Centrus

# Financeability assessment of regulatory models for Heathrow Airport

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CORPORATE FINANCE | DEBT ADVISORY | RISK ADVISORY & ANALYTICS

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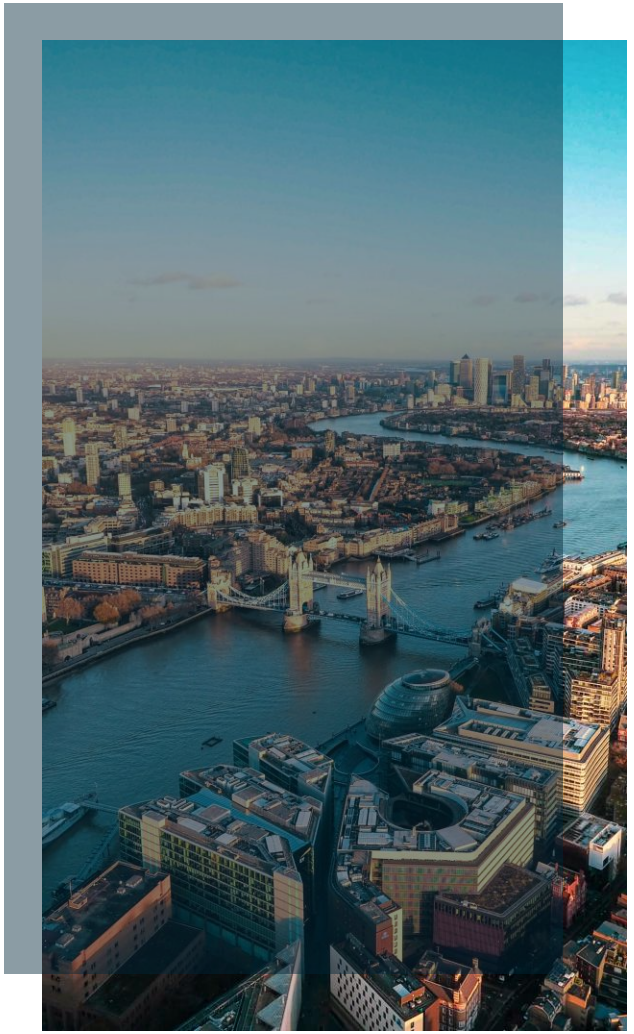

# 1 Our Approach

# Our Approach

The CAA has asked Centrus to support in evaluating the long-list of regulatory models as set out in CAA's "Working paper on regulatory models: CAP 3195" purely from a financeability perspective. The report does not comment on any other aspects of CAA's evaluation framework and is limited to our financeability analysis of the regulatory models. This report is based on market conditions through to 23rd March 2026

## To assess the proposed regulatory models in terms of financeability, we are seeking to:

- Balance the interest of investors, consumers and HAL in line with the CAA's statutory objectives
- Ensure that access to capital markets at scale is maintained throughout construction and into operations
- Provide sufficient stability and predictability of revenue to support long-term equity financing
- Allocate risk in an efficient and financeable way
- Provide insight on how rating agencies, and debt and equity investors might react to the proposed regulatory changes / framework

**We have assessed the key financing considerations that are common across large construction projects, drawing on relevant infrastructure precedents and applying them to HAL**

## This includes consideration of how financeability is influenced by:

- The scale and duration of the expansion programme
- Construction risk, phasing, and exposure to cost and schedule uncertainty
- The strength and predictability of the revenue model and the extent of revenue risk
- The allocation of risk between HAL, investors, and consumers, and how this affects investor appetite and cost of capital
- Risks to financing certainty and deliverability

**This section provides a consistent framework criteria against which the relative financeability of the different models can be compared in the next section**

| | |
|---|---|
| Basis of preparation | ▪ Our analysis has been prepared on the basis of the models described by the CAA in their consultation document CAP 3195 which puts forward various models for consideration which have been described at a relatively high level<br>▪ As such, our analysis and evaluation has been undertaken on a high level/ desktop basis based on our understanding of the models described, our experience of their application elsewhere in the infrastructure market and our knowledge of Heathrow's capital structure and regulatory model. We have not sought to validate the efficiency of any of these proposed models<br>▪ Our evaluation is therefore intended to identify the key financeability issues and considerations with each model which we have not at this stage sought to resolve or analyse in further detail and should be reviewed in this light |

# 2 Financing Considerations

# Market Context | UK Infrastructure Market Overview

The next wave of UK infrastructure investment is defined by larger, more complex projects that strain traditional financing models, requiring evolved regulatory structures and public intervention to manage risk and crowd in private capital

## Funding requirement for UK infrastructure projects grows

- UK infrastructure investment in large scale projects (across transport, energy, water etc.) reached around £20.3 bn in 2025, a ~17% increase YoY, with net asset stocks at £400bn. Government infrastructure investment was estimated at £28.9 bn in 2024
- The government's new 10-Year Infrastructure Strategy sets out priorities and at least £725bn of government funding whilst explicitly seeking to crowd in more private capital by creating a more visible pipeline, by continuing to evolve models to increase more investable opportunities, and improved funding certainty and with the support of public financial institutions (e.g. the NWF[1])
- At the same time, large infrastructure projects (i.e. Sizewell C, Carbon Capture, Lower Thames Crossing as well as the significant step up in energy networks and generation - £40bn/year on average, £104bn (£44bn of new) investment in the water sector over the next 5 years as well as £5bn per annum on digital networks will create competition for capital in the UK GBP market
- Overall, UK infrastructure finance market has shifted from classic PFIs to newer, bespoke regulated models and targeted PPP style structures. Even though total infrastructure investment is rising, a heavy reliance on public finance or a combination of revenue underpinning or government supports packages have been used to increase financeability. This has particularly been the case in new sectors and/ or where the scale of the projects means a low probability, high impact event is too much risk for private sector equity

## Large projects pose critical challenges due to scale and complexity

- While these projects are strategically critical, they present structural challenges to private financing, including exposure to construction cost overruns, long-dated delivery risk and regulatory uncertainty.
- If left unmitigated, these risks materially increase the cost of capital required by investors, constrain achievable leverage and, in some cases, exceed the risk capacity of institutional capital altogether.
- This is at a time when the construction risk sector has, in broad terms not been able to take much price risk; this has particularly been the case since Covid where supply chain bottlenecks and materials and wage increases have been large and unpredictable
- As project scale and complexity increase — without a commensurate mitigation of risk — market capacity becomes a binding constraint, with fewer sponsors, lenders and investors willing or able to underwrite the asset.
- More complex projects also tend to be deliverable by a narrower universe of contractors (with specific know-how), further limiting market depth. There has been a tendency for large infrastructure projects to rely on contractors who offer risk transfer through security packages, but this drives up contract prices that ultimately get passed to consumers.
- Against this backdrop, bespoke regulatory delivery models and targeted government support mechanisms have become important tools on certain projects to manage tail risk, restore financeability and mobilise private capital at scale

**Regulatory models are increasingly being used to fund large infrastructure projects with long construction periods with an income stream during construction and a blended customer/ company risk transfer and flexibility for ongoing significant capex.**

*Source: ONS, Institute for Government*
*1: National Wealth Fund*



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# **Market Context** | Recently Used Large Scale Delivery Models (1/2)

We have chosen to focus on 3 precedent transactions which illustrate a range of risks critical to bringing each project to life. Regulatory models are aiming to address these risks, identified across the lifecycle of a project from design and construction to operations and maintenance

| | | Thames Tideway Tunnel | DPC – HARP United Utilities | Sizewell C |
|---|---|---|---|---|
| Risks | Balance Sheet Risk for existing owners | ▪ Scale and risk were disproportionate to Thames Water ("TW") balance sheet<br>▪ TTT capex was very large multiple of TW's annual capex and material portion of its RAB | ▪ United Utilities would not consolidate SPV onto its balance sheet due to its carved out (DPC) structure. This frees UU balance sheet for large existing investment programme | ▪ Greenfield mega-capex construction project unable to be delivered on a conventional corporate balance sheet |
| | Long construction period | ▪ Duration of 8-13years spanning across regulatory periods, political cycles and market environments | ▪ Project to be delivered over 9 years within a live water supply system | ▪ 10-12 year construction period spanning multiple regulatory periods and market environments (rates/inflation) |
| | Cost overruns and impact on financeability | ▪ Complex and prolonged infrastructure projects are prone to cost overruns increasing financing needs during construction | ▪ Interface with existing infrastructure and long construction period can lead to extended timelines and increased construction costs | ▪ Nuclear construction has a track record of high complexity with high risk of cost overruns |
| | Risk to equity investors | ▪ Asymmetric downside due to project's complexity and construction duration with the capped upside of a regulated asset | ▪ DPC consortium undertaking the construction risk and the elements associated with that | ▪ Substantial tail risk with major liquidity implications |
| What each model addresses | | ▪ Revenue through long (8-13yr) construction period<br>▪ Manages interface with Thames Water for capital (availability-based revenue)<br>▪ Provides inflation-linked, long-dated cash flows<br>▪ Government support package limits the level of overrun risk for equity; this and liquidity measures enable high leverage financing | ▪ Brings PPP-style delivery discipline<br>▪ Removes demand and revenue risk<br>▪ Caps exposure of the incumbent utility | ▪ Many of the same benefits of the TTT model due to long construction period<br>▪ Stronger government support package tailored for nuclear sector; creates HMG as effective lender of last resort<br>▪ Remove wholesale power price risk<br>▪ Use of HMG as shareholder given significant need for equity and NWF as debt guarantee to support liquidity at vfm levels |

# **Market Context** | Recently Used Large Scale Delivery Models (2/2)

We have chosen to focus on 3 precedent transactions which illustrate a range of risks critical to bringing each project to life

| | Thames Tideway Tunnel | DPC – HARP United Utilities | Sizewell C |
|---|---|---|---|
| Revenue model | RAB | DPC / PPP unitary style model | RAB |
| How its addressed (models' core characteristics) | ▪ Standalone ring-fenced RAB, separate from Thames Water with real WACC set by Ofwat<br>▪ Revenue during construction on CWIP ("Construction Work in Progress") allowing for return to investors during that period<br>▪ Upfront principles on how construction costs would be treated (i.e. efficient and allowable costs)with almost automatic logging up of the RAB. Investors were not relying significantly on regulatory discretion<br>▪ Stable and visible revenue model with charges recovered via a levy on customer water bills | ▪ Competitive procurement of a third-party Special Purpose Vehicle (SPV). Construction risk largely transferred to SPV and subcontractors<br>▪ SPV designs, builds, finances and maintains the asset<br>▪ Unitary-style payments funded through regulated customer charges. Hence demand and volume risk are removed<br>▪ Availability and performance risks still remain ensuring the asset meets the agreed operational standards | ▪ Standalone project structure under the nuclear RAB framework<br>▪ RAB revenue during construction (CWIP-style treatment)<br>▪ Ex-ante clarity on cost recovery principles with limited and clearly defined scope for disallowance<br>▪ Strong government support package to address additional liquidity both during construction and operational phases<br>▪ Liquidity built in ops phases for long unplanned outages<br>▪ Costs recovered via electricity supplier levy |
| Government support | ▪ UK Government Contingent Equity Support as a capital provider above a predetermined cost overrun level<br>▪ Market Disruption Facility in the unlikely event of no access to capital markets | ▪ National Wealth Fund is providing a £300m credit enhancement guarantee to construction consortium supporting the design, build and financing of the project | ▪ Direct government equity participation and debt guarantees through National Wealth Fund alongside private capital<br>▪ Explicit government contingent support during construction in the event of cost overruns and liquidity support ongoing through operations in prolonged unplanned outage |

# Infrastructure market learnings for the Heathrow Expansion Project

Learnings from recent UK mega-infrastructure projects: defining the conditions for scalable, financeable delivery

**Scale, complexity and comparability**

- The proposed Heathrow expansion is comparable in scale and strategic importance to recent UK mega-projects (e.g. Thames Tideway Tunnel, Sizewell C, CCUS (Carbon Capture Usage & Storage) projects)
- These projects show that scale, long construction periods and tail risks do not preclude private investment, provided the framework delivers an acceptable risk-return profile and an acceptable absolute risk limit

**Role of regulatory models**

- Recent experience demonstrates that regulatory delivery models have played a central role in enhancing financeability by: (1) enabling income or cost recovery during construction, (2) allowing risk-sharing and flexibility as project scope and phasing evolves, and (3) supporting multi-phase investment programmes, rather than requiring the investment design and construction approach to be fixed upfront on later phases
- RAB-based models have proven effective for long-duration, complex projects

**Investor appetite and market capacity**

- There is substantial global private capital seeking exposure to high-quality infrastructure, across both debt and equity.
- Capital is, however, highly selective, requiring clear visibility on risk allocation, returns and deliverability. Competition for capital is strong.

**Learning effects**

- New financing and delivery models can take time to establish, but once successfully implemented, investor familiarity and acceptance tend to scale quickly, improving market depth and pricing

**Implications for Heathrow expansion**

- Against this backdrop, and in the context of a potential ~£50bn Heathrow expansion, we have developed criteria to assess alternative regulatory and delivery models relative to the current RAB approach
- These criteria test whether an approach offers scale benefits, additionality in debt and equity capacity as well as deliverability and risk transfer, sufficient to merit further consideration

# **Evaluation Criteria** | Criteria Definitions

We have designed the following 5 criteria to evaluate, from a financeability perspective, each of CAA's proposed models. The criteria are used to score these models against a baseline (Heathrow's RAB and current regulatory model)


**We have reviewed each regulatory model against a baseline of Heathrow's current regulatory model and presented our analysis in a way that allows CAA to compare the models relative to each other**

# Evaluation Criteria | Scoring

| Criteria | Score | Description |
|---|---|---|
| Scale | 1 | Positive impact on Heathrow's credit rating; and/or Delivers overall incremental debt and/or equity market capacity of £5-10bn+ |
| | ½ | Marginal positive impact on Heathrow's credit rating; and/or Marginal overall incremental debt and equity market capacity of >£2bn |
| | 0 | No impact on Heathrow's credit rating; and/or debt and equity market capacity |
| | (½) | Marginal negative impact on Heathrow's credit rating and no incremental funding capacity impact |
| | (1) | Negative impact on Heathrow's credit rating and no incremental funding capacity impact |
| Equity Attractiveness | 1 | Would appeal to mainstream infrastructure equity investors (Heathrow and/or 3rd party investors) and creates clear route to lowering overall cost of expansion |
| | ½ | Would appeal to mainstream infrastructure equity investors (Heathrow and/or 3rd party investors) and creates potential route to lowering overall cost of expansion |
| | 0 | Neutral / marginal appeal to mainstream infrastructure equity investors (Heathrow and/or 3rd party investors) and is unlikely to lower overall cost of expansion |
| | (½) | Marginal negative overall impact when considering new and existing equity investors |
| | (1) | Negative overall impact, deterring both new and existing equity investors |
| Debt Additionality | 1 | Creates a clear route to lowering debt costs (Heathrow and/or 3rd party investors) and improve market capacity across expansion |
| | ½ | Is broadly pricing agnostic but delivers improved market capacity or is market capacity agnostic but improves overall debt pricing |
| | 0 | No improvement in market capacity and debt pricing |
| | (½) | Marginally negative overall impact on debt pricing and / or marginally reduces market capacity |
| | (1) | Negative impact on overall debt pricing and reduces debt market capacity |
| Investor Familiarity & Deliverability | 1 | Good level of precedent & investor familiarity that can be adapted to Heathrow without materially altering existing frameworks |
| | ½ | Good level of precedent in other sectors that can be adapted to Heathrow with some altering of existing frameworks |
| | 0 | Limited precedent in other sectors and/or does not impact deliverability |
| | (½) | Not widely tested model with some identified challenges to deliverability |
| | (1) | Untested model with clear concerns around deliverability in the context of Heathrow expansion |
| Demand & Construction Risk allocation | 1 | Strong potential to improve ability to transfer construction and/or demand risks away from passengers |
| | ½ | Potential for marginally increased ability to transfer construction and/or demand risk away from passengers |
| | 0 | Ability to transfer construction and demand risks away from passengers unchanged |
| | (½) | Potential for marginally reduced ability to transfer construction and/or demand risk away from passengers |
| | (1) | Transfers additional construction and/or demand risks to passengers |

# 3 Evaluation of financeability considerations of regulatory models in CAA's consultation document (CAP 3195)

# Summary of Regulatory Models in CAA's Consultation (CAP 3195)

Below we have grouped the 9 regulatory models in the consultation document into three groups depending upon the level and type of changes proposed

## Group A: Variations of the current regulatory model

These models involve incremental or structural adjustments to the existing Heathrow regulatory framework, rather than fundamental redesign:

1. **Changes to the current capex governance framework**
   a. Changes to capex governance processes
   b. Separating HAL's system planning function from its operational function
2. **Targeted adjustments to the existing incentive regime**
3. **Long-term regulatory framework for expansion**
4. **CAA oversight/mandate of procurement**
   a) Enhanced scrutiny of HAL's approach to procurement - More active CAA involvement in procurement decisions.
   b) Mandate Design and Build contract - Require specific procurement contract structures (e.g., design/build)

## Group B: Interventions to facilitate competition in infrastructure delivery

These models introduce third parties or competitive mechanisms into asset delivery, ownership and operation.

5. **Contract for delivery and operation**
   a) Operation (management contract) - Outsource operational management under contract while retaining key responsibilities
   b) Design, Build, Operate - Third parties design, build and operate some assets under regulated arrangements
6. **Third party builds assets, then transfers ownership to HAL**
7. **Third party continues to own and operate assets**
   a) Wholesale supplier model
   b) Direct competition for airport operation services
8. **Transfer of ownership and operation of an existing asset**

## Group C: New frameworks for setting airport charges

These models change how prices are set or regulated, rather than how assets are delivered:

9. **New frameworks for setting airport charges**
   a. Price benchmarking
   b. Long-Run Incremental Cost (LRIC)
   c. "Lighter touch" regulation

# **Reg Model 1a |** Changes to capex governance processes

**Overview of model 1a:** This model looks to adjust governance arrangements for how Heathrow's capital expenditure is planned and approved, including enhancing the assessment of over/underspend of capex efficiency. Airlines often struggle to assess these projects due to information asymmetry between HAL and airlines. The model proposes to provide greater scrutiny of cost efficiencies via independent 3rd party advisors, assuring the appropriate amount of information is provided in a timely manner to airlines from HAL and strengthening the role of airlines so they are able to better review and challenge HAL's proposals at earlier stages of planning.

Assumption: For the purposes of this we have assumed the process would remain streamlined and avoid undue inefficiencies or delays

**Scale: 0 marks**

- No impact on scale as this regulatory model is set to provide a higher level of governance to decrease information asymmetry between airlines and HAL, and provide timely information
- This will not increase access to debt and equity market capacity as this a purely governance intervention

**Investor Familiarity & Deliverability: 1 mark**

- Investors are very familiar with requests from 3rd parties and regulators for additional transparency and information
- This proposal builds on existing processes which should mean lower deliverability & timing risk
- On implementation, care needs to be taken on defining materiality levels and blocking rights to ensure this process runs smoothly

**Equity Attractiveness: 0 marks**

- **HAL:** Enhanced third-party and airline scrutiny may improve cost discipline, but is unlikely to materially change HAL's risk-return profile or cost of equity
- **Incoming investor(s):** The model does not create a standalone investment opportunity or materially change the equity risk-return profile, thus is unlikely to attract new sources of equity capital

**Demand & Construction Risk Allocation: ½ marks**

- Demand risk allocation is unchanged as this model only providers higher scrutiny and information transparency before decisions are made on which projects to construct
- Potential marginal improvement in construction risk allocation via the additional transparency (provided it is collaborative)

**Debt Additionality: 0 marks**

- Debt lenders will not be directly impacted by these changes as they relate only to governance
- The model incentivises HAL to be more efficient and makes the process more transparent between airlines and HAL but does not impact debt capacity or cost of debt

**Overall Assessment: 1.5 marks**

- Additional governance to facilitate scrutiny and timely information from HAL to airlines is positive, however is unlikely to materially impact financeability as there is no clear impact to debt and equity attractiveness and additionality

# **Reg Model 1b |** Separating HAL's system planning function from its operational function

**Overview of model 1b:** The model aims to distinguish investment planning from day-to-day operations. Currently, HAL is the main coordinating body that determines which projects need to be undertaken and when, and runs the construction, financing and operations of these assets. The model aims to address potential conflicts of interest arising from combining these functions and proposes various ways of separating the two functions, including physically separating the staff, IT systems and offices, or separating legal entities with transfer of ownership to a 3rd party (similar to NESO in the UK).

Assumption: that HAL's system planning function is separated from operational function ahead of the decisions on expansion

**Scale: 0 marks**

- Under this model we would expect a small proportion of HAL's people & operations be moved to a new body which will have a relatively small balance sheet
- This model is primarily focussed around improving governance, oversight and planning for expansion. From a pure financing and funding perspective we would not expect this model to deliver any scale benefits in and of itself

**Investor Familiarity & Deliverability: -1 mark**

- This model represents a material departure from HAL's current operating and regulatory structure, and appointing a strategic body to a single asset business appears to be over specified
- The separation and setting up of the new entity is likely to take years, creating a risk to delivery against government expansion timelines (i.e. NESO transition took 6 years and Ofgem relied heavily on National Grid to execute this separation)

**Equity Attractiveness: -1 mark**

- **HAL:** Separating planning from delivery reduces HAL's control over investment decisions and shifts its role toward a contracted operator, weakening its current equity proposition
- **Incoming investor(s):** The model does not create a standalone investment opportunity and added interface risks are unlikely to attract new equity capital and may be seen as a slight negative

**Demand & Construction Risk Allocation: -1 mark**

- Traffic and revenue risk remain primarily with HAL. We expect that the new planning body will have a very small balance sheet and be unable to take construction or operational risks
- If the new body designs the expansion and HAL delivers it, this increases coordination complexity, elevating construction risk and potentially introducing ambiguity and accountability between HAL and the decision body

**Debt Additionality: 0 marks**

- Lenders will continue to underwrite R3 primarily to Heathrow's standalone regulatory and traffic risk profile
- As a strategic body we expect the new entity will be set up with a small balance sheet (like the ESO) which will have a negligible ability to attract new funding into the expansion programme

**Overall Assessment: -3 marks**

- Overall financeability is impacted negatively due to significant change in HAL's equity proposition and lower equity returns, which will narrower HAL's investor base
- Separation will also increase construction and interface risk

# **Reg Model 2 |** Targeted adjustments to the existing incentive regime

**Overview of model 2:** Model looks to modify specific incentives within the current regulatory framework to better align outcomes with desired performance. These include, adjustments to share of capital cost under/overspends borne by HAL from 25% to other proportions depending upon how well HAL is able to forecast and control them or limiting HAL's exposure to extreme cost overruns such as using a cap on total cost overruns. The model also proposes amending ex-ante incentives such as enabling cost allowances and Delivery Obligations to avoid project delays, finalising cost allowances before information is available, or provisions to allow cost allowances to be reopened in specific circumstances.

### Scale: 1/2 marks

- This doesn't deliver incremental debt and equity at scale per se (it will depend on the details)
- The ability to adjust overspend/underspend sharing and reopeners are very useful levers for CAA to adjust and refine the regulatory regime to create the optimal model to attract equity and debt at sufficient scale

### Investor Familiarity & Deliverability: 1 mark

- The model is well-understood by both debt an equity investors and can be implemented relatively easily within the existing regulatory framework and avoiding structural complexity.
- Ex-ante allowances, delivery obligations, and defined reopeners can reduce regulatory friction, speed decision-making, and improve alignment between HAL, airlines, and the regulator

### Equity Attractiveness: 1/2 marks

- **HAL:** increasing HAL's exposure to cost risk would compress returns and reduce value; introducing reopeners or cost caps would provide downside protection/ support investor confidence, with the overall impact likely to be balanced
- **Incoming investor(s):** Improved incentives/downside protection are good levers to improve investor proposition. Impact will depend on detail but a good lever for CAA to attract new investors

### Demand & Construction Risk Allocation: 0 marks

- Incentive changes on capex delivery do not materially shift exposure to passenger volumes or airline willingness-to-pay.
- Cost caps and reopeners can limit tail-risk from extreme overruns and improve bankability, but higher baseline cost sharing increases HAL's exposure to delivery performance and forecasting accuracy.

### Debt Additionality: 1/2 marks

- Greater regulatory flexibility (reopeners, cost caps, ex-ante allowance adjustments) can improve lender confidence around extreme downside scenarios. However, pushing more cost risk on equity can put pressure on ratings
- As such, the impact of this on debt additionality will depend on whether it pushes more or less risk onto equity

### Overall Assessment: 2.5 marks

- This measure could be positive or negative depending on details – it is a useful lever in any model to adjust to incentives to optimise the balance of risks between customers, investors and lenders
- Our assessment reflects a view that CAA is unlikely to progress this policy if it is substantially negative for debt and equity given the need to generate interest from the market

# **Reg Model 3 |** Long-term regulatory framework for expansion

**Overview of model 3:** Proposes creating a bespoke, long-term regulatory regime, rather than relying on standard five-year price control cycles. It allows regulatory decisions to be better aligned with construction timelines and project delivery milestones. Overall, the aim is to improve financing efficiency and ensure risks are allocated more appropriately for large-scale infrastructure investment. The CAA could lengthen the price control period for both BAU and expansion or specific components of the price control, such as WACC, profiling and capital governance.

Assumption: We have evaluated this assuming that the CAA fix a WACC premium above the BAU WACC over the construction period (and done an initial valuation 3 high level versions of how this might be implemented see appendix 1)

### Scale: 1 mark

- Expected to positively impact HAL's credit rating as agencies have specifically noted risk relating to the mismatch of expansion length and price control periods. However, not a full notch uplift.
- Certainty of a WACC premium over a longer price control period would attract both new equity and debt investors, allowing HAL to access market capacity

### Investor Familiarity & Deliverability: ½ marks

- Investors and lenders are familiar with this model i.e. Sizewell C and Portsmouth Water's Havant Thicket Reservoir, therefore can get comfortable fairly quickly and expect existing investors to view this change favourably. Wholesale changes to BAU WACC / price control would introduce further complexity
- Implementation should be reasonably quick if it fits within CAA's powers

### Equity Attractiveness: 1 mark

- **HAL:** As the price control period matches the investment period, the regulatory uncertainty is reduced which we would expect to be seen positively from Heathrow's lenders/rating agencies and investors.
- **Incoming investor(s):** The premium and longer-term certainty are attractive to new equity investors leading to potentially increased competition and lowering cost of equity

### Demand & Construction Risk Allocation: 0 marks

- This model does not necessarily transfer construction risks away from passengers as the delivery mechanism is not impacted by this model. It does not alter the existing BAU revenue risk dynamics
- CAA should focus on getting value for money by leveraging the longer-term certainty on WACC premium therefore pushing more risk onto equity

### Debt Additionality: ½ marks

- HAL's credit rating may improve marginally from this which we see as a good ratings defence strategy rather than improvement
- As such, the cost of debt impact is not expected to reduce significantly but defending the rating will maintain broad investor confidence and capacity
- Wholesale changes to BAU WACC/price control (e.g. moving to 7-10 years may create ratings risk as they recalibrate from the established 5 year model

### Overall Assessment: 3 marks

- We expect longer term certainty would be viewed positively by equity and debt investors on the basis it aligns with the construction period
- Implementation should avoid disrupting the BAU WACC framework; the charge profile seen by rating agencies, investors and lenders matters more than the precise form (see appendix 2 for further details)

# **Reg Model 4a |** CAA oversight/mandate of procurement - Enhanced scrutiny of HAL's approach to procurement

**Overview of model 4a:** Model proposes CAA would exercise oversight on HAL's primary responsibility for its approach to procurement. By CAA having more oversight, CAA would ensure there was competitive tendering for some or all elements of the design and build where appropriate. CAA would look to review HAL's procurement strategy, monitor major tenders and provide observations or require justification from HAL where it considered that competition had not been used effectively. CAA's emphasis would be on transparency and assurance that HAL is pursuing efficient, value-for-money outcomes. The role of CAA envisaged in 4a is more oversight & scrutiny of HAL's approach (compared to 4b where CAA envisages taking on a more directive approach to mandate HAL's procurement strategy for certain assets).

**Scale: 0 marks**

- Very marginally positive as additional regulatory oversight will provide more checks and balances and could help reduce costs
- At the margin, this additional regulatory oversight (and CAA "buy in") could give comfort to investors on their expansion procurement plan

**Investor Familiarity & Deliverability: 1 mark**

- Investors are familiar with regulators providing oversight on debt/ financing procurement strategy (i.e. debt funding competition in the UK Carbon Capture Usage Storage (CCUS) market) and similarly in the Interconnector regime; On the ASTI programme it has developed tighter incentives but streamlined the governance process compared to the programme that preceded it
- However, additional resources would be required for the additional governance from both CAA and HAL

**Equity Attractiveness: ½ marks**

- **HAL:** CAA oversight may strengthen investor confidence by endorsing procurement decisions, but increased scrutiny could slow decision-making if not streamlined
- **Incoming investor(s):** Improved transparency may provide incremental comfort, but the model is unlikely to attract new equity on its own as it does not change the overall investment proposition

**Demand & Construction Risk Allocation: 0 marks**

- The additional oversight associated with this model has the potential to shift construction risk away from passengers if HAL is able to push more construction risk onto the supply chain delivering the projects – but this will need to be explored further with technical advisers
- This model is unlikely to impact demand risk allocation

**Debt Additionality: 0 marks**

- This is a procurement strategy change and therefore is not going to change or attract additional debt investors
- We also do not expect credit rating agencies to see this as a major positive, as both debt and credit rating agencies are more concerned about who is the supplier rather than the strategy by which they are procured

**Overall Assessment: 1.5 marks**

- This regulatory model could have a marginally positive impact on financeability, given investor familiarity, further comfort for equity investors via joint decision making
- We cannot see a clear path to reducing risk here – the bulk of the marks are allocated because we think it is relatively straight forward to implement

# **Reg Model 4b |** CAA oversight/mandate of procurement - Mandate Design and Build contract

**Overview of model 4b:** The model proposes CAA would require HAL to procure certain assets through one or more design and build contracts, therefore obliging HAL to tender competitively whereby CAA or an independent 3rd party would specify the design and construction works package. Essentially, ensuring that there is oversight from CAA on which activities will be outsourced. HAL would retain ownership, financing and operational responsibility throughout and would bear ultimate responsibility for managing and coordinating its contractors.

Assumption: HAL would specify the design and construction works, and CAA would prescribe a particular approach to procurement, which CAA would either run or require HAL to run

**Scale: 0 marks**

- Very marginally positive as additional regulatory oversight will provide more checks and balances and could help reduce costs
- At the margin, this additional regulatory oversight (and CAA "buy in") could give comfort to investors on their expansion procurement plan

**Investor Familiarity & Deliverability: 1/2 marks**

- The structure aligns with established regulated infrastructure and PPP procurement models, preserving comfort for both equity and debt investors
- Clear work packaging and mandated tendering can improve transparency and contractor performance, but additional bureaucracy is likely to slow implementation more than in 4a

**Equity Attractiveness: 1/2 marks**

- **HAL:** CAA-mandated procurement may increase investor confidence through regulatory endorsement and cost assurance, but reduced managerial flexibility and added oversight could slow decision-making, creating potential for delays
- **Incoming investor(s):** Improved procurement certainty may increase investor comfort, but the model is unlikely to attract new equity as the investment structure remains unchanged

**Demand & Construction Risk Allocation: 0 marks**

- This measure may have a marginal positive impact on construction risk via the additional oversight
- However, as the CAA is being more directive on procurement in this model this may be offset by creating more recourse to CAA in downside scenarios, potential for ambiguous accountability
- This model is unlikely to impact demand risk allocation

**Debt Additionality: 0 marks**

- This is a procurement strategy change and therefore is not going to change or attract additional debt investors
- We also do not expect credit rating agencies to see this as a major positive, as both debt and credit rating agencies are more concerned about who is the supplier rather than the strategy by which they are procured

**Overall Assessment: 1 mark**

- In this model, we see CAA stepping up from an oversight role to mandating procurement strategy
- In common with model 4a we think this is marginally positive on financing and investor familiarity
- Potential for ambiguous accountability for outcomes between CAA and HAL

# **Reg Model 5a** | Contract for delivery and operation - Operation (management contract)

**Overview of model 5a:** HAL would retain ownership, the design and build role but would outsource day-to-day operations of an asset to a 3rd party under a competitively tendered managed contract. CAA would require HAL to benchmark operations through contracted-out management or approve management contracts as part of its capex/opex plans. HAL would remain financially responsible for the asset and would continue to bear revenue risk. The 3rd party operator would be paid a fee by HAL under the terms of the contract either through availability payments or performance-linked fees, which would be recovered from consumers through airport charges. An example of this is UK's rail operations model including London Overground and the Elizabeth line which operate on concession agreements for operations, with TfL[1] retaining all revenue risk.

Assumption: Whilst evaluating this model we have assumed the 3rd party has a similar experience, track record and credit rating as HAL, and the asset is the terminal

**Scale: 0 marks**

- No impact as HAL is constructing the asset and this only lowers some operational costs for HAL if the 3d party is able to deliver the services at a lower cost
- As a services provider the 3rd party is not likely to bring material capital into Heathrow and the operators typically have small balance sheets and are unlikely to take much risk

**Investor Familiarity & Deliverability: ½ marks**

- This is familiar to investors and we would expect strong interest from outsourcing specialists, but as an operational contract, it would not mobilise significant amounts of new investment
- Deliverability is a positive as the model can be developed alongside construction therefore developing this model does not interfere with construction delivery timelines

**Equity Attractiveness: ½ marks**

- **HAL:** Competitive outsourcing may improve cost efficiency and create potential savings that benefit shareholders, although HAL retains full revenue and asset risk
- **Incoming investor(s):** The model is unlikely to attract mainstream infrastructure equity but would attract interest from outsourcing and service operators who are more capital lite

**Demand & Construction Risk Allocation: 0 marks**

- No impact to construction risk as HAL is constructing the asset
- The model does not allow for the 3rd party to take on demand risk as its paid on an availability-based payment
- As a management services company, the 3rd party cannot take any risk as they likely do not have a balance sheet to take the risk on

**Debt Additionality: 0 marks**

- No impact expected. Even if the outsource provider brings incremental expertise, this is unlikely to be sufficiently material to move the needle on rating
- Debt investors will not differentiate significantly; therefore we believe there will be no improvement in market capacity and debt pricing.

**Overall Assessment: 1 mark**

- Has no impact no material impact on scale and is unlikely to attract mainstream equity investors but rather outsourcing/service companies with small balance sheets
- This model is unlikely to materially impact debt or equity financeability given the lack of scale

*1: Transport for London*

# **Reg Model 5b |** Contract for delivery and operation - Design, Build, Operate (DPC Model)

**Overview of model 5b:** A competitively procured partner would be responsible for designing, building and operating and financing a new asset on HAL's behalf with a pre-agreed commercial contractual structure. The 3rd party contractor has a greater incentive to ensure that the design and build is fit for purpose, as it would then be exposed to the operational risk associated with providing services under the management contract. An example of this model is the Direct Procurement for Customers (DPC) framework that Ofwat has developed and implemented.

Assumption: we are presuming that the 3rd party would be exposed to the risk of the asset producing the desired outcome and for pre-agreed levels of availability without assuming any demand risk. The funding stream for this would be out of current airport charges. It's assumed the new terminal construction is the asset the 3rd party will deliver.

**Scale : 1 marks**

- The DPC model has a proven ability to work. Despite not having been tested at the £1 billion+ scale of other models (e.g. RAB) we believe this model can attract investment at scale
- Opening up a significant capex project within the Heathrow campus to 3rd party investment will attract global interest from major infrastructure investors who have invested in similar models

**Investor Familiarity & Deliverability: 0 marks**

- Investors are increasingly getting familiar with this model, with a number of projects in the pipeline using a DPC model in the UK, with the recent closing of United Utilities' HARP
- However, to date implementation has been slow, with HARP DPC taking c.6 years. This model is unproven in the UK aviation context and will take time to adapt and implement

**Equity Attractiveness: 1 marks**

- **HAL:** Model reduces delivery risk, supports cost certainty while limiting development upside and introducing long-term payment obligations; CAA should look to ensure revenue structure avoids materially weakening Heathrow's demand risk profile
- **Incoming investor(s):** Attractive to infrastructure investors due to availability-based, long-term contracted revenues from a high profile 'trophy' infrastructure asset

**Demand & Construction Risk Allocation: ½ marks**

- The construction risk allocation would be negotiated between Heathrow and the 3rd party provider. 3rd party would need to be well capitalised to mitigate risk of cost overruns/non-delivery
- There is a risk that Heathrow ends up taking a disproportionate share of demand risk in this model which we expect they will try to push this back to customers

**Debt Additionality: 0 marks**

- The new 3rd party investor and different risk profile (availability based) would likely attract incremental debt capacity via new lender relationships or structures. However, credit rating agencies may treat HAL's availability payment obligations as debt-like, which could weaken its credit metrics.
- This needs to be considered alongside the impact on Heathrow and whether by giving an availability-based revenue stream to the new investors puts additional demand risk onto Heathrow.

**Overall Assessment: 2.5 marks**

- The full application of the DPC model would be a very attractive investment for global infrastructure equity investors
- The availability-based nature of the revenue model risks weakening Heathrow to the benefit of the 3rd party investor which reduces the current score – we recommend CAA consider whether a more balanced demand risk share could be more efficient, particularly if deploying this model for larger projects

# **Reg Model 6 |** Third party builds assets, then transfers ownership to HAL on construction

**Overview of model 6:** This model proposes a 3rd party designs, finances and builds a new asset but upon completion the asset is transferred to HAL's ownership, therefore HAL becoming the long-term owner and operator of the asset, with asset entering HAL's RAB. The price which HAL would pay the 3rd party for the assets which are then added to HAL's RAB would need to be determined either before construction or after construction.

Assumption: we assume the asset is the new terminal

**Scale: -1 marks**

- In our experience greenfield infrastructure investors want to invest in assets long term, taking construction risk up front and being rewarded for the risk over a long operations period
- This model shifts the investor base from long-term infrastructure capital to contractors and short term development equity which we are not sure exists in sufficient scale at competitive cost

**Investor Familiarity & Deliverability: -1 marks**

- This model is familiar in the renewables market, where a developer builds the asset and then sells for a development premium.
- However this works due to the yield compression upon aggregation as individual assets are too small for institutional investors. We expect a large premium to compensate the investor as they would need to make their return over a very short period (it is more normal in infrastructure for this to be 20+ years) leading to a large cash call on Heathrow

**Equity Attractiveness: -1 marks**

- **HAL:** Upside from development-phase value creation is removed
- **Incoming investor(s):** Offers construction-margin returns rather than infrastructure-style, long-term yields, narrowing the pool to contractors and specialist development capital rather than mainstream infrastructure investors

**Demand & Construction Risk Allocation: ½ marks**

- As the 3rd party is building the asset, the construction risk would be borne by the 3rd party reducing the risk for HAL and passengers
- Demand risk for the new asset however will be borne by HAL as it isn't clear how this could be transferred to the 3rd party provider (but there is potential scope in the negotiation for certain risks to be pushed back to customers)

**Debt Additionality: ½ marks**

- Potential rating agency concerns around the structure of HAL's purchase obligation post construction needs to be considered against removal of construction risk from HAL
- The 3rd party would need to have a very strong balance sheet– we would expect such an investor to be able to bring some incremental debt capacity into the expansion programme

**Overall Assessment: -2 marks**

- Mainstream infrastructure equity investors seek out long-term cashflows and returns after a project has been built rather than premiums immediately after construction
- Large cash payment requirement would put a significant liability on HAL which would need to be managed carefully to avoid a negative ratings impact

# **Reg Model 7a |** Third party continues to own and operate assets - Upstream supplier model (CATO Model)

**Overview of model:** This model proposes a 3rd party designs, finances and builds the asset and also retains ownership and operates the asset. The 3rd party would recover its required revenues through a charge to HAL. CAA could modify HAL's licence to require HAL to pay the charge, which HAL would then be permitted to recover through airport charges levied on users. The 3rd party would be appointed on a competitive basis and the airport charges would be set on the basis of the winning bid. The model is similar to that of a CATO in the UK.

Assumption: the 3rd party would not bear any demand risk, but would bear full construction risk

**Scale: 1 mark**

- Although the CATO model itself is unproven, similar models have a proven ability to work at scale, having delivered very large investments in the water, energy and aviation sectors
- Opening up a significant capex project within the Heathrow campus to 3rd party investment will attract global interest from major infrastructure investors who have invested in similar models

**Investor Familiarity & Deliverability: 0 marks**

- The structure aligns with the expected CATO model, the structure for which is well progressed, and we have seen strong investor interest in it, but it remains untested on delivery.
- The CATO structure has been under discussion for at least 10 years and required primary legislation.
- This model is untested in the UK aviation context

**Equity Attractiveness: 1 mark**

- **HAL:** Explicit that recovery is coming from passenger charges (lessens impact on Heathrow compared to 5b as it appears to offer a clearer sharing of demand risk)
- **Incoming investor(s):** The model creates a clear, long-term, regulated-style revenue stream for third-party owners, opening the opportunity to a larger investor base who are seeking stable, asset-backed returns

**Demand & Construction Risk Allocation: ½ marks**

- Design, build, and lifecycle risk sits fully with the third party, removing some construction risk from HAL
- While HAL remains exposed to passenger demand, the third-party benefits from a regulated or availability-style charge which it recovers from passengers

**Debt Additionality: ½ marks**

- The 3rd party would need to have a very strong balance sheet – we would expect such an investor to be able to bring some incremental debt capacity into the programme
- Regulated, license-backed revenues, recoverable through airport charges, provide predictable cashflows
- HAL is likely to require bondholder consents (subject to review)
- As with 5a, credit rating agencies may treat the payment obligations as debt-like, therefore, weakening HAL's credit metrics.

**Overall Assessment: 3.0 marks**

- This model is likely to enhance financeability by broadening the equity and debt investor base, transferring construction and lifecycle risk to well-capitalised third parties, and anchoring revenues in a regulated, license-backed payment framework

# Reg Model 7b | DBFO -Third party continues to own and operate assets - Direct competition for airport operation services (JFK Model)

**Overview of model:** Under this model the 3rd party would directly provide services to users and recover its required revenues from airport users. Therefore the 3rd party will be in direct competition with HAL's own provision of services to users, who would be able to choose between using the 3rd-party or HAL's services. This would incentivise HAL to constrain its costs and improve its services quality to retain or attract users, directly benefiting consumers. HAL will be required to develop and price a wholesale product for airport operations that would be necessary for the 3rd party to offer a complete service to users. CAA would oblige HAL to offer these services and regulate the wholesale cost. This is similar to the JFK International Airport.

Assumptions: this will only be applicable to a new terminal asset and we are not expecting material overcapacity

**Scale: 1 mark**

- This kind of model has a proven ability to work at scale, having delivered very large investments in the water, energy and aviation sectors
- Opening up a significant capex project within the Heathrow campus to 3rd party investment will attract global interest from major infrastructure investors who have invested in similar models

**Investor Familiarity & Deliverability: - ½ marks**

- The structure aligns with the existing JFK New Terminal One structure so has investor precedent (albeit internationally). However, this structure is untested in the UK airport context and will be complex and time consuming to deliver
- We expect implementation to be more complex than 7a given the additional need to create competition and HAL is likely to require bondholder consents (subject to review)

**Equity Attractiveness: ½ marks**

- **HAL:** Need to compete may increase risk & cost of equity, changing the current investment case. Explicit that recovery is coming from users rather than direct from HAL (compared to 5b)
- **Incoming investor(s):** Creates a clear long term revenue stream paid directly to investors, opening the opportunity to investors seeking infrastructure returns with an element of demand risk

**Demand & Construction Risk Allocation: 1 marks**

- Design, build, and lifecycle risk sits fully with the third party, substantially removing construction risk from HAL. In a negative outturn scenario more risk is transferred from customers
- Both HAL and 3rd party are subject to demand risk as they compete with each other to provide services to users directly, thereby this model assumes greater demand risk than in 5b & 7a

**Debt Additionality: 0 marks**

- The 3rd party would need to have a very strong balance sheet – we would expect such an investor to be able to bring some incremental debt capacity into the programme
- Competition in this model is likely to be more rating negative compared to Model 7a for HAL dependent upon level of spare capacity in the terminal
- Revenue flowing directly from customers to the 3rd party reduces the risk of HAL's credit rating metrics being grossed up

**Overall Assessment: 2.0 marks**

- This model broadens the equity investor base and drives consumer-focused efficiency through competition, but introduces higher delivery risks than other models given the need to introduce competition framework over and above 7a
- If there is material spare capacity forecast, then this will increase demand risk resulting in the debt additionality marks becoming negative and equity attractiveness would reduce, reducing the overall attractiveness of this regulatory model relative to others

# **Reg Model 8 |** Transfer of ownership and operation of an existing asset

**Overview of model:** This model would require HAL to transfer ownership and operation of an existing asset to a 3rd party, where the 3rd-party would own, operate and maintain the asset. The 3rd party provider could charge HAL for the provision of the asset or directly compete with HAL in the provision of services to users. In this scenario CAA would still need to find a regulatory and delivery model for HAL's expansion whilst at the same time divesting of an operational asset. Defining boundaries and roles and responsibilities between the 3rd party and HAL are likely to be particularly acute with this model as the existing airport is run as a (non-modular) whole and may be more highly integrated into the overall operation of the airport

**Scale: 1 mark**

- Opening up a large investment opportunity within the Heathrow campus to 3rd party investment will attract global interest from large scale infrastructure investors
- The cost of bidding for an operational asset is significantly lower than bidding a greenfield projects so we would expect this would attract very broad interest

**Investor Familiarity & Deliverability: -1 marks**

- Whilst incoming investors will like this, it is very disruptive from a deliverability perspective (delivery of 2 new models: untangling an existing asset for sale and expansion)
- Aligns with well-established terminal concession and airport asset divestment models, which are familiar to global infrastructure equity and lenders
- Interface management between terminal operator and HAL is critical to avoid service and capacity bottlenecks

**Equity Attractiveness: ½ marks**

- **HAL:** Likely to lead to diversion of significant resources to major divestment and therefore away from expansion. Multi year setback expected if this model was progressed, especially if disputed.
- **Incoming investor(s):** Creates a clear, long-term, asset-backed investment opportunity for incoming infrastructure funds, sovereign wealth funds, and strategic airport operators seeking a trophy UK aviation asset

**Demand & Construction Risk Allocation: 0 marks**

- HAL's risk profile will get more construction oriented as it will lose an operational asset and revenue without injecting any competition during construction phase
- Demand and service-choice risk shifts to the third party if revenues are user-facing, while HAL retains broader system and airline demand exposure. Overall demand risk is unchanged though

**Debt Additionality: ½ marks**

- The 3rd party would need to have a large balance sheet – we would expect such an investor to be able to bring some incremental debt capacity into the programme
- Reaction of HAL lenders will depend on implementation- consents likely more challenging in this scenario (subject to review)

**Overall Assessment: 1 mark**

- This model would attract significant new investor interest and in turn would bring additional debt capacity
- If new buyer of the asset is intended to compete with HAL, we would reduce the debt additionality and equity attractiveness scores in line with 7b
- Very disruptive for CAA and Heathrow to deliver

# **Reg Model 9a |** New frameworks for setting airport charges - Price benchmarking

**Overview of model:** This model proposes developing an alternative approach to setting maximum allowed airport charges by price benchmarking to other comparable airports globally. This can mean that charges may not be directly related to efficient costs, meaning HAL may earn a return that is substantially above or below its cost of capital.

**Scale: -1 marks**

- Price benchmarking does not itself unlock incremental capital or create a vehicle capable of delivering expansion at scale. The model being proposed changes the basis of calculating allowed returns away from regulatory precedent
- Volatility in benchmarking outcomes introduces uncertainty that is likely to constrain long-term capital appetite in the near and longer term

**Investor Familiarity & Deliverability: -1 marks**

- Benchmarking is conceptually familiar to investors (particularly in sectors such as utilities and transport), but its application to a unique, complex asset like Heathrow is less established
- Heightened risk of disputes over peer selection, methodology, and regulatory intervention

**Equity Attractiveness: -1 marks**

- **HAL:** Given HAL's charges are typically higher than peers, we would expect this model (which decouple the setting of allowances from incurred/efficient cost) to be negative and create significant uncertainty in the near and longer term
- **Incoming investor(s):** Higher return variability and regulatory uncertainty are likely to reduce attractiveness for new long-term infrastructure investors who will also be put off by the decoupling of allowances from incurred cost

**Demand & Construction Risk Allocation: -1 marks**

- It remains unchanged under this model, as HAL would retain current levels of exposure to both aspects
- The interaction between benchmarking and expansion capex creates a risk that HAL bears construction and demand risk without full assurance that efficiently incurred costs will be recovered through charges

**Debt Additionality: -1 marks**

- Price benchmarking is unlikely to generate additional debt capacity or materially improve pricing. Debt investors place significant weight on revenue predictability and regulatory stability and benchmarking could be viewed as increasing volatility in future cash flows

**Overall Assessment: -5 marks**

- The model provides a regulatory discipline rather than a financeability solution
- While benchmarking may support efficiency incentives in steady-state operations, it does not meaningfully enhance equity attractiveness or debt capacity for a large-scale, long-duration expansion programme.

# **Reg Model 9b |** New frameworks for setting airport charges - Long-Run Incremental Cost (LRIC)

**Overview of model:** This approach would set the maximum allowed charges by reference to the forecasted costs associated with providing an additional incremental output. For example, building a new terminal, an additional incremental output and operations would be divided by the number of new passengers it would support and this would be the maximum allowed charge that would be set.

**Scale: 0 marks**

- A LRIC-based framework doesn't facilitate expansion of Heathrow at scale. While it seeks to align incremental investment with pricing, it does not create additional balance-sheet capacity or enable third-party capital participation

**Investor Familiarity & Deliverability: 0 marks**

- While LRIC is conceptually understood, there is limited precedent application to complex network-like assets undergoing major expansion
- The lack of established airport expansion precedents using LRIC increases the risk that framework is viewed as untested, reducing confidence in its stability and predictability during delivery

**Equity Attractiveness: -1 mark**

- **HAL:** LRIC increases uncertainty around recovery and timing of returns, as charges linked to incremental capacity may lag capital deployment or fail to fully reflect realised costs
- **Incoming investor(s):** Greater revenue uncertainty and potential cost under-recovery are likely to reduce attractiveness for new long-term infrastructure equity investors

**Demand & Construction Risk Allocation: 0 marks**

- HAL retains full construction and demand risk, with limited assurance that these risks are appropriately compensated through the charging framework
- If demand projections underpinning LRIC prove optimistic, HAL may bear the downside through under-recovery of costs despite having committed capital. As a result, the model does not improve the ability to transfer construction or demand risk away from passengers

**Debt Additionality: -1 mark**

- Debt investors are likely to view LRIC as increasing revenue volatility relative to more traditional regulatory approaches. The dependence on demand forecasts and cost allocation assumptions may weaken visibility over future cash flows
- The model is unlikely to unlock incremental debt capacity and may exert upward pressure on pricing/ covenant

**Overall Assessment: -2 marks**

- The model provides limited protection against the risks associated with long construction periods, cost overruns and demand uncertainty and is likely to weaken investor confidence

# **Reg Model 9c |** New frameworks for setting airport charges - "Lighter touch" regulation

**Overview of model:** This model allows the airport operator more freedom on setting prices and managing operations and could involve relying more on commercial agreements and voluntary commitments, instead of more detailed price controls that set maximum charges. It would involve no formal price cap with the regulated entity publishing a set of non-binding commitments and allows the operator more flexibility in responding to market conditions but has reduced scrutiny over costs and charges.

**Scale: 0 marks**

- A lighter-touch regulatory framework does not directly facilitate delivery of Heathrow expansion at scale. HAL would remain solely responsible for financing and delivering the expansion, with no structural mechanism to attract third-party capital or ring-fence expansion risk
- The absence of a clearly defined ex-ante revenue and cost recovery framework would put limitations on committing capital at scale

**Investor Familiarity & Deliverability: -1 marks**

- The potential for greater discretion or ex-post intervention under a lighter-touch approach may be perceived as increasing regulatory uncertainty rather than reducing it
- Potential for disagreements between airlines and HAL are likely to be heightened during expansion and having a regulator in between the parties helps to resolve disputes
- The absence of a regulator is likely to mean disputes go on longer and are more complicated to resolve, lead to potential delays

**Equity Attractiveness: -1 mark**

- **HAL:** Greater pricing flexibility provides commercial upside but increases revenue and regulatory uncertainty and predictability, particularly during long expansion periods when capital is deployed ahead of returns
- **Incoming investor(s):** Reduced regulatory protection and cashflow predictability are likely to weaken attractiveness for long-term infrastructure equity investors

**Demand & Construction Risk Allocation: -1 marks**

- HAL would retain full exposure to construction and demand risk, with limited regulatory mechanisms to mitigate or rebalance these risks during delivery. This may exacerbate concerns around cost overruns, delays and demand variability
- Increased risk of ex-post regulatory intervention if outcomes diverge from expectations, increasing uncertainty around risk allocation during construction phase

**Debt Additionality: -1 mark**

- Debt investors are likely to view lighter-touch regulation cautiously during an expansion period as lenders typically prioritise revenue certainty and regulatory protections especially in infrastructure assets of large scale and strategic importance
- Unlikely to unlock incremental debt capacity and could lead to more conservative leverage assumptions

**Overall Assessment: -4 marks**

- The model presents material financeability challenges for a Heathrow expansion of this scale and duration. The reduced predictability of revenue and cost recovery during a prolonged construction phase is likely to weaken equity confidence and constrain debt capacity

# Overall Evaluation

| Evaluation Criteria | | Scale | Equity | Debt | Familiarity & Deliverability | Risk Allocation | Overall Assessment |
|---|---|---|---|---|---|---|---|
| Variations of the current regulatory models | 1a | - | - | - | 1.0 | ½ | 1.5 |
| | 1b | - | (1.0) | - | (1.0) | (1.0) | (3.0) |
| | 2 | ½ | ½ | ½ | 1.0 | - | 2.5 |
| | 3 | 1.0 | 1.0 | ½ | ½ | - | 3.0 |
| | 4a | - | ½ | - | 1.0 | - | 1.5 |
| | 4b | - | ½ | - | ½ | - | 1.0 |
| Interventions to facilitate competition in infrastructure delivery | 5a | - | ½ | - | ½ | - | 1.0 |
| | 5b | 1.0 | 1.0 | - | - | ½ | 2.5 |
| | 6 | (1.0) | (1.0) | ½ | (1.0) | ½ | (2.0) |
| | 7a | 1.0 | 1.0 | ½ | - | ½ | 3.0 |
| | 7b | 1.0 | ½ | -½ | -½ | 1 | 1.5 |
| | 8 | 1.0 | ½ | ½ | (1.0) | - | 1.0 |
| New frameworks for setting airport charges | 9a | (1.0) | (1.0) | (1.0) | (1.0) | (1.0) | (5.0) |
| | 9b | - | (1.0) | (1.0) | - | - | (2.0) |
| | 9c | - | (1.0) | (1.0) | (1.0) | (1.0) | (4.0) |

# Strategic Observations

The assessment of regulatory options narrows the field toward a small set of financeable, deliverable regulatory models, providing a clear basis for deeper refinement and targeted next-step analysis

## Positive Scores

- The regulatory model variation that scored the highest was providing longer term certainty (model 3) : the scorings were positive across the criteria.
- The 3rd party capital models 5b (DPC), 7a (CATO) and 7b (JFK) all scored well and within a narrow range (5b scores slightly lower as it has a more negative impact on Heathrow) and we would recommend the details of these models be fleshed out in more detail in the next steps so the differences and similarities can be sharpened
- Models 1a (Governance changes), 2 (targeted incentive regime adjustments) scored marginal positives from a financing perspective. Models 4a (CAA procurement oversight) Model 4b (CAA procurement mandate) scored slightly lower as we felt these models create ambiguity on how much risk is passed back to consumers under downside scenarios

## Negative Scores

- The Regulatory model variant that scored least well is 1b (NESO model) which we felt was disproportionate to a single asset and likely to be viewed negatively by equity investors
- The interventions that scored least well are 6 (3rd party build, transfer to HAL) and 8 (transfer existing asset).
  - Model 6 – we do not believe there is an active market for this, and it creates a large liquidity obligation on HAL
  - Model 8 – we think that such a fundamental change to HAL's business model will be controversial and almost certainly challenged, and will divert significant resources, therefore making it hard to see how the expansion would proceed
- The new frameworks all scored negatively (9a-9c). We think it will be extremely challenging to progress expansion while altering the revenue model and we had deliverability concerns about moving to lighter touch regulation

**Regulatory models, 5b, 7a and 7b were the highest scoring 3rd party funded models. Given the relative difference between them, we have a reviewed them in a more detail to ascertain the key similarities and differences from a financing and investment perspective in the next two slides.**

# 4 Appendix I

# Reg Model 3 | Comparing alternative constructs

We have looked a little more closely at what the key financing considerations for alternative versions of Regulatory Model 3

## Market Context

- We have seen longer term allowances work for major greenfield construction (RAB) projects such as Sizewell C and Thames Tideway where the **initial regulatory period aligns to the construction period** rather than the traditional 5 year regulatory cycle. Investors like this because it aligns returns better with risk (a 5 year regulatory reset in a 10+ year construction project would have been seen as negative)
- These projects were relatively stand-alone with their WACC either competitively derived (TTT) or negotiated directly with Government (Sizewell C). They benefitted from Government support packages and revenue allowances during construction which were ratings and investor positive
- Portsmouth Water has a RAB of £300m and is undertaking a c.£1bn capex project for Havant Thicket Reservoir on its balance sheet. They have agreed with Ofwat via **a bespoke 2020-2030 price control with the possibility of cost adjustment mechanisms to recalibrate unforeseen costs**. In AMP8, Ofwat also agreed to allow **a bespoke higher WACC for Havant Thicket Reservoir relative to its BAU WACC for 2026 to 2030**. Both of these were seen as positive by investors and rating agencies (particularly as there were unforeseen costs).

## Approach to Heathrow

- Assuming Heathrow fund all of the expansion, CAA is considering how to most efficiently offer longer term certainty to Heathrow's investors. We recommend CAA consider the following in assessing WACC options for the Expansion and BAU. We do not see "Scale" and "Risk Allocation" as key differentiators within the variants of Reg Model 3.

1. **Debt Additionality:** The main differentiator of debt additionality will be ratings. Rating agencies review HAL and other UK regulated entities (water, gas and electricity companies) on a 3-5 year basis. Any **BAU regulatory period length beyond 5 years will lead credit rating agencies to recalibrate to the updated regulatory framework** which is likely to be complex, time consuming and uncertain. For **expansion**, we would expect rating agencies to see the longer-term WACC as logical if it is aligned with the construction period but the importance of this will be outweighed by **other factors such as reopeners, charges/cash flow profile and risk allocation**
2. **Familiarity & Deliverability:** Changing the BAU regulatory framework beyond 5 years means a longer time until the allowances are updated, particularly relating to embedded debt costs, construction costs and passenger volumes, which could create more financial stress if unaddressed for a longer period. If the BAU regulatory period is set to be longer than 5 years, we recommend the CAA have mechanisms in place to **allow for flexibility to address problems earlier**. For example, including **capex reopeners, true-ups and income adjustment mechanisms** which would introduce further complexity and time delays. We would expect an approach whereby changes to the regulatory model prioritise expansion whilst maintaining BAU would be less disruptive.
3. **Equity Attractiveness:** We would expect Heathrow's **investors to prefer to have longer term certainty on the expansion WACC,** have similar concerns to rating agencies about the regulatory period length and share the view that factors such as reopeners, charges/cash flow profile and risk allocation have a more material impact on their investment case

# Reg Model 3 | Comparing alternative constructs

For comparison, we have reviewed three potential approaches to setting WACC under Regulatory Model 3 and flagged the key considerations and directional impact (rather than a fully scored evaluation).

| 1) A WACC premium above the BAU WACC over the construction period | 2) Long-term BAU and expansion WACC: Change of regulatory framework tenor i.e. from 5 years to 7 years/10 years | 3) Long-term Expansion WACC that is reset 7-10 years (separate BAU WACC reset every 5 years) |
|---|---|---|
| **Debt Additionality: improved**<br>**Familiarity & Deliverability: positive**<br>**Equity Attractiveness: unclear**<br>✓ This model preserves the standard 5-year BAU WACC framework which is well understood by rating agencies and aligned to their review cycle<br>✓ It has low complexity as no additional mechanisms are needed for market divergence, BAU is largely preserved<br>? In BAU terms it is well understood but there would be a risk that the WACC premium is reset after 5 years which may not be sufficient to derive a market return given the long term nature of expansion. It may also put additional pressure on short term charges for the premium to be earned over only 5 years | **Debt Additionality: neutral to reduced**<br>**Familiarity & Deliverability: negative**<br>**Equity Attractiveness: unclear**<br>- Creates additional ratings uncertainty as rating agencies recalibrate BAU to 7-10 year<br>- Potential for creating significant complexity, particularly as much of BAU regulatory model moves from its existing 5 year cycle to 7-10 years<br>? This model can provide longer term WACC certainty to equity investors which is positive for expansion but that needs to be weighed against complexity and uncertainty of moving BAU to 7-10 years | **Debt Additionality: improved**<br>**Familiarity & Deliverability: positive**<br>**Equity Attractiveness: positive**<br>✓ This model preserves the standard 5-year BAU WACC framework which is well understood by rating agencies and aligned to their review cycle<br>✓ It has low complexity as no additional mechanisms are needed for market divergence, BAU is largely preserved<br>✓ Potentially better aligned for investors as they get longer term WACC certainty for expansion while keeping the familiar price control for BAU |

- Option 2 appears risky from a ratings perspective and potentially complex because the it changes the whole BAU WACC framework without any clear benefit
- Options 1 and 3 maintain BAU WACC whilst focusing changing only on Expansion WACC which is better aligned with precedent
- Overall, having compared these against each other and precedents, changes to the WACC should focus on expansion and try to maintain and protect BAU as much as possible to minimize uncertainty
- Longer-term WACC for expansion is logical if it is aligned with the construction period but the importance of the precise mechanic will be outweighed by other factors such as reopeners, charges/cash flow profile and risk allocation which have a more material impact on investors, finance and ratings

*Baseline assumption is that HAL does the expansion on a BAU WACC that is reset every 5 years , and the above assessment has been reviewed relative to this*

# 5 Appendix 2

# Comparison of higher scoring 3rd party funded models (1/2)

We see 3 main points of differentiation that distinguish these models from an investor perspective: 1) demand risk vs. availability-based revenues 2) Ownership - HAL paying the 3rd party or direct payments from airport charges; and 3) whether the 3rd party is competing directly with HAL for volumes

| Model | Overview | Design & Construction | Operations | Ownership | Financing | Revenue / Demand Risk |
|---|---|---|---|---|---|---|
| **5b** | DPC Model - 3rd party designs, builds, operates and finances the new terminal | Design & construction risk wholly borne by 3rd party | 3rd party required to achieve pre-agreed levels of availability to receive availability payments | New terminal **owned by HAL and operated on a concession by 3rd party SPV** | 3rd party develops the financing for constructing the terminal given the funding stream are availability payments from HAL | **HAL would pay the 3rd party** for achieving pre-agreed levels of availability through airport charges.<br><br>3rd party does not take on demand risk – **HAL takes demand risk** |
| **7a** | DBFO model with availability based payments from HAL which are directly recovered from passengers | Design & construction risk wholly borne by 3rd party | 3rd party required to achieve pre-agreed levels of availability to receive availability payments | New terminal **owned by 3rd party** | 3rd party develops and implements an efficient financing structure for the terminal given the funding stream are availability payments from HAL | HAL's license would need to be modified such that **HAL would need to pay a charge** to the 3rd party to make the terminal available to customers – **HAL takes demand risk** |
| **7b** | DBFO model and 3rd directly competes with HAL, taking demand risk, recovering revenues direct from passengers | Design & construction risk wholly borne by 3rd party | The 3rd party **directly competes with HAL's** own provision of services to users | New terminal **owned by 3rd party** | 3rd party develops and implements an efficient financing structure | **Users would be able to choose between using the 3rd party or HAL's services - 3rd party takes demand risk** |

**These points of differentiation should be looked at from both a 3rd party model investability and impact on Heathrow perspective**

# Comparison of higher scoring 3rd party funded models (2/2)

| | Investability | 3rd Party SPV Capital Structure | HAL's Financeability Impact |
|---|---|---|---|
| 5b | ✓ DPC models with availability-based, long-term contracted revenues from a high profile 'trophy' infrastructure asset will attract global investor base<br>✓ Likely to attract mainstream investor interest, in particular from financial investors and strategics | ✓ Given availability-based revenue stream without having to take demand risk would allow 3rd party to achieve higher leverage levels<br>× S&P's methodology notes that the 3rd party SPV's bond rating will be at best equal and most likely a 1-notch lower than HAL | ✓ Reduces pressures on HAL relating to capex and supports cost certainty<br>× Limits development upside and introduces long-term payment obligations for HAL<br>× Credit rating agencies (Moodys in particular) may treat payment obligations as a debt-like adjustment, grossing up HAL's balance sheet and weakening its credit metrics |
| 7a | ✓ Provides a clear, long-term regulated revenue stream, appealing to investors seeking stable, asset-backed returns<br>✓ Likely to attract mainstream investor interest, in particular from financial investors and strategics<br>× Not yet proven in the UK, but similar models have worked at scale | ✓ Regulated, license-backed revenues, recoverable through airport charges, provide predictable cashflows which would allow for higher leverage<br>× S&P's methodology notes that the 3rd party SPV's bond rating will be at best equal and most likely a 1-notch lower than HAL | ✓ Takes away construction capex, construction risk and operational risk from HAL's balance sheet<br>× Credit rating agencies (Moodys in particular) may treat payment obligations as a debt-like adjustment, grossing up HAL's balance sheet and weakening its credit metrics |
| 7b | ✓ Creates a clear long term revenue stream paid directly to investors, opening the opportunity to investors seeking infrastructure returns with an element of demand risk<br>✓ This model will narrow the equity investor base towards strategic investors better set up to take demand risk and compete with HAL | ✓ The structure aligns with the existing JFK Terminal One structure so has investor precedent but not in the UK<br>× S&P's methodology notes that the 3rd party SPV's bond rating will be at best equal and most likely a 1-notch lower than HAL. Additional demand risk of competing with HAL will reduce potential rating vs 7a & 5b | ✓ Less potential for rating agencies to gross up HAL's balance sheet as revenue is coming directly from customers<br>× However, HAL will be in direct competition with the 3rd party, and this could impact the Business Risk profile of HAL, putting downward pressure on HAL's credit rating<br>× HAL needs to compete which may increase business risk and cost of capital |

**To summarise - all 3rd party models are likely to attract investors (albeit different types based on revenue model). 5b & 7a will have most mainstream appeal but there is more risk that the SPV's debt is consolidated with HAL. 7a is more investor friendly (direct ownership) but is untested. 7b is less likely to consolidate the SPV's debt with HAL but would bring additional demand risk to both HAL and 3rd party meaning it could weaken both HAL & 3rd party from a rating perspective and is likely to attract less mainstream and more specialist investors**

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