its debt, Heathrow has been able to increase its credit rating by one notch and obtained the majority of its debt at this higher rating. Effectively by obtaining around 5/6 at Class A with a lower cost, and 1/6 at Class B at a slightly higher cost, the overall cost of Heathrow's debt is lower than it would have been had it not adopted a structured approach. The CAA approach at H7 was to take account of the lower cost of the higher rated debt but ignored the higher cost of the class B debt.

51. If Heathrow had not adopted a structured approach, then its credit rating would be in between that of its Class A and Class B debt. The regulatory regime would reflect the actual cost of its notional debt, even though that would be higher than the overall cost with a structured approach, because the cost of debt would be based on its issuances at this intermediate credit rating. This means that Heathrow has effectively been penalised for adopting an approach that reduces its costs. The notional company would not be able to achieve the cost of debt that Heathrow actually achieves including its class B debt, and therefore reflecting Heathrow's actual cost overall is appropriate.

Proportion of new debt:

52. FTI has retained the proportion of new debt assumed for H7 of 11.6%. Heathrow anticipates that H8 is likely to include significantly higher capital expenditure than H7 and that therefore the

proportion of new debt is likely to increase to around 25% depending upon the capital expenditure finally proposed. The CAA will need to reflect the higher new debt requirements in its H8 decisions, and Heathrow suggest that it uses 25% as a holding estimate until more details are available.

Issuance and liquidity costs:

53. The FTI report acknowledges that the 0.25% allowance for issuance and liquidity costs will be revisited during the H8 process and has not been updated for the purposes of the indicative H8 WACC. Heathrow will provide further evidence for its issuance and liquidity costs on its efficiently incurred debt. Heathrow notes that estimates of this cost by other regulators have increased, e.g. Ofwat has assumed a cost of 0.15% in its PR24 Decision.

Index Linked Debt:

54. The Calculation of RPI is expected to change in March 2030 so that it is calculated in a manner similar to CPIH. It might be expected therefore that corporate Index Linked (IL) bonds would be subject to lower indexation from that point. However, it has become clear in 2024 that, as far as Heathrow are aware, all corporate IL bonds include substantial change clauses that mean in practice investors will be protected from the change in index. Since this is a factor that affects all IL debt issued before 2024, it is also a factor that would affect the notional company. Therefore, the CAA will need to take this into account in assessing the CPIH real cost of IL debt from April 2030 onwards. Heathrow will provide more details of this issue and a proposed way of managing in due course.

Indexation of RAB:

55. In its report, FTI consider that there may be merit in moving to an approach where a proportion of the RAB is remunerated by a nominal cost of capital and not subject to indexation. Heathrow notes that this would lead to a big change in the intergenerational effects between consumers over which pay for the airport, and the change would significantly impact consumers over the next few years in terms of higher charges. In addition, such a change would likely force the company to adopt a financing structure that matches the notional company in order to manage exposure to inflation. Such an approach would likely reduce financial efficiency leading to additional costs for consumers in time. Given this, it is not clear to us that such a change is in the best interest of consumers.

Cross Checks and Point in the Range:

56. Heathrow agree with the FTI report on the importance of appropriate cross checks to ensure the robustness of the cost of equity estimate. In particular the need to ensure that there is appropriate headroom between the cost of debt and the cost of equity. Heathrow understand this is a significant issue in other regulated sectors and may be subject to greater review by the CMA in the event of an appeal by water companies.

57. The cost of debt has increased significantly since 2020, with the cost of 20-year gilts increasing by around 4.5%. Estimates of the cost of equity using CAPM will not really have moved during this period, and for Heathrow with an equity beta of over 1 the increase in risk free rate will have

reduced its estimate of the cost of equity since then. Heathrow considers it very unlikely that equity investors' expectations of return would have fallen in practice, and this raises questions about the validity of CAPM in periods of such change.

58. One way of addressing this is to move upwards in the range for cost of equity. In its decision, Ofwat moved above the top of the range in its point estimate for the cost of equity. This was partly driven by concerns about attracting sufficient investment to fund the higher capital expenditure expected in PR24 at around 6% of RAB per year. For H8, Heathrow's investment is likely to be greater than this (for example, an option of £2bn capex pa would equate to c10% of RAB per annum). Recent regulatory precedent would therefore support such a change, and it is an important factor for the CAA to consider in H8.