FUNDAMENTAL REFORM OF HEATHROW:

Securing the right long-term model for passengers, airlines and the UK economy

REDACTED VERSION FOR PUBLICATION

Submission to the Civil Aviation Authority, made jointly by Heathrow AOC, Arora Group, International Airlines Group and Virgin Atlantic.

5 February 2025

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Annexes

A. EXECUTIVE SUMMARY

1. This submission is made jointly by Heathrow Airport Operators Committee (AOC), Arora Group, IAG and Virgin Atlantic (together 'the Parties').[1] It explains why fundamental reform of the regulatory model for Heathrow is needed urgently.

2. The current regulatory model is not fit for purpose. It fails to constrain the substantial market power (SMP) held by Heathrow Airport Limited (HAL) in the provision of airport operation services[2] (AOS) at Heathrow. Such SMP incentivises HAL to engage in consumer-harming conduct and the regulatory model fails to remedy this. Even more concerning, the design of regulatory model itself creates additional consumer-harming incentives for HAL. It incentivises HAL to spend capital inefficiently in order to grow its regulatory asset base (RAB), which in turn increases its regulated charges, to the detriment of consumers.

3. HAL's persistent SMP and the inherent weaknesses of the current regulatory regime result in a clear and demonstrable adverse effect on competition and harm to consumers, other users and the economy. Heathrow charges are persistently very high – the highest globally for nearly all of the past decade – and its passenger experience is inadequate and poor value for money. Consumers, other Heathrow users, and the UK economy are being harmed as a result. This situation cannot continue. Relying solely on the regular cycle of periodically recalibrating and incrementally amending the current RAB-based control, and associated mechanisms/processes, will not deliver the required wholesale reform.

4. **The Parties request that the Civil Aviation Authority (CAA) undertakes an urgent and fundamental review of the provision of AOS at Heathrow.** Undertaking such a review, which the Parties consider should be treated as a priority by the CAA, would be consistent with the CAA's duties to further the interests of consumers and keep the provision of AOS under review, in particular. Given that it is more than 15 years since the Competition Commission (CC) undertook the last detailed review of the structure and regulation of the sector, such a review is both appropriate and proportionate.

5. HAL's latest plans for unprecedented levels of irreversible and inefficient capital expenditure, which will result in further consumer harm for decades, make reform particularly urgent. **It is imperative that a fundamental review is completed before any decision on further material capital spending at the airport** – whether under HAL's two-runway masterplan or for a third runway – to avoid further harm to users and consumers.

[1] Information about the Parties is set out in Annex A.
[2] For example, the use of the runways and taxiways, the provision of facilities for check-in, the provision of facilities for baggage handling, security screening, etc.

Heathrow has a unique and critical role for UK consumers and the wider economy

6. Heathrow is the UK's primary gateway to the world and its only hub airport. As the largest airport in London – currently the biggest aviation market globally by a significant margin – it holds a unique structural and commercial position. Airlines operating at Heathrow, which include two home-based carriers and 82 airlines in total, serve over 200 direct destinations worldwide, of which 70 are unique destinations served by airlines solely from Heathrow and from no other London airport.

7. Heathrow's hub status means that its operating airlines deliver 76% of the UK's long-haul connectivity and 70% of the UK's air cargo. Nearly £200 billion of cargo passed through Heathrow in 2023. Trade flows through Heathrow account for 21% of all UK trade and 26% of the UK's total exports by value. Furthermore, passenger aircraft from Heathrow carry around 45% of the UK's non-EU exports.

8. Activities associated with Heathrow are estimated to contribute £12.5bn in GDP while supporting 133,000 jobs. The benefits linked to Heathrow's hub status are felt across the country, not just in London and the South East. Heathrow's hub status means it supports the provision of international and domestic connectivity across the UK. The *Airports Commission* estimated that the majority of economic gains from an improved Heathrow would accrue to other UK regions, and exporters who rely on Heathrow span all nations and regions of the UK.

Economic regulation aims to remedy the adverse effects on competition and harm to consumers from HAL's SMP, but it neither effectively constrains nor incentivises HAL

9. The position that Heathrow holds for passengers, business and the UK economy is derived from its particular combination of structural advantages, including its: position as the operator of the UK's only hub airport and network effects that are not replicated at any other airport in the UK; size as the largest London airport; catchment area serving the largest aviation market globally, including access to the premium passenger catchment in and around London; and good surface access options. Airlines are captive customers – and the market power held by HAL is substantial. That SMP is longstanding and enduring.

10. HAL's complete monopoly on the provision of AOS at Heathrow, and the lack of competitive constraints from other London airports, means that users have no choice but to use AOS from HAL. As a result, and absent effective remedy, HAL has both the ability and incentive to take decisions that are against the interests of consumers and other users.

11. Under the Civil Aviation Act 2012 (CAA12), the CAA has powers to impose *ex ante* regulation on HAL (as a dominant operator) to remedy such harm. Using these powers, the CAA currently sets a Maximum Allowable Yield (MAY), or average price, per passenger at Heathrow – using the RAB-based building blocks model – and imposes a service quality regime, amongst other licence conditions.

12. In exercising its functions, the CAA has statutory duties including its primary duty to "*further the interests of users of air transport services regarding the range, availability, continuity, cost and quality of airport operation services*", including by promoting "*economy and efficiency*" and "*by carrying out the functions in a manner which it considers will promote competition*" in the provision of AOS. In addition, the CAA also has a duty to, so far as it appears practical to do so, keep the provision of AOS under review.

13. However, the current regulatory model at Heathrow is failing to further the interests of consumers, promote "*economy and efficiency*", or promote competition. It does not effectively constrain and incentivise HAL - rather it actively creates harmful incentives for HAL and fails to prevent it acting on those incentives.

HAL has…

Incentives to spend capital inefficiently to grow the RAB	No incentive to ensure commercial activities are NPV positive	Weak incentives to drive operational efficiencies	Weak incentives to be innovative or responsive to user needs

14. **First, HAL has an incentive to spend capital inefficiently to grow the RAB which is used to determine the level of passenger charges.** The provision of AOS is highly capital intensive, so ensuring that HAL invests efficiently is critical to securing good consumer outcomes. But HAL is incentivised to invest inefficiently.

15. Growing the RAB through capital expenditure means that HAL also grows its returns. However, crucially, capital expenditure does not need to be efficient for this effect – inefficiently-inflated capital expenditure also grows the RAB. Once inefficient capital expenditure is included in the RAB, its recovery over time is protected by regulation.

16. Because of this, it is critical that capital plans and expenditures are directly and effectively scrutinised and policed by the regulator. Yet, the CAA's ability to do so is severely limited by the complex and bespoke nature of Heathrow, its infrastructure and the services it provides. This means identifying and demonstrating inefficiency in HAL's capital spend is very difficult, compounding HAL's incentives to pursue inefficiently-inflated capital expenditure.

17. The CAA (and other stakeholders) also face major adverse information asymmetries, which HAL is highly incentivised to preserve. These information asymmetries are even greater given the complexity and unique nature of Heathrow's infrastructure. For example, Heathrow's costs are a function of a very broad range of sub-services (e.g. security, baggage handling, etc) using a similarly broad range of infrastructure. Fully understanding HAL's costs involves having access to granular information about all these sub-services and infrastructures, but also, crucially, how different capital schemes would affect those costs (and, in some cases, revenues). The granularity of cost and revenue information currently available to stakeholders is highly limited compared to the detailed understanding HAL has of its costs and commercial revenues.

18. While the RAB model is used in other sectors, there are specific problems and limitations with applying it to policing the efficiency of HAL's capital expenditure. In other regulated sectors, infrastructure is typically far more standardised and simpler, meaning regulators can, therefore, more readily develop an understanding of the efficient costs of providing the infrastructure. This means the current RAB-based regulation of HAL is less effective, and leads to more harmful incentives, than in other sectors – it is an outlier in UK regulation.

19. This means HAL has both the ability and incentive to pursue 'gold-plated' or otherwise inefficiently and/or disproportionately expensive infrastructure solutions and designs, as recognised by the Competition Commission in its 2009 BAA airports market investigation. An inefficient terminal design, for example, not only increases the charges that users need to pay, by growing the RAB, but also harms the passenger experience (e.g. inefficient designs lead to confusing layouts for passengers and negatively impact connection times, etc).

20. Under the current regime, HAL is the sole party putting forward scheme proposals. Airlines are part of Constructive Engagement, but are not provided with the depth of information required to adequately assess, scrutinise or propose alternatives for consideration. As a result, the airline community is limited to engaging with broad 'all or nothing' investment decisions. This combination of dynamics makes the regulatory process unable to distinguish between necessary and efficient proposed action, and the unnecessary or otherwise inefficient action wrapped around it. This further reinforces HAL's harmful incentives.

21. **Second, HAL does not have an incentive to ensure its commercial activities maximise their contribution to lowering charges.** The intention behind the single-till, which the Parties strongly support, is to ensure that commercial operations maximise their net present value (NPV) contribution in a way that drives the lowest possible aeronautical charges for users of the airport. However, regardless of whether commercial activities are NPV positive, HAL receives a return on the capital deployed in commercial activities (via the RAB), and any costs not recovered through commercial revenues are then funded by regulated charges. This means it does not have an incentive to maximise the NPV contribution of its commercial activities. Indeed, its incentives are to deploy capital irrespective of NPV to maximise returns protected by regulation.

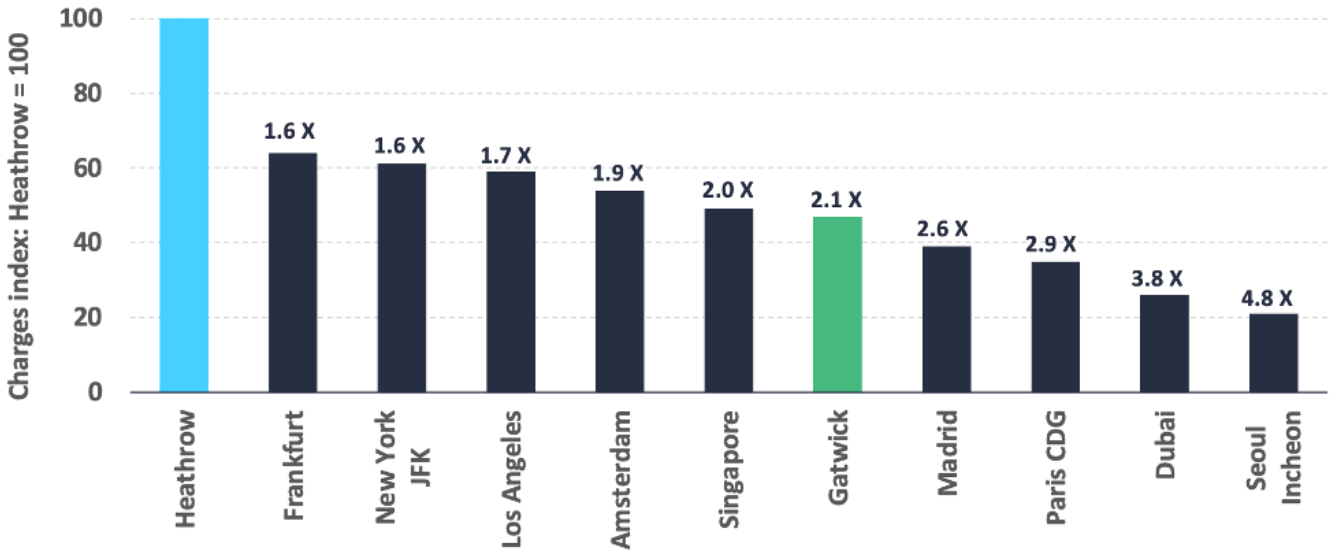
22. **Third, HAL has weak incentives to drive operational efficiencies.** In well-functioning markets, rivalry between firms provides strong incentives to seek out every last operational efficiency. In contrast, because of its SMP, HAL's incentives to pursue all such efficiencies are weak and regulation currently does not effectively remedy them. The CAA is constrained in establishing the efficient costs of operating such a complex and unique business. The price control process creates a short-term focus and dampens the impetus for Heathrow to invest in long-term efficiency improvements.

23. **Fourth, HAL has weak incentives to be innovative and responsive to user needs.** In well-functioning markets, firms have strong incentives to respond to user needs through innovation and investment. However, HAL's market power means it does not need to worry about being innovative and ensuring that it provides a service that meets the needs of consumers or its airline customers. While the regulatory regime does create incentives to invest, those incentives do not ensure that investment is focused on innovations and service improvements that benefit consumers and other users. Even where investment does deliver user experience improvements, there is no inherent incentive for HAL to deliver such improvements quickly – in contrast to its incentive to incur capital costs once approved – as reflected in its vastly expensive masterplan proposals that do not materially improve user experiences until the 2040s.

The current model is failing consumers and the economy

24. By failing to effectively constrain and incentivise HAL, the CAA's current regulatory model cannot remedy HAL's SMP effectively and is failing to further the interests of consumers. It creates incentives for HAL to grow the RAB, which drives exceptionally high charges, that far outstrip those of its international peers, for services that are inadequate and poor value for money.

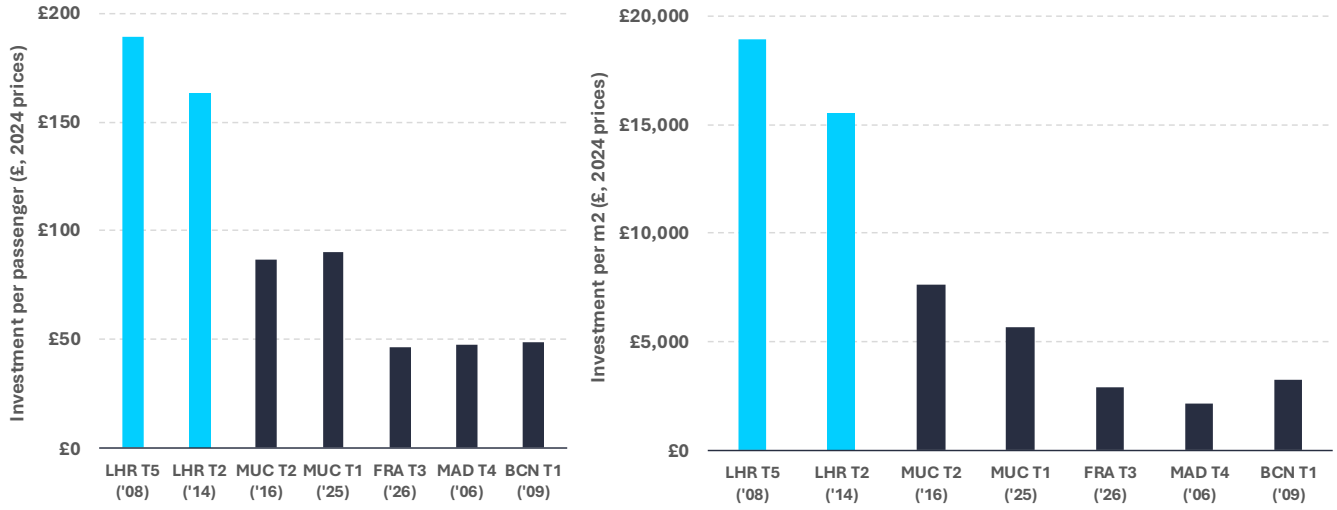
25. **Heathrow's passengers and airlines face the highest charges in the world as a result of HAL not having the right incentives to pursue efficient capital spend and operations.** HAL's airport charges are by far the most expensive in the world, approximately twice as expensive as most other major hubs and Gatwick. Heathrow's users are paying c.£1.1 billion more per year on average than if Heathrow's charges were in line with other European hubs. Heathrow was not always the world's most expensive airport. Since the early 2000s, Heathrow has quickly risen up the rankings and took over the top spot in 2013.



Source: Heathrow Reimagined analysis of Jacobs, Review of Airport Charges, 2024. Note: multipliers above the bars represent how many times more expensive Heathrow's charges are compared to the other airports.

26. **Inefficiently high capital costs, which are a result of harmful incentives to grow the RAB, are a major driver of HAL's charges now being so much higher than all its peers.** HAL's capital costs per passenger are much higher than for European peers Groupe ADP, AENA, Fraport and Schiphol. HAL's operating profit per passenger was more than double Gatwick in 2023.

27. **Consistent with HAL's harmful capital expenditure incentives, its expenditure on new terminals is much higher than its peers.** Capital expenditure by Heathrow is inefficient and ineffective. Heathrow's peers have spent considerably less on their own modernisation activities, meaning that passengers benefit from modern facilities at much lower cost. New terminals at Munich, Frankfurt, Madrid and Barcelona all cost half or less per m^2 than Terminals 2 and 5 at Heathrow (yet receive the equivalent passenger satisfaction ratings).



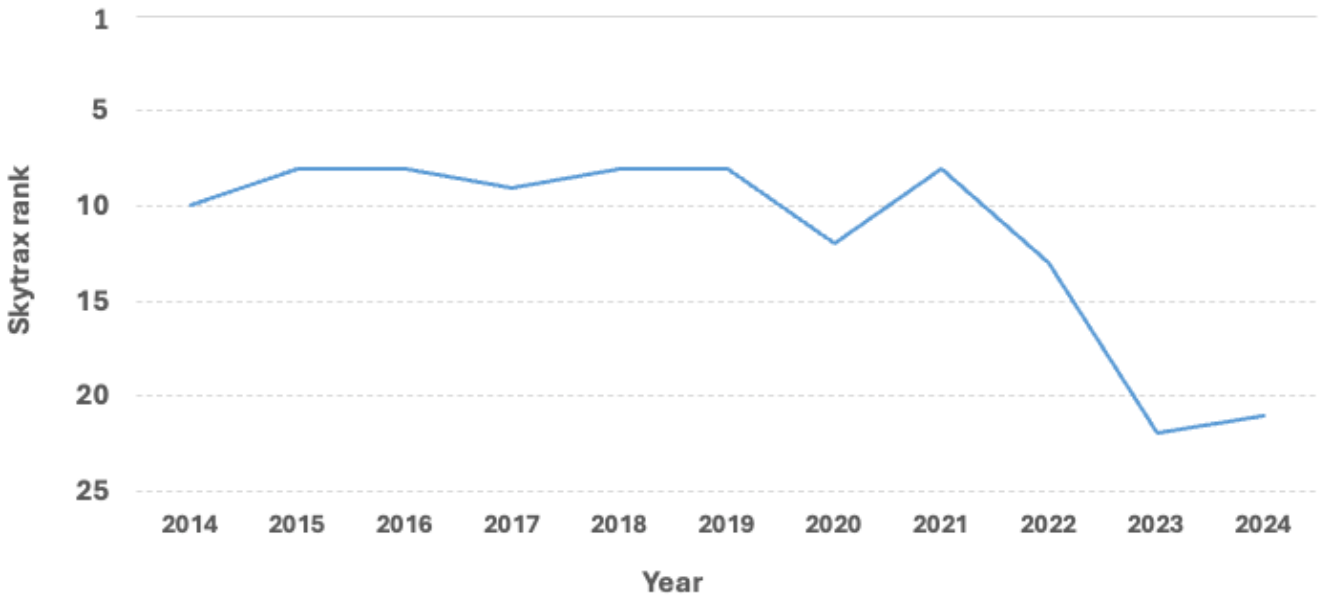
Source: LHR T5: Parliament UK, link; LHR T2, MUC T2, MUC T1, FRA T3: Airport Technology, link; MAD T4: Estudio Lamela, link, Moodie Davitt, link; BCN T1: Aviation Week, link, Barcelona Airport, link.

28. **HAL's lack of incentive to focus on the user experience means that not only are Heathrow's facilities expensive, but they also lack basic aspects of resilience**. This means that passengers are unnecessarily harmed when operational issues arise. For example, in 2024, there were 82 baggage system outages across all terminals where HAL had sole responsibility (i.e. more than one baggage system outage per week on average). This is not good enough for the world's most expensive airport.

29. **Despite not undertaking any major terminal development since 2014, headroom in HAL's RAB has not opened up for new major developments.** The major capital expenditure loaded into the RAB for Terminals 2 and 5 has depreciated substantially over time. However, instead of seeing headroom for investment opening up as a result, which should be the outcome (all else being equal), the RAB held largely flat in real terms. This is because HAL has spent over £7 billion in real terms between 2014 and 2023, despite no major investments in new terminals or other similarly major infrastructure. The future terminal investment now needed, therefore, implies yet more increases in charges, which is a direct result of the harmful capital expenditure incentives arising from the current regulatory model.

30. **HAL's lack of incentive to ensure commercial activities are NPV positive risks consumers missing out on the benefits of the single-till.** HAL's disproportionate and inefficient expenditure on under-productive commercial activities, which is underwritten by the regulatory regime, may have actually increased regulated charges and enabled gaming of the single-till mechanism. In 2003, commercial revenues per passenger represented c.60% of the costs per passenger. In 2023, it was c.35% – nearly half of what it was. Consistent with this, the growth in aeronautical charges over time has substantially outstripped the growth in non-aeronautical revenues per passenger.

31. **Heathrow's user experience falls far short of the significant premium it charges users because HAL has weak incentives to be innovative or responsive to user needs.** Passengers' perceptions of the experience at Heathrow are declining compared to other international hubs. Heathrow does not even feature in the top 20 of international airports as ranked by Skytrax, despite nearly half of the top 20 being European peers for Heathrow.



Source: Skytrax, World Airport Awards, 2014 – 2024

32. Heathrow also fares badly compared to the average passenger satisfaction scores of other airports presented in ACI's *Airport Service Quality Barometer* (ASQ). Its passenger satisfaction score (i.e. 3.99 in Q3 2024) is below the average for: i) airports globally (4.32); ii) European airports (4.07); and iii) large airports (i.e. those above 40 million passengers per annum – 4.42). Its ASQ score, like its Skytrax rating, has also declined in recent years – it was 4.16 in 2017.

33. Heathrow does not fare well when compared to UK airports either – passenger satisfaction ratings are lower than for Gatwick despite its charges being around half of Heathrow's.

34. **Despite very substantial capital expenditure, and the highest charges in the world nearly all of the last decade, Heathrow still operates some of the oldest terminals amongst its international peers.** Terminal 3 dates back to 1961, while Terminal 4 was built in 1986. Under Heathrow's current plans, Terminal 4 will be at least 60 years old when it is replaced, and replacements for Terminal 3 will not open until the 2040s.

35. Very high charges and increasingly uncompetitive and inefficient infrastructure contribute to **Heathrow's hub status further dwindling**. The range of destinations offered at Heathrow will continue to fall behind other major airports as connecting passengers choose other hubs, reducing the viability of marginal routes. Further 'dehubbing' of Heathrow, and the resulting loss in connectivity, will harm UK consumers and the UK economy.

The way forward: a fundamental review is needed urgently

36. HAL's longstanding and enduring SMP, the market features that give rise to it, and a regulatory regime that does not effectively constrain or incentivise HAL, result in an adverse effect on competition and very material harm to consumers and other users of AOS at Heathrow.

37. It has been over 15 years since the CC's final report into BAA airports. The reforms implemented by the CC have not materially changed competitive conditions at Heathrow. Nor have successive incremental changes to the regulatory methodology by the CAA – such changes will continue to fail as they do not fundamentally address the underlying harmful incentives and inadequate constraints on HAL under the current regime. **Fundamental reform to the regulatory approach is needed urgently**.

38. **HAL is currently developing plans for unprecedented levels of irreversible and inefficient capital expenditure, which further amplify the urgency of reform**. HAL's latest masterplan sets out plans to replace Terminal 3 and provide capacity for an additional 15 million passengers per year at a cost of £15 billion in today's prices (i.e. around three-quarters of the value of the RAB today for a 17% increase in total capacity). This excludes the further costs of any third runway but would be in addition to the high levels of capital HAL spends on an ongoing basis each year (i.e. c.£600-£700 million per annum over the past decade, but which could more than triple in H8). When compared against a very wide range of schemes at other international airports, **Heathrow's proposed plans are extremely expensive and very poor value for money**. Yet the regulatory regime will guarantee HAL a return regardless, paid for by consumers and users on top of the already highest charges in the world.

39. Modernising Heathrow's ageing terminals, particularly Terminal 3, is urgent. However, the promise of new infrastructure should not distract from the deep-rooted underlying issues with the current RAB-based model, and the critical importance of ensuring that major capital expenditure programmes are efficient, proportionate, and maximise the benefits for consumers, Heathrow's other users and the wider economy. Investment at Heathrow is necessary, but it cannot come at any cost - it must be based on the right regulatory model and long-term national strategy. Given the costly modernisation plans put forward by HAL only replace the 1960s-era Terminal 3 in the 2040s, regulatory reform now can not only deliver better outcomes for consumers, but also deliver sorely needed modernisation sooner.

40. **Fundamental regulatory reform is needed before Heathrow undertakes any major capital expenditure projects.** Absent change, HAL's consumer-harming incentives, particularly to spend capital inefficiently to grow the RAB, will mean continuing down the path of inefficient, disproportionate and under-productive capital expenditure, further harming UK consumers and the UK economy's competitiveness.

41. To secure the reform needed at Heathrow, **the Parties request that the CAA undertake an urgent and fundamental review of the provision of AOS at Heathrow** (e.g. a sector review, a market study, or a strategic review akin to the Telecoms Strategic Review undertaken by

Ofcom in the early 2000s). Undertaking such a review, which the Parties consider should be treated as a priority by the CAA, would be consistent with the CAA's duties to, in particular, further the interests of consumers and keep the provision of AOS under review.

42. There are many different regulatory models and market structures used at other major airports around the world. For example:

- In Singapore, when regulating charges for Changi, CAAS uses a price monitoring approach designed to maintain Changi's attractiveness compared to similar airports.
- In the US, there are examples of different market structures operating successfully. For example, at New York JFK, while the Port Authority owns the entire airport, the terminals are managed by different operators through long-term lease agreements.

43. The review should consider alternative models used internationally and also consider the lessons learnt from the approaches adopted in other sectors.

44. The Parties stand ready to engage constructively with the CAA to drive reform of the system and deliver markedly better outcomes for consumers and the UK economy.

B. HEATHROW HAS A UNIQUE AND CRITICAL ROLE FOR UK CONSUMERS AND THE WIDER ECONOMY

Heathrow has a unique and critical role for UK consumers and the wider economy

45. Heathrow Airport (Heathrow) is owned by HAL.[3] HAL has overall responsibility for the management of the airport area, consisting of the facilities[4] at Heathrow.

46. HAL's primary function is to provide access to the infrastructure of Heathrow for the landing, parking and departure of aircraft and the processing of passengers and cargo.[5] It does this through the provision of AOS, for example, the use of the runways and taxiways, the provision of facilities for check-in, the provision of facilities for baggage handling, security screening, etc.[6,7]

Heathrow is unique amongst UK airports

47. Heathrow is the UK's primary gateway to the world and its only hub airport. In 2024, 82 airlines at Heathrow, which includes two home-based carriers, provided consumer choice and connectivity, offering multiple frequencies covering more than 200 direct destinations worldwide[8] (of which 70 are unique destinations served by airlines solely from Heathrow and from no other London airport) including approximately 76% of the UK's long-haul connectivity.[9]

48. The unique and critical role that Heathrow plays in underpinning vital aspects of the UK economy, means it is essential that the country derives the maximum value possible from its only hub airport. This is particularly the case given that Heathrow is highly congested and has been operating at near capacity for some time.

Heathrow serves significantly more passengers than any other UK airport

49. [✂].[10]

50. Heathrow is the largest of the London airports, with a record 83.9 million passengers travelling through it in 2024 – and higher passenger numbers are expected in 2025.[11] By contrast, the UK's second busiest airport, London Gatwick, served 41 million passengers in 2023.[12]

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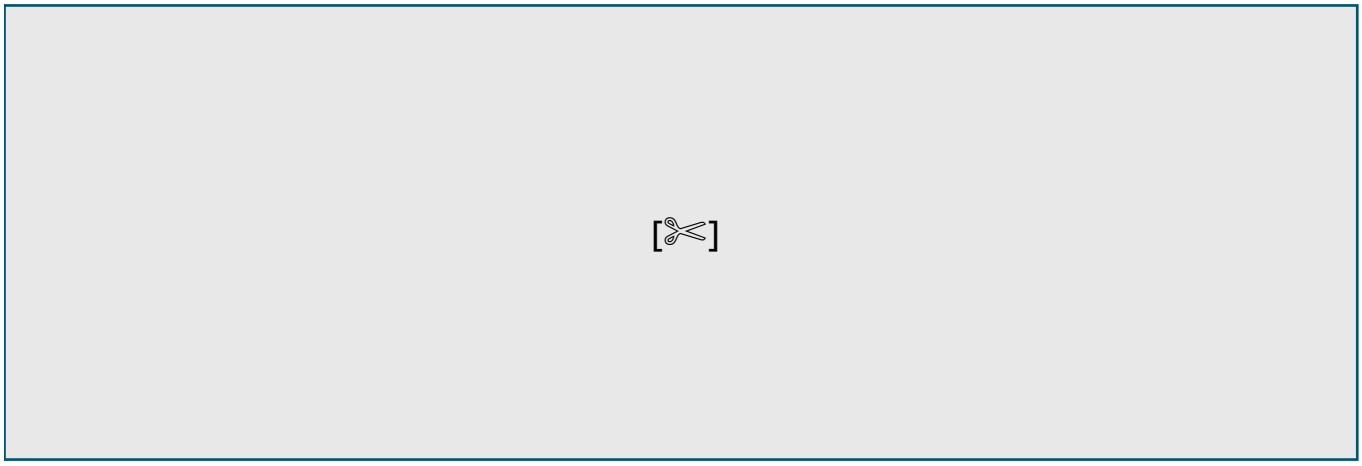
[3] Which, in turn, is owned by Heathrow (SP) Ltd and Heathrow Airport Holdings Ltd.
[4] With the exception of the fuel facilities.
[5] CAA, *Market power determination in relation to Heathrow Airport – statement of reasons: Annex D*, 2014, paragraph D110, link.
[6] See Annex C for a description of AOS.
[7] In some cases, some of these AOS may not be supplied directly by HAL (for example, it may sub-contract the activity to another provider - e.g. aerodrome ATC services at Heathrow are provided by NATS on behalf of HAL), but HAL will control or be able to influence the terms on which those services are provided to users.
[8] Heathrow, *Harnessing UK Growth*, 2023, link.
[9] This is 76% of all the UK's scheduled long-haul air traffic in terms of seats. Heathrow Finance plc, *Prospectus issued 15 March 2024*, page 18, link.
[10] OAG data.
[11] Heathrow Airport, *Heathrow ends record-breaking year with busiest December ever*, 2025, link. The 2025 forecast number is 84.2 million passengers.
[12] Gatwick Airport, *Key facts*, link. 2024 passenger volumes for Gatwick are not yet publicly available.

Figure 1: Total seats by city, 2024



Source: Heathrow Reimagined analysis of OAG data.

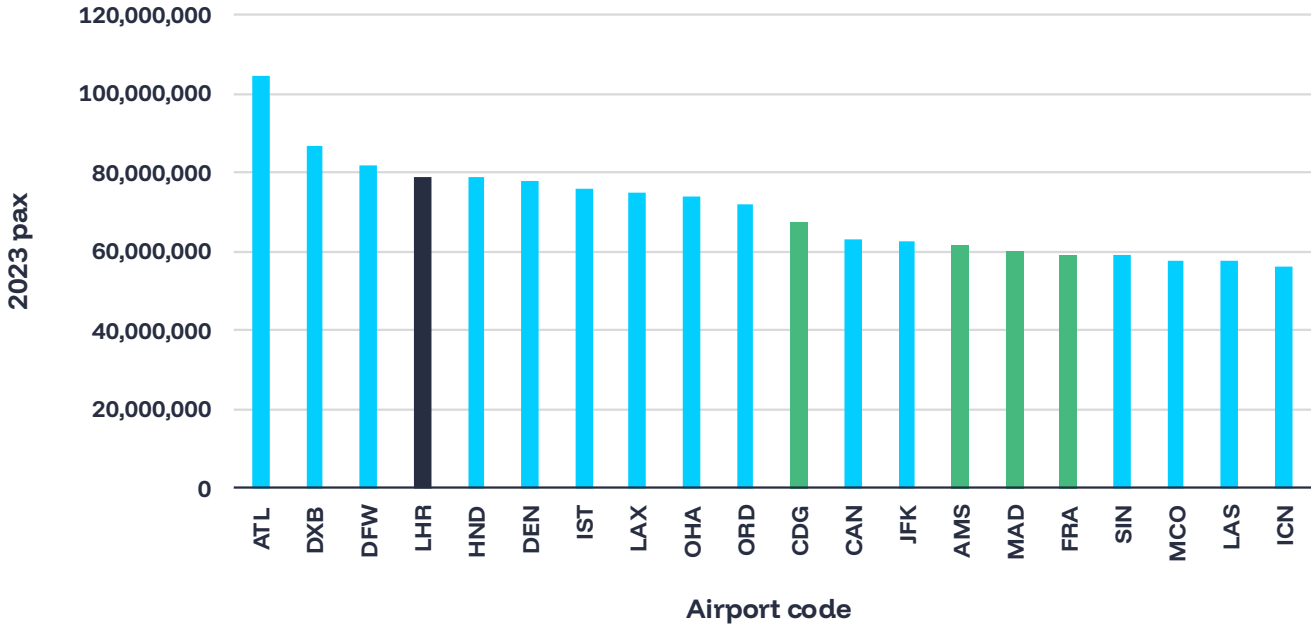
51. Figure 2 shows that Heathrow was ranked fourth in the world by the total number of passengers served in 2023, with 10 million more passengers than comparable hubs Paris CDG (67.4 million), Amsterdam Schiphol (61.9 million), Madrid (60.2 million) and Frankfurt (59.4 million).

52. While Heathrow has more passengers than peer European hub airports, airlines serve fewer destinations from Heathrow (219) than from Frankfurt (304), Paris Charles de Gaulle (289) and Amsterdam (260).[13]

53. There is a positive relationship between air connectivity and GDP per capita. A study by InterVISTAS[14] found that a 10% increase in connectivity was associated with a 0.5% increase in GDP per capita. The study suggested that air connectivity is an essential part of competitiveness – be it at the local, national or European level – and a key enabler of cohesion.

[13] FlightsFrom.com, as of 01/02/2025
[14] InterVISTAS for ACI Europe, *The Impact of an Airport*, 2015, link.

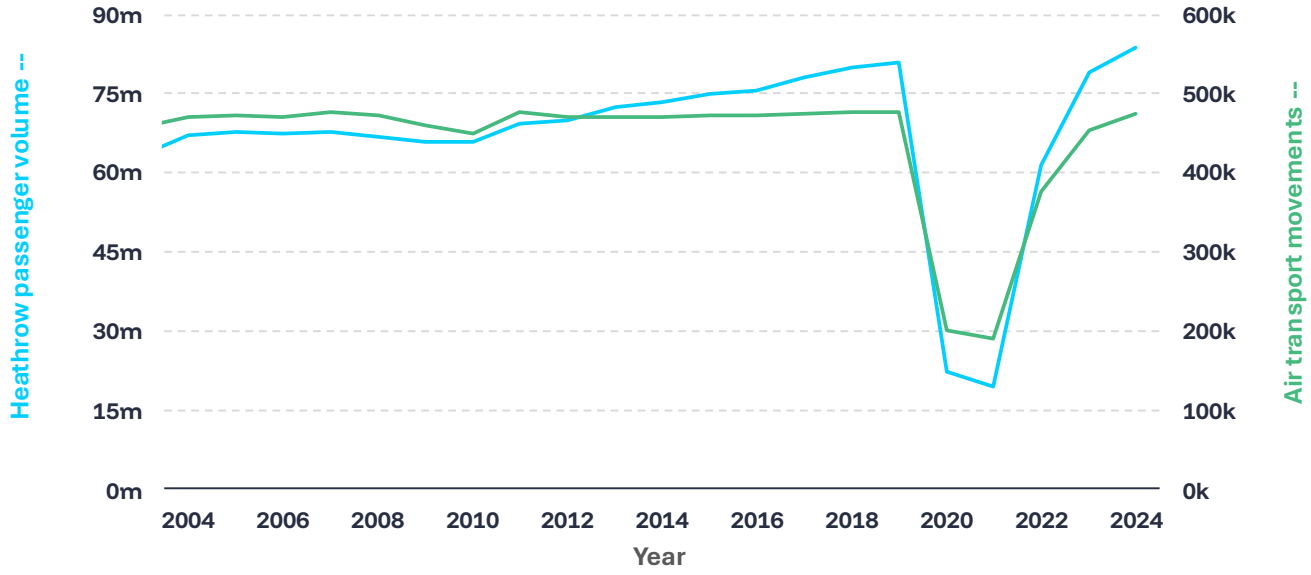
Figure 2: Heathrow ranked fourth in the world by the number of passengers (pax) served in 2023



Source: Port Authority NY NJ, 2023 Airport Traffic Report, link. Note: LHR / Heathrow is highlighted in dark blue, and European hub peers are highlighted in green.

54. Heathrow has seen passenger volumes grow by around a third over the last two decades, despite the pandemic (Figure 3) – the strength of the demand to/from Heathrow Airport enabled its traffic volume to rebound faster post-COVID than at most airports in the world. However, the volume of flights (ATMs) has been mostly flat, reflecting planning restrictions and capacity constraints. This means that the growth in passenger volumes has mainly come from airlines achieving higher load factors and deploying larger aircraft (which have been associated with a greater focus on long-haul routes over time).

Figure 3: Heathrow passenger and ATM volumes, 2004 – 2024



Source: Heathrow, 10 year record of statistics, 2004 – 2012; DfT, Terminal passengers at reporting airports by airport, 2012 – 2022; CAA, UK airport data, 2023; Heathrow, Monthly traffic statistics up to December 2024, link; Heathrow, operational data, 2000 – 2023, link.

UK consumers benefit from greater choice and frequencies of direct routes as a result of Heathrow's unique hub status in the UK

55. Heathrow's hub status means that UK consumers benefit from a much broader choice and frequency of direct destinations at Heathrow than might otherwise be available. The significant direct connectivity offered by airlines at Heathrow reduces their need to connect through other hubs, which may be less convenient and/or involve longer journeys.

56. Heathrow's role as a connecting hub is enabled by the diverse range and frequency of international connections that are offered by airlines at Heathrow. Hub airports bring together locally originating and inbound demand with that from passengers connecting through the hub. The connecting demand means that the range of routes and frequencies are commercially viable through directional, weekly, seasonal and economic fluctuations in a way that would not be the case based on direct passengers alone.

57. For some routes, connecting demand is not important in ensuring commercial viability – they can be sustained based on locally originating and departing demand. However, for many routes, connecting demand plays a significant role. For example, as demonstrated by the illustration in Annex D, connecting traffic plays a critical role in underpinning the viability of flights between Heathrow and San Diego.

58. Although the strength of the locally originating and inbound market means that carriers operating to/from Heathrow are less reliant on connecting demand than at some other international hub airports (e.g. Dubai, Istanbul and Frankfurt), connecting demand nevertheless still plays a crucial role in sustaining route diversity at the margin. Given that Heathrow serves fewer direct destinations than many of its European hub peers[15], preserving

[15] The Telegraph, *Heathrow's days as a global megahub may be numbered*, 2024, link.

connectivity at the margin is particularly important for UK consumers and competitiveness – that requires Heathrow to be an attractive and efficient option for connecting passengers who are choosing which hub to connect through.

Heathrow is a key enabler of economic growth and competitiveness in sectors across the UK economy

59. Heathrow is a critical piece of the UK's economic infrastructure. It, together with its operating airlines, plays an essential role in supporting the current government's growth mission across multiple growth-driving sectors. The airport, together with its operating airlines, acts as a crucial enabler for several of the government's priority growth sectors (e.g. professional and business services, digital technologies, advanced manufacturing), thereby helping to unlock economic growth and competitiveness across the economy.[16] Previous economic estimates indicate that its associated activity contributes £12.5 billion to UK GDP and supports 133,000 jobs.[17]

60. The economic benefits associated with Heathrow's hub status are felt across the country, not just in London and the South East. Heathrow's hub status means it provides international and domestic connectivity across the UK. The *Airports Commission*[18] estimated that the majority of economic gains from an improved Heathrow would accrue to other UK regions, and exporters who rely on Heathrow span all nations and regions of the UK.[19]

61. Furthermore, a recent IATA paper[20] about the UK's air transport sector estimated that:

- Its total economic impact is c.£130 billion (equivalent to 4.8% of GDP);[21]
- 1.6 million jobs are supported through the sector's direct and supply chain employment; and
- Aviation-driven tourism contributes c.£31 billion to UK GDP and employs 436,000 people. The estimated annual GDP contribution of international tourists to the UK through buying goods and services from local businesses is c.£40 billion.

62. Reliable direct services and international connectivity also attract and sustain headquarters and major centres of financial and business services companies in London and elsewhere in the UK, generating jobs, trade and innovation for the economy. For example, the Airports Commission found that:

> *"Aviation connectivity also supports the UK economy in other ways. It drives productivity and is an important factor in business innovation and investment. For example studies and surveys confirm that international transport links influence decisions by companies*

[16] The importance of transport as an enabler of prosperity of other branches of the economy was recognised recently in the EU in the September 2024 *The future of European competitiveness* document. link.
[17] Oxford Economics, *The economic impact of reduced activity at Heathrow Airport*, 2020, link.
[18] Airports Commission, *Final Report*, 2015, page 313, link.
[19] See, for example, Heathrow Airport, *UK SMEs using the airport's routes to export British excellence*, 2021, link.
[20] IATA, *The value of air transport to the United Kingdom,* 2023, link.
[21] The paper reports the value of economic contribution to the UK economy is $160.7 billion, which, based on current exchange rates ($1 = £0.81), is roughly £130 billion; other figures quoted have been converted from US Dollars. The Government's January 2025 update on airport expansion (link) stated that the air transport sector supported 140,000 jobs in the UK and "directly contributed" £14 billion to GDP (based on ONS data). The IATA paper estimates a direct economic contribution (via employment) of £32.4 billion ($40.2 billion). Such differences in direct economic impact could be explained by different calculation approaches, broader or narrower definitions of the sector being analysed, and the underlying data sources used.

on where to locate their headquarters, as can be seen from the significant technology cluster based close to Heathrow in the Thames Valley. There is also evidence to show that connectivity is an important factor in firms' investment decisions."[22]

63. Such a conclusion is also supported by academic literature, which has found the availability of direct intercontinental flights is a major determinant in the location choices of large firms' headquarters in Europe: a 10% increase in the supply of intercontinental flights has been found to result in a 4% increase in the number of headquarters of large firms, which, in turn, helps support employment and investment in the headquarter's country.[23] This positive relationship between aviation connectivity and business growth is further evidenced in a recent study showing that sectors most reliant on air connectivity are projected to grow faster than the broader economy, representing an extra £10.6 billion in economic value over the next decade.[24]

Heathrow is critical to the UK's supply chain

64. Heathrow is the UK's biggest port of all by value. The extensive and diverse route network offered by Heathrow-based airlines facilitates the timely flow of goods in and out of the UK, largely in the hold of passenger aircraft:

- £198 billion in cargo (i.e. imports and exports) passed through Heathrow in 2023[25], representing 21% of all UK goods trade.[26] This is equivalent to 7% of UK GDP in 2023.[27] Exports out of Heathrow in 2023 also accounted for 26% of the UK's total exports by value.[28]
- 70% of all UK air cargo by value was processed through Heathrow in 2023.[29]
- 90% of cargo at Heathrow travelled in the belly hold of passenger aircraft in 2023.[30] Passenger aircraft from Heathrow carry around 45% of the UK's non-EU exports.[31]

65. Heathrow also plays a critical role in the UK's supply chain for time-sensitive cargo such as perishable food and medicines. Without direct connections to supply chain markets, the UK would depend solely on indirect – and slower/costlier – routes through other major hubs (e.g. Paris, Amsterdam, Frankfurt, Madrid, etc).

[22] Airports Commission, *Final Report*, 2015, paragraph 3.11, link.
[23] Germà Bel and Xavier Fageda, *Getting there fast: globalization, intercontinental flights and location of headquarters*, Journal of Economic Geography 8, 2008, link (older, accessible version).
[24] WPI Economics, *Services superpower: How the aviation industry supports fast growing export sectors*, 2024, link.
[25] Heathrow Airport Holdings Limited, *Annual Report*, 2023, link.
[26] Calculated by dividing £198 billion by the sum of the total value of all goods exports (£376 billion) and imports (£581 billion) in 2023. Heathrow Airport Holdings Limited, *Annual Report*, 2023, link; HMRC, *UK trade in goods, year in review: 2023*, link.
[27] Calculated by dividing £198 billion by 2023 GDP of £2.7 trillion. GDP data from ONS, *Annual and quarterly data for UK gross domestic product (GDP) estimates: Quarter 3 2024 update*, link.
[28] Heathrow Airport Holdings Limited, *Annual Report*, 2023, link.
[29] Heathrow Airport, *Cargo*, link.
[30] Heathrow Airport, *Cargo*, link.
[31] Heathrow Airport Holdings Limited, *Annual Report*, 2023, link.

Maintaining the critical benefits that Heathrow provides to consumers and the UK requires a regulatory regime that is fit for purpose

66. As set out in the remainder of this submission, HAL's SMP and a regulatory regime that is not fit-for-purpose mean that consumers are forced to pay the highest airport charges in the world to use out-of-date infrastructure across much of the airport. Passenger perceptions of the experience at Heathrow are in decline and mean that Heathrow has fallen behind many of its peers.

67. Continuing on this trajectory will erode the viability of marginal routes, the hub and the economy that relies on it. Outcomes for Heathrow's passengers, airlines and the country will become worse. Heathrow's position as a unique and critical gateway for the UK means that these underlying problems need to be comprehensively addressed.

C. HAL HAS ENDURING SMP IN THE PROVISION OF AOS AT HEATHROW, WHICH PREVENTS, DISTORTS OR RESTRICTS COMPETITION

Introduction

68. It has been over 15 years since a detailed review of the legal and regulatory framework at Heathrow was conducted. That review took place in the context of the CC market investigation into BAA airports in 2009.

69. As part of its Final Report in that market investigation, the CC made a series of recommendations for changes to the regulatory framework and endorsed the introduction of the type of licensing regime that the DfT had been considering. Some (but, importantly, not all) of these recommendations to improve competitive outcomes were taken forward and are reflected in the Civil Aviation Act 2012 (CAA12), which sets out the current legal and regulatory framework.

70. However, it has long been recognised - both at the time of the CC's Final Report and in subsequent reviews of the CC's investigation - that these changes were more likely to improve competition at airports other than Heathrow. There are longstanding and enduring market features, which reflect Heathrow's unique position, that give rise to: (i) HAL having SMP in the provision of AOS at Heathrow, and (ii) competition in the provision of AOS at Heathrow being prevented, distorted or restricted.

71. HAL is currently subject to economic regulation and licensing, which seeks to remedy the risks of harm to consumers and users arising from HAL's SMP. However, as explained in this submission, the current regulatory regime does not work well to curb HAL's SMP and, in fact, creates harmful incentives for HAL that lead to adverse outcomes (see further Sections D and E below).

72. These issues will not be corrected through the general operation of the current regulatory model.

73. Given the time that has elapsed since the last detailed review of the legal and regulatory framework at Heathrow, the significant evidence – as set out in this submission – that the current regulatory regime has not been sufficient to effectively address the substantial market power of HAL (and in fact creates the wrong incentives for HAL), and the critical importance of Heathrow for connectivity and the UK economy, the Parties consider that it is appropriate and proportionate for the CAA to carry out an urgent review of the regulatory regime at Heathrow.

74. The remainder of this section sets out an overview of the current legal and regulatory framework relevant to the issues considered further in this submission and the basis on which HAL holds SMP in relation to AOS at Heathrow. It covers:

    - How the CC's market investigation into BAA airports in 2009, alongside other reviews at the time, resulted in major changes to the structure and regulation of UK airports, and led to the adoption of the CAA12.

- Key elements of the CAA12 and how the provision of AOS at Heathrow is regulated, including the CAA's approach to updating regulation on HAL.
- The CAA's relevant legal powers and duties under competition law in respect of conducting reviews of markets.
- The basis of the market features that give rise to HAL having SMP in relation to the provision of AOS at Heathrow.
- The current scope of economic regulation of HAL.
- How the CAA's periodic reviews of HAL's licence conditions do not address fundamental and strategic questions as to the appropriateness and effectiveness of the current regulatory model and market structure at Heathrow.

CAA12 and the CC's 2009 BAA airports market investigation

75. The current regulatory framework in relation to Heathrow is set out in CAA12. CAA12 was enacted, in part, to address certain recommendations made by the CC arising out of its 2009 market investigation into BAA airports[32] as well as to reflect certain other reviews[33] undertaken around that time.

76. The CC's investigation concluded that there were adverse effects on competition driven by insufficient competition at each of BAA's seven UK airports (i.e. Heathrow, Gatwick, Stansted, Southampton, Edinburgh, Glasgow and Aberdeen), with adverse consequences for passengers and airlines. The CC found that a principal cause of these problems was their common ownership by BAA, but it also found that the planning system, aspects of government policy and the system of regulation also resulted in in detriment for users.

77. To remedy the adverse effects on competition identified, the CC accepted undertakings from BAA to effect the sale of both Gatwick and Stansted airports to different purchasers, as well as one of Edinburgh or Glasgow airports. The CC also made recommendations to the Department for Transport (DfT) in relation to airport regulation. In particular, alongside supporting the adoption of a licencing regime of the kind that the DfT had already been developing, the CC also recommended that:

> "*The regulator's primary objective should be the promotion of the consumer interest wherever possible through the promotion of competition. There should be an ancillary duty to consult and pay due regard to the views of airlines as well as to consult designated passenger groups and airport operators.*
>
> *Appeals against price control and service quality licence modifications made by the regulator should be made to the CC. The right to appeal should lie with the relevant airport, individual airlines and designated passenger groups.*
>
> *Legislation should be amended to allow for terminals to be developed or redeveloped and operated separately from runway facilities*."[34]

78. The CC recognised that even with these remedies, Heathrow was likely to retain its SMP for a considerable period of time.[35] It identified the potential role of introducing competition between terminals as a solution to this market power.[36]

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[32] Competition Commission, *BAA airports market investigation*, 2009, link.
[33] Including *The Future of BAA* report by the House of Commons Transport Select Committee (March 2008), the Pilling Review (July 2008) and the Cave Review (January 2009).
[34] Competition Commission, *BAA ordered to sell three airports,* 19 March 2009, link.
[35] Competition Commission, *BAA airports market investigation*, 2009, paragraph 3.130, link.
[36] Competition Commission, *BAA airports market investigation*, 2009, paragraphs 10.346 to 10.351, link.

Regulation of operators of dominant airports

79. Section 1 of the CAA12 – which concerns the CAA's general duty in relation to the regulation of operators of dominant airports – provides that (in so far as material for present purposes) [emphasis below added]:

> ***"(1) The CAA must carry out its functions under this Chapter in a manner which it considers will further the interests of users of air transport services regarding the range, availability, continuity, cost and quality of airport operation services.***
>
> ***(2) The CAA must do so, where appropriate, by carrying out the functions in a manner which it considers will promote competition in the provision of airport operation services.***
>
> *(3) In performing its duties under subsections (1) and (2) the CAA must have regard to—*
>
> *(a) the need to secure that each holder of a licence under this Chapter is able to finance its provision of airport operation services in the area for which the licence is granted,*
>
> *(b) the need to secure that all reasonable demands for airport operation services are met,*
>
> ***(c) the need to promote economy and efficiency on the part of each holder of a licence under this Chapter in its provision of airport operation services at the airport to which the licence relates,***
>
> *(d) the need to secure that each holder of a licence under this Chapter is able to take reasonable measures to reduce, control or mitigate the adverse environmental effects of the airport to which the licence relates, facilities used or intended to be used in connection with that airport ("associated facilities") and aircraft using that airport,*
>
> *(e) any guidance issued to the CAA by the Secretary of State for the purposes of this Chapter,*
>
> *(f) any international obligation of the United Kingdom notified to the CAA by the Secretary of State for the purposes of this Chapter, and*
>
> *(g) the principles in subsection (4).*
>
> *(4) Those principles are that—*
>
> *(a) regulatory activities should be carried out in a way which is transparent, accountable, proportionate and consistent, and*
>
> *(b) regulatory activities should be targeted only at cases in which action is needed."*

80. Alongside the duties set out in CAA12, the CAA also supports the principles of the Growth Duty contained in section 108 of the Deregulation Act 2015.[37] The Growth Duty requires that: "*Regulators have regard to the desirability of promoting economic growth when delivering their regulatory functions*".

81. CAA12 introduced a licencing-based regime for the economic regulation of operators of dominant airports. Pursuant to s.6 of CAA12 an operator will only be deemed to be an operator of a dominant airport if all three components of the market power test[38] (MPT) are satisfied, namely:

- Test A, which requires the CAA to establish whether the relevant operator has, or is likely to acquire, SMP in a market for one or more types of airport operation service provided within all or part of the airport area.
- Test B, which requires the CAA to establish that competition law does not provide sufficient protection against the risk that the relevant operator may engage in conduct that amounts to an abuse of that SMP.
- Test C, which requires the CAA to establish that, for current and future users of air transport services, the benefits of regulating the relevant operator by means of a licence are likely to outweigh the adverse effects.[39]

82. Section 3 of CAA12 provides that the operator of a dominant area at a dominant airport is prohibited from requiring payment of relevant charges without a licence granted by the CAA.[40]

83. Under s.18 CAA12, a licence may include:

> *"(a) such conditions as the CAA considers necessary or expedient having regard to the risk that the holder of the licence may engage in conduct that amounts to an abuse of substantial market power in a market for airport operation services (or for services that include airport operation services), and*
>
> *(b) such other conditions as the CAA considers necessary or expedient having regard to the CAA's duties under section 1."*

84. For the purposes of the above licence conditions, "*conduct*" may "*in particular, amount to an abuse of substantial market power if it is conduct described in section 18(2)(a) to (d) of the Competition Act 1998.*"[41]

85. S.19 CAA12 requires that the licence "*must include such price control conditions as the CAA considers necessary or expedient*".

[37] CAA, *Growth Duty report 2024*, 2024, page 6. Link.
[38] CAA12, Section 6.
[39] CAA, *Market power determination in relation to Heathrow Airport – statement of reasons,* 2014, paragraph 1.2. link. CAA, *Market Power Test Guidance*, 2016, paragraph 2.18, link.
[40] CAA12, Section 3.
[41] CAA12, Section 18(2).

86. As set out further below, the CAA last undertook a market analysis in relation to the provision of AOS at Heathrow in its 2014 Market Power Determination (MPD).[42] That decision sets out the reasons for CAA's determination that the market power test is met, therefore leading to economic regulation of Heathrow and the granting of a licence by the CAA to HAL in April 2014.

87. As part of its regulatory cycle, the CAA undertakes periodic reviews of the licence conditions included in HAL's licence,[43] including the price control conditions. The latest licence conditions[44] (e.g. price control conditions, service quality conditions, financial conditions) reflect the CAA's H7 periodic review, which was completed in 2024. The CAA is currently undertaking preparatory work in relation to the H8 periodic review, which will cover the period from 2027–2031.

[42] CAA, *Market power determination in relation to Heathrow Airport – statement of reasons,* 2014, link
[43] Typically, but not always, every five-years.
[44] CAA, *Licence granted to Heathrow Airport Limited by the Civil Aviation Authority under section 15 of the Civil Aviation Act 2012 on 13 February 2014 amended 1 September 2024,* link

CAA competition law powers and ongoing duty to keep AOS under review

88. Alongside its regulatory powers, the CAA has a series of competition law powers (including in relation to both the Enterprise Act and Competition Act), many of which it exercises concurrently with the Competition and Markets Authority (CMA), including powers to conduct market studies and, where relevant thresholds are met, make market investigation references to the CMA.[45]

89. In addition, the CAA can conduct sector reviews under s.64 of CAA12 in furtherance of the CAA's obligation to keep under review the provision of AOS. S.64 of CAA12 sets out that:

> ***"(1) The CAA must, so far as it appears to it practicable to do so—***
>
> ***(a) keep under review the provision of airport operation services in the United Kingdom and elsewhere,*** *and*
>
> ***(b) collect information about the provision of such services in the United Kingdom and elsewhere,***
>
> *with a view to facilitating the carrying out of its functions under this Chapter."*[46] *[emphasis added]*

90. For these purposes, the CAA may:

> *(a) prepare reports relating to competition in markets for airport operation services, and*
>
> *(b) arrange for such reports to be published."*[47]

[45] Part IV of the Enterprise Act 2002 pursuant to the CAA's concurrent competition law powers (derived from S.60 of CAA12).
[46] CAA12, Chapter 2.
[47] CAA12, Section 64(2).

Market features give rise to HAL having SMP in the provision of AOS at Heathrow

91. In the 2014 MPD[48], the CAA concluded that HAL had SMP[49] in relation to the provision of AOS to full-service carriers and associated feeder-traffic airlines at Heathrow.[50] The CAA found that Heathrow is a market in its own right, differentiated by brand and its hub status. It concluded that the service that HAL offers at Heathrow is highly differentiated from other services available at the other London airports and that Heathrow provides airlines with significant additional benefits over other airports.[51]

92. The CAA found that HAL had a 100 per cent share[52] of the market[53] with such monopoly concentration being a structural feature of the market. This arises from HAL's ownership and sole control of all the relevant infrastructure and facilities used to provide AOS at Heathrow (e.g. runways, taxiways, stands, individual terminals, etc.), meaning that there is no competition in the provision of AOS at Heathrow.

93. The CAA also cited other important and unique features at Heathrow:

- "*The most likely source of any SMP that HAL has stems from its position as the operator of the UK's only hub airport and the combined package that Heathrow offers of strong demand, including premium passengers, cargo and connecting passengers. This makes Heathrow attractive for both based and inbound airlines.*
- *The airline network effects available at Heathrow means that very few airlines would be able and willing to switch sufficient capacity to constrain an increase in HAL's charges.*
- *Heathrow's good surface access options, the inherent attractiveness of the London market, and its strategic importance to airlines combined with the capacity constraints in the London system act to reduce the available alternatives to airlines.*
- *The strength of airline demand to operate from Heathrow means that HAL would be effectively insulated from the effects of any switching away as a result of higher airport charges.*"[54]

94. These features mean that the competitive constraints on the provision of AOS by HAL from other London airports (such as Gatwick or Stansted) are weak (as reflected in the CAA's market definition in its MPD).

95. The market features that underpin HAL's SMP status mean that competition in the provision of AOS at Heathrow is prevented, distorted or restricted. As such, HAL's SMP acts as a feature of the market that adversely affects competition.

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[48] CAA, *Market power determination in relation to Heathrow Airport – statement of reasons,* 2014 link.
[49] Substantial market power is equivalent to the concept of significant market power sometimes used in other settings.
[50] CAA, *Market power determination in relation to Heathrow Airport – statement of reasons,* 2014, paragraphs 2.1 to 2.3, link.
[51] CAA, *Market power determination in relation to Heathrow Airport – statement of reasons,* 2014, paragraphs 4.35 to 4.36, link.
[52] Both in terms of passenger numbers or air transport movements. CAA, *Market power determination in relation to Heathrow Airport – statement of reasons,* 2014, paragraph 5.25, link.
[53] i.e. the provision of AOS to full-service carriers and associated feeder traffic airlines at Heathrow.
[54] CAA, *Market power determination in relation to Heathrow Airport – statement of reasons,* 2014, paragraph 2.4, link. These features are further explained in paragraph 5.25.

The market features underpinning HAL's SMP are longstanding and enduring

96. The nature of the market features that underpin the 2014 MPD SMP finding are longstanding and enduring. Consistent with this, in August 2024, the CAA concluded that:

> "*A new MPD would only be needed if there was a reasonable prospect that HAL might no longer meet the Market Power Test ("MPT"). As noted in our February 2024 Consultation, we consider that this is highly unlikely* as:
>
> - *Demand for Airport Operation Services ("AOS") has risen strongly but there has been no material change in the supply of AOS in the part of the UK served by Heathrow airport since the previous MPD in 2014; and*
> - *HAL's business plan for H7 included a substantial increase in airport charges. This indicates that, in the absence of economic regulation, HAL would substantially increase its charges."*[55]

97. Indeed, Heathrow's market power has likely strengthened since the 2014 MPD, for example:

- The importance of network effects for airlines operating at Heathrow has increased given the greater importance of alliances and joint ventures for airlines operating at Heathrow. These make it harder for airlines to switch away from Heathrow to other airports. Indeed, the experience of the pandemic showed how major airlines consolidated their activities at Heathrow at the expense of other airports (e.g. Gatwick).
- Heathrow's surface access and connectivity with Central London has improved with the opening of the Elizabeth Line. This means that Heathrow is even better connected to the inherently attractive London area.

98. HAL's enduring SMP is consistent with the CC's finding in the BAA airports market investigation that, even with the removal of common ownership, Heathrow would retain SMP for a considerable period:

> *"In other words, even in the absence of BAA's common ownership, Heathrow has substantial market power as a result of the difficulty of switching services to other airports, network effects and locational advantage.* ***We consider that Heathrow is likely to retain this market power for a considerable period****, even if other London airports were under separate ownership. Similarly,* ***the CAA told us*** *that it accepted that* ***Heathrow can be expected to enjoy a sustained period of substantial market power—by virtue of its location, surface access infrastructure and hub status—that is likely to warrant detailed economic regulation for the foreseeable future."***[56] *[emphasis added]*

[55] CAA, *Setting future price controls – lessons learnt from the review of approach*, August 2024, paragraph 2.9. link.
[56] Competition Commission, *BAA airports market investigation*, 2009, paragraph 3.130, link.

99. Credit ratings agencies have also recognised that Heathrow (and HAL) benefits from particular market features that serve to shield Heathrow from competition from other airports. In its September 2024 report on Heathrow Funding Limited, S&P Global Ratings notes that one of Heathrow's key strengths is its "*excellent competitive position as the busiest airport in Europe, and the only hub airport in the U.K. that concentrates on long-haul flights*".[57] It also goes on to explain that:

> *"Heathrow's operating performance is underpinned by its large and attractive catchment area with wealthy clientele and a demand for direct long-haul services. It is the largest airport serving the London area. The catchment area also includes a significant number of major global companies and the administrative center of the U.K. government. The combined passenger traffic at the five main London airports significantly exceeds that of any other city in the world, and the traffic at the top three airports (Heathrow, Gatwick, and Stansted) is still larger than New York. Heathrow handles close to 50% of the traffic in the Greater London area and about 30% of total traffic in the U.K. The catchment area covers 25 million people (38% of the U.K. population) within a two-hour drive."*[58]
>
> *Heathrow faces "low competition from other airports".*[59]

100. Absent remedy, HAL's SMP means that it has both the ability and incentive to act in a manner that harms consumers, airlines and businesses. This harm can manifest itself in different ways, including higher charges and poorer service quality.[60]

101. The CAA has previously concluded that competition law alone will not provide sufficient protection against the risk of HAL abusing its SMP. Given the risks of harm, HAL's SMP needs to be remedied effectively *ex ante* to protect the interests of Heathrow's users. However, as set out in this submission, the current regulatory regime falls short in this regard.

[57] S&P Global Ratings, *Heathrow Funding Limited - 5 September 2024*, page 1, link.
[58] S&P Global Ratings, *Heathrow Funding Limited - 5 September 2024*, page 11, link.
[59] S&P Global Ratings, *Heathrow Funding Limited - 5 September 2024*, page 12, link.
[60] CAA, *Market power determination in relation to Heathrow Airport – statement of reasons,* 2014, paragraph 2.9, link.

The CAA's current approach to remedying HAL's SMP

102. The CAA's current regulatory model seeks to remedy the adverse effects on competition and consumers arising from HAL's SMP (and the features that underpin it) by limiting HAL's ability to act on its incentives to increase charges and make decisions that result in lower service quality. The longstanding approach chosen by the CAA to do this is through the application of:

    - a control on Heathrow's Maximum Allowable Yield (MAY) per passenger; and
    - a service quality regime.

103. Both of these are implemented through conditions in HAL's economic licence.

Setting the Maximum Allowable Yield

104. The CAA sets HAL's annual MAY across each control period, with HAL retaining flexibility within this average yield to set different charges for different groups of passengers.

105. Although the CAA has evolved its approach to setting the MAY over time[61], its chosen overarching approach is underpinned by a longstanding model – the RAB-based building blocks model.

106. While CAA12 sets the statutory framework for economic regulation via a licensing system, it does not prescribe the specific approach or methodology that the CAA must adopt to control HAL's charges or service quality. The application of a MAY based on a Regulatory Asset Based (RAB)-based building blocks model is a choice made by the CAA. As the use of the RAB model is not mandated by statute, the CAA retains the discretion to apply alternative regulatory models if it considers they could better serve the pursuit of its statutory duties.

107. The RAB enables a valuation of the firm's asset base to be developed for the purposes of regulation. HAL's RAB totalled £19.8 billion at the end of 2023, and was expected to reach £20.5 billion by the end of 2024.[62]

108. The value of the RAB varies from year-to-year. Annual depreciation of the value of the assets included in the RAB acts to reduce the RAB's value each year, while annual capital expenditure, including on new assets, increases it. Unless the CAA deems otherwise, all capital expenditure is added to the RAB.

109. Alongside depreciation, the value of the RAB is also inflation-indexed annually. Therefore, even if depreciation and capital expenditure in any given year cancel each other out, indexation normally means that the nominal value of the RAB will still grow.

110. Under its RAB-based model, the CAA determines the total allowed aeronautical revenue HAL can generate for each year of the control period and divides that by forecast passenger

[61] For example, in H7 it introduced a mechanism to share volume risk between HAL and its customers.
[62] 2023 figure: Heathrow (SP) Limited, *Regulatory Accounts Year ended 31 December 2023*, link. 2024 forecast figure: Heathrow (SP) Limited & Heathrow Finance PLC, *Investor Report*, December 2024, link.

numbers. This sets the average charge per passenger (i.e. MAY).[63,64] Total allowed revenues are derived from five main building blocks:

Operating costs	The CAA adopts a forecast of HAL's costs – based on HAL's business plan submissions – of operating the airport, including staff, maintenance, utilities, and other day-to-day expenses. These forecasts are updated and reviewed for each regulatory period, with the CAA assessing the efficiency of HAL's proposed costs.[65]
Depreciation	An annual allowance for the depreciation of the RAB is included, which for H7 was based on HAL's business plan.[66] The annual depreciation charge normally increases as the value of the RAB grows, which acts to increase the MAY.
Allowed return	The allowed return is calculated by applying a regulated weighted average cost of capital (WACC) to the RAB for each year. The WACC is intended to reflect Heathrow's cost of financing its operations and investments through equity and debt. The CAA applies a real WACC to the RAB (which is inflation-indexed annually, as set out above). All else being equal, a higher RAB will drive a higher allowed return (in absolute terms) which, in turn, increases the MAY. The latest WACC used by the CAA for Heathrow, alongside equivalent values for other regulated entities, is set out in Annex E.
Commercial revenues	Consistent with the CAA's 'single-till' model, the total allowed revenues are net of the forecast commercial revenues that Heathrow is expected to generate each year from non-aeronautical activities (e.g. retail, car parking).[67]
Other regulated charges (ORCs)	These are charges for specific services and facilities collected separately from Heathrow's regulated airport charges. These charges are included in the single-till calculations, so total allowed revenues are also net of forecast ORC revenues.

[63] The CAA also includes various annual adjustment mechanisms (e.g. for volume risk sharing) that also determine the precise value of the MAY for each year covered by the control.
[64] As the MAY is set on a per passenger basis, the approach to setting the MAY control distinguishes between charges paid for passenger flights and flights that do not carry passengers, in particular all-freighter aircraft. Revenues for all-freighter aircraft are not taken into account in the MAY but Heathrow may not charge more for such aircraft than it would for an equivalent passenger aircraft. See: CAA, *Market power determination in relation to Heathrow Airport – statement of reasons*, 2014, paragraph 3.6, link.
[65] This approach aims to incentivise HAL to be more efficient than forecast - if HAL spends less than the operating cost allowance, it can retain the difference until the next price control is set; if it spends more, it has to fund the shortfall until the next price control is set. The CAA aims to combine this with setting incentives around service quality to try to mitigate the risk that operating cost could be saved by reducing lower quality service.
[66] The CAA determines this allowance and, during H7, used the depreciation profile from HAL's Revised Business Plan Update 2, adjusted to reflect the differences between HAL's proposed capital expenditure profile and the CAA's final capital expenditure allowance. See: CAA, *Economic regulation of Heathrow Airport Limited: H7 Final Decision – Section 3: Financial issues and implementation*, 2023, link.
[67] Commercial revenue forecasts are derived by the CAA based on: historical performance and trends in various revenue streams; project passenger volumes and expected revenue per passenger for each commercial activity; analysis of market conditions, consumer behaviour, and economic indicators; available commercial space and its utilisation rate; and input from Heathrow's own business plan and projections. For H7 (2022-2026), the CAA projected commercial revenues of £4,205 million, which is 17% higher than HAL's own estimate. See: CAA, *Economic regulation of Heathrow Airport: H7 Final Proposals – Summary*, 2023, link.

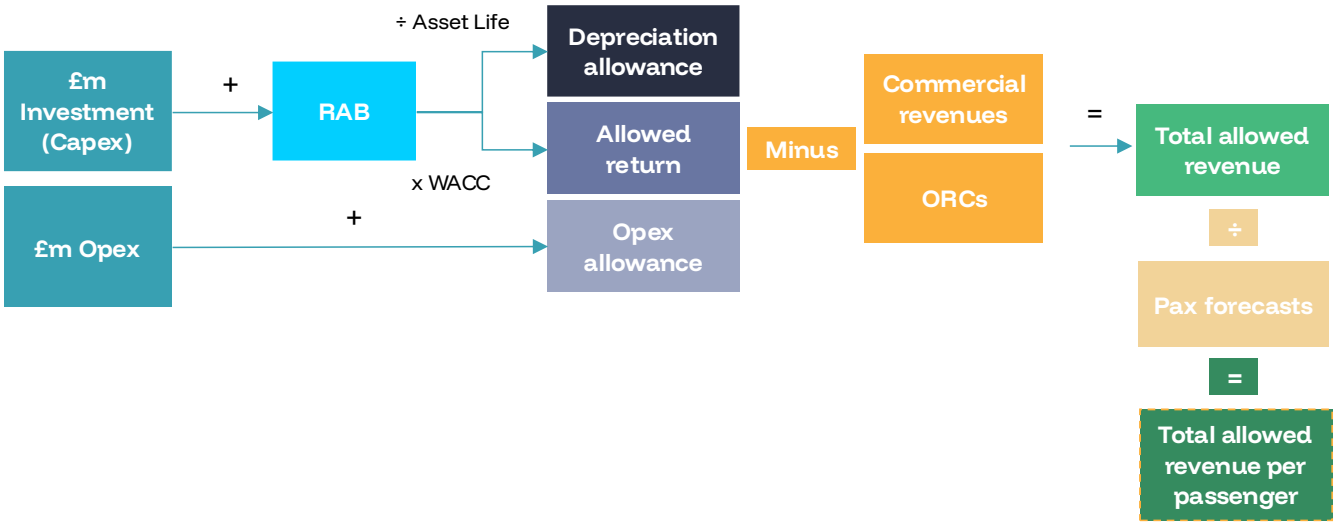
111. As is clear, the RAB plays a central role in determining Heathrow's capital costs, and as a result, its MAY. As set out above, any increase in the RAB – be that through capital expenditure or inflation indexation – has two effects that increase the MAY:

- It leads to a higher depreciation allowance that feeds directly into allowed revenue and, therefore, the MAY over time.
- It creates a larger asset base for calculating the allowed return through the WACC, which also increases total allowed revenue and the MAY.

112. As explained further in Section D, this also means that the RAB-based model creates strong (and harmful) incentives for HAL to grow the RAB through capital expenditure, even when such expenditure is inefficient, as it increases HAL's returns.

113. Figure 4 below provides a simplified illustration of the model.

Figure 4: Simplified illustration of the RAB-based model used by the CAA



Source: The Parties.

Regulating service quality

114. The service quality regulation is reviewed by the CAA alongside setting the MAY. Under H7 (the settlement currently in operation), the CAA adopted a new Outcome-Based Regulation (OBR) framework.

115. Under the OBR framework, the CAA sets high-level consumer outcomes that HAL is expected to deliver, supported by more detailed service quality measures and targets developed collaboratively between the CAA, HAL and other stakeholders. The OBR framework includes six consumer outcomes, 37 measures with reputational and financial incentives, and specific targets.

The regulatory cycle

116. As set out above, the CAA periodically reviews HAL's licence conditions which implement the controls on price and the service quality regime. The review cycle is focussed on updating the parameters of the price control condition (i.e. revising the implementation of the RAB-based approach), service quality regime and other licence conditions. The process does not involve the CAA reviewing whether the overarching approach to remedies (including the continued reliance on the current implementation of the RAB model) is effective and continues to be the most appropriate approach.

117. In the short gap between the conclusion of the H7 process and the commencement of H8, the CAA undertook a "lessons learnt" review[68], but this was solely about the H7 process and not the wider scope of whether the current regulatory framework is at all effective.

[68] CAA, *Setting future price controls – lessons learnt from the review of approach*, 2024. Link.

The BAA airports market investigation into UK airports delivered significant consumer benefits (primarily at Gatwick and Stansted), but competitive conditions have not improved at Heathrow

118. In a 2016 review of the CC's 2009 decision to break up BAA, the CMA found evidence of improved quality of service, better customer satisfaction, higher efficiency and stronger innovation at London airports.[69] Evidence suggested that the benefits to consumers from improved connectivity and choice, and lower fares, would be £870 million up to 2020.[70]

119. The CMA did find some evidence of HAL putting some additional effort into attracting and retaining customers from other London airports and some evidence that HAL was closing the gap in terms of service quality compared to other major airports in Europe. However, it made little reference to Heathrow having improved significantly over this period. Instead, the report concluded that by far the biggest benefits to consumers arose at Gatwick and Stansted, where the airports began to compete for the first time, improving quality while reducing airport charges, and attracting additional passengers and routes.[71]

120. It has been over 15 years since the CC's final report into BAA, and the resulting reforms have not improved competitive conditions at Heathrow. Indeed, the Parties strongly consider that despite CAA oversight of economic regulation, outcomes for consumers and other users of Heathrow have deteriorated in recent years.

121. This deterioration reflects **key features of the market for the provision of AOS at Heathrow which adversely affect competition and outcomes for consumers – namely, HAL's entrenched SMP in relation to the provision of AOS and a regulatory regime that not only fails to adequately address the risks of harm to consumers from HAL's SMP, but also actively creates adverse incentives for HAL that result in consumer harm**, particularly in relation to higher charges, insufficient service quality and inefficient capital expenditure.

122. As explained in this submission, the Parties are strongly of the view that it is necessary and appropriate for the CAA to carry out an urgent and fundamental review of the adequacy of the regulatory model and market structure at Heathrow given:

    - There has been no overarching strategic review of the regulatory model and market structure and how it applies to Heathrow for over 15 years.[72]

    - A strategic review of this nature is not carried out within the CAA's general regulatory cycle and the periodic review of HAL's licence conditions undertaken by the CAA. The issues raised in this submission will not be corrected through the operation of the current regulatory model.

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[69] The CMA recently (i.e. November 2024) reiterated the benefits of the 2009 reforms, noting that the competition in the airport sector that stemmed from the reforms resulted in "*a more dynamic and innovative market*". See CMA, *Response to the Industrial Strategy Green Paper*, November 2024, link

[70] CMA, *BAA airports: Evaluation of the Competition Commission's 2009 market investigation remedies*, 2016, pp. 46-85, link.

[71] CMA, *BAA airports: Evaluation of the Competition Commission's 2009 market investigation remedies*, 2016, pp. 46-85, link.

[72] The only Airports National Policy Statement is solely focused on "new runway capacity and infrastructure at airports in the South East of England".

- The significant evidence – as detailed in this submission – that the current regulatory model is not only ineffective to curb HAL's SMP but also creates perverse incentives for HAL which lead to adverse effects for consumers.
- Such a review (e.g. whether that be a sector review, a market study, or a strategic review akin to the Telecoms Strategic Review undertaken by Ofcom in the early 2000s) is consistent with the CAA's General Duty under the CAA12,[73] and also its duty to "*keep under review the provision of airport operation services in the United Kingdom and elsewhere*" under Section 64 of the CAA12.

[73] Consistent the CAA's General Duty under the Civil Aviation Act 2012.

D. THE CURRENT REGULATORY REGIME AND MARKET CONDITIONS CREATE HARMFUL INCENTIVES AND DO NOT PROPERLY CONSTRAIN HAL

Introduction

123. The Parties consider that **both the enduring nature of HAL's SMP (as discussed in Section C) the current regulatory model as it is applied at Heathrow amount to features of the market that have an adverse effect on competition.** The current regulatory model at Heathrow is not only insufficient to address and constrain HAL's SMP effectively, but it also has created harmful incentives which HAL is unconstrained from acting upon.

124. This section sets out particular aspects of the current regulatory regime and market conditions that have created harmful incentives for HAL and failed to constrain HAL's SMP. It explains why the operation of the existing regulatory model means that:

- HAL is incentivised to spend capital inefficiently to grow the RAB.
- HAL has no incentive to ensure commercial activities are NPV positive.
- HAL has weak incentives to drive operational efficiencies.
- HAL has weak incentives to be innovative and responsive to user needs or to promote a truly collaborative ecosystem with key stakeholders to innovate in benefit of passengers.
- The CAA's proposed approach to H8 will not solve these serious problems.

The current regulatory model does not appropriately constrain or incentivise HAL

125. Economic regulation seeks to replicate for consumers the conditions that would arise were Heathrow to face an effective competitive constraint. However, regulation cannot fully replicate the incentives and constraints (and their associated benefits) that come from vigorous competitive rivalry. Further, there are risks of ineffective regulation or, worse, unintended consequences as a result of regulation creating harmful incentives for the regulated firm. Such limitations mean that policymakers in other sectors have sought to focus regulation on those parts of the value chain where they cannot rely on market forces.[74]

126. In the case of Heathrow, HAL's SMP combined with a regulatory regime that is not fit-for-purpose results in HAL having consumer-harming incentives, and it is not prevented from acting on those incentives. These incentives mean that HAL is not operating as an efficient operator, and regulation has failed to in its goal of replicating the conditions that arise in competitive conditions.

127. Table 1 below summarises HAL's consumer harming incentives - each is then considered in more detail in the remainder of this section.

Table 1: HAL's consumer-harming incentives

HAL has an incentive to spend capital inefficiently to grow the RAB	• The RAB is core to the current regulatory model – it drives the capital costs that are the largest part of HAL's costs. • Capital expenditure increases the value of the RAB and returns to HAL's shareholders (as well as charges). • It is critical that capital expenditures are effectively policed to prevent inefficient expenditures entering the RAB. • Effectively guarding against inefficient capital expenditure is particularly difficult due to the complexity and bespoke nature of LHR capital schemes, but also due to the information asymmetries in favour of HAL that the current model fails to mitigate adequately. • HAL's own financing choices, which involve very high levels of debt, and the CAA's financeability considerations reinforce the incentive to spend capital inefficiently.

[74] e.g. telecoms and energy.

HAL does not have an incentive to ensure commercial activities are NPV positive	• HAL has an incentive to beat the CAA's forecast of commercial revenue when setting the MAY. • But HAL's incentive to maximise the RAB means that it is incentivised to invest in underproductive commercial infrastructure even when the NPV is unlikely to be positive. • Costs not recovered through commercial revenues will be recovered through regulated charges.
HAL has weak incentives to drive operational efficiencies	• While HAL has an incentive to outperform the cost forecasts used to set the MAY, the incentive is weakened by the cost of efficiency improvements ultimately being passed on to users. • Furthermore, the limitations in the CAA's ability to robustly establish Heathrow's efficient costs due to the lack of information, limits its ability to adopt cost forecast that reflect fully efficient operations and costs.
HAL has weak incentives to be innovative and responsive to user needs	• HAL's market power means it does not need to worry about being innovative and ensuring that it provides a service that meets the needs of consumers or its airline customers. • While the regulatory regime does create incentives to invest, those incentives do not ensure that investment is focused on innovations and service improvements that benefit consumers and other users.

Source: the Parties.

128. HAL is able to act upon the regulatory model and the incentives it creates in a way which furthers its own interests. HAL is only incentivised to focus on optimising its performance within the incentive system and settlement created by the regulatory regime. This is demonstrated by its H7 request for a c.95% increase in charges.[75] The CC, in its Final Report into BAA in 2009, recognised these inherent risks of the RAB model.[76]

[75] BBC, *Heathrow passenger charge to be curbed*, 2021, link.
[76] The CC commented in 2009: *"[The RAB model] provides an incentive for BAA at each regulatory review to make the projected capital expenditure and operating expenditure as large as possible, and to understate the scope for efficiency savings, traffic growth and growth of other revenues, and subsequently to outperform its projections."* Competition Commission, *BAA airports market investigation*, 2009, paragraphs 6.17 to 6.28.

HAL has an incentive to spend capital inefficiently to grow the RAB

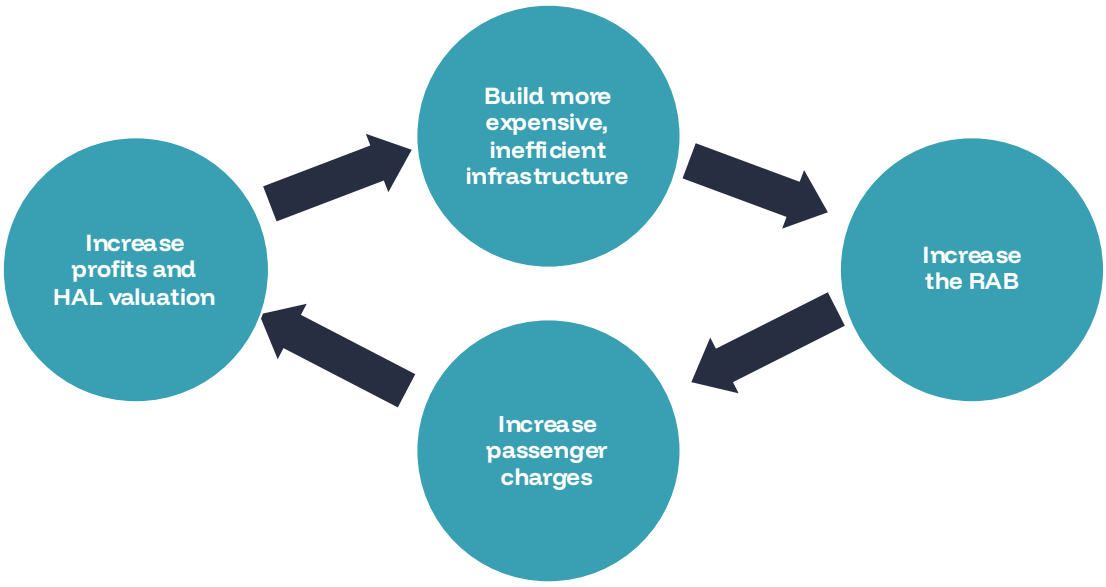
129. Ensuring regulated firms in capital-intensive markets invest efficiently[77] is critical to securing good consumer outcomes. However, under the current regulatory model, HAL is incentivised to spend capital inefficiently to grow the RAB and therefore profits. This results in higher charges and poor value for money for users than would otherwise be the case.

Under the current regulatory model, unless stopped by the regulator, inefficient capital expenditure increases HAL's returns by increasing the RAB

130. In well-functioning markets, investing inefficiently reduces profitability as competition prevents firms from passing on inefficiently-inflated costs. However, HAL is insulated from such a dynamic as it can pass on inefficiencies to users via growing the RAB and increasing charges.

131. Growing the RAB means that HAL also grows its returns (as returns are a function of the RAB and the WACC).[78] Crucially, capital expenditure does not need to be efficient for this effect – inefficiently-inflated capital expenditure also increases the RAB, unless it is stopped by the CAA. Once such expenditure is included in the RAB, its recovery over time is protected by regulation.

Figure 5: Cycle of growing the RAB and charges to increase profits



Source: the Parties.

[77] Investing efficiently means that, for example, firms need to ensure both that the costs they incur to build infrastructure to a specific design are appropriate, and that the specific design is appropriate and proportionate given the expected level of demand and the quality of service customers require and value.
[78] See Section C.

132. In asset-intensive sectors where investments are sunk and typically lumpy, ensuring the regulated firm has the right incentives to invest is important. The RAB model, which is used in other UK regulated sectors, can be favoured by regulators because it is seen as a way to strengthen investment incentives by providing a way of reassuring investors that their efficiently incurred investments will be treated fairly.[79] As set out in Section C, once capital expenditure undertaken by the regulated firm is included in the RAB, the regulated firm is then allowed to recover that investment over time through depreciation allowances and a return on the capital employed on the undepreciated part of the capital expenditure that remains in the RAB.

133. By providing clarity and certainty for investors, the RAB model should support a lower weighted average cost of capital (WACC) for the regulated firm's investments, which would benefit consumers through lower charges, all else being equal. However, in providing clarity and certainty for investors, it removes some risks that would normally be present in competitive markets.

134. In an ideal world, the WACC allowance provided for by the CAA would be carefully calibrated to closely match the 'true' cost of capital. However, the realities of any regulatory system make this difficult. For example, in the airports sector, the WACC allowance is established infrequently to align with the five-yearly price control cycle, while capital market volatility or uncertainty makes it difficult to maintain a close alignment confidently or over time. At the same time, it is broadly accepted that in most regulated sectors, the risk of underinvestment (resulting from a WACC allowance that is too low relative to the true cost of capital) gives rise to greater adverse effects than the reverse situation. This translates into a prevailing regulatory approach in infrastructure sectors involving explicitly 'aiming up' when determining the WACC allowance (for example, in UK water). Even where such aiming up is not made explicit, regulators tend to adopt a cautious approach, doing so implicitly.

135. While this means that the RAB model has robust pro-investment incentive properties, it also means that the regulated company has incentives to spend more capital than is appropriate or efficient. Because of this, it is critical that capital expenditure is directly and effectively scrutinised and policed by the regulator to prevent inefficient expenditure entering the RAB.

136. However, for the reasons we set out below, the CAA is considerably more limited in its ability to scrutinise and effectively police HAL's capital plans and spend than other UK regulators,[80] incentivising HAL to pursue 'gold-plated' or otherwise inefficiently expensive, disproportionate or under-productive capital schemes. Such inefficiency not only adversely impacts consumers through higher charges, but also through inefficient airport designs which can seriously undermine the passenger experience, for example through longer times to traverse the airport (increasing connection times – see Annex F) and more complicated, confusing layouts.

137. The CC, in its 2009 market investigation, recognised the issues with RAB-based regulation and the incentives that they create for the 'gold-plating' of investments.[81]

> *"[These criticisms] are inherent in RAB-based regulation, which incentivises BAA to 'play the regulatory game'—i.e. to invest in order to achieve an allowed return—rather than*

[79] Which can be backed up by a legal duty for the regulator to ensure that regulatory functions are financeable.
[80] It also faces similar limitations in relation to operating costs.
[81] Competition Commission, *BAA airports market investigation*, 2009, paragraphs 6.17 to 6.28, link.

providing what users necessarily want, in terms of quantity, quality, location and timing of investment".

"However, the bias towards increased use of capital created by RAB-based price regulation may have the undesirable effect of encouraging inefficient investment by the company. It may also provide incentives for strategic behaviour by the airport operator to inflate the size of the RAB and may discourage the application of charging structures that make efficient use of capital."

The CAA's ability to police the efficiency of HAL's capital expenditure is considerably more limited than other UK regulators as a result of the complexity of Heathrow and information asymmetries

138. The RAB-model is used in a number of other UK regulated sectors. However, its application to Heathrow is differentiated by the particular complexity of policing the efficiency of HAL's capital expenditure. This means that the use of the current RAB model for regulating Heathrow is materially less effective than for other sectors.

139. In other regulated sectors, networks are largely standardised, simpler and regulators can develop a reasonable understanding of the engineering requirements and related efficient costs of those networks, including through benchmarking. For example, telecoms regulators are able to develop bottom-up costing models that use well-established engineering and costing inputs. Or in water, Ofwat is able to benchmark the costs of water companies in different parts of the UK.

140. However, Heathrow comprises a diverse array of complex and often bespoke infrastructure and services, including a myriad of consumer touchpoints – security screening, baggage systems, passenger mobility assistance, retail, parking, etc. The passenger experience is shaped by the quality, efficiency and interactions across all these facilities and touchpoints. This makes it particularly complex for the CAA to detect and demonstrate inefficient capital expenditure[82] and the CAA's ability to benchmark HAL's costs in the level of detail needed for the regulatory process is considerably more limited than for other regulators.

141. In addition, notwithstanding changes made during the H7 process, the CAA (and all stakeholders including airlines) still face adverse information asymmetries[83] which render assessments of efficient costs further prone to error. These information asymmetries are even greater given the complexity and unique nature of Heathrow's infrastructure. For example, as set out above, Heathrow's costs are a function of a very broad range of sub-services using a similarly broad range of infrastructure. Fully understanding HAL's costs involves having access to granular information about all these sub-services and infrastructures, but also, crucially, how different capital schemes would affect those costs (and in some cases revenues). The granularity of cost and revenue information currently available to stakeholders including the CAA (e.g. through regulatory accounts or the regulatory process) is highly limited compared to the detailed understanding HAL has of its costs and commercial revenues.

[82] We summarise these differences in regulating Heathrow and businesses in other regulated sectors in Annex M.
[83] Acknowledged by the CAA in paragraph F17 of *Economic regulation of Heathrow Airport Limited: H7 Final Decision, Appendices D – H*, 2023, link.

142. The combination of these factors means that, for example, stakeholders do not have the information needed to be able to assess the costs (and revenues) associated with different options for how important parts of the airport (e.g. terminals) could be redeveloped to determine which option best suits the needs of their passengers (i.e. consumers) nor are they presented with options from which to choose or benchmark against.

143. The CAA acknowledged the challenges associated with information asymmetry in H7:

> *"Our ability to reasonably include capex for commercial revenue or operational efficiency projects in our Initial Proposals was* ***severely compromised by the generally very weak information that HAL provided*** *in support of its proposed capex in these areas at the time."*[84]
>
> *"While we will seek to use our expert judgement to consider whether to disallow inefficient expenditure, we must also be wary of unduly increasing regulatory risk by penalising companies for factors that led to an increase in costs, when these may not have been foreseeable at the time of making an investment decision. The passing of time since the projects under review were completed compounds* ***the general asymmetry of information facing the CAA.'***[85] *[emphasis added]*

144. As HAL's ability to secure favourable regulatory settlements is enhanced by these information asymmetries, it faces strong incentives to provide poor quality or limited information about its capital expenditure plans to maintain them. Given the value it can derive from maintaining its information asymmetry, there is no incentive for it to provide additional transparency when it is requested by the airlines[86] or the CAA.

145. The CAA's proposed changes for H8 which involve providing Heathrow with a limited financial incentive to submit a timely and high-quality business plan, along with tweaks to the Constructive Engagement process, will not be enough to counter HAL's strong incentive to maintain its information advantage. The CAA incentives would need to be sufficient to outweigh the value to HAL of its information asymmetry, which is neither practical nor desirable given they would need to be substantial to influence HAL behaviour.

Heathrow's capital expenditure plans lack meaningful scrutiny

146. Capital expenditure projects at Heathrow are currently managed under the 'Gateway Lifecycle.' This approach is part of an ongoing shift from an *ex post* to an *ex ante* framework, aimed at promoting more efficient capital expenditure at Heathrow.[87] A key requirement for HAL, as part of its license conditions, is to consult with stakeholders and obtain approval for projects that reach gateway G3. HAL must provide accurate and timely information to stakeholders, enabling them to make informed decisions. If a project is approved at G3, the capital expenditure will be added to the RAB, and its costs are recovered through charges. An Independent Fund Surveyor (IFS) is jointly commissioned by Heathrow and the airlines to provide ongoing assessment of project decisions, which is carried out through regular reporting at key decision points.

[84] CAA, *H7 Final Proposals Section 2: Building Blocks*, 2022, paragraph 6.35, link.
[85] CAA, *H7 Final Proposals Section 2: Building Blocks*, 2022, paragraph 7.16, link.
[86] For example, airlines have asked for the 'value engineered' campus masterplan, but have not been provided one.
[87] CAA, *Guidance on capital expenditure governance*, 2023, link.

147. While stakeholders and airlines have an opportunity to scrutinise HAL's capital plans as part of this regulatory process, as well as through Constructive Engagement, and notwithstanding changes introduced at H7 that were intended to drive better capital expenditure efficiency by HAL, this does not enable meaningful challenge of HAL's proposals:

- Airlines and other stakeholders face significant disadvantages due to major information asymmetries discussed above. While airlines are part of the Gateway and Constructive Engagement processes, they are not provided with the depth of information required to adequately overcome the information asymmetries HAL benefits from, including to enable them to effectively challenge the proportionality and appropriateness, for example, of one scheme design option over another. Yet, these decisions are a major driver of the overall efficiency of the capital expenditure. Therefore, despite many hours involved and the lengthy documents produced, Constructive Engagement does not enable testing nor challenge of the strategic options being offered by HAL in a meaningful way. This will not change for H8.
- All capital expenditure options submitted for approval at the stage gate process are designed and selected by HAL. No external third party design options are considered to offer alternative solutions, further restricting the ability of stakeholders to identify potential areas of inefficiency.
- Proposed capital plans presented as forming essential maintenance or asset replacement are much harder for the airlines to challenge and reject – HAL has a strong information asymmetry on the detailed state of its individual assets. As shown in Annex H, 'asset maintenance' is the largest category of HAL's capital expenditure in Q6 and H7.
- The CAA currently lacks a dedicated and sufficient resourced team of experts with the specialised knowledge needed to effectively challenge HAL's capital expenditure plans. This absence of in-house resources limits the institution's ability to provide meaningful oversight and scrutiny. Additionally, the only other airport that the CAA imposes economic regulation on is Gatwick, but its regulatory approach there is light-touch. This means that the CAA cannot draw on its experience of reviewing other capital expenditure plans.
- Despite the involvement of supporting entities such as the IFS in the CAA's process, a significant challenge persists: no stakeholder involved currently has the necessary resources and expertise to adequately address the inherent information asymmetries, making it difficult to effectively challenge Heathrow's multi-billion-pound expenditure plans. Information asymmetry reduces the IFS' current role to assess Heathrow's claims on what it will deliver as opposed to determining if the capital has been allocated efficiently, procured efficiently and executed efficiently. These plans, ultimately, materially contribute to the growth of the RAB and, as a consequence, charges for airport users.
- Finally, where the CAA attempts to align Heathrow's *ex ante* incentives for capital investment (through setting delivery obligations or objectives[88]), there is still the potential

[88] In its initial H7 proposals, the CAA, in paragraph 45 (link), stated: *"we consider that stronger incentives are needed to protect the interests of consumers from the increased costs that they would otherwise face were HAL to make inefficient capex investments. To achieve this, we are proposing to implement a forward-looking incentive framework which includes financial incentives for the timely and efficient delivery of capex."* The delivery obligations approach involves agreement between Heathrow and the airlines for capital projects before they are undertaken, with Heathrow's allowed revenues then linked to its performance in meeting these pre-agreed delivery obligations (as opposed to the CAA carrying out *ex post* reviews of capital expenditure efficiency).

for Heathrow to pass on the risk to their supply chain for the non-achievement of these delivery obligations, which would, in turn, increase the cost of projects for the consumer.

Even if the CAA identifies inefficiencies, HAL's own choices about how to finance its business risks limiting the action the CAA takes

148. Even if the CAA identifies inefficiencies, any decisions to disallow costs from charges are considered in the context of the CAA's financeability duty and HAL's very high levels of debt (and gearing).

149. Under the current regime, there has been a cycle of HAL growing the RAB and using it (and the regulatory commitments associated with the RAB) to increase its leverage through issuing further debt (including at levels that firms normally would not be able to access). This additional debt allows it to further grow the RAB (by funding further capital expenditure) and increase its returns, and the cycle continues. The result is very high levels of debt (and gearing).

150. In theory, HAL's financing and debt choices (and their consequences) do not affect charges (which are based on the costs – including the cost of capital – for a notionally efficient and notionally geared company). Furthermore, as a matter of principle, consumers should not bear any adverse consequences of HAL's financing choices, particularly as they do not receive the benefits.

151. However, in practice, the high levels of debt and the resulting importance to HAL of ensuring it meets its payment obligations linked to that debt and can reissue debt when required (on sufficiently attractive terms), is inevitably part of the broader context (implicit, if not explicit) to the CAA's decisions in tackling (or not) inefficiency as part of the charge control process; they make it far more likely that HAL's *actual* financing and debt choices, rather than those of the *notional* company, drive the CAA's decisions.

152. Such considerations can be managed successfully through fundamental reform of the existing regulation. However, absent reform, by reducing the likelihood that the CAA will take robust action to tackle inefficiency, these considerations further reinforce HAL's incentives to spend capital inefficiently to the detriment of consumers. This means that consumers (asymmetrically) face the downsides of HAL's financing decisions, but do not share in the considerable benefits that HAL derives. This cannot be right or consistent with a well-functioning regulatory regime.

153. Although financeability considerations play a role in promoting the interests of consumers, they should not be prioritised to such an extent that they undermine the broader interests of consumers (and the CAA's primary duty) through the promotion of inefficiency and high charges.

HAL does not have an incentive to ensure commercial activities are NPV positive

154. The Parties strongly support the use of the single-till approach to setting regulated charges. The intention underpinning the single-till is that profits from commercial activities (i.e. shops, restaurants, car parking, facility and property leasing, etc) help to offset the costs of running the airport and, therefore, reduce regulated charges for consumers and other users. In principle, the single-till model therefore shares the financial benefits of commercial activities with consumers and other users.

155. It is crucial that regulation ensures that the benefits of the single-till for consumers are realised in practice. This requires that the incremental revenues for commercial activities exceed the incremental costs of building and operating the facilities used for that commercial activity. Disproportionately costly and/or under-productive infrastructure for commercial activities will increase charges for users. Such considerations are particularly relevant to HAL given the very significant proportion of space in terminals, particularly newer terminals, devoted to commercial activities.[89]

156. For businesses in well-functioning markets, deploying capital on infrastructure or activities that are not (or are unlikely to be) NPV positive, will reduce profitability. Therefore, such businesses, have a strong incentive to ensure that they only deploy capital (or incur operating costs) where there will be sufficient payback from the revenues associated with those activities for them to be NPV positive.

157. However, HAL does not face such incentives. It has an incentive to beat the forecast of commercial revenues used by the CAA when setting the MAY (as this increases its profits during the control period). But it does not have an incentive to ensure commercial activities are (or have a sufficiently strong likelihood of being) NPV positive when undertaking the investment required for them. As discussed above, HAL's incentive is to maximise the RAB which means that it is incentivised to invest in commercial infrastructure even when it is likely to be under-productive, and therefore the NPV is unlikely to be positive. This is because it receives a return on the capital deployed and any costs not recovered through commercial revenues are recovered through regulated charges.

[89] For example, Heathrow has over 420,000 square feet of retail space across four terminals, link.

Heathrow does not have the right incentives to drive operational efficiencies and performance

158. In well-functioning markets, rivalry between firms provides strong incentives to seek out every last operational efficiency, or else they will lose customers to rivals, reducing their profitability. In contrast, because of its SMP, HAL is insulated from such a competitive dynamic. Therefore, its incentive to pursue all such efficiencies is materially weaker.

159. Regulation can seek to sharpen these incentives by setting efficiency targets and sharing the benefits of outperformance with the regulated firm. However, such mechanisms are not a perfect substitute for competition.

    - First, they rely on the regulator being able to establish the scope for efficiency gains which is typically difficult to do robustly.
    - Second, the mechanisms for sharing the benefits are imperfect.

160. Consistent with this, HAL does not face the right incentives to drive operational efficiencies and keep operating costs down:

    - First, for the same reasons set out above in relation to capital expenditure, the CAA is severely constrained in establishing the efficient costs of operating such a complex and unique business.[90]
    - Second, under the current regulatory model, Heathrow only benefits from cost savings for the duration of the relevant regulatory control period, after which the gains are passed on to consumers in the form of lower charges. This creates a short-term focus and dampens the impetus for Heathrow to invest in process improvements, technology or other innovations that could deliver sustained cost efficiencies over a longer period.

161. In addition, Heathrow's SMP, combined with the information asymmetries and forecasting challenges in the regulatory process, means it is incentivised to inflate its operating expenditure projections to maximise allowable charges, increasing the scope for outperformance, which increases profits. With limited competitive pressure or credible regulatory scrutiny, Heathrow can embed inefficiencies into its cost base, which it recovers through higher passenger charges.

162. There are numerous examples that illustrate Heathrow's inefficiencies and its track record of inflating its costs, to cite just a few examples:[91]

[90] In the CAA's H7 Final Decision, the regulator introduced Licence Condition C2.4, which required HAL to procure an independent review of its cost allocation methodology for setting other regulated charges (ORCs). In its independent review (June 2024), Grant Thornton stated that *"there is no consolidated document that sets out the end-to-end approach to ORC cost allocation"* and *"this element of HAL's cost allocation methodology may not be fair and reasonable, and, as a result, may not be in line with the ORC charging principles"*. Among other issues, the report commented that *"the high level of manual input and interpretability creates a lack of transparency, the risk of knowledge being lost, and leaves no clear audit trail."* This example highlights the challenges for the CAA in establishing efficient costs and overcoming information asymmetries.

[91] Although some of these examples could considered as strictly relating to HAL's capital expenditure activities (not operating expenditure), it nevertheless illustrates its inefficiency and tendency to inflate costs.

- Arcadis' review of HAL's capital expenditure during Q6 commissioned by the CAA concluded that Heathrow's actions may have "directly contributed to wasted spending or lost benefits", specifically relating to a cargo tunnel with a budget of £44.9 million that cost £197 million.[92] Meanwhile, the cost of upgrading the main vehicular tunnel to Terminals 1, 2 & 3 has risen by £60.3 million from an approved budget of £86 million to £146.3 million.[93]

- Despite very significant cost, the planned Terminal 2 baggage system exhibits fundamental flaws that will likely undermine its effectiveness and resilience to handle 31,000 bags a day. The system prioritises speed over resilience, increasing risks of mishandled baggage and breaches. Its capacity fails to account for peak demand, with HAL indicating it will need to be 'purged,' disrupting check-in and transfer operations. Inefficient container loading compromises cargo capacity, while space constraints and inflexibility exacerbate risks during delays or disruptions. The design lacks scalability for future growth, risking costly upgrades, and does not consider potential changes in terminal occupancy, such as relocating major long-haul operators with different baggage profiles to Terminal 2. These issues undermine operational efficiency and long-term adaptability.[94]

- HAL quoting £74,000 to cut down three trees – up to 20 times more than the normal charge.[95]

- The effective cost per car parking space when building the new car park at Terminal 2 came in at £61,000 per parking space.[96] This exceeds the cost of building fully furnished hotel rooms by others at Heathrow. For example, the average cost per room at Longford, a 400-bed hotel at Heathrow, was £45,000 in 2014 and the average cost per room at Terminal 4's 600-bed hotel was £57,000 in 2017.[97]

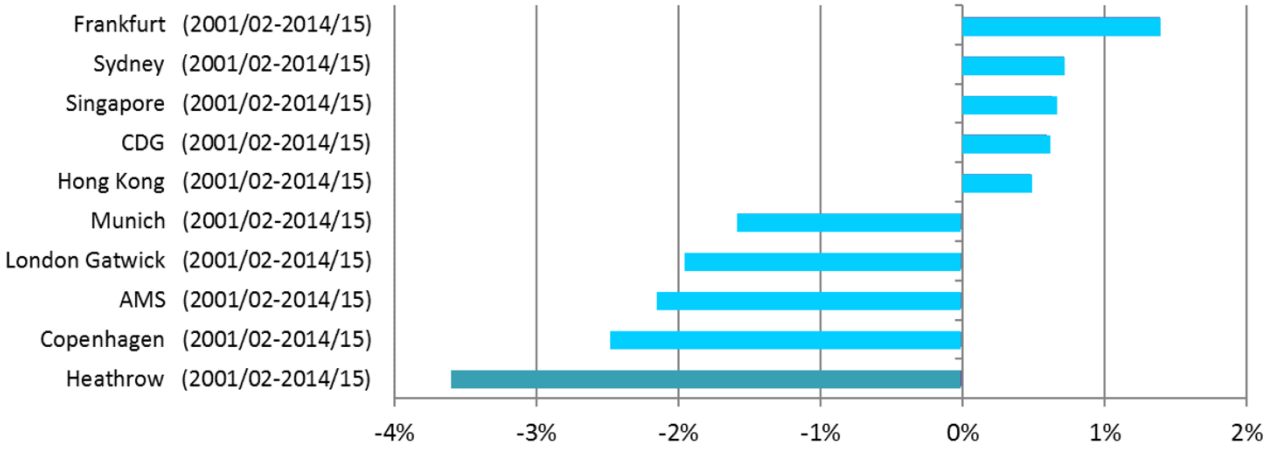
- Other consumer-facing businesses, including hotel operators such as Arora Group, rely on Heathrow's services for access to utilities, which they pay for as part of Heathrow's ORCs. The cost for one of Arora's hotels at Heathrow (the Sofitel) to access these utilities is now up to twelve times the market rate. Consequently, it has now become more cost-effective for Arora to purchase electrical supply and cabling from third parties, rather than using Heathrow's on-site services. Airlines do not have the opportunity to undertake the same approach on airport provided utilities and are subject to HAL's rate.

163. The current framework's limitations in encouraging operational efficiency are also evident in Heathrow's poor productivity and cost performance relative to comparator airports. The CAA commissioned a review of Heathrow's operating expenditure efficiency as part of the H7 process.[98] The review demonstrated that Heathrow had the lowest operating efficiency improvement compared to Gatwick and the study's other airports, as well as against other UK

[92] CAA, *CAP 1964: Economic regulation of Heathrow: working paper on the efficiency of HAL's capital expenditure during Q6*, 2020, paragraph 1.36, link.
[93] New Civil Engineer, *Heathrow 'wasted' money as tunnel refurb costs spiral*, 2020, link.
[94] This risk is evidenced by recent experience in Terminal 3, where the actual baggage capacity (3,600 bags/hour) achieved only half of the theoretical capacity (7,200 bags/hour) approved in the capital expenditure process. Based on feedback from the airline community, it is this shortfall which has led to significant passenger disruption and is driving the need for extensive terminal rebalancing that could require up to 25 airline moves and potentially reduce T3's overall capacity for 3-5 years.
[95] The Times, *Heathrow: the cash machine with an airport attached,* 2018, link.
[96] The Times, *Heathrow: the cash machine with an airport attached,* 2018, link.
[97] Information from Arora Group
[98] CEPA for the CAA, *Review of efficiency of operating expenditure of Heathrow airport*, 2017, link.

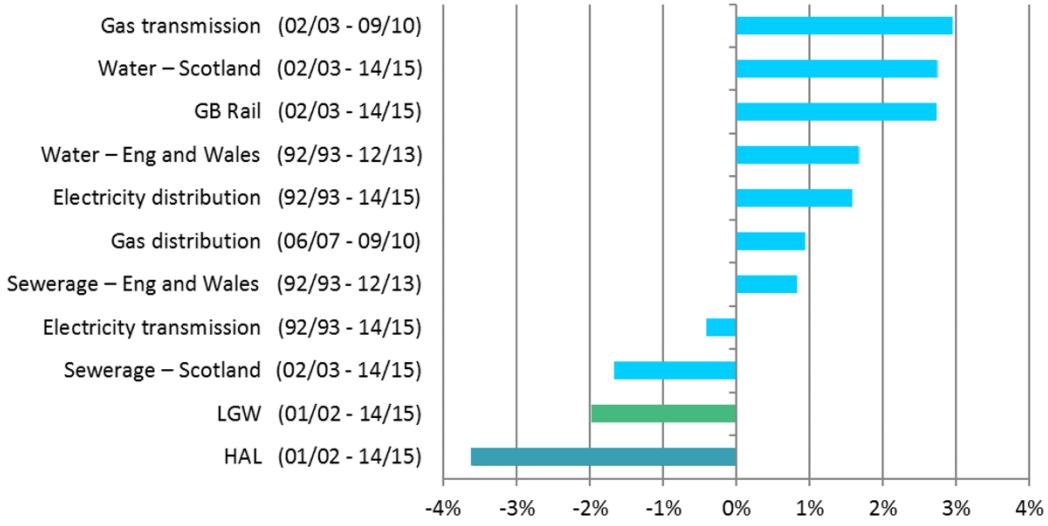
privatised infrastructure; it was the worst-performing entity in the study. Figure 6 and Figure 7 below show that, in fact, operating efficiency at Heathrow fell over the relevant period.

Figure 6: HAL's productivity is amongst the worst compared to international airports



Source: CEPA for the CAA, Review of Efficiency of Operating Expenditure of Heathrow Airport, 2017, link.
Note: Average annual percentage reduction in real unit operating expenditure (RUOE) for industries privatised for more than 10 years. RUOE is a unit cost measure, calculated by dividing real operating expenditure by an output measure; it includes all operating costs and excludes capital costs. A negative number indicates that productivity has fallen.

Figure 7: HAL's productivity is amongst the worst across UK privatised infrastructure



Source: CEPA for the CAA, Review of Efficiency of Operating Expenditure of Heathrow Airport, 2017, link.
Note: Average annual percentage reduction in real unit operating expenditure (RUOE) for industries privatised for more than 10 years. RUOE is a unit cost measure, calculated by dividing real operating expenditure by an output measure; it includes all operating costs and excludes capital costs. A negative number indicates that productivity has fallen.

Heathrow does not have the right incentives to respond to user needs, stifling innovation and improvements to its service that are needed by those it ultimately serves

164. In well-functioning markets, firms have incentives to respond to user needs through innovation and investment in service improvements. This incentive comes from the risk of losing customers if the firm falls behind its rivals, or, conversely, the opportunity to derive a competitive advantage compared to rivals. [99]

165. Heathrow does not face such incentives. Its market power is such that it does not need to worry about being innovative or ensuring that it provides a service that meets the needs of consumers or its airline customers. Airlines have no choice but to consume the service that Heathrow chooses to provide.

166. While the regulatory regime creates incentives to invest, those incentives do not ensure that investment is focused on innovations and service improvements that benefit users. Incentives to innovate to cut costs are also dulled by the regulatory regime as savings will ultimately be passed on to users through lower charges. The complexity of Heathrow and the multitude of user touch-points and services makes it very difficult for service quality regulation to replicate the incentives and constraints seen in a competitive market.

167. Even where investment does deliver user experience improvements, there is no inherent incentive for HAL to deliver such improvements quickly – in contrast to its incentive to incur capital costs once approved – as reflected in vastly expensive masterplan proposals that do not materially improve user experiences until the 2040s.

168. Heathrow's well-publicised slow adoption of the latest technologies in baggage systems, automated check-in, and, most recently, airport security arrangements provide evidence of the wrong incentives to innovate and the sub-optimal services that users receive as a result.[100]

169. These incentive issues were recognised by the CC in its 2009 market investigation, where it noted that price controls "*may dull the incentive for BAA to innovate and to rapidly take up new technology developed by others*".[101]

170. Having the right incentives to innovate and adopt new technologies is particularly important given the focus the aviation sector has on net zero and sustainability – rapidly implementing new technologies is critical to this agenda. Ensuring airports play their part in a timely manner is vital.

171. In recent years, there have been several examples of other major airports working closely with airlines, particularly in the US[102], to deliver major investment projects that align with passenger and airline needs. Although airlines can collaborate with HAL on some matters to

[99] In its 2022 State of Competition report, the CMA described strong competition as a "*driver of innovation*" and stated that differences in levels of innovation between industries "*can indicate an absence of competitive pressure or high barriers to entry*". See: CMA, *The State of UK Competition*, 2022, paragraph7.4(b), link.
[100] See, for example, The Independent, *First major UK airport scraps 100ml liquids rules with new scanners*, 2023, link.
[101] Competition Commission, *BAA airports market investigation*, 2009, link.
[102] Although there are other examples, including from the Middle East.

drive greater innovation and investment in passenger experience enhancing developments, the scale of collaboration (including scoping, design, procurement/contracting, delivery) is not comparable with what has been seen at other airports, for example:

Los Angeles	Houston	LaGuardia
Delta Air Lines and Los Angeles World Airports unveiled the $2.3 billion Delta Sky Way project at LAX in August 2023. The investment meant that Terminal 3 at LAX now connects directly to the Tom Bradley International Terminal via moving airside walkways. This has eliminated the need for bus transfers between terminals.[103]	United Airlines and the Houston Airport System announced a $2 billion investment in 2023 to improve the passenger experience at George Bush Intercontinental Airport.[104]	Delta Airlines and the New York Port Authority jointly invested $4 billion at LaGuardia Airport, which consolidated Terminals C and D into a state-of-the-art terminal facility, which opened in 2022.[105]

172. In each case, the airport operator has collaborated with its airline customers to develop terminal facilities that enhance their passengers' experience in a way considered affordable.

[103] Delta, *Los Angeles International Airport*, link.
[104] United, *United, Houston Airport System Invest more than $2B in Terminal B Transformation*, 2023, link.
[105] Delta, *LaGuardia Airport*, link.

The CAA's proposed approach to H8 will not resolve the major problems with the current regulatory regime

173. The CAA's Draft H8 Method Statement makes it clear that the CAA intends to adopt a similar approach to H8 as that it adopted for H7. In particular, it "*will retain the regulatory asset base ("RAB") and the "building blocks" approach to set the H8 price control for HAL*".[106] While there is no fundamental change in the CAA's proposed approach, it has consulted on detailed evolutions in its process and approach. These include:

- Amendments to the arrangements for constructive engagement ("CE") between HAL and airlines, including starting earlier and having more rounds, with the aim of providing more opportunities for engagement between Heathrow, airlines and the CAA.[107]
- Proposed changes to the way that the RAB is inflation-indexed and for calculating the real WACC, with a proposed shift away from the RPI measure of inflation to either CPI or CPIH.[108]
- The intent to use benchmarks and targeted bottom-up analysis 'where practicable', although there are few details on precisely how this will be done and, given the known limitations on relying on detailed benchmarking for regulating airports, the acknowledgement about using this 'where practicable' could suggest its use will be limited in practice.[109]
- Introducing a new symmetrical, "*relatively small and simple*" financial incentive for HAL to submit a timely, high-quality business plan, with the CAA responsible for assessing the quality of HAL's business plan.[110] The CAA has emphasised that it is keen to see that HAL's business plan has been informed by high-quality consumer research and engagement with its stakeholders.[111]
- The CAA has also set out that it considers environmental sustainability as a 'priority area' for H8, with expectations for HAL to outline plans for meeting environmental obligations.[112]

174. None of these incremental changes will fundamentally change the underlying harmful incentives and inadequate constraints on HAL under the current regime. Small, incremental tweaks to the processes and arrangements have not and cannot resolve the underlying information asymmetries and other limitations on the ability of the CAA and other stakeholders to guard against HAL's wrong incentives.

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[106] CAA, *Draft H8 method statement and business planning guidance*, 2024, paragraph 1.13. link.
[107] CAA, *Draft H8 method statement and business planning guidance*, 2024, paragraph 2.16. link.
[108] CAA, *Draft H8 method statement and business planning guidance*, 2024, paragraphs 2.96 to 2.106. link. As set out in paragraph 2.100, the increase was mainly a result of external factors – the planned alignment between RPI and CPIH from 2030, the lower level of forecast inflation for the H8 period, and changes in interest rates.
[109] CAA, *Draft H8 method statement and business planning guidance*, 2024, paragraph 2.78. link; Liebert and Niemeier, *Benchmarking of airports – a critical assessment*, 2011, link.
[110] CAA, *Draft H8 method statement and business planning guidance*, 2024, paragraphs 1.19 and 3.16. link.
[111] CAA, *Draft H8 method statement and business planning guidance*, 2024, paragraph 1.7. link.
[112] CAA, *Draft H8 method statement and business planning guidance*, 2024, paragraph 1.10. link.

175. Furthermore, relying on stakeholders to engage or negotiate "constructively" with a SMP operator (i.e. a dominant operator) that has strong incentives to maintain its valuable information asymmetry and game the process cannot work by definition;[113] negotiations are inevitably entirely one-sided with no walk-away rights, and the outcomes will ultimately reflect that imbalance. This is compounded by the inevitable information asymmetry that arises between HAL and the airlines.

176. HAL's market power is so substantial and entrenched that, absent fundamental reform, relying on 'commercial' negotiations between HAL and its stakeholders is not consistent with furthering the interests of users regarding the range, availability, continuity, cost and quality of AOS at Heathrow.

177. Fundamentally, even with the H8 'tweaks', HAL will continue to gain substantially from its information advantages and will continue to respond to the wrong incentives in the system to maximise the gains to itself and its shareholders.

[113] The European Court has defined a dominant market position as: "*...a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers*" (Case 27/76 United Brands v Commission, 1978). [emphasis added]

E. THE CURRENT REGULATORY MODEL IS INEFFECTIVE AND FAILS TO PROMOTE THE INTERESTS OF CONSUMERS, OTHER USERS OF HEATHROW AND THE UK

Introduction

178. HAL's SMP (and the market features that give rise to it, as set out in Section C) and a regulatory regime that does not effectively constrain or incentivise HAL (as set out in Section D) result in an adverse effect on competition and very material harm to consumers and other users of AOS at Heathrow.

179. HAL has a complete monopoly on the provision of AOS at Heathrow and controls all the infrastructure required to provide AOS at the airport. The competitive constraints HAL faces from other London airports are weak, reflecting in large part Heathrow's unique size and advantages. Many existing airline users, particularly those with a hub or material operations, have no choice but to use AOS from HAL. HAL's SMP means that, absent effective remedy, it has both the ability and incentive to act against the interests of consumers and other users, including by raising charges and/or making decisions that reduce service quality (including through a reduced focus on innovation).

180. As set out in the previous section, the current regulatory regime not only fails to adequately address this harm, but it also creates its own consumer-harming incentives, particularly in relation to inefficient capital expenditure which results in a higher RAB and, therefore, passenger charges.

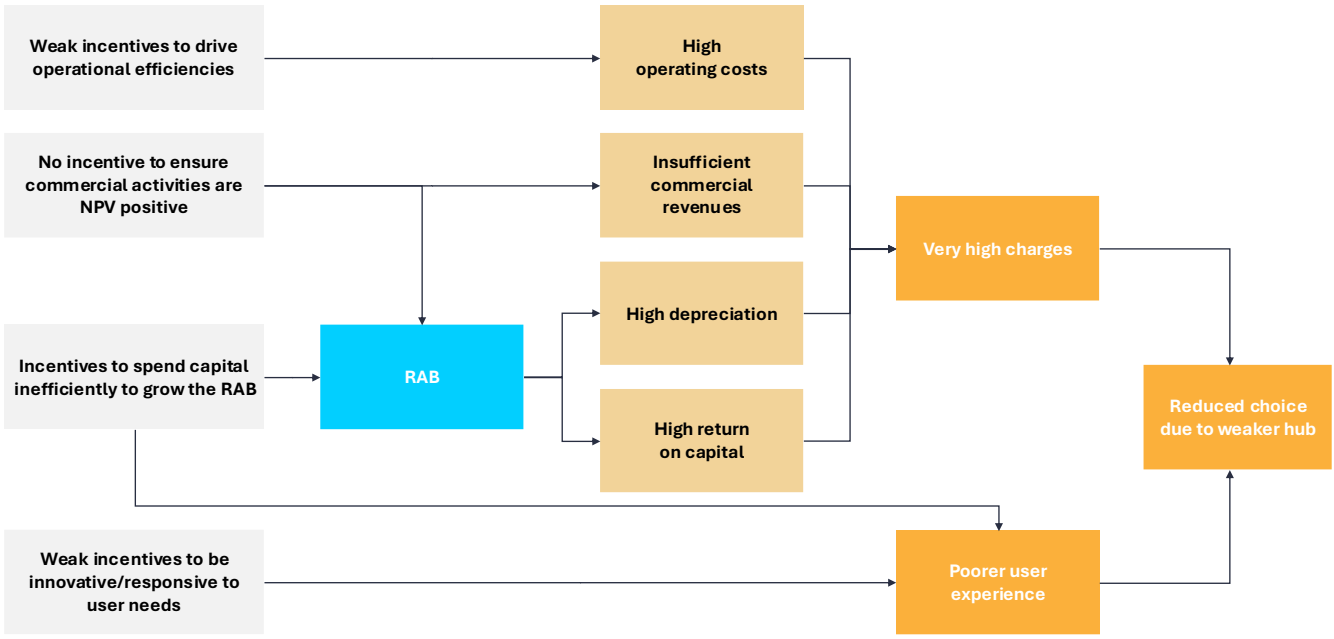
181. This section outlines key harmful effects on competition and on outcomes for consumers that result from these features. In particular, it demonstrates that:

    - Heathrow's passengers and airlines face the highest charges in the world as a result of HAL not having the right incentives to pursue efficient capital spend and operations. HAL's airport charges are by far the most expensive in the world. HAL's regulated charges are at least twice as expensive as most other major hubs and Gatwick. Heathrow has been the most expensive major international airport for nearly all of the last decade. Heathrow's users are paying £1.1 billion more per year on average than if Heathrow's charges were in line with other European hubs.

    - Heathrow's user experience falls far short of the significant premium it charges users because Heathrow does not have the right incentives to invest efficiently and effectively, or to focus on the needs of its users or be innovative. The service it provides is poor value for money. Passengers' perceptions of the experience at Heathrow are declining compared to other international hubs. Heathrow has some of the oldest passenger facilities amongst its peers, and where Heathrow has built new terminals, the passenger experience at them does not match up the very high charges.

182. Heathrow's hub status is at risk of being harmed further because of the very high charges and a poor value for money user experience. This would harm the choice of destinations and frequencies available to UK consumers and businesses.

Figure 8: The current regulatory regime results in harm to consumers and the economy



Source: the Parties.

183. The evidence presented in this section is based on a range of different robust sources and indicators, including comparing outcomes at Heathrow with other major international airports.[114] While, in principle, it would be useful to compare actual outcomes directly with those that would arise under a well-functioning regulatory regime or competitive market, we cannot do that as there is no relevant period in which such competitive outcomes existed at Heathrow or the regulatory regime has been functioning well.

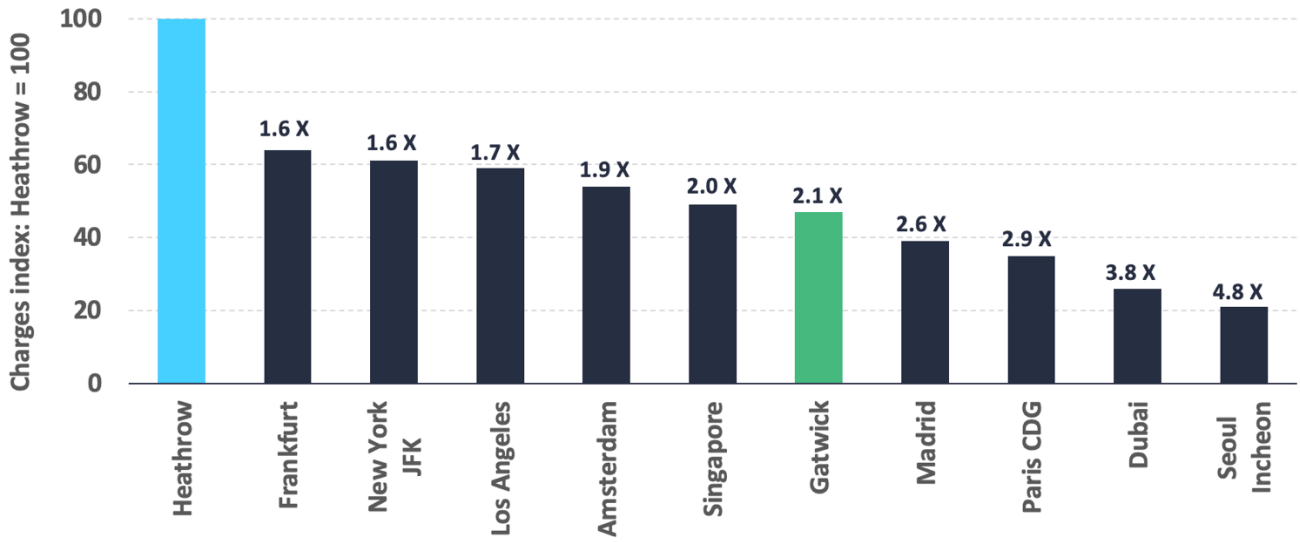
184. The consistent strength of the findings, across different metrics and airports, provides a compelling picture of a highly expensive and inefficient airport that fails to provide value for money for consumers and other users.

[114] Such an approach has considerable similarities to the approach that the CAA has adopted recently to assess the effectiveness of the current regulatory arrangements at Gatwick – comparisons between Gatwick and certain other UK airports (produced by PA Consulting) were an important part of the evidence base used by the CAA (CAA, *CAP3012: Economic regulation of Gatwick Airport Limited: second consultation on extending the current commitments*, 2024, paragraph 3.7, link).

Heathrow's charges are by far the most expensive airport in the world

185. Heathrow's average charges per passenger[115] are the highest in the world amongst major international airports – and by a significant margin (Figure 9). Despite the CAA previously explaining that ensuring charges are "*reasonable is an integral part of protecting the interests of consumers*"[116], Heathrow's charges are almost double the charges at Amsterdam, and more than double the charges at Gatwick, Paris and Madrid. Furthermore, they were 56% higher than Frankfurt (Heathrow has an index score of 100 compared to 64 for Frankfurt).[117]

Figure 9: Heathrow's charges are significantly higher than those of other major international airports, 2024



Source: Heathrow Reimagined analysis of Jacobs, Review of Airport Charges, 2024.[118] Reported as an index score with the world's most expensive airport set at 100. The sample includes the world's top-10 busiest international airports as included in Jacobs' study, plus LGW. Note: multipliers above the bars represent how many times more expensive Heathrow's charges are compared to the other airports.

[115] As defined as the charge imposed on airlines by Heathrow to make one landing and one departure, on a per-passenger basis.
[116] The CAA has previously found that airport charges "*will tend to be passed on from airlines to passengers through ticket prices*". CAA, *Economic regulation of Gatwick Airport Limited: second consultation on extending the current commitments*, 2024, paragraph 3.9. link.
[117] In Annex I, we also show how Heathrow's revenue per pax, revenue per ATM, aeronautical revenues per pax, and aeronautical revenues per ATM also significantly exceeded those of its major European hub peers and Gatwick in 2019 and 2023.
[118] Jacobs' index covers a sample of 50 airports across the world. It states that it does not intend to represent the fifty busiest or largest airports by any specific measure. Instead, it aims to cover a broad spectrum of different approaches to airport pricing across public and

186. Heathrow's charges have not always been so high relative to its peers (Figure 10), but since the early 2000s, Heathrow has quickly risen up the rankings, driven by substantially higher charges both in nominal and real terms (Figure 11).[119] Heathrow's users are paying an additional £1.6 billion per year[120] to use the airport compared to 2003. The timing of the acceleration in charges over the Q4 and Q5 regulatory periods corresponds to the development of Terminal 5 and Terminal 2 respectively.[121]

187. Figure 11 shows the rapid growth in average per passenger charges at Heathrow. However, in practice, passengers departing from Heathrow for long-haul flights have experienced even greater increases in charges. This is because there is variation in the level and growth of charges that different types of passengers experience at Heathrow. Under the current regulatory framework, the CAA sets the MAY that Heathrow can levy, and Heathrow has the flexibility to set separate charges for different segments of passengers within this overall average.

188. Heathrow typically discounts domestic, short-haul and transfer passengers.[122] These discounts play a role in mitigating the harm to Heathrow's hub status from having such high average charges compared to its hub peers[123] (although many of its peers also have their own discount schemes). These discounts mean that passengers departing from Heathrow for long-haul flights pay even higher charges than those set out in Figure 11 and have seen their charges rise more quickly than the average for all passengers.

private sector operating environments under different regulatory regimes. However, it states that the sample includes "*virtually all airports worldwide that normally handle in excess of 10 million international passengers per year*".

[119] Jacobs, *Review of Airport Charges,* 2024.

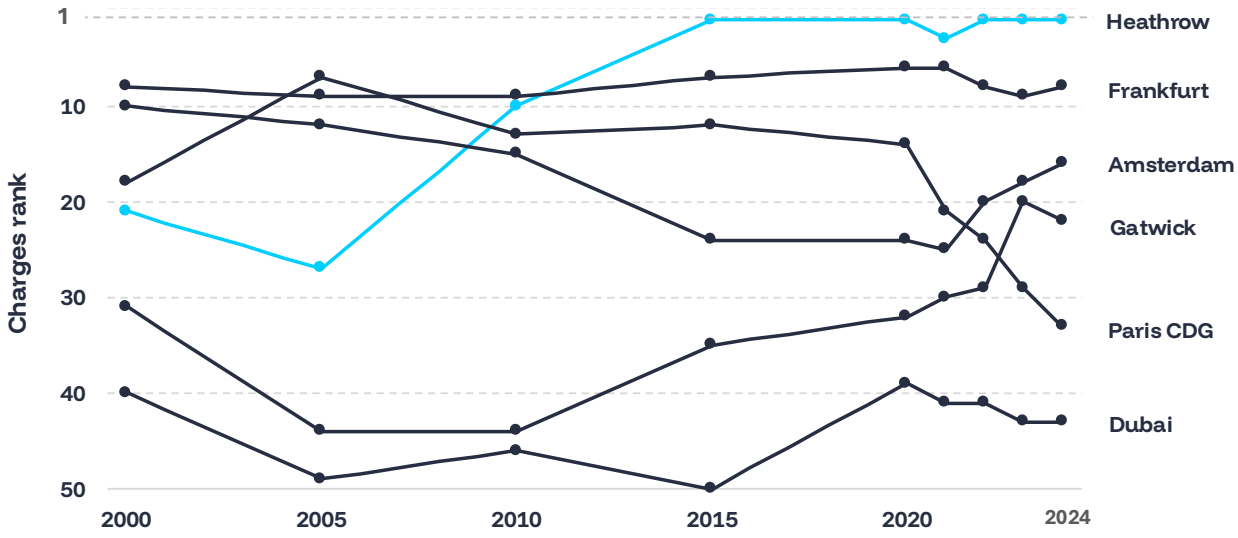
[120] Or £1.2 billion when adjusting for inflation (i.e. CPI 2024 real terms).

[121] The CAA sets price controls for Heathrow in defined multi-year periods. The Q4 regulatory period covered 2003-2008, Q5 covered 2008-2014.

[122] Heathrow Airport Limited, *Airport Charges for 2024 Consultation Document*, Section 10.7 and Table 20, link.

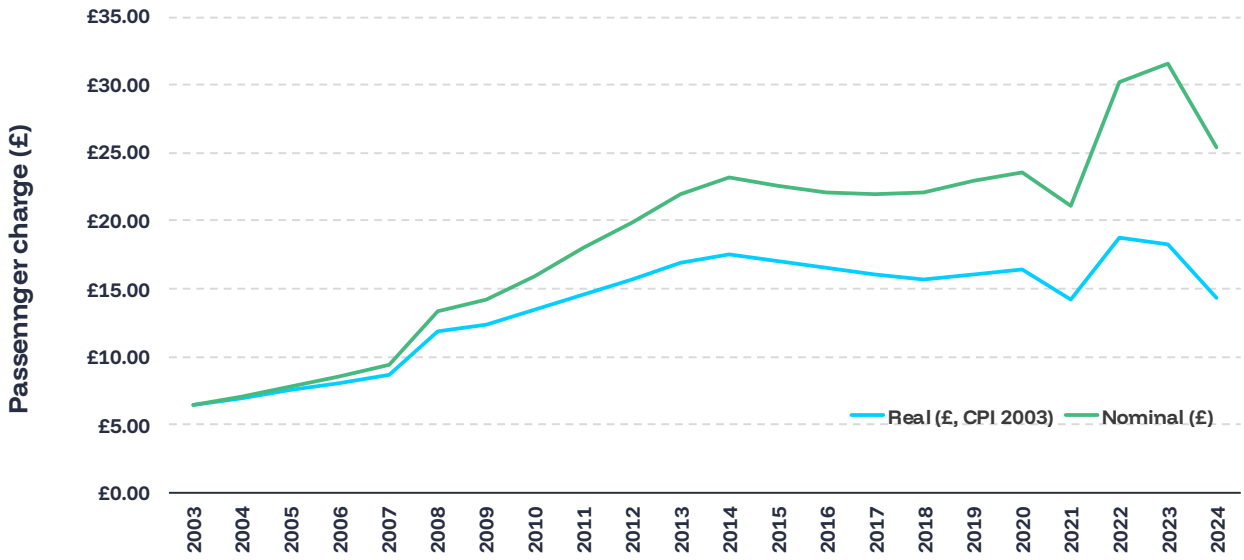
[123] e.g. Amsterdam, Frankfurt and Paris.

Figure 10: Heathrow's charges are significantly higher than those of other major international airports



Source: Heathrow Reimagined analysis of Jacobs, Review of Airport Charges, 2024. Note: years with data reported by Jacobs indicated by line markers.

Figure 11: Heathrow's per passenger charges more than trebled in nominal terms across regulatory control periods Q4 and Q5



Source: CAA, Economic Regulation of BAA London Airports 2003 - 2008, 2003; CAA, Economic Regulation of Heathrow and Gatwick Airports 2008 – 2013, 2008; A consultation on extending by one year the current price regulation at Heathrow and Gatwick airports, 2011; Heathrow Airport, Airport Charges for 2019 Consultation Document, 2018; CAA, Economic regulation of Heathrow Airport Limited from January 2020: notice of licence modifications, 2019; CAA, Statement on Heathrow Airport Interim price cap, 2021; CAA, Economic Regulation of Heathrow Airport Limited: setting a holding price cap for 2023, 2022[124]; CAA, Regulator proposes changes to Heathrow Airport Limited's airline charges in response to CMA appeal, 2024; ONS, RPI All Items Index, 2024; ONS, CPI All Items Index, 2024.

189. Such is the scale of difference between Heathrow's charges and those of other airports, Heathrow's users (i.e. passengers and airlines) are paying £1.1 billion more per year on average than if Heathrow's charges were in line with other European hubs.[125]

190. Although significant increases in Heathrow's charges coincided with investments in Terminal 5 and Terminal 2, Heathrow is far from unique in undertaking major investments in its facilities, for example:

- **Munich Airport** expanded its Terminal 2 in a €900 million project that was completed in 2016. This provided additional capacity for 11 million passengers a year.[126] Furthermore, Munich is expanding its Terminal 1, which will provide additional capacity of six million passengers a year and is expected to open in 2025.[127]
- **Paris CDG** refurbished Terminal 1 and opened a new passenger pathway, in a €250 million project that opened in 2022.[128]
- **Istanbul** has invested in a major new hub airport which is expected to accommodate 200 million passengers a year when fully completed in 2028.[129]
- **New York JFK** has seen various major redevelopments since 2000, as we explain further below.

191. Even as Heathrow's peers have invested in terminal redevelopments – the costs to use them have not matched or exceeded Heathrow's which remains the most expensive airport globally. This is because, unlike Heathrow, peers have managed their capital expenditure efficiently – they do not take the same regulatory benefit of having an underwrite on inefficient spend – and resultantly their average charges have not increased as much over time.

HAL's capital spend is the largest driver of its costs

192. The CAA sets HAL's MAY based on four main cost items:[130] operating costs (opex); depreciation; return on capital employed (cost of capital); and other revenues.

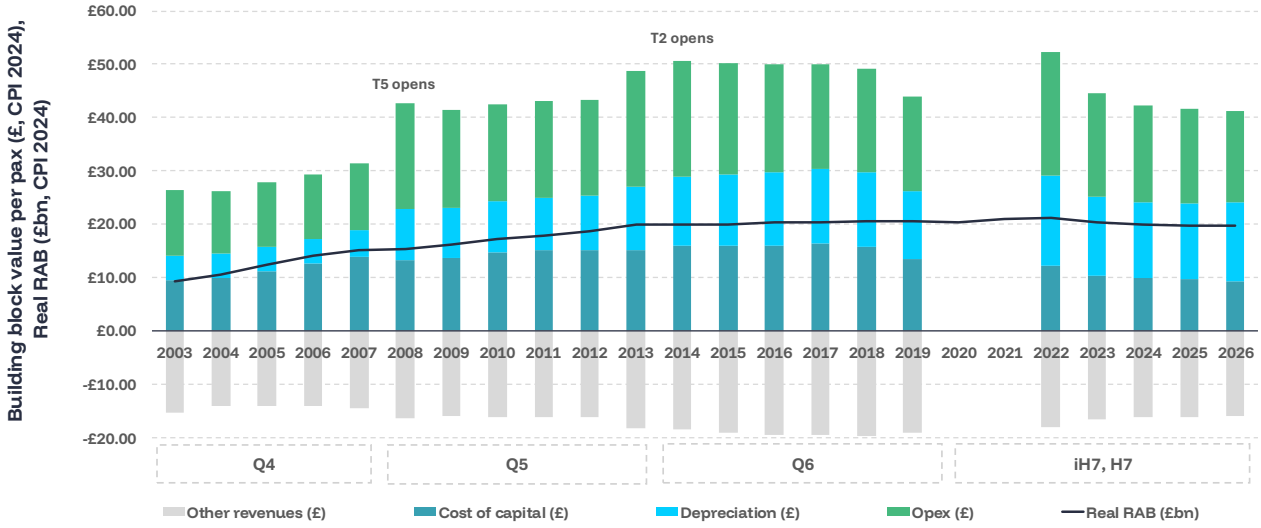
193. Figure 12 shows this breakdown of HAL's costs (as used by the CAA to set the MAY) on a per passenger basis in each of the regulatory control periods from Q4. The costs are presented in real terms (CPI 2024). The two main years affected by the pandemic are excluded as they are outliers.

[124] The higher charges for 2022 (see here) and 2023 (see here) were put in place on an interim basis due to greater uncertainty about passenger demand after the pandemic. The interim period also enabled the CAA to take more time and conduct additional analysis before reaching the final decision on the H7 price control. HAL proposed much higher holding caps for both 2022 (£37.64, nominal) and 2023 (£36.00, nominal), which the CAA ultimately rejected.
[125] An illustrative calculation combining data on the 2024 passenger volume at Heathrow (from Heathrow's website, link); average per passenger charges (i.e. £25.43 for 2024), and the Jacobs charges index data to calculate the change in Heathrow's total charges revenue if charges were in line with the average (mean) of European airports in the top 50 (excluding Heathrow) and taking the difference between the two figures.
[126] Airport Technology, *Munich International Airport Expansion,* 2016, link.
[127] Munich Airport, *Construction projects at Munich Airport,* link.
[128] Group ADP, *Groupe ADP Re-opens Terminal* 1, 2022, link.
[129] Airport Technology, *Istanbul New Airport*, 2023, link. Total reported budget for the project from its start in 2014 is €12 billion.
[130] See Annex J for individual charts on each of the four main building blocks.

194. As Figure 12 demonstrates:

- The two capital cost building blocks (i.e. depreciation and return on capital) both of which are driven by the RAB are, together, the largest driver of total costs and, therefore, charges.
- The real terms value of the RAB has remained relatively constant in recent years.
- Depreciation per passenger has increased over the period. There was a particular step change following the opening of Terminal 5.
- Operating costs per passenger saw a particularly big increase around the time of the opening of Terminal 5, but no comparable decrease was seen when T1 closed in 2015.
- The return on capital (i.e. cost of capital) element has declined over time, driven by a lower weighted average cost of capital.[131]

Figure 12: Breakdown of Heathrow's charges by the core building blocks per passenger (real, CPI 2024), 2003 - 2026



Source: CAA, Economic Regulation of BAA London Airports 2003 - 2008, 2003; CAA, Economic Regulation of Heathrow and Gatwick Airports 2008 – 2013, 2008; CAA, Economic regulation at Heathrow from April 2014: final proposals, 2013; CAA, Economic regulation of Heathrow Airport: H7 Final Decision – Summary, 2023; CAA, H7 Price Control Model; BAA Limited, Annual Reports, 2008 – 2011; Heathrow Airport Holdings Limited, Annual Reports, 2012 – 2013; Heathrow (SP) Limited, Regulatory Accounts, 2014 – 2023; ONS, RPI All Items Index, 2024; ONS, CPI All Items Index, 2024; OBR, March 2024 Economic and fiscal outlook – detailed forecast tables: economy, 2024. Note: no data available for 2013 so midpoint between 2012 and 2014 taken.

195. As explained further in the sub-sections below, Figure 12 illustrates two particularly important insights:

- First, depreciation of Terminals 5 and 2 (in particular) over the last decade should have acted to created headroom in the RAB for new major capital projects, thereby limiting the need for charges to be pushed up. But this has not happened because of HAL's incentives to spend capital inefficiently to grow the RAB (and its returns). The future terminal

[131] i.e. the pre-tax real WACC of 6.20% in Q5 (2008 – 2013) dropped over time to 4.01% in H7 (2024 onwards).

investment now needed therefore implies an outcome of yet more increases in charges due to HAL's inefficiency.

- Second, consistent with HAL not having an incentive to ensure its spend on commercial activities and infrastructure is NPV-positive, its expenditure on such activities over the period does not appear to have resulted in consumers benefitting from lower regulated charges, and may have actually increased them.

HAL's incentives to spend capital inefficiently mean that the RAB has not reduced as major infrastructure has depreciated

196. All else being equal, the depreciation of HAL's major expenditure in terminals (in particular) should have acted to lower the real RAB (and therefore overall costs) over time. This should have created headroom for new major capital projects thereby limiting the need for charges to be pushed up, particularly as passenger volumes have increased. But this has not happened because of HAL's incentives to spend capital inefficiently to grow the RAB (and its returns).

197. Terminal 5 dates back to 2008 while Terminal 2 opened in 2014. The major capital expenditure included in the RAB for these major infrastructure projects will have depreciated substantially over that period (consistent with the substantial and growing depreciation per passenger).

198. Further, during this period, there have been no major investments in new terminal facilities, or other similarly major infrastructure. As Annex H shows, by far the largest capex items in Q6 and H7 were vaguely defined as "*Asset management*" and "*Asset management and compliance*". In Q6, capex to "*improve passenger experience*" was reported separately but was less than 10% of the total capex (and less than a third of "asset management"). In H7 capex on the new T2 baggage system was only 10% of the total capex.[132]

199. Yet, despite this, the real terms value of the RAB has remained relatively constant since 2014. Consistent with HAL's incentives under the current regulatory model to spend capital inefficiently, this is a result of HAL spending disproportionately large amounts of capital inefficiently on business-as-usual activities.

200. During the pre-pandemic period 2014 to 2019, HAL added £5.1 billion (real, CPI 2024) to the RAB on spend related to capex[133], compared to £5.6 billion (real, CPI 2024) in depreciation. Over the period 2014 to 2023, HAL added £7.2 billion (real, CPI 2024) to the RAB on spend related to capex, compared to £9.9 billion (real, CPI 2024) in depreciation. These additions to the RAB are significantly more than the £6.8 billion (real, CPI 2024) capital expenditure to build Terminal 5.

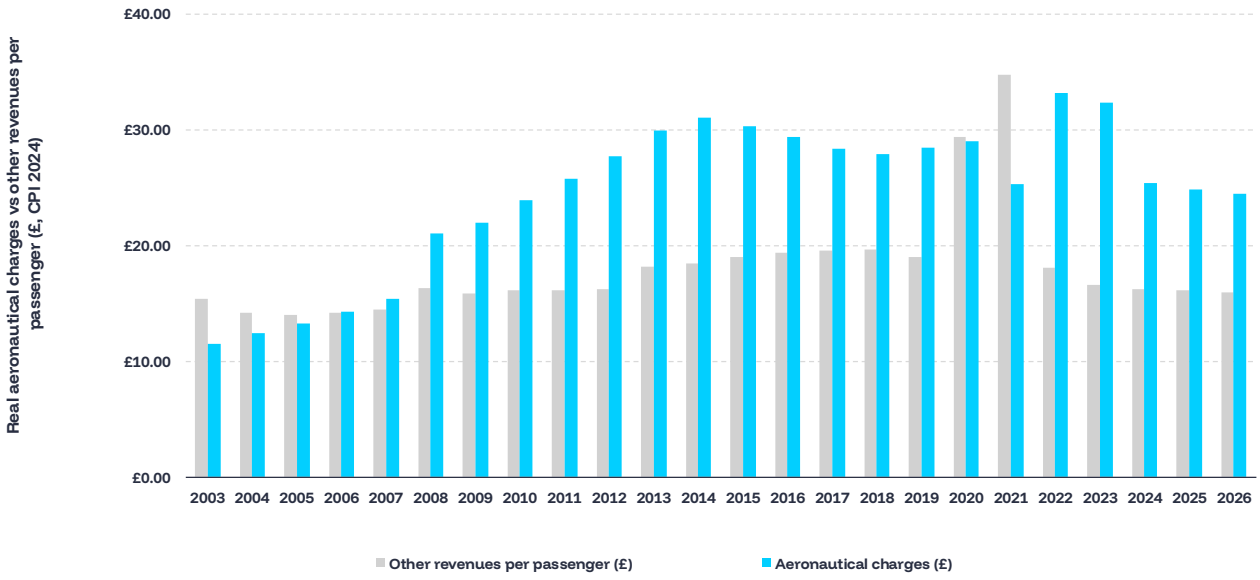
[132] This category was not reported for H7.
[133] This includes 'additions in year', 'category B' and 'category C' costs. Does not include the c. £300m Covid-related RAB adjustment, nor minor RAB adjustments.

HAL's lack of incentive to ensure commercial activities are NPV positive appears to have resulted in consumers missing out on the benefits of the single-till

201. Consistent with HAL not having an incentive to ensure its spend on commercial activities and infrastructure is NPV positive, its expenditure on commercial activities over the period does not appear[134] to have resulted in consumers benefitting from lower regulated charges, and may have actually increased them.

202. The big increase in operating costs per passenger following the opening of Terminal 5 (in particular), and the growth of capital costs per passenger over time, which has been driven in large part by new terminals, has not been offset by commensurate growth in commercial revenues per passenger. In 2003, other revenues per passenger represented c.60% of the costs per passenger.[135] In 2023, it was c.35% – nearly half what it was. This is despite the WACC today being lower than in 2003. This means that the growth in aeronautical charges (i.e. the MAY) over time has substantially outstripped the growth in non-aeronautical revenues per passenger (Figure 13).

Figure 13: Aeronautical charges per passenger vs other revenues per passenger (real, CPI 2024), 2003 – 2026



Source: CAA, Economic Regulation of BAA London Airports 2003 - 2008, 2003; CAA, Economic Regulation of Heathrow and Gatwick Airports 2008 – 2013, 2008; CAA, Economic regulation at Heathrow from April 2014: final proposals, 2013; CAA, Economic regulation of Heathrow Airport: H7 Final Decision – Summary, 2023; CAA, H7 Price Control Model; CAA, A consultation on extending by one year the current price regulation at Heathrow and Gatwick airports, 2011; Heathrow Airport, Airport Charges for 2019 Consultation Document, 2018; CAA, Economic regulation of Heathrow Airport Limited from January 2020: notice of licence modifications, 2019; CAA, Statement on Heathrow Airport Interim price cap, 2021; CAA, Economic Regulation of Heathrow Airport Limited: setting a holding price cap for 2023, 2022; CAA, Regulator proposes changes to Heathrow Airport Limited's airline charges in response to CMA appeal, 2024; ONS, RPI All Items Index, 2024; ONS, CPI All Items Index, 2024; OBR, March 2024 Economic and fiscal outlook – detailed forecast tables: economy, 2024. Note: no data available for 'Other revenues' in 2013 so midpoint between 2012 and 2014 taken.

203. This implies that HAL's major expenditure in large new terminals, which dedicate very significant space to commercial activities, has resulted in limited incremental commercial revenues per passenger despite seemingly high incremental costs. Newer terminal investments, in particular, appear to be inefficient and underproductive.[136]

204. Such inefficiency is consistent with HAL's harmful incentives in relation to capital and operational efficiency generally, but also specifically in relation to ensuring commercial activities are NPV positive under the current ineffective regulatory model.

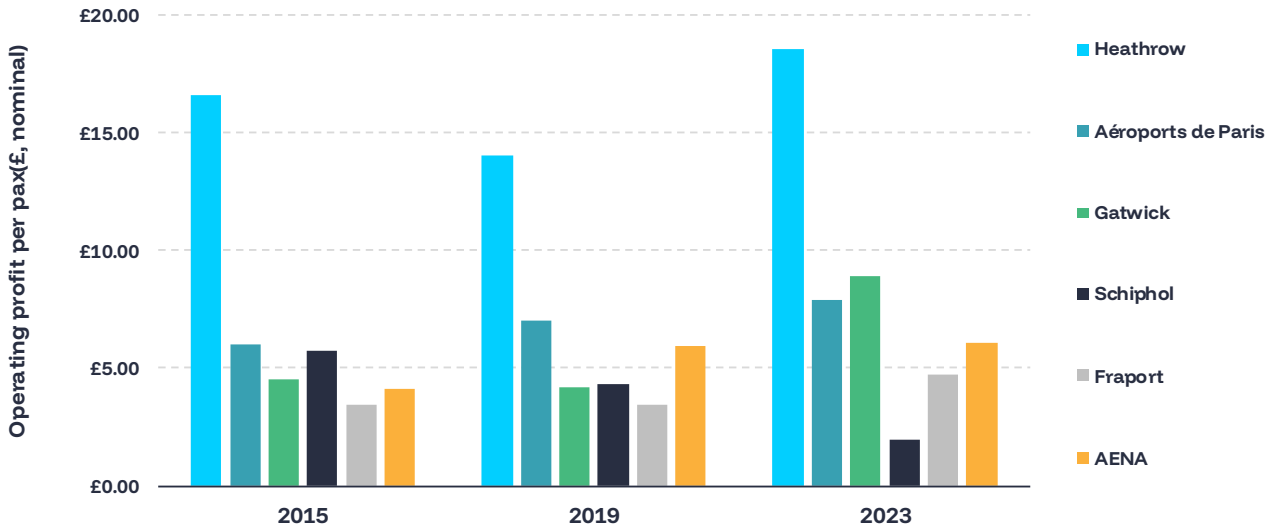
HAL's capital costs are high compared to its peers consistent with its incentives to spend capital inefficiently

205. Figure 14 to Figure 17 compare HAL's depreciation, operating costs, operating profits and non-aeronautical revenues per passenger (in nominal terms) with its main European hub peers and Gatwick.[137] The analysis shows:

- **Heathrow's operating profits per passenger are substantially higher than its peers**. Heathrow's operating profit per passenger was more than double Gatwick's in 2023. The operating profits shown are before debt-interest payments. These are high for HAL in part because of its high levels of debt used to finance the growth in the underlying RAB (consistent with its underlying harmful capital expenditure incentives under the current regulatory regime). However, notwithstanding this, Heathrow Airport Limited paid shareholders dividends of c.£2.9 billion between 2013 and 2019, while the shareholders in the parent company received dividends of c.£4.5 billion over the same period. Heathrow Airport Limited made net profits of £2.9 billion between 2013 and 2019, while the parent company Heathrow Airport Holdings Limited, made net profits of £2.4 billion over the same period. Dividends per passenger for Heathrow Airport Limited over the period 2012 to 2023 were around double those for Gatwick over the period.[138] Furthermore, the investors that bought a stake in Heathrow between 2011 and 2013[139] – when accounting for both dividends and the increase in equity value – have more than tripled their money by 2024, despite going through the worst crisis in the history of aviation.

[134] A lack of transparency and related information asymmetries mean that we do not have access to sufficiently granular information to establish whether the expenditure has resulted in consumers benefitting from lower charges.
[135] i.e. depreciation, return on capital and operating costs.
[136] This is consistent with the analysis set out in Figure 21.
[137] The cost categories in this analysis do not directly align with Figure 12 which uses data from price control forecasts instead of the statutory accounts used for Figure 14 to Figure 17. Regulatory building blocks used in price control forecasts include adjustments like inflation indexation of the RAB. Here we use statutory accounts to improve comparability between HAL and the other airports. Figure 6 also uses forecast passenger volumes, whereas Figure 14 to Figure 17 use actuals.
[138] Calculated by dividing cumulative dividends by cumulative passengers for both airports between 2012 and 2023. Heathrow Airport Limited, *Annual Reports, 2012 – 2023*; Gatwick Airport Limited, *Annual Reports, 2012 – 2023*. Note that the reporting years 2012 – 2018 for Gatwick refer to years ending March. 2019 uses two reports to account for dividends between April 2018 and December 2019. Figures for Gatwick from 2020 onwards refer to calendar years.
[139] Qatar Holding LLC, Australian Retirement Trust, China Investment Corporation, Universities Superannuation Scheme.

Figure 14: Comparison of (nominal) operating profits per passenger

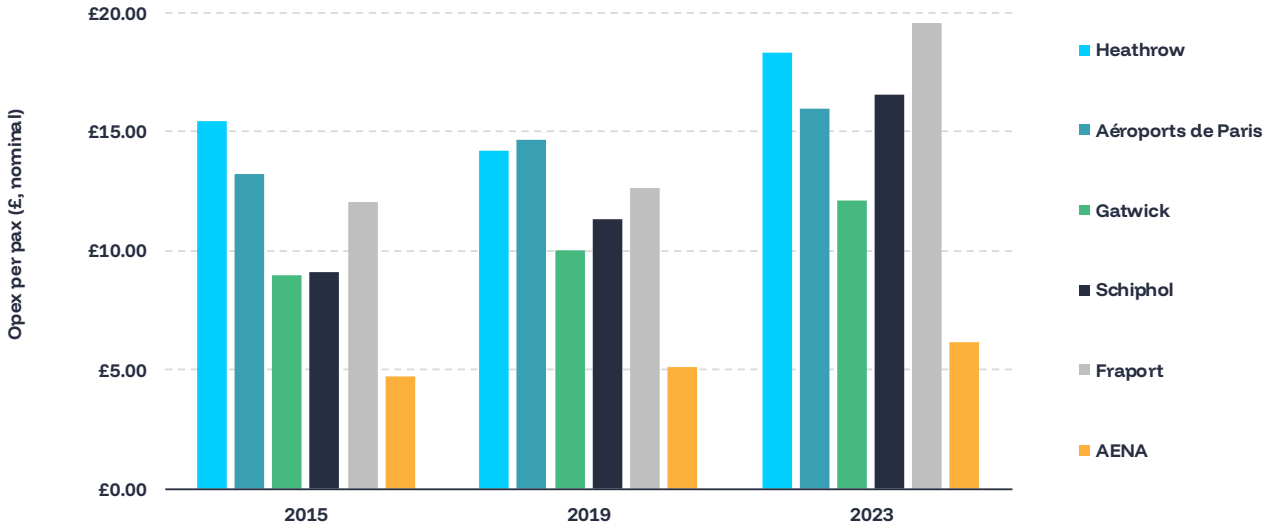


Source: Heathrow Airport Limited, Annual Reports, 2015, 2019 and 2023; Aéroports de Paris, Annual Reports, 2015, 2019 and 2023; Gatwick Airport Limited, Annual Reports, 2015, 2019 and 2023; Schiphol Group, Annual Reports, 2015, 2019 and 2023; Fraport, Annual Reports, 2015, 2019 and 2023; AENA, Annual Reports, 2015, 2019 and 2023.
Note: Financial information for Schiphol, Fraport, and AENA is reported at the group level and it was not possible to disaggregate the information to the individual airport level. Financial information for Aéroports de Paris covers the two Paris airports; Charles de Gaulle and Orly. Currency conversions from Euro to Sterling are made at the midpoint of reporting years (01/08 or the next day the markets are open).

- **Heathrow's operating costs per passenger are among the highest compared to its peers,** despite its greater economies of scale from higher passenger numbers and ATMs.[140] This is consistent with its weak incentives to drive operational efficiency.

[140] Heathrow is the largest single airport in the sample (by 2023 passenger numbers and ATMs). However, total passengers and ATMs for the airport groups Aéroports de Paris, Fraport and AENA are higher because they include multiple airports.

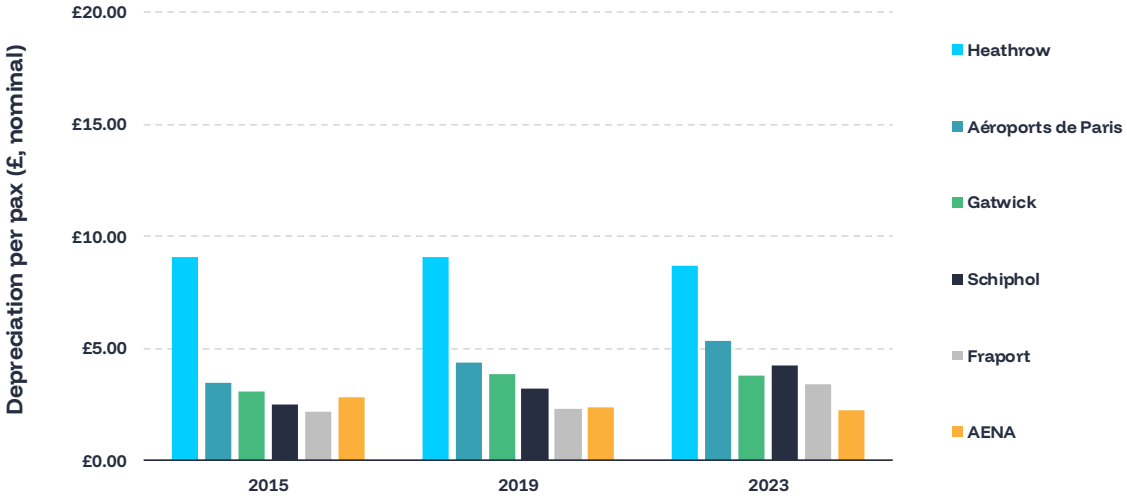
Figure 15: Comparison of (nominal) operating cost per passenger



Source: Heathrow Airport Limited, Annual Reports, 2015, 2019 and 2023; Aéroports de Paris, Annual Reports, 2015, 2019 and 2023; Gatwick Airport Limited, Annual Reports, 2015, 2019 and 2023; Schiphol Group, Annual Reports, 2015, 2019 and 2023; Fraport, Annual Reports, 2015, 2019 and 2023; AENA, Annual Reports, 2015, 2019 and 2023.
Note: Financial information for Schiphol, Fraport, and AENA is reported at the group level and it was not possible to disaggregate the information to the individual airport level. Financial information for Aéroports de Paris covers the two Paris airports; Charles de Gaulle and Orly. Currency conversions from Euro to Sterling are made at the midpoint of reporting years (01/08 or the next day the markets are open).

- **Heathrow's depreciation costs per passenger were substantially higher than the closest comparator (Groupe ADP)** in 2023 and were even higher in previous years. Depreciation is a function of the value of the assets being depreciated and the period over which they are depreciated. Notwithstanding potential variations across airports in depreciation profiles, the scale of the difference between HAL's depreciation per passenger and all its peers is also indicative of HAL's capital expenditure being much higher over time than its peers. Again, this is consistent with its incentives to spend capital inefficiently to grow the RAB.

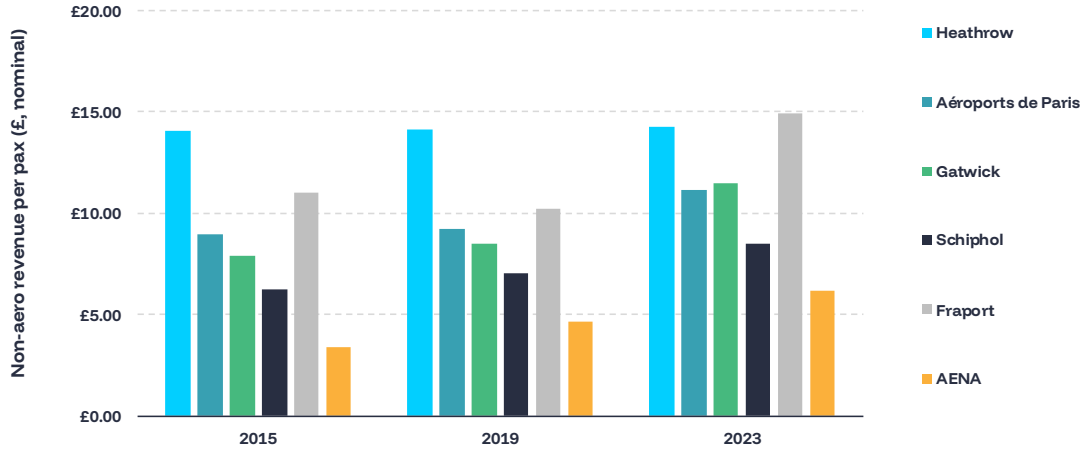
Figure 16: Comparison of (nominal) depreciation per passenger



Source: Heathrow Airport Limited, Annual Reports, 2015, 2019 and 2023; Aéroports de Paris, Annual Reports, 2015, 2019 and 2023; Gatwick Airport Limited, Annual Reports, 2015, 2019 and 2023; Schiphol Group, Annual Reports, 2015, 2019 and 2023; Fraport, Annual Reports, 2015, 2019 and 2023; AENA, Annual Reports, 2015, 2019 and 2023.
Note: Financial information for Schiphol, Fraport, and AENA is reported at the group level and it was not possible to disaggregate the information to the individual airport level. Financial information for Aéroports de Paris covers the two Paris airports; Charles de Gaulle and Orly. Currency conversions from Euro to Sterling are made at the midpoint of reporting years (01/08 or the next day the markets are open).

- Heathrow's commercial revenues per passenger do not exceed those of most of its peers to anywhere near the same extent as its costs. Again, this is also consistent with its lack of incentive to ensure that its commercial activities are NPV positive.

Figure 17: Comparison of (nominal) non-aeronautical revenues per passenger



Source: Heathrow Airport Limited, Annual Reports, 2015, 2019 and 2023; Aéroports de Paris, Annual Reports, 2015, 2019 and 2023; Gatwick Airport Limited, Annual Reports, 2015, 2019 and 2023; Schiphol Group, Annual Reports, 2015, 2019 and 2023; Fraport, Annual Reports, 2015, 2019 and 2023; AENA, Annual Reports, 2015, 2019 and 2023.
Note: Financial information for Schiphol, Fraport, and AENA is reported at the group level and it was not possible to disaggregate the information to the individual airport level. Financial information for Aéroports de Paris covers the two Paris airports; Charles de Gaulle and Orly. Currency conversions from Euro to Sterling are made at the midpoint of reporting years (01/08 or the next day the markets are open).

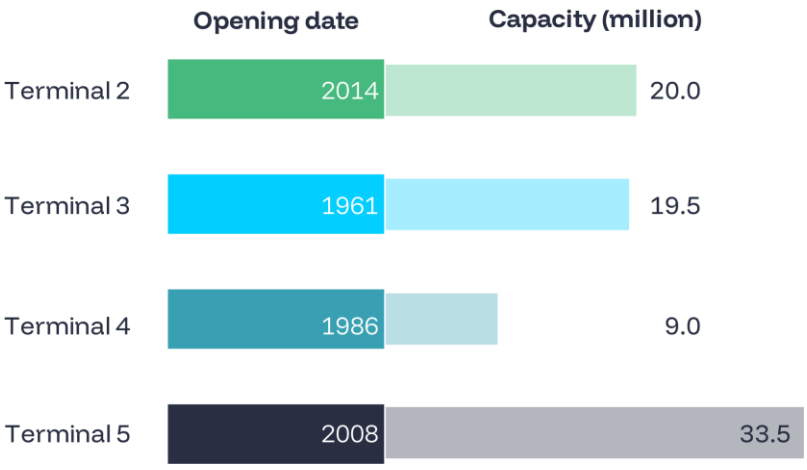
HAL's service quality is undermined by it having some of the oldest passenger facilities amongst its peers despite large-scale capital expenditure

206. Heathrow's owners have spent more than £15 billion on capital expenditure in the last 20 years.[141] As set out above, HAL's high capital costs are the biggest driver of its overall costs, and therefore its very high charges. Yet, as a consequence of ineffective and inefficient investment, Heathrow continues to have some of the oldest airport facilities in Europe.

207. Figure 18 shows the opening dates and passenger capacity at each of Heathrow's terminals, with 28.5 million (c.35% of the available passenger capacity) in buildings that stretch back to the 1960s and 1980s.[142] A very material proportion of the passengers at Heathrow are paying the world's highest charges to use infrastructure that is over 60 years old. This is simply not good enough.

208. Furthermore, Heathrow's newer terminals were out of date by the time they opened. The inefficient design for Terminal 5 was created in the early 1990s and was already 18 years old when delivered and is now over 35 years old.

Figure 18: Heathrow's oldest terminals date from the 1960s and 1980s[143]



Source: Heathrow website (e.g. Terminals and airfield); insights from the Parties.

[141] CAA, *Economic Regulation of BAA London Airports*, 2003, link; Heathrow Airport Limited, *Annual Reports*, 2008 – 2023. Nominal values, capex between 2004 – 2023 inclusive.
[142] *Heathrow website (e.g. Terminals and airfield); insights from the Parties.*
[143] In line with Heathrow's comments in documents seen by airlines,, these figures reflect its view of the capacity of the current terminal facilities. It acknowledges that there are potential opportunities to "optimise and balance demand, which could alter the capacity per terminal". For example, Terminal 4 could increase to 12.5 million passengers per year with different scheduling.

209. Continued reliance on old and out-of-date infrastructure has inevitable harmful consequences for the passenger experience. President of Emirates Airlines, Sir Tim Clark, has likened Terminal 3 (i.e. Heathrow's oldest terminal) to a "*Second World War*" terminal that is "*not good enough*" for Heathrow's passengers.[144] He went on to explain that new airports are being built with technology to help streamline all customer-facing elements, but this was not happening at Heathrow, which is "*seriously lagging behind*" – all to the detriment of its passengers and airlines.

210. HAL's latest masterplan, which runs into the mid-2040s, includes plans to replace the ageing Terminal 3 (opened in 1961) with additional phases of Terminal 2A and new satellites, and expanding Terminal 5 (T5 Capacity Optimisation).[145] However, not only will the replacements for Terminal 3 not be live until the 2040s, Terminal 4 is not included in these plans meaning that Terminal 4 will be at least 60 years old when its replacement is considered.[146]

211. Heathrow's peers have, and continue to, invest in updating and replacing their terminals. For example, JFK's oldest terminal, Terminal 7 (opened in 1970), is due to close in early 2026 and be replaced by a state-of-the-art new Terminal 6. JFK's next oldest terminal (Terminal 1, which opened in 1998), is being replaced by the new Terminal 1, for which construction work started in 2022.[147] By the time those works are complete, all of JFK's terminals will have opened after the turn of the century.

212. The continued reliance on old infrastructure has real consequences for passengers and operations. For example, Terminals 3 and 4 have restricted access to High Voltage Power, which prevents the use of innovative, efficiency-enhancing, and carbon-reducing technologies. Additionally, the limited power availability restricts the number of electric vehicle (EV) charging units that can be installed at the airport, hindering the airport's transition to a more sustainable ground transportation system, as the adoption of EVs is important for reducing the airport's overall carbon scope 1 emissions.[148] Again, this is not good enough - the world's most expensive airport should be a leader in sustainability.

213. Heathrow's chronically out-of-date infrastructure and an ineffective approach to modernisation, are not consistent with an effective regulatory regime or Heathrow remaining a leading hub, particularly given the very high level of Heathrow's charges.[149] Rather, they are symptomatic of the harmful incentives HAL faces under the current ineffective regulatory regime.

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[144] The Independent, *Airline boss brands Heathrow a 'Second World War' terminal that's 'not good enough' for customer experience,* 2024, link.

[145] Based on a document from Heathrow, presented to the Heathrow Future Portfolio Group during August 2024.

[146] £200m was invested to update and renovate Terminal 4 in 2009. These updates included creating more capacity for additional check-in desks, the construction of two new stands to accommodate the new aircrafts, a new baggage system, renovated piers, refurbished retail outlets, and updates to the departure lounge spaces.

[147] A New JFK, *The New Terminal One,* link; *Terminal 6*, link. The total investment being made as part of the JFK redevelopment program (i.e. 'A New JFK') is $19 billion (as stated at this link, $3.9 billion in 'PA' (i.e. public administration) funding, and $15+ billion in private funding). It appears that this programme involves a new T1, developing T4 further (e.g. increasing aircraft parking capacity, extra domestic baggage claim carousel, new check-in hall, technological enhancements), $4.2 billion spend on a 'new' Terminal 6 that will occupy the site of the former Terminal 6 and Terminal 7, $125 million spend on Terminal 7 to redevelop and expand it, and modernising the surrounding roadways.

[148] Information from the AOC

[149] Notwithstanding the role that the poor planning consent regime also plays.

The passenger experience at Heathrow does not match the high price

214. Consistent with Heathrow not having the right incentives to invest efficiently and effectively, or to focus on the needs of its users, value for money for users of Heathrow is poor and passenger perceptions of the experience at Heathrow have rapidly declined.

215. Heathrow fell from being the 8th best airport in the world in 2019 to 21st in the world in 2024, according to the respected Skytrax's rankings for passenger experience (Figure 19 and Table 2).[150] Similarly, it fell from the 2nd in Europe in 2019 to 10th in 2024. This reflects a fall in the quality and attractiveness of Heathrow versus other major hubs.

Figure 19: Heathrow has fallen out of the world's top twenty for passenger experience

Source: Skytrax, World Airport Awards, 2014 – 2024

[150] Skytrax, *World Airport Awards*, 2014 – 2024, link. The rankings are based on surveys that explicitly evaluate passengers' airport experiences (rather than the airline experience). Airports have sole responsibility for many of the survey topics, including 'Cleanliness of Washrooms'. Airports do not have sole responsibility for other survey topics, including 'Getting to and from the Airport'. See here for the full methodology. The results for 2025 are due in April.

Table 2: There are 12 European airports, including major hubs, in Skytrax's top 30 airports in 2024 but Heathrow is only 10th amongst them

1	Doha Hamad	11	Hong Kong	21	**London Heathrow**
2	Singapore Changi	12	**Rome Fiumicino**	22	Bahrain
3	Seoul Incheon	13	**Vienna**	23	**Amsterdam Schiphol**
4	Tokyo Haneda	14	**Helsinki-Vantaa**	24	Seattle-Tacoma
5	Tokyo Narita	15	**Madrid-Barajas**	25	Guangzhou
6	**Paris CDG**	16	Centrair Nagoya	26	Fukuoka
7	Dubai	17	Vancouver	27	Haikou Meilan
8	**Munich**	18	Kansai	28	Jakarta
9	**Zurich**	19	Melbourne	29	Houston Hobby
10	**Istanbul**	20	**Copenhagen**	30	**Paris Orly**

Source: Skytrax, World Airport Awards, 2024, link. Note: European airports are in bold font.

216. There is also considerable disparity across terminals. Skytrax concludes that Terminal 3 is only a three-star terminal, with the others only four stars. Given that Heathrow is the world's most expensive major international airport – and by a significant margin – consumers should have access to better facilities and receive a better passenger experience, particularly, for the newer and costly terminals.

217. Furthermore, Skytrax's rating of Heathrow's newer terminals (Terminals 2 and 5) also raises important concerns about the passenger experience and the effectiveness of the design of these costly terminals. For example, Skytrax's latest assessment notes that:

> *"T2 and T5 provide the best facility standards but the terminals are large and can require some very long walking distances on arrival and departures. Transfer between terminals is not easy and requires longer transfer times compared to many global, hub airports."*

218. Similar concerns have been raised by passengers in the CAA's research – passengers have reported that Heathrow can be daunting and challenging to navigate for first-time users or inexperienced flyers.[151] This is particularly evident in the very long walking distances required on both arrivals and departures. Passengers frequently highlight that transfers between terminals are not straightforward and require significantly longer transfer times compared to other major international hub airports. While large and complex buildings

[151] Collaborate Research for the CAA, *Consumer attitudes to journey disruption*, 2016, Section 7, link.

may allow HAL to maximise its expenditure of capital (to grow the RAB), they do not result in a good passenger experience. Furthermore, Terminal 5, in particular, scores relatively poorly in important – yet basic areas, such as cleanliness and availability of toilets and baby changing rooms; Terminal 2, similarly, rates relatively poorly for access to power and charging points.[152]

219. The Skytrax rankings are not alone in showing Heathrow's inadequate and declining passenger experience compared to other (and often cheaper) international airports. The results of ACI's *Airport Service Quality (ASQ) Barometer*[153] mean that Heathrow's overall passenger satisfaction score in Q3 2024 (i.e. 3.99)[154] was materially lower than:

    - the global average score (4.32);
    - the European average score (4.07); and
    - the average for the largest category of airports – i.e. over 40 million passengers per annum (4.42).

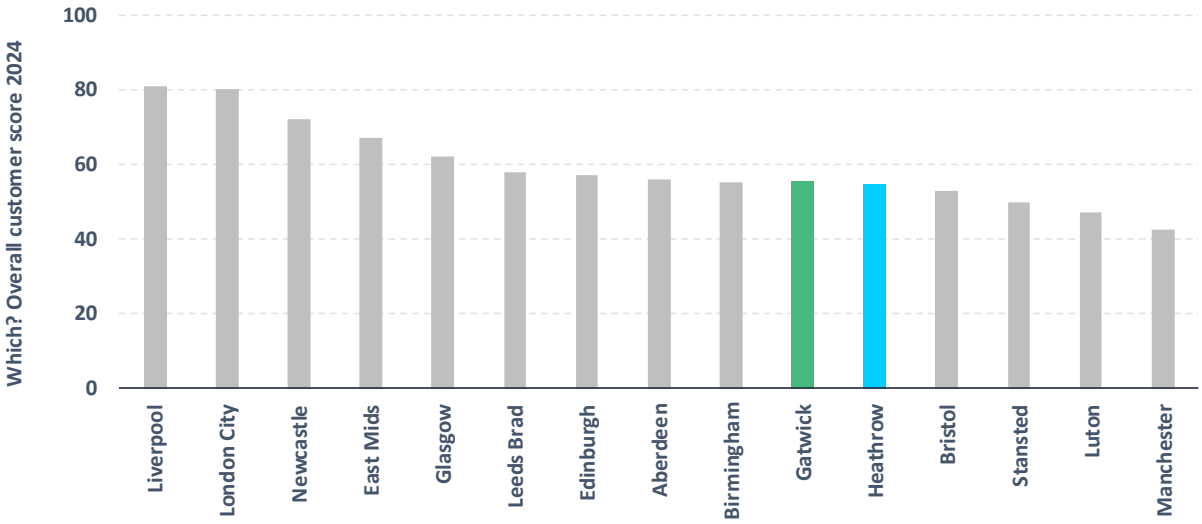
220. Furthermore, Heathrow's ASQ score has declined over time – it was 4.16 in 2017.[155]

221. It is not surprising that Heathrow has seen its relative international ranking decline sharply in recent years.

222. Skytrax and ACI findings are mirrored by a survey of UK airports by Which? (Figure 20). Heathrow received only average scores in most categories (e.g. queues at check-in, bag drop, security and passport control), and poorly in other areas (e.g. availability of seats). Such ratings are not commensurate with being, by far, the world's most expensive major international airport. The poor value offered by Heathrow compared to other UK airports is clearly shown by Heathrow having a lower score than Gatwick, despite having charges that are double.

[152] Skytrax, *London Heathrow Airport,* ratings as accessed during January 2025, link.
[153] ACI, *ASQ Barometer Q3*, 2024, link.
[154] Heathrow (SP) Limited, *Results for the 9 months ended 30 September 2024,* link.
[155] Heathrow Airport Limited, *Annual Accounts*, 2019 - 2023; ACI, *ASQ Barometer Q1-Q4*, 2017 – 2023.

Figure 20: Heathrow's overall customer score in the most recent Which? survey is relatively poor



Source: Which?, Best and worst UK airports, 2024, link. The sample was restricted to the top 15 UK airports by passenger volume. Average terminal scores were calculated for Gatwick, Heathrow, and Manchester.

223. The CAA's airport accessibility ratings for UK airports from August 2024 show that Heathrow was one of 12 airports to be rated 'good'. While this was an improvement from its previous 'needs improvement' rating, it was not a big enough step to be among the 11 airports rated 'very good'. The world's most expensive airport by far should be best-in-class for accessibility across its entire estate.

224. The media regularly reports the ongoing service quality issues at Heathrow, with commentators pointing to its "*rise and fall*"[156] and how it has moved from being "*Europe's gateway to UK's travel nightmare*".[157] Issues with passenger facilities also include the closure of part of Terminal 5's baggage reclaim area last year, after arriving passengers reported that a liquid, which they believed to be urine and sewage, was dripping from the ceiling.[158] It has also been labelled as the "*most stressful airport in Europe*" in recent studies of passenger sentiment carried out in both 2022 and 2024.[159]

225. Heathrow's lack of resilience to operational disruptions has been laid bare on numerous occasions in the past. For example, a power outage from July 2024 at Terminal 3 led to more than 3,000 misconnecting bags across five airlines, which, in part, was exacerbated by a lack of a back-up power source.[160] However, this is only one example of many to do with HAL's baggage systems. In 2024, there have been 82 baggage system outages (P1/P2/P3) across all terminals.[161] Currently, HAL is not financially penalised for these problems, leaving airlines solely liable for the significant bill for repatriating baggage and managing the reputational impact.

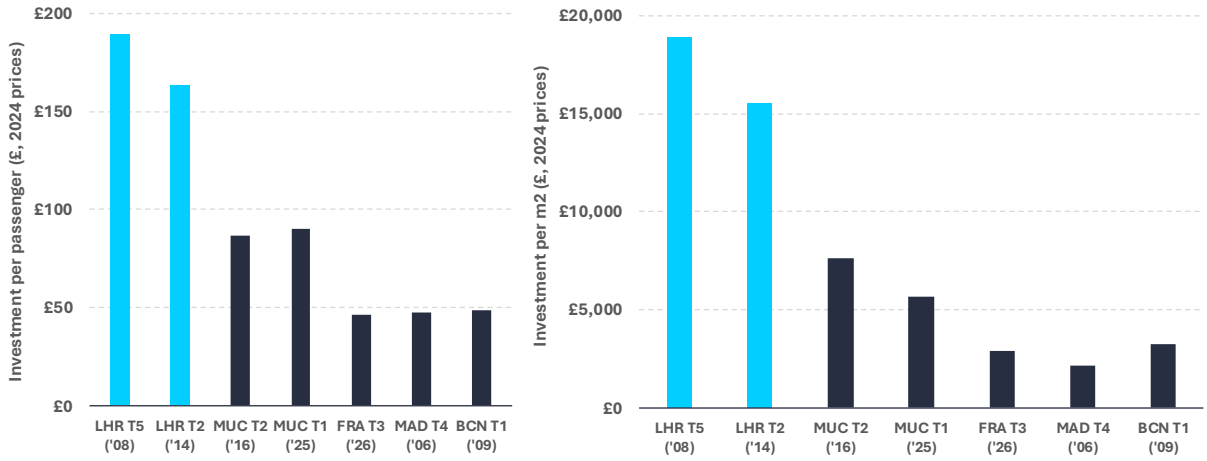
[156] The Telegraph, *The rise and fall of Heathrow, Britain's busiest airport*, 2022, link.
[157] Bloomberg, *Heathrow Goes From Europe's Gateway to UK's Travel* Nightmare, 2022, link.
[158] Mail Online, *Disgusted Heathrow Airport passengers find 'urine and sewage' dripping from the ceiling at arrivals,* 2024, link.
[159] The Standard, *Heathrow named most stressful airport in Europe as Easter chaos continues*, 11 April 2022, link; Metro, *Full list of the 'worst' airports in Europe – with 4 in the UK*, 3 November 2024, link.
[160] Information from AOC
[161] Parliament Transport Committee, *Oral evidence: Heathrow power outage*, 2025, link.

HAL's ineffective and inefficient approach to capital investment explains why the user experience does not match up to the level of spend

226. The user experience at Heathrow does not match up to the high levels of capital expenditure because, as set out in the previous section, the current regulatory regime not only fails to adequately address the risks of harm to consumers from HAL's SMP, but it also creates its own harmful incentives, particularly in relation to: a) inefficient capital expenditure to grow the RAB; and b) being responsive to the needs of users. This means that users pay very high charges for relatively poor infrastructure and user experience.

227. These incentives, and a regulatory regime that is ineffective at guarding against them, mean that HAL's capital expenditure is expensive compared to investments at its peers, resulting in a passenger experience that falls far short of the high costs incurred – value for money is poor. Figure 21 compares investment per passenger (measured by incremental capacity) and investment per square metre (m^2) in Terminal 5 and 2 at Heathrow versus terminal developments at other European airports. All of the completed terminals have a four-star rating from Skytrax (i.e. the same as Terminal 5 and 2).

Figure 21: Heathrow's capital expenditure stands out as expensive relative to other major European airports



Source: LHR T5: Parliament UK, link, Heathrow, link; LHR T2, MUC T2, MUC T1, FRA T3: Airport Technology, link, Canzler, link; MAD T4: Estudio Lamela, link, Moodie Davitt, link; BCN T1: Aviation Week, link, Barcelona Airport, link.

228. The severe disconnect between what HAL has spent and the other major European airports is clear. Even allowing for differences between airports, and that there are factors that could mean HAL faces higher efficient costs than its peers (e.g. in relation to higher general construction costs in London or the specific configuration of Heathrow), we see no reasonable basis, other than severe inefficiency, for why Heathrow's cost per m^2 for new terminals is several times that of other major European airports.

229. Annex K sets out how Heathrow's past and future plans compared to other major infrastructure projects in the UK.[162] While direct comparisons to individual schemes can be influenced by comparability issues, by comparing HAL's schemes with a broad range of others, it is clear that the scale of capital spend on Heathrow's major projects (both planned and actual) is not only out of step with other major airports, but is also completely out of step with other major capital investments undertaken in London, the South-East and the rest of the country.

230. HAL's inefficient approach to capital management is further demonstrated by the experience of Terminal 1, which closed in 2015 (i.e. nearly a decade ago). Despite occupying a large and prime location on the central campus, it continues to stand, essentially, idle to this day.[163] An airport operator focused on efficiently and effectively managing its asset base would have sought to find an alternative revenue-generating use for the terminal. HAL's failure to do so is consistent with its poor incentives and an ineffective regulatory regime.

231. Regulated firms should have the opportunity to recover efficiently incurred costs. But consumers should not face higher charges to compensate HAL for inefficient costs – they would not in either a well-functioning market nor an effective regulatory regime. Yet, the available evidence shows that is exactly what is happening at Heathrow and why there is such a large disconnect between Heathrow's charges and passenger experience.

[162] We also draw on examples of other UK and international airport developments in Annex L to illustrate how costly HAL's current masterplan is – we discuss this further in Section F.

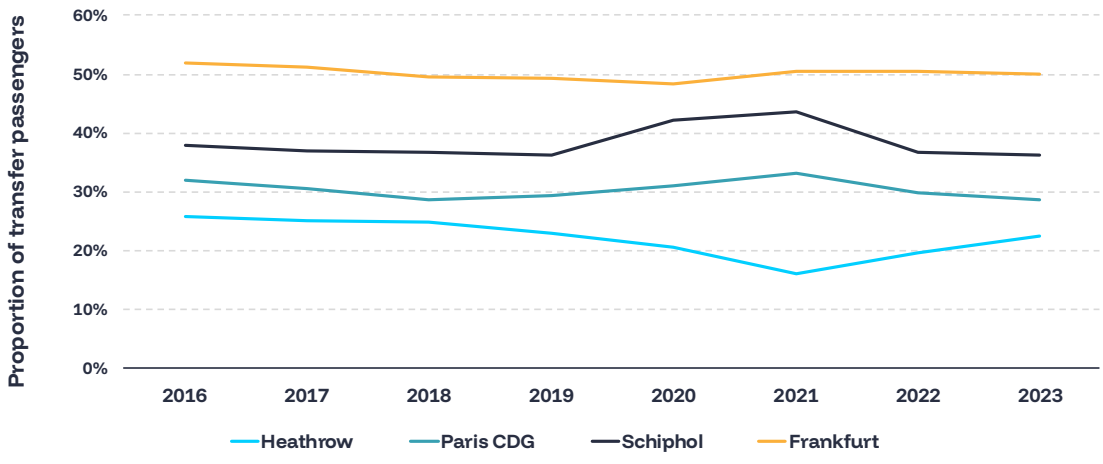
[163] It is used to *ad hoc* host training events for emergency service teams, such as the London Fire Brigade, the Ambulance Service, and the Met Police. Furthermore, as noted above, Terminal 1 is still used to house the baggage system used by Terminal 2.

Poor value for money risks consumers and the economy losing out on the benefits of having a leading international hub airport.

232. High charges and increasingly inadequate and inefficient infrastructure result in Heathrow's standing in the eyes of connecting passengers, who have a choice over which hubs they use, declining further. This will contribute to Heathrow's hub status dwindling – the range and frequency of destinations offered by airlines at Heathrow will continue to fall behind other major competitor airports as connecting passengers choose other hubs outside of the UK. Because Heathrow is movement-constrained, commercial pressures will impact airline network and fleet planning decision-making with capacity continuing to move away from short-haul uses and towards a narrower set of destinations more generally. This is against the backdrop of Heathrow having already fallen out of the top 10 for direct connectivity recently.[164]

233. As set out above, London is the largest aviation market in the world and is extremely well-placed to connect the UK regions and Europe to North America which should make it naturally attractive as a connecting hub. Yet, as Figure 22 shows, Heathrow's proportion of traffic that comprises connecting passenger traffic is lower than its European peers, and has consistently been so.[165] Despite a post-pandemic rebound, the proportion of connecting passengers in 2023 was lower than in 2016 and was in decline pre-pandemic.

Figure 22: Heathrow has a consistently low proportion of transfer passengers compared to other major European hubs



Source: Heathrow Airport Limited, 2024 Charges Consultation Document; Aéroports de Paris, Annual Reports, 2016 – 2023; Schiphol, Traffic and transport figures, 2016 – 2023; Fraport, Traffic Figures, 2016 – 2023.

[164] The Telegraph, *Heathrow's days as a global megahub may be numbered*, 2024, link.
[165] Heathrow Airport Limited, *Airport Charges for 2024 Consultation Document*, Table 13 and Figure 4, link.

234. Faced with higher charges and passenger experience which does not match Heathrow's rivals, some connecting passengers will decide to connect through other hubs, particularly those in Europe and the Middle East. Such a change in demand risks airlines having to make decisions about the routes they serve from Heathrow that further harm Heathrow's hub status and benefits.

235. While this would not have a material impact on Heathrow (as its utilisation will remain high in any event, although likely through greater frequencies on existing routes), further 'dehubbing' would lead to passenger harm (as they would face a reduced choice of destinations and the prospect of increased travel time if they need to connect through other airports on previously direct routes). It would also result in economic harm (from reduced cargo and trade, business investment and activity, and tourism owing to the loss of specific routes and connectivity).

F. THE WAY FORWARD: A FUNDAMENTAL REVIEW IS NEEDED URGENTLY

Introduction

236. The Parties request that the CAA undertake an urgent and fundamental review of the provision of AOS at Heathrow. The current Heathrow model does not "*further the interests of users of air transport services regarding the range, availability, continuity, cost and quality of airport operation services*"[166], nor does it promote "*economy and efficiency*" or competition in the provision of AOS.

237. Fundamental reform to the regulatory approach at Heathrow is needed to remedy effectively the adverse effects on competition and harm to consumers and other users of Heathrow arising from HAL's persistent SMP and the inherent weaknesses of the current regulatory regime identified in this submission.

238. Such a review is both:

- **appropriate and proportionate** given the time that has elapsed since the last detailed review of the regulatory regime at Heathrow, in line with the CAA's administrative priorities.
- **necessary** in light of the depth of issues raised in this submission and the importance of the proper functioning of the provision of AOS at Heathrow to consumers and the wider UK economy.

239. Addressing the adverse effect on competition and harm to consumers that stem from the current regulatory regime will also **support wider economic growth** and connectivity, and is therefore aligned with Government objectives.

240. The remainder of this section sets out in detail:

- That reform is needed urgently as Heathrow is developing plans for unprecedented levels of irreversible and inefficient capital expenditure which will result in further harm to consumers for decades.
- That the need for fundamental reform is independent of decisions on the future size and shape of Heathrow.
- The Parties' request that the CAA undertake an urgent and fundamental review of the regulatory model at Heathrow.
- Why pursuing a wide-ranging review should be a priority for the CAA.

[166] See the CAA's General Duty under CAA12 as set out in Section C above.

Reform is needed urgently as Heathrow is developing plans for unprecedented levels of irreversible and inefficient capital expenditure which will result in further harm to consumers for decades

241. We have now reached the point where fundamental reform is unavoidable and time-critical. Heathrow is vital national infrastructure for UK consumers and the UK economy. Reform is needed to ensure that over time, consumers and other users receive an efficient airport that provides good value for money, consistent with outcomes at many of Heathrow's peers internationally.

242. HAL is developing plans for unprecedented levels of irreversible and inefficient investment. The harmful incentives to engage in inefficient capital expenditure to grow the RAB, and ineffective safeguards to police those incentives, mean that without urgent and fundamental reform, consumers and Heathrow's other users will continue to be harmed for decades by very high charges for further expensive, inefficient and ineffective investment.

243. As set out above, HAL's latest masterplan sets out plans to replace Terminal 3 with additional phases of Terminal 2A and new satellites, and expanding Terminal 5, with an expectation of increasing total capacity by an additional 15 million passengers a year.[167]

244. HAL's latest cost estimates for its masterplan, which would not see the replacements for Terminal 3 opening until into the 2040s, suggest that it could cost £15 billion.[168] This would be in addition to the high levels of capital HAL spends on an ongoing basis each year, which, based on industry discussions to date with HAL, is also likely to be significantly higher during H8 compared to Q6 and H7 – documents shared by HAL with airlines suggest that ongoing capital expenditure could increase from c.£600-£700 million per annum over the past decade to more than triple that in H8. Furthermore, it does not include a replacement for Terminal 4 (which would be 60 years by the end of the masterplan) nor the associated road and railway costs.

245. To put the estimated masterplan cost in context, HAL spent £6.8 billion (real, CPI 2024) on Terminal 5[169] and £3.3 billion (real, CPI 2024) on Terminal 2[170] – both were expensive by international standards.

246. The masterplan and associated £15 billion spend is based on Heathrow retaining its current two runway configuration. The latest information shared by HAL with the airline community

[167] Based on a document from Heathrow, presented to the Heathrow Future Portfolio Group during August 2024. The plans set out what appears to be a significant upgrade and expansion of Terminal 2, along with a brand new baggage handling systems for Terminal 2 and its satellite buildings. The plans also include: demolition of old buildings (Terminal 1 and parts of Terminal 3) and rerouting of services; transport improvements including new road layouts, a temporary bus station, and better access to maintenance areas; new infrastructure including four new fuel tanks and utility upgrades to support the expanded terminals; and car park improvements around Terminal 4 and better road access.
[168] This cost estimate is based on Heathrow retaining its current two runway configuration. The latest costing shared by HAL with the airline community involve a c.£40-£62.5 billion overall cost for redeveloping Heathrow to have a three runway configuration.
[169] Parliament UK, House of Commons Transport Committee, *The opening of Heathrow Terminal 5*, 2008, link; ONS, *CPI All Items Index,* 2024.
[170] Airport Technology, *London Heathrow Airport Terminal 2 Redevelopment*, 2023, link. ONS, *CPI All Items Index,* 2024.

shows a c.£40-£62.5 billion overall cost for redeveloping Heathrow to have a three runway configuration.

247. Comparing planned capital expenditure at airports across the world can be complex. However, when compared against a very wide range of schemes at other international airports, HAL's plans are extremely expensive and very poor value for money, consistent with its incentives to invest inefficiently to grow the RAB by as much as possible (see Annex L which sets out details of capital expenditure projects at other UK and international airports).

248. Modernising Heathrow's ageing terminals, particularly Terminal 3, is necessary. However, the promise of new infrastructure should not distract from the deep-rooted underlying issues with the current model, and the critical importance of ensuring that major capital expenditure programmes are efficient, proportionate, and maximise the benefits for consumers, Heathrow's other users and the wider economy. This is particularly important given HAL's current plans to spend £15 billion is equivalent of around three-quarters of the current value of HAL's RAB and will involve increasing charges significantly.

249. The value to consumers and the wider economy from capital expenditure comes from the capabilities and facilities that flow from it. Where capital expenditure is inefficient and ineffective, the correlation between the level of spend and the benefits to consumers and the wider economy is poor. Inefficiently inflated capital expenditure does not result in greater long-term productivity benefits for the UK economy – indeed, it is more likely to harm the economy (as set out above) – and it will mean that consumers and the country more broadly will need to pay the price of inefficiency for decades to come.

250. It is therefore essential that fundamental reform of the regulatory model and the resulting incentives takes place before HAL embarks on such major capital expenditure projects. Absent change, Heathrow's perverse and harmful incentives will mean that we will continue down the path of inefficient, disproportionate and under-productive capital expenditure that harm consumers and the economy over the long term.

251. Despite the significant level of planned capital expenditure, Terminal 4 will be around 60 years old before replacement or renewal is considered so, absent further expensive capital expenditure, Heathrow will continue to have some of the oldest infrastructure among its peers – while the new infrastructure will fail to deliver value for money on its very high cost. Heathrow's customers and the country will continue to miss out on the best-in-class facilities it deserves and has paid for.

252. Major efficient investments in Terminal 3 and, in time, Terminal 4 provide a unique and important opportunity to reset the incentives and outcomes at Heathrow and align them with the long-term interests of consumers, other Heathrow users and the wider economy. That time-limited opportunity should not be lost.

The need for fundamental reform is independent of decisions on the future size and shape of Heathrow

253. The demand forecasts underpinning HAL's current masterplan already assume significant passenger growth without any new runway capacity. The DfT estimated that Heathrow will be handling 90 million passengers per year by 2040 with the existing two runways, up from 81 million in 2019.[171] Heathrow's latest plans under a two-runway operation suggest even further passenger growth. This growth is expected to come primarily from larger planes and higher load factors. Under a three-runway operation, passenger growth would be significantly greater. Airlines are in favour of growth, but the current regulatory model needs to be reformed first to enable growth to be affordable and sustainable for users and consumers.

254. Long-term sustainable growth at Heathrow is crucial if the full economic potential of the UK's only hub airport is to be unlocked. But reform is essential regardless of any future expansion. The nation must make the best use of its only hub airport and its scarce capacity. The current arrangements and underlying incentives are failing to achieve this – and a continuation of this could place Heathrow's ongoing status as a global hub, upon which many consumer and economic benefits of expanding are predicated, at risk.

255. By focusing on creating the conditions for airlines to make the most of their presence at the airport, decisive reform can help to protect routes to the key markets that are so important for the UK's trade, inward investment and overall economy-wide competitiveness. But it would also lay the right foundations for any future expansion at Heathrow such that it could be delivered with incentives that are aligned with efficiency and serve the UK's wider interests.

[171] Department for Transport, *UK aviation forecasts 2017 data*, Table 32, link.

The Parties request an urgent and fundamental review

256. To secure the fundamental reform needed at Heathrow, for the Parties request that the CAA undertakes an urgent and fundamental review of the provision of AOS at Heathrow (e.g. a sector review, a market study, or a strategic review akin to the Telecoms Strategic Review undertaken by Ofcom in the early 2000s).

257. As set out above, relying solely on the regular cycle of periodically recalibrating and incrementally amending the current RAB-based revenue control, and associated mechanisms/processes, will not deliver the much needed wholesale reform of the regulatory regime. Rather, a broadly scoped review that will ensure a thorough assessment of the full range of potential remedies and regulatory actions available to the CAA is appropriate and necessary in this case.

258. Such a review should consider:

- **The adverse effects on competition and harm to consumers and other users of Heathrow** arising from HAL's persistent SMP and the inherent weaknesses of the current regulatory regime identified in this submission.
- **All the ways that the current RAB-based regulatory model can be made much more effective.** All options that could drive greater value for money for users of AOS at Heathrow, incentivise efficient investment, and more closely align the interests of those providing AOS at Heathrow with those of consumers and Heathrow's other users, should be considered.
- **Whether there is an alternative or complementary approach to the existing regulatory model** that might more effectively regulate HAL's SMP and result in more favourable outcomes for competition and consumers. This should include a review of the approaches used at other major airports internationally, including some of the world's leading hubs; all these models have resulted in charges that are significantly lower than the current model at Heathrow.

  Annex G contains a sample of case studies which demonstrate the diversity of different models used in other jurisdictions.[172] For example, when setting charges for Changi, CAAS in Singapore goes beyond considerations related to cost recovery and financeability and benchmarks Changi's prices. This price monitoring approach is designed to maintain Changi's attractiveness compared to similar airports and CAAS considers that costs are a matter for Changi airport to manage and Changi airport needs to deliver in line with peers.
- **Lessons learnt from major reforms and the regulatory approach in other sectors.** For example, the regulatory approach in other sectors (e.g. energy) has for some time evolved to place greater emphasis on outcomes for consumers (e.g. under Ofgem's RIIO

[172] The purpose of this submission is not to advocate for a particular model, or to illustrate the full range of options for reform available. Therefore, the examples set out in Annex G are merely that – examples to illustrate that there are alternatives to the CAA's RAB model that could be considered as part of a wide-ranging investigation.

framework) rather than unduly focussing on cost recovery and financeability considerations. Such lessons learnt should be applied to regulating Heathrow.

- **Whether greater use of competitive forces could play a valuable role in promoting the interests of consumer and other users at Heathrow** (in particular, given the CAA's duty in relation to the promotion of competition in the provision of AOS). In principle, there are different ways that competitive forces could play a greater role in this regard.

  For instance, as set out in Annex G, there are examples of different market structures operating successfully in the US. At New York JFK, while the Port Authority owns the entire airport, the terminals are managed by different operators through long-term lease agreements.[173] Charges are materially lower than at Heathrow, and once the current major redevelopment (which is being delivered with considerably greater value for money than HAL's plans) is completed, all the terminals at JFK will be from this century (unlike Heathrow). There are also examples of co-investment models between airlines and airports based on long-term leases or similar arrangements.

  Experience from other sectors also shows how expanding the role of competition has reduced prices, improved productivity and improved service quality. For example, cross-sector surveys of the evidence overseen by the CMA find a positive relationship between the strength of competition and productivity growth across sectors.[174] Similarly, there is also extensive literature examining the impact on productivity of changes in competition over time, including as a result of regulatory reform. These studies show generally strong positive effects on productivity in sectors where major reform has occurred, including transport and utilities.[175]

[173] This includes airline terminal operations, which can allow strong competition between airlines extending into the provision of terminal activities.
[174] Evidence suggests that competition drives productivity in three main ways. First, within firms, competition acts as a disciplining device, putting pressure on the managers of firms to become more efficient. Secondly, competition ensures that more productive firms increase their market share at the expense of the less productive. These low-productivity firms may then exit the market, to be replaced by higher-productivity firms. Thirdly, competition drives firms to innovate, coming up with new products and processes which can lead to step-changes in efficiency.
[175] See, for example, CMA, *Productivity and competition: A summary of the evidence*, 2015, paragraph 3.10 onwards, link.

Pursuing a wide-ranging review is within the scope of the CAA's relevant prioritisation principles

259. Conducting a wide-ranging review of the regulatory model at Heathrow for the provision of AOS is consistent with the CAA's *Prioritisation Principles for the CAA's Consumer Protection, Competition Law and Economic Regulation Work* (Prioritisation Principles):[176]

- **Nationwide strategic importance**. Ensuring that the right approach to addressing the fundamental and serious competition issues at Heathrow, as part of a broader long-term regulatory strategy and vision is aligned with the CAA's key themes and objectives set out in its Strategic Plan[177], in particular as regards its objectives to review its approach to economic regulation and that it will focus its actions to support economic growth Heathrow is the UK's most important airport and only hub. It is vital that the right long-term regulatory strategy and model are in place and can effectively remedy HAL's SMP.
- **The consumer and wider economic benefits from effective reform would be substantial and long-lasting**. Such is the level of harm to users from the current model, the potential for reform to deliver substantial benefits to users is high. As set out in Section E, under the current model, users at Heathrow are paying around £1.1 billion per year more than if Heathrow's charges were in line with its peers. Furthermore, Heathrow's user experience is not good enough for the world's most expensive airport – value for money is poor and declining. If HAL pursues its emerging plans for expensive capital expenditure without the right regulatory model in place, the harm to consumers will be compounded, and for generations to come. Furthermore, Heathrow's importance to the UK economy means that there are likely to be significant, wider economic benefits from effective reform.
- **The likelihood of a successful outcome is high**. The current regulatory model is not effective at addressing the serious issues at Heathrow and is having a significant adverse impact on users. It will continue to do so for decades without reform. As set out above, there is a broad range of market structures and regulatory models used to determine market outcomes at major airports internationally, including some of the world's leading hubs. All of these models have resulted in charges that are significantly lower than the current model at Heathrow, and in many cases, are more modern, more reliable facilities. Further, there are valuable lessons from other sectors and previous reforms in the UK airports sector. Therefore, the likelihood of a successful outcome in this case is high.
- **The resources required for the review are proportionate**. The benefits of reform of the regulatory model at Heathrow coupled with the harm to consumers and the wider UK economy of taking no action are proportionate to the CAA resources that would be required to conduct a review.

[176] CAA, *Prioritisation Principles for the CAA's Consumer Protection, Competition Law and Economic Regulation Work*, dated May 2015 (last updated 22 February 2024)
[177] CAA, CAP 2978: Our strategic plan, 7 May 2024

260. In any event, the Prioritisation Principles set out that, where the CAA has a legal duty to act, it will not apply the Prioritisation Principles.[178] The Parties consider that conducting a review would be consistent with the CAA's duties. It would allow the CAA to:

- further the interests of users of air transport services regarding the range, availability, continuity, cost and quality of airport operation services[179];
- consider the appropriateness of different approaches to promote competition in the provision of AOS[180];
- promote economy and efficiency on the part of each holder of a licence in its provision of airport operation services[181]; and
- further its duty to keep the provision of AOS in the UK under review.[182]

261. The Parties stand ready to engage constructively with the CAA to drive reform of the system and deliver markedly better outcomes for consumers and the UK economy.

[178] Prioritisation Principle, paragraph 2.16
[179] Consistent with the CAA's General Duty under CAA12 – see Section C.
[180] Consistent with the CAA's General Duty under CAA12 – see Section C.
[181] Consistent with the CAA's General Duty under CAA12 – see Section C.
[182] As required under section 64(1) of CAA12.

Annex A. About the Parties

Heathrow AOC

The Heathrow Airport Operators Committee (AOC) is an industry body representing airlines, ground handlers and other stakeholders operating at Heathrow Airport. Its purpose is to promote the interests of all members equally and secure a standard of passenger and cargo handling in keeping with international standards.

Arora Group

The Arora Group is a UK-based property, construction, and hospitality group specialising in commercial developments, hotels and airport infrastructure. Heathrow Airport is an important supplier of services to Arora Group, including in relation to water and wastewater, to Arora Group's businesses located within the Heathrow perimeter. Arora Group has previously set out plans for new terminal buildings at London Heathrow Airport, as part of its bid to undertake the development of Heathrow's expansion.

IAG

International Airlines Group is one of the world's largest airline groups with 600 aircraft flying to more than 280 destinations and carrying 120 million passengers in 2024. Formed in January 2011, IAG is the parent company of Aer Lingus, British Airways, Iberia, Vueling and LEVEL. IAG employs 74,000 people globally and 40,000 people in the UK. The corporate head office for IAG is in London, UK.

Virgin Atlantic

Virgin Atlantic was founded by entrepreneur Sir Richard Branson in 1984, with innovation and amazing customer service at its core. Headquartered in London and employing 8,500 people worldwide, Virgin Atlantic serves 30 destinations across four continents directly and, alongside shareholder and Joint Venture partner Delta Air Lines, operates a leading transatlantic network, with onward connections to over 200 cities around the world. In 2024 Virgin Atlantic was voted Britain's only Global Five Star Airline by APEX for the eighth year running in the Official Airline Ratings.

Annex B. Contact details for the Parties

Heathrow AOC	[✂]	[✂]
Arora Group	[✂]	[✂]
IAG	[✂] [✂]	[✂] [✂]
Virgin Atlantic	[✂]	[✂]

Annex C. Airport Operation Services

Heathrow is owned by Heathrow Airport Limited[183] (HAL). HAL has overall responsibility for the management of the airport area, consisting of the facilities at Heathrow (with the exception of the fuel facilities). HAL's primary function is to provide access to the infrastructure of Heathrow for the landing, parking and departure of aircraft and the processing of passengers and cargo.[184] It does this through the provision of airport operation services (AOS), including:

- the use of the runway and taxiways;
- aerodrome Air Traffic Control (ATC);
- aircraft parking;
- the provision of access and infrastructure needed for the provision of other airside and landside ground handling services;
- the provision of facilities for check-in;
- the provision of facilities for baggage handling;
- security screening;
- facilities for holding passengers between arriving at the airport and departure (holding passenger facilities);
- facilities for the processing of airline staff arriving and departing the airport (airline staff processing facilities); and
- the transit of passengers to and from the aircraft (in the case of a passenger airline) (passenger transit facilities). [185]

For some airlines, AOS will also include:

- access to infrastructure and facilities for the provision of services such as lounges and priority security lanes for premium passengers;
- facilities to transfer connecting passengers and their baggage between aircraft without the passenger leaving the airport; and
- access and infrastructure for the provision of facilities for the processing of cargo (in the case of an aircraft carrying cargo, either in belly hold or as a cargo-only flight).[186]

[183] Which in turn is owned by Heathrow (SP) Ltd and Heathrow Airport Holdings Ltd.
[184] CAA, *Market power determination in relation to Heathrow Airport – statement of reasons: Annex D*, 2014, paragraph D110, link
[185] CAA, *Market power determination in relation to Heathrow Airport – statement of reasons: Annex D*, 2014, paragraph D110, link
[186] CAA, *Market power determination in relation to Heathrow Airport – statement of reasons: Annex D*, 2014, paragraph D112, link

Annex D. Example of the role of connecting passengers supporting a direct route

Source: ICF analysis using "PaxIS" data, via WPI Economics, link.

Annex E. Comparison of recent decisions on the WACC (vanilla) in CPI/CPIH-real terms by Ofwat, Ofgem, the CMA, and the CAA

	Dec-20	Mar-21	Nov-22	Nov-23	Jul-24	Dec-24
Regulator	Ofgem	CMA	Ofgem	CAA	CAA	Ofwat
Sector	Gas & Electricity	Water	Electricity	Air Traffic Services	Airports	Water
Price control	RIIO-GD & T2	PR19	RIIO-ED2	NR23	H7	PR24
WACC (vanilla)	2.91%	3.12%	3.90%	4.09%	4.06%	4.03%

Source: UKRN, Cost of Capital Report, 2024, link; Ofwat, PR24 Final Determinations, 2024, link. Note: the CAA's published decisions on the WACC are in RPI-real terms. This was converted into CPI/CPIH-real terms by adding the 'wedge' of 0.9 percentage points, consistent with the CAA's assumption for H7 and the latest UKRN cost of capital guidance.

Annex F. Minimum connection time for transferring passengers at hub airports

The table below summarises the minimum connection time (MCT) for passengers transferring through select European hub airports. It demonstrates that MCTs at Heathrow are, on average, the longest among the hub airports listed. This, combined with the more efficient transfer experiences offered by other hubs and other factors (e.g. charges), hampers Heathrow's ability to attract and retain passengers. As discussed in Section E, these passengers play a crucial role in sustaining and supporting the ongoing viability of routes and the hub itself.

Minimum connection time at selected European airports

Airport	Minimum connection time (mins)	Notes
Heathrow	[✂]	Range represents difference between within (i.e. intra) and between (i.e. inter) terminal transfers.
Dublin	[✂]	Range represents difference between flights where US Customs and Border Protection checks are undertaken.
Paris CDG	[✂]	Range represents difference between intra- and inter-terminal transfers.
Frankfurt	[✂]	
Lisbon	[✂]	
Barcelona	[✂]	
Madrid	[✂]	Range represents difference between intra- and inter-terminal transfers.
Reykjavík–Keflavík	[✂]	
Amsterdam-Schiphol	[✂]	Range represents difference between Schengen and non-Schengen transfers.

Source: IAG analysis, OAG data.
Note: MCT for each airport based on home carriers.

Annex G. Examples of alternative models used in other countries

This Annex outlines the regulatory approaches used for airports in other countries, including aspects such as charges, capital expenditure, and recent notable changes. These examples are provided to highlight the diversity of regulatory models; they should not be interpreted as an endorsement of any particular approach.

Box 1: Charges benchmarking at Singapore Changi

Singapore's Changi Airport is a major international hub and consistently ranks as one of the world's best airports for passenger experience and operational efficiency.

Changi Airport operates under a regulatory framework designed to ensure competitive pricing, high service standards, and to promote efficiency and innovation. This framework is overseen by the Civil Aviation Authority of Singapore (CAAS) and includes regulations related to pricing, service quality, and competition. Since 2009, the Changi Airport Group (CAG) has managed the airport as a wholly government-owned entity, responsible for its operations, management, air hub development, and commercial activities.[187]

The regulatory approach combines price monitoring with quality-of-service requirements to promote efficiency and enhance the passenger experience. The CAAS maintains oversight through a comprehensive Code of Practice that establishes service standards. Additionally, an Airport Competition Code is in place to ensure fair market conduct in the provision of services and facilities.[188]

The price monitoring (benchmarking) system at Changi Airport is designed to maintain its competitive position against similar airports. With the aim of ensuring valid comparisons are made, the focus is on the top 50 airports with significant transit traffic profiles like its own rather than those concentrated on domestic travel. The Civil Aviation Authority of Singapore (CAAS) maintains regulatory oversight by enforcing maximum limits on aeronautical charges.[189]

Capital expenditure planning at Changi demonstrates a forward-looking approach to infrastructure development. The airport recently announced a significant SGD $3 billion investment plan spanning six years, focused on service improvements.[190] To support these investments and manage rising operational costs, CAG has proposed a gradual increase in

[187] CAAS, *Financial Statements Year Ended 31 March 2024,* page 10 (page 66 of file), link.
[188] CAAS, *Code of Practice for Changi Airport Service Standards*, 2016, link. CAAS, *Airport Competition Code*, 2009, link.
[189] Informed through discussions with CAA Singapore during 2024, with a summary set out by the CAAS, link.
[190] Changi Airport Group, *Changi Airport to invest S$3 billion over next six years to strengthen Singapore's position as a global air hub,* 2024, link.

airport charges from 2025 to 2030.[191] To help airlines transition to these new charges, the airport has implemented measures such as a 50% rebate on the increased landing, parking, and aerobridge fees during the first six months.[192]

This regulatory framework has proven to be flexible in adapting to changing market conditions (e.g. Covid, where charges were frozen, and there was a subsequent review of the path of charges after the pandemic) while maintaining consistent service quality and the incentive for CAG to enhance the passenger experience and look to implement sustainability initiatives.[193]

Box 2: Co-investment and separate terminal operations at New York JFK

JFK International Airport is the busiest international air passenger gateway into North America, and operates a unique terminal-by-terminal management model.

JFK Airport operates under the regulatory oversight of the Port Authority of New York and New Jersey (PANYNJ), which primarily focuses on setting basic operational rules, security requirements, and establishing a schedule of charges.[194] The charges structure is largely standardised, with charges calculated per thousand pounds of aircraft weight, and specific provisions for various operational charges, including aircraft parking, storage, and special terminal charges.[195]

While the PANYNJ maintains overall airport oversight, the operational structure is divided. The Federal Aviation Administration (FAA) maintains regulatory authority over runways, equipment, air traffic control, and operating standards, including oversight of safety procedures, runway incursions, and airborne operational errors.[196] The terminals operate under a different model where they are individually managed and maintained by independent operators. Most terminals are managed by airlines or airline consortiums, with one notable exception being Terminal 4, which is operated by JFKIAT, a subsidiary of the Schiphol Group and serves as Delta's hub.[197]

This dual regulatory structure creates a system where airside operations remain under close federal oversight while terminal operations look to retain operational flexibility under private management, though still within PANYNJ's broader framework.

The airport's terminal development programme is characterised by a public-private partnership model; 80% of the capital investment for the 'New JFK' programme is coming from private sources.[198] Taking the USD $4.2 billion Terminal 6 project as an example, there is a combination of committed airline agreements (including JetBlue, Lufthansa Group, and

[191] The Independent, *Flyers out of Singapore prepare: Revamped terminals mean higher fees are on the way,* 2024, link.
[192] The Straits Times, *Changi Airport to raise passenger and airline fees over six years to fund $3b improvement plans*, 2024, link.
[193] See, for example, Changi Airport Group, *Fact Sheet: Changi Airport Terminal 5 – A Resilient and Sustainable Airport*, 2022, link.
[194] Port Authority of New York and New Jersey, *Airport Rules and Regulations,* 2022, link.
[195] Port Authority of New York and New Jersey, *Schedule of Charges for Air Terminals - John F. Kennedy International Airport*, 2024, link.
[196] Port Authority of New York and New Jersey, *Airport Rules and Regulations,* 2022, link.
[197] PR Newswire, Delta Air Lines, The Port Authority of New York and New Jersey and JFK International Air Terminal Unveil Plans for Next Phase of Terminal 4 Expansion at JFK Airport, 2013, link.
[198] New York State's Governor, *Governor Hochul Announces Plan to Build World-Class $9.5 Billion International Terminal at JFK Airport*, 2021, link. i.e. $15 billion of a total cost of $19 billion coming from "full private investment".

Aer Lingus) with long-term lease arrangements for those investing in the project, which help provide a stable framework for those investing.[199]

Box 3: Public-Private Partnership model at New York LaGuardia

LaGuardia Airport recently completed an $8 billion transformation project using an innovative public-private partnership model while maintaining operations at one of America's capacity-constrained airports.

The regulatory structure, overseen by the Port Authority of New York and New Jersey (PANYNJ), maintains oversight, focusing primarily on enabling infrastructure and basic operational requirements. This approach has looked to create flexibility for private operators while maintaining public sector control over essential infrastructure.[200]

Approximately two-thirds of the funding for the recently-completed USD $8 billion transformation project came from private financing and current passenger fees.[201] The cost recovery mechanism was structured through long-term operational agreements, in which private partners are responsible for managing and operating their respective terminals.[202] This arrangement enables investors to recover their costs through a combination of aeronautical charges and commercial revenues. The project's ability to attract private investment, facilitate significant infrastructure improvements, and maintain airport operations during construction is seen as a sign of the success of the regulatory approach in place.[203]

A noteworthy innovation in the regulatory approach is the design/build commission structure, which goes beyond traditional procurement methods to include operational responsibilities. This allows the airport to use private sector expertise in both construction and terminal operations, which it believes has resulted in a more efficient and commercially-focused airport system.[204]

Box 4: Evolution of economic regulation at Paris CDG

Paris Charles de Gaulle is one of Europe's largest and most highly regarded airports. It serves as the primary hub for Air France, offering extensive international connectivity.

The airport is operated by publicly-listed Groupe ADP (formerly Aéroports de Paris), which remains majority-owned by the French state with a 50.6% shareholding but allows for private sector participation.[205] The state announced in 2018 that it intended to divest itself of its stake in the airport group, however the pandemic put the proposed sale on hold.

[199] Investcorp, *Investcorp Invests in Sponsor of JFK Airport Terminal 6 Redevelopment Project*, 2024, link.
[200] Port Authority of New York and New Jersey, *Airport Rules and Regulations,* 2022, link; IJGlobal, *LaGuardia Airport PPP, US,* 2016, link.
[201] A Whole New LGA, *The Project,* link; QNS, *LaGuardia crowned best airport in United States by Forbes Travel Guide following $8 billion transformation*, 2024, link.
[202] BTY, *LaGuardia Airport Central Terminal Building: BTY Project Case Study*, link.
[203] Architectural Record, A Complex Construction Strategy Takes LaGuardia Airport to New Heights, link.
[204] Constructioneer, *LaGuardia Terminal B Redevelopment Named One of the Nation's Best Design-Build Projects*, link.
[205] Marketscreener, *Aéroports de Paris*, accessed 3 December 2024, link.

From 2019, the Autorité de Régulation des Transports (ART) has overseen the economic regulation of Paris CDG. The ART is actively involved in approving airport charges in line with economic regulation principles. Until 2020, ADP signed a multi-year (typically 5-year) Economic Regulation Agreement (ERA) with the French Government. The ERAs included tariff proposals, investment plans and incentive mechanisms. The Covid pandemic impacted deliverability of financial and investment targets, and a new Economic Regulation Agreement (ERA) has not been signed since. Instead, ADP has submitted tariff and capex proposals to ART annually since the termination of the 2016 – 2020 ERA.

Annual approvals offer the airport greater flexibility, but they are less conducive to long-term planning and provide less revenue stability. ART and ADP are currently negotiating the final terms of a new ERA.

Box 5: Public operation with enterprise fund model at Hartsfield-Jackson Atlanta International Airport

Hartsfield-Jackson Atlanta is one of the world's busiest airports by passenger numbers,[206] *serving 110 million passengers in 2023; it operates as a major hub for Delta Air Lines.*

It is owned by the City of Atlanta and operated by the City's Department of Aviation, which directly supervises all airport operations. The Department leases terminal space, aircraft maintenance, cargo facilities, and other structures to air carriers and other tenants at the Airport under various operating leases, a majority of which terminate no later than 2035.[207]

The airport operates as a self-sustaining enterprise fund, separate from the City's General Fund, and does not receive any municipal tax funding. Its revenue is generated through a variety of sources, including landing fees, property leases, parking, and other airport-specific income. The charging system is primarily managed through Airport Use and Lease Agreements between the airport and tenant airlines.[208] Under these agreements, airlines are responsible for paying landing fees, terminal rentals, and other charges designed to cover operating, maintenance, and debt service expenses.[209]

Capital development at Atlanta is guided by the ATLNext programme, a USD $20 billion capital improvement initiative extending through 2032.[210] While maintaining public ownership, the airport appears to have successfully incorporated private sector expertise through strategic partnerships. For instance, ATL Construction Management Partners, a joint venture of private firms, manages over 180 capital projects.[211] Unlike some major airports that have embraced significant private ownership or operation of terminals, Atlanta maintains a unified public management approach, while looking to tap into private sector expertise through specific and standalone operational contracts and construction projects.[212]

[206] Flight Global, *Atlanta retains biggest airport crown as passengers pass 100m mark again in 2023*, 2024, link.
[207] Department of Aviation, *2023 Annual Comprehensive Financial Report*, 2023, link.
[208] Department of Aviation, *Annual Comprehensive Financial Report for the fiscal years ended June 30, 2022 and 2021*, 2022, link.
[209] For example, as reported here, Delta signed a 20-year Airport Use and Lease Agreement in 2016.
[210] Jacobs, *Hartsfield Jackson Atlanta International Airport,* link.
[211] Jacobs, *Hartsfield Jackson Atlanta International Airport,* link.
[212] Gwinnett Chamber, *On Topic Featuring Atlanta Hartsfield Jackson Airport "ATL" General Manager, Balram "B" Bheodari*, 2022, link.

Box 6: Alliance operations at Frankfurt

Frankfurt Airport serves as a major European hub, with innovative operational partnerships between the airport operator and its main carrier Lufthansa.

Frankfurt Airport combines public and private interests through its operator, Fraport AG.[213] Frankfurt Airport operates under a multi-layered regulatory and operational structure. The Federal Ministry of the Interior serves as the supreme aviation security authority, while operational management has evolved to give Fraport increasing control over key functions. A significant change occurred in January 2023 when Fraport assumed responsibility for aviation security operations, including organising and managing security checkpoints, procuring equipment, and charging security fees to airlines.[214]

Frankfurt Airport's charges are regulated and require approval from the regional Aviation Authority. This covers charges for landing, take-off, parking, passenger, security, and noise abatement charges based on real investment and operating costs.[215]

The airport has looked to implement innovative ways to enhance operational efficiency, particularly through the FraAlliance joint venture formed in 2022 between Fraport and Lufthansa. This partnership aims to optimise terminal operations, improve customer experience, and use infrastructure more effectively. Both companies hold a 50% stake in the venture. So far, the collaboration has led to practical improvements, including real-time updates at security checkpoints and reduced transfer times by eliminating duplicate security checks.[216]

Capital expenditure management at Frankfurt follows a structured approach, clearly distinguishing between the maintenance of existing infrastructure ("FRA-Nord") and capacity expansion projects ("Ausbau Süd").[217] A prime example of this approach is the Terminal 3 project, which aims to significantly enhance capacity by accommodating an extra c.20 million passengers (increasing capacity to 90 million) when it opens in 2026.[218]

Box 7: Municipal operation with federal oversight at LAX

Los Angeles International Airport (LAX) is consistently within the top 10 busiest airports in the world by number of passengers served and is currently undertaking a major redevelopment programme.

Los Angeles World Airports (LAWA) is the City of Los Angeles department that owns and operates LAX under the authority of the Los Angeles City Charter. LAX operates as a self-sustaining enterprise fund without municipal tax funding, maintaining financial autonomy from the city's general operations. The Board of Airport Commissioners establishes policies

[213] Marketscreener, *Fraport AG*, accessed 3 December 2024, link.
[214] Federal Ministry of the Interior and Community, *Responsibility for aviation security checks at Frankfurt airport to be transferred to Fraport AG as of 2023*, 2021, link.
[215] Fraport, *Airport charges at Frankfurt Airport*, link.
[216] Lufthansa Group Innovation Runway, *Joint Collaboration with FraAlliance*, 2022, link; Airport Technology, *Fraport and Lufthansa form JV to improve services at Frankfurt Airport*, 2022, link.
[217] Fraport, *Annual Report 2023,* link.
[218] International Airport Review, *Building Frankfurt's future,* 2020, link.

and exercises oversight, while federal bodies like the FAA and TSA maintain regulatory authority over safety and security protocols.[219]

The airport's revenue structure is diversified across multiple streams, with terminal rents comprising nearly half of total revenue, followed by landing and apron fees.[220] Non-airline revenue sources (c.35% of total revenue) include land and building rents, terminal concessions, parking revenue, and transportation fees.

The airport uses a comprehensive charging methodology through its Rate Agreement system, which provides predictable rates for airlines until 2035. Terminal rates are set annually for each fiscal year through to 30 June. These rates cover capital costs, operations and maintenance expenses, and reserve deposits. Airlines that sign the Rate Agreement receive certain benefits, including phased implementation of charges for newly constructed facilities. This structure preserves the airport's financial self-sufficiency while providing stable and predictable charges for airport users.[221]

LAX is currently embarking on a USD $30 billion modernisation programme to enhance its infrastructure.[222] A main part of this initiative is the Automated People Mover train, scheduled for completion in December 2025, alongside full-scale terminal modernisation projects for Terminals 4, 5, and 6. The airport revised its development plan in response to updated passenger forecasts. Instead of focusing on expansion, the emphasis has shifted towards improving core infrastructure. The new projections indicate slightly over 90 million passengers for 2028, rather than the initially forecasted 110 million.

Box 8: Network operation under central management at AENA

AENA operates the world's largest airport network under centralised management, handling 283.2 million passengers across its Spanish airports in 2023.[223]

AENA operates Spain's airport network under a regulatory framework that combines public ownership with commercial operation. The Spanish government maintains majority ownership with a 51% stake through AENA SME S.A., thereby combining private sector participation with overall public sector control over critical infrastructure assets.[224]

The economic regulation of AENA's airports follows a structured framework overseen by Spain's National Markets and Competition Commission (CNMC). The regulatory system employs an Adjusted Maximum Revenue per Passenger (IMAAJ) mechanism, which sets the maximum revenue the airport operator can collect per passenger. For 2024, this has been set at €10.35 per passenger, representing a 4.09% increase from the previous year.[225]

[219] LAWA, *Our LAX – Airport Basics*, link.
[220] LAWA, *Fiscal Year 2024-2025 Proposed Budget,* link.
[221] See: LAWA, *2023 Amended and Restated Rate Agreement,* link; Fitch Ratings, *Fitch Affirms LAX Airport's (CA) Senior and Sub Rev Bonds at 'AA' and 'AA-'; Outlook Stable*, link.
[222] Los Angeles Times, *LAX shifts focus from terminal expansion to infrastructure updates as passenger forecasts drop,* 2024, link.
[223] AENA, *Aena airports in Spain close 2023 with more than 283 million passengers*, 2024, link.
[224] AENA, *Significant holdings and own shares,* link.
[225] Comisión Nacional de los Mercados y la Competencia, *The CNMC approves a 4.09% increase in Aena's charges for 2024*, 2024, link.

The charging structure captures multiple revenue streams, with aeronautical charges including landing fees, passenger fees, security charges, and aircraft parking. These charges must follow principles of transparency and non-discrimination, with rates set annually through a formal consultation process with airlines. The system allows for differentiated charging based on service type and operational characteristics, though all changes require regulatory approval.[226]

The regulatory framework provides stability through multi-year planning periods, with the current Document of Airport Regulation (DORA) covering 2022-2026.[227] This framework aims to provide predictable revenue streams while maintaining flexibility to adapt to changing market conditions.

AENA's capital investment approach follows a structured consultation and approval process through Spain's regulatory framework. The airport operator first develops its investment proposals as part of the five-year DORA regulatory period, engaging with airlines and other stakeholders through formal consultation procedures. These proposals are then submitted to the CNMC for review and approval, with the regulator assessing whether the investments are justified and aligned with capacity requirements. The current investment programme includes significant terminal expansions at Madrid-Barajas Airport, including a new satellite building for Terminal T4, and the expansion of Barcelona-El Prat Airport's Terminal 1, alongside sustainability initiatives such as solar panel installations across multiple airports (see Annex L).

Box 9: StageGate capital expenditure model at Dublin

Dublin Airport has seen a notable change in how capital expenditure is agreed between the state-owned airport operator (daa), the airlines and the regulator.

Dublin Airport operates under a regulatory framework overseen by the Irish Aviation Authority (IAA) (formerly the Commission for Aviation Regulation) under the Irish Aviation Regulation Act 2001 and EU Airport Charges Directive. The airport is owned and operated by daa, a state-owned company that maintains operational control while functioning as a self-sustaining enterprise.[228] Discussions with the airline stakeholders highlighted that the state-owned nature of the daa plays an important role in influencing how it operates and its attitude to capital expenditure (i.e. perhaps more cautious about capital expenditure, not as focussed on maximising shareholder returns).

The economic regulation follows a building blocks approach, where the regulator sets a maximum average charge per passenger, incorporating various adjustments for inflation, quality of service metrics, and capital expenditure triggers.[229] As part of the most recent charges consultation, daa indexed airport charges between 2019 and 2025 to help provide a benchmark of changes to airport charges across peer airports.

[226] AENA, *Price Guide for 2024*, link.
[227] AENA, *Updated Strategic Plan 2022-2026*, link.
[228] Dublin Airport, *Airport Charges,* link.
[229] Dublin Airport, *Aeronautical Charges and Incentives 30 Mar 2025 – 28 Mar 2026: Proposal for Stakeholder Consultation*, 2024, link; and Dublin Airport, *Aeronautical Charges and Incentives 30 Mar 2025 – 28 Mar 2026: Decision,* 2024, link.

As set out in Annex G, there are plans to significantly develop the infrastructure at Dublin Airport with the aim of increasing capacity and enhancing the passenger experience. The airport has submitted an Infrastructure Application, which includes the plans set out in Annex L as well as an increase in its annual passenger capacity from 32 million to 40 million passengers a year.[230]

The regulatory framework includes the StageGate process, which governs the airport's capital expenditure program. Its aim is to provide flexibility for adjusting project scope and costs. Introduced in 2019, this process replaced the previous method, shifting capital expenditure discussions away from the traditional regulatory price control framework and towards more commercial negotiations between suppliers and their users, with the IAA playing a significant role throughout proceedings.[231]

- The process starts with StageGate 0, which involves the initial determination of projects and *ex ante* allowances based on criteria such as value, strategic importance, and scope maturity.
- Next is StageGate 1, where Dublin Airport presents detailed and updated scope and cost estimates to stakeholder airlines and the Independent Fund Surveyor (IFS). The IFS conducts an independent expert assessment of project developments, costs, and delivery and continues to monitor cost changes during construction through reports every 3 to 6 months until the project is completed (although there is flexibility around this).

For smaller projects that do not require the full StageGate process, Dublin Airport can group them together using existing flexibility mechanisms, creating a more streamlined approach while still maintaining oversight of larger, strategic developments.[232] Capital expenditure in Q6 and H7 (in nominal and real terms)

[230] Dublin Airport, *daa Warns That Dublin Airport 32 Million Passenger Cap Will Be Exceeded In 2024*, 2024, link.
[231] MKM, *International approaches to airport and air traffic control regulation: Final Report (for the Civil Aviation Authority of the UK)*, 2024, link. As set out in paragraph 2.15, the description of the previous process was that *"the regulated firm provided information on projects, consultation took place, some consultancy reports were published, and the regulator decided what investments to add to the RAB along with the cost allowance for each project and the future treatment of non-delivery or over-spending"*.
[232] Steer for Commission for Aviation Regulation, *Dublin Airport – Process for setting capex allowances for the regulatory determination period,* 2019, link.

Annex H. Capital expenditure in Q6 and H7 (in nominal and real terms)

Item	Q6 total (£m, nominal terms, 2014 prices)	Q6 total (£m, real terms, CPI 2024)
Improve passenger experience	£319	£430
Grow commercial revenue	£138	£180
Realise operating cost efficiencies	£48	£60
Airport resilience	£712	£950
Asset management	£1,042	£1,390
Baggage	£678	£900
Terminal 2	£250	£330
Q6 realisation + Q5 rollover	£74	£100
Total	**£3,261**	**£4,350**

Item	H7 total (£m, nominal terms, 2018 prices)	H7 total (£m, real terms, CPI 2024)
Asset management and compliance	£1,704	£2,150
IH7 roll over	£124	£160
T2 Baggage	£432	£540
Regulated Security	£747	£940
Carbon and sustainability	£188	£240
Crossrail	£67	£80
Commercial revenues	£494	£620
Efficient airport	£315	£400
Expansion	£30	£40
Total	**£4,101**	**£5,160**

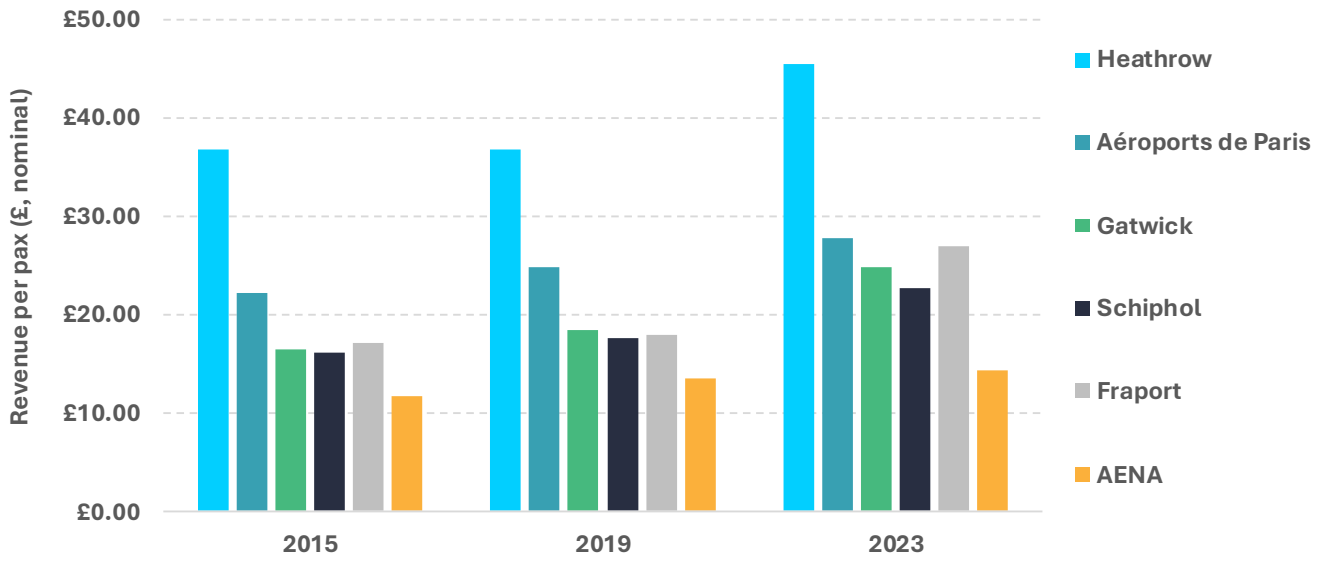
Source: Q6: Heathrow, Strategic Capital Business Plan, July 2014; H7: CAA, Economic regulation of Heathrow Airport: H7 Final Proposals Section 2: Building Blocks, 2022.

Annex I. Additional financial analysis

This Annex presents further analysis of: Heathrow's revenues (total and aeronautical) per passenger and per ATM basis compared to its European peers; and the financial metrics presented in Section E on a per ATM basis.

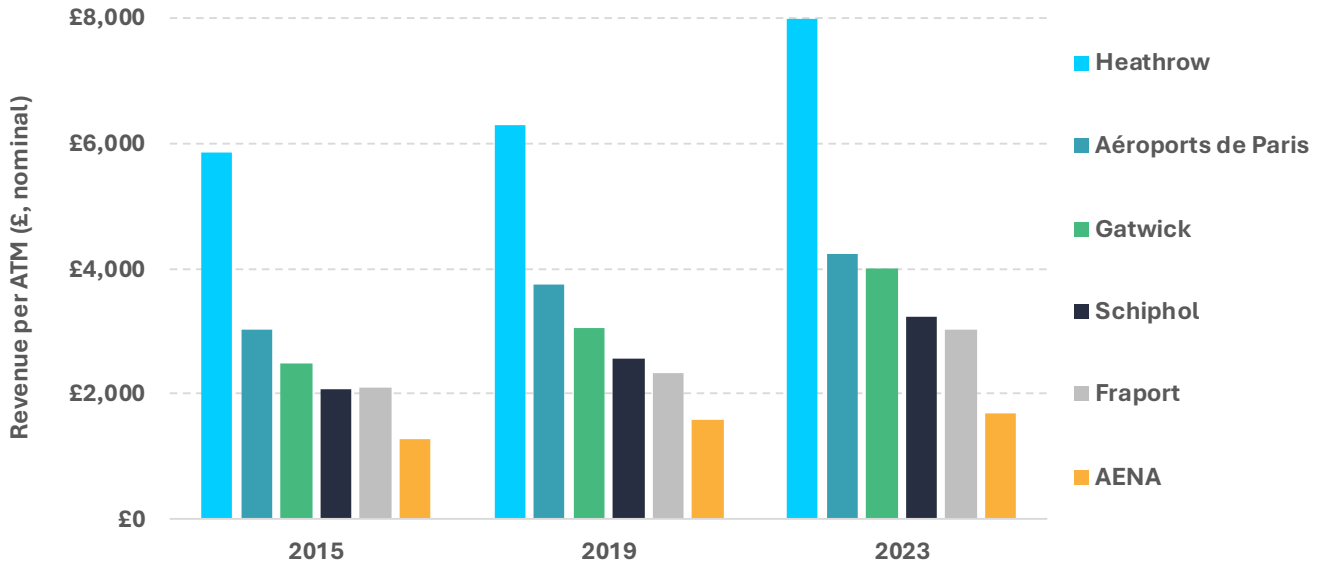
Additional revenue analysis

Figure I.1: Total revenue per passenger



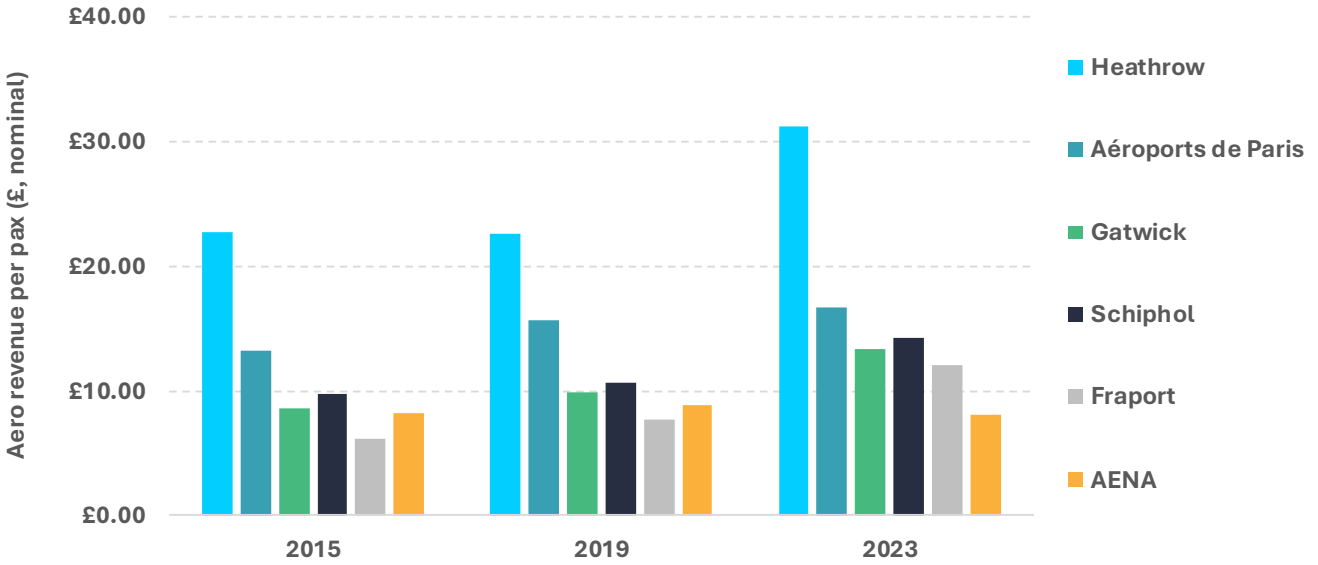
Source: Heathrow Airport Limited, Annual Reports, 2015, 2019 and 2023; Aéroports de Paris, Annual Reports, 2015, 2019 and 2023; Gatwick Airport Limited, Annual Reports, 2015, 2019 and 2023; Schiphol Group, Annual Reports, 2015, 2019 and 2023; Fraport, Annual Reports, 2015, 2019 and 2023; AENA, Annual Reports, 2015, 2019 and 2023.
Note: Financial information for Schiphol, Fraport, and AENA is reported at the group level and it was not possible to disaggregate the information to the individual airport level. Financial information for Aéroports de Paris covers the two Paris airports; Charles de Gaulle and Orly. Currency conversions from Euro to Sterling are made at the midpoint of reporting years (01/08 or the next day the markets are open).

Figure I.2: Total revenue per ATM



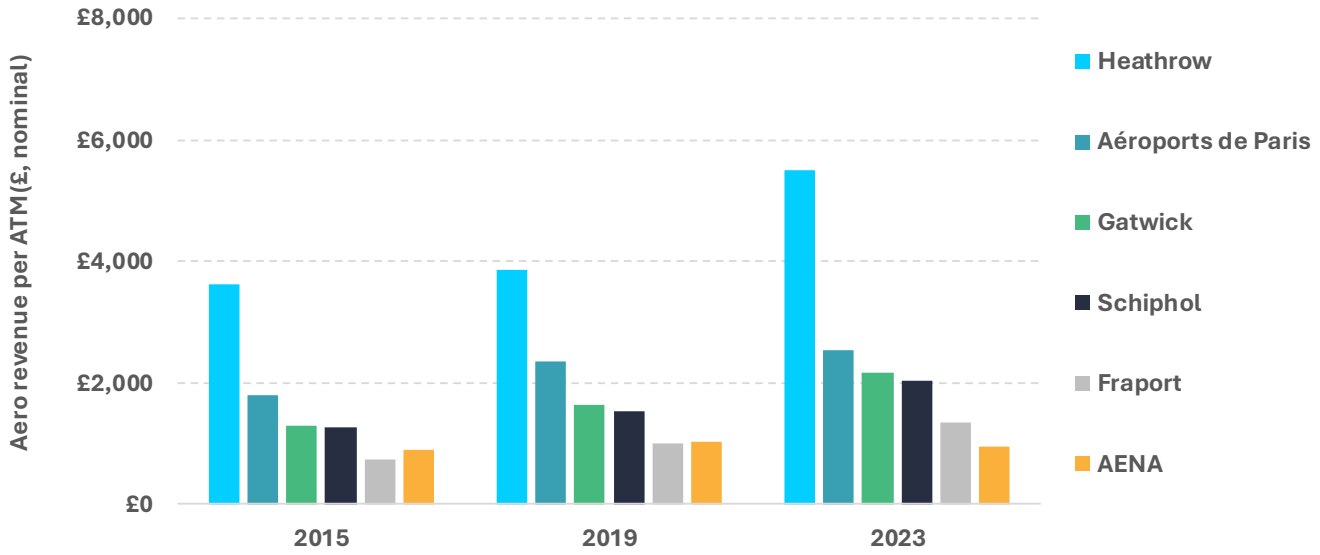
Source: Heathrow Airport Limited, Annual Reports, 2015, 2019 and 2023; Aéroports de Paris, Annual Reports, 2015, 2019 and 2023; Gatwick Airport Limited, Annual Reports, 2015, 2019 and 2023; Schiphol Group, Annual Reports, 2015, 2019 and 2023; Fraport, Annual Reports, 2015, 2019 and 2023; AENA, Annual Reports, 2015, 2019 and 2023.
Note: Financial information for Schiphol, Fraport, and AENA is reported at the group level and it was not possible to disaggregate the information to the individual airport level. Financial information for Aéroports de Paris covers the two Paris airports; Charles de Gaulle and Orly. Currency conversions from Euro to Sterling are made at the midpoint of reporting years (01/08 or the next day the markets are open).

Figure I.3: Aeronautical revenue per passenger



Source: Heathrow Airport Limited, Annual Reports, 2015, 2019 and 2023; Aéroports de Paris, Annual Reports, 2015, 2019 and 2023; Gatwick Airport Limited, Annual Reports, 2015, 2019 and 2023; Schiphol Group, Annual Reports, 2015, 2019 and 2023; Fraport, Annual Reports, 2015, 2019 and 2023; AENA, Annual Reports, 2015, 2019 and 2023.
Note: Financial information for Schiphol, Fraport, and AENA is reported at the group level and it was not possible to disaggregate the information to the individual airport level. Financial information for Aéroports de Paris covers the two Paris airports; Charles de Gaulle and Orly. Currency conversions from Euro to Sterling are made at the midpoint of reporting years (01/08 or the next day the markets are open).

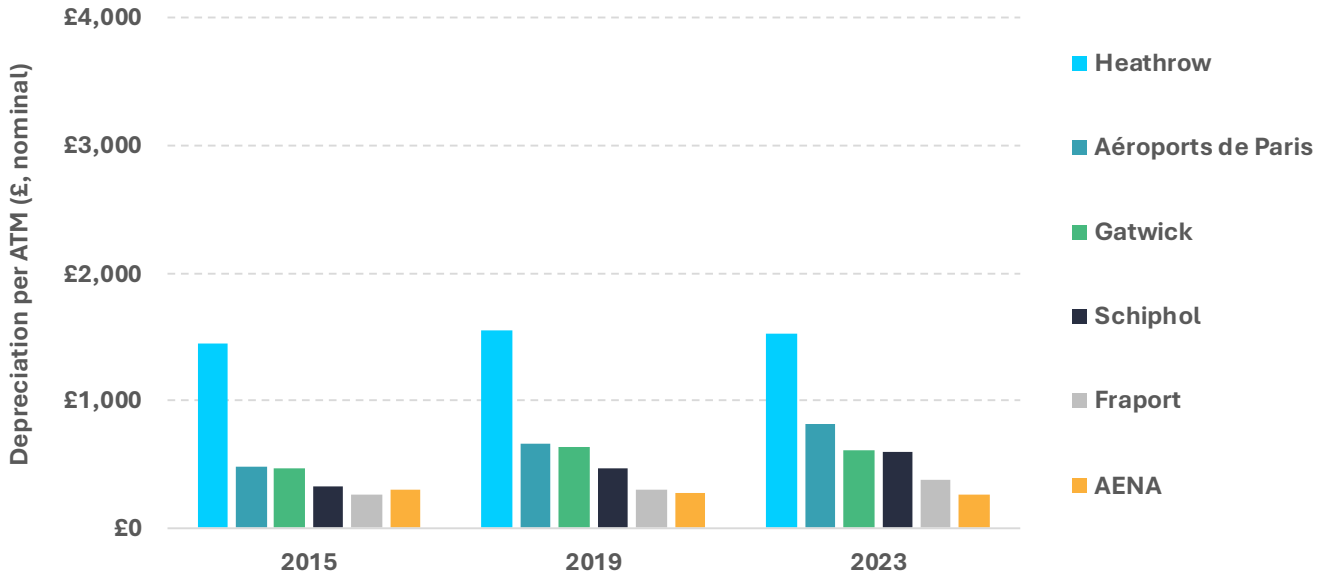
Figure I.4: Aeronautical revenue per ATM



Source: Heathrow Airport Limited, Annual Reports, 2015, 2019 and 2023; Aéroports de Paris, Annual Reports, 2015, 2019 and 2023; Gatwick Airport Limited, Annual Reports, 2015, 2019 and 2023; Schiphol Group, Annual Reports, 2015, 2019 and 2023; Fraport, Annual Reports, 2015, 2019 and 2023; AENA, Annual Reports, 2015, 2019 and 2023.
Note: Financial information for Schiphol, Fraport, and AENA is reported at the group level and it was not possible to disaggregate the information to the individual airport level. Financial information for Aéroports de Paris covers the two Paris airports; Charles de Gaulle and Orly. Currency conversions from Euro to Sterling are made at the midpoint of reporting years (01/08 or the next day the markets are open).

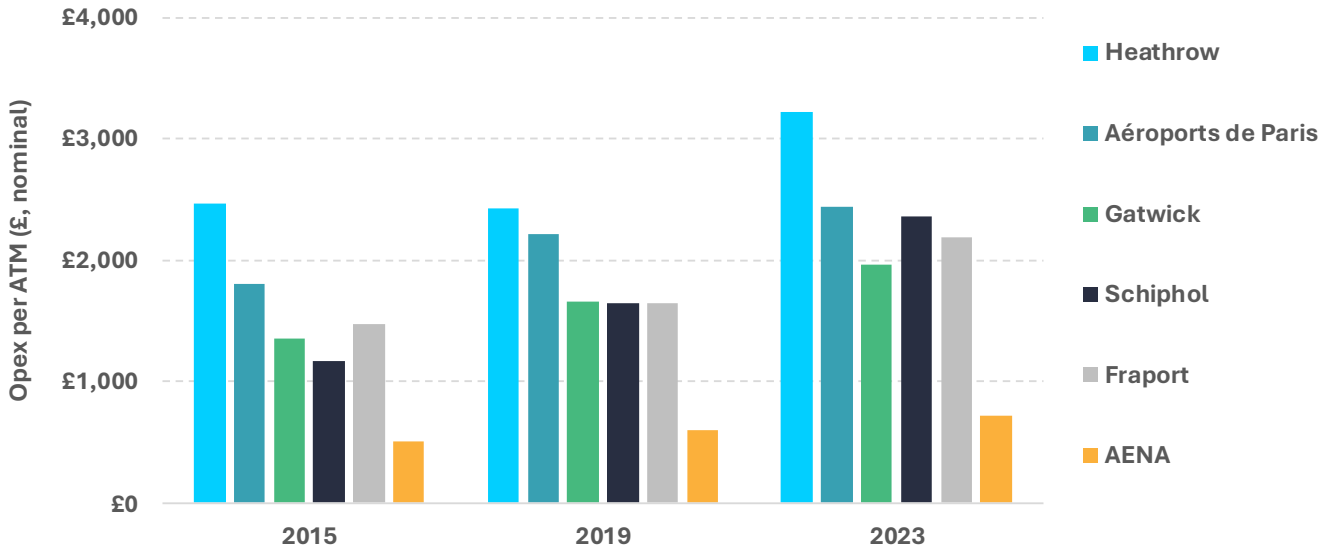
Per ATM analysis – core financial metrics

Figure I.5: Depreciation per ATM



Source: Heathrow Airport Limited, Annual Reports, 2015, 2019 and 2023; Aéroports de Paris, Annual Reports, 2015, 2019 and 2023; Gatwick Airport Limited, Annual Reports, 2015, 2019 and 2023; Schiphol Group, Annual Reports, 2015, 2019 and 2023; Fraport, Annual Reports, 2015, 2019 and 2023; AENA, Annual Reports, 2015, 2019 and 2023.
Note: Financial information for Schiphol, Fraport, and AENA is reported at the group level and it was not possible to disaggregate the information to the individual airport level. Financial information for Aéroports de Paris covers the two Paris airports; Charles de Gaulle and Orly. Currency conversions from Euro to Sterling are made at the midpoint of reporting years (01/08 or the next day the markets are open).

Figure I.6: Operating cost per ATM



Source: Heathrow Airport Limited, Annual Reports, 2015, 2019 and 2023; Aéroports de Paris, Annual Reports, 2015, 2019 and 2023; Gatwick Airport Limited, Annual Reports, 2015, 2019 and 2023; Schiphol Group, Annual Reports, 2015, 2019 and 2023; Fraport, Annual Reports, 2015, 2019 and 2023; AENA, Annual Reports, 2015, 2019 and 2023.
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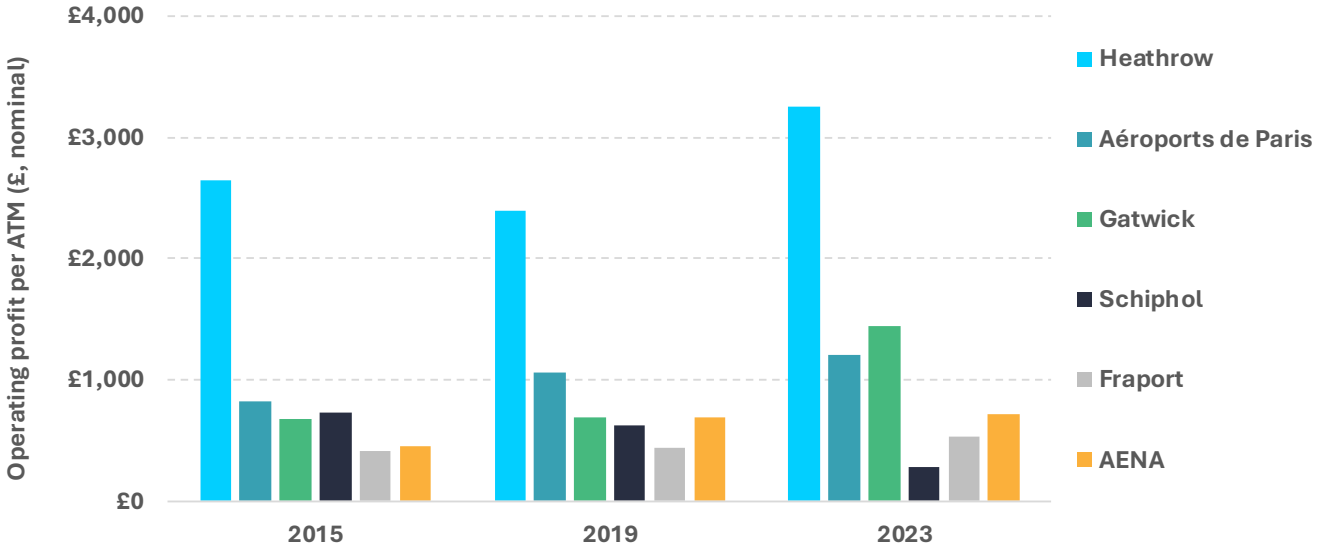
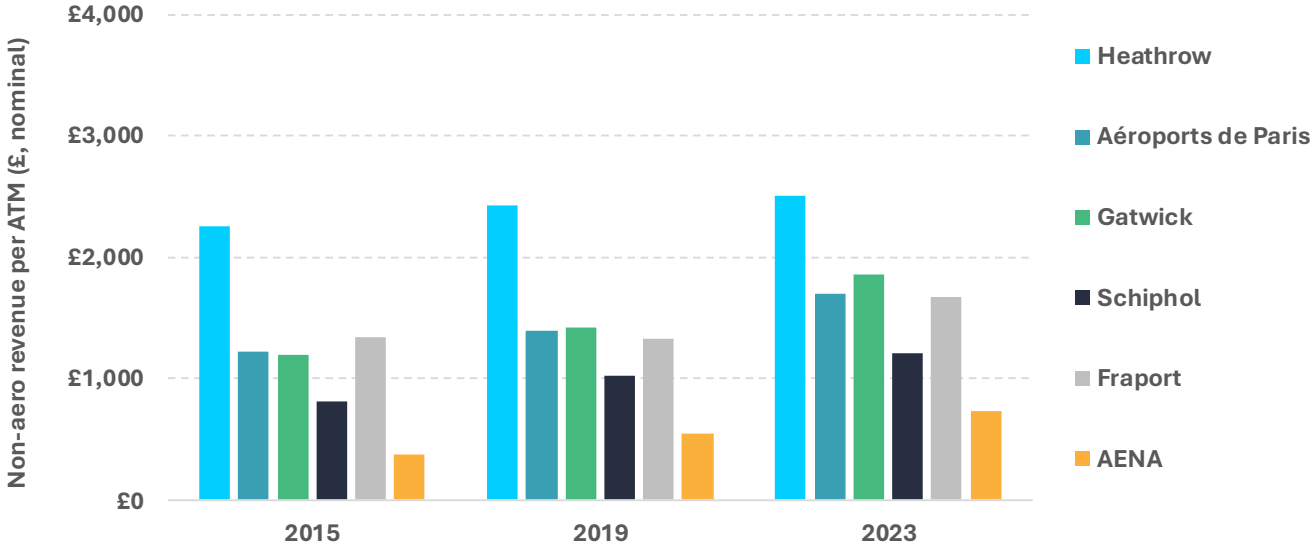
Figure I.7: Operating profit per ATM



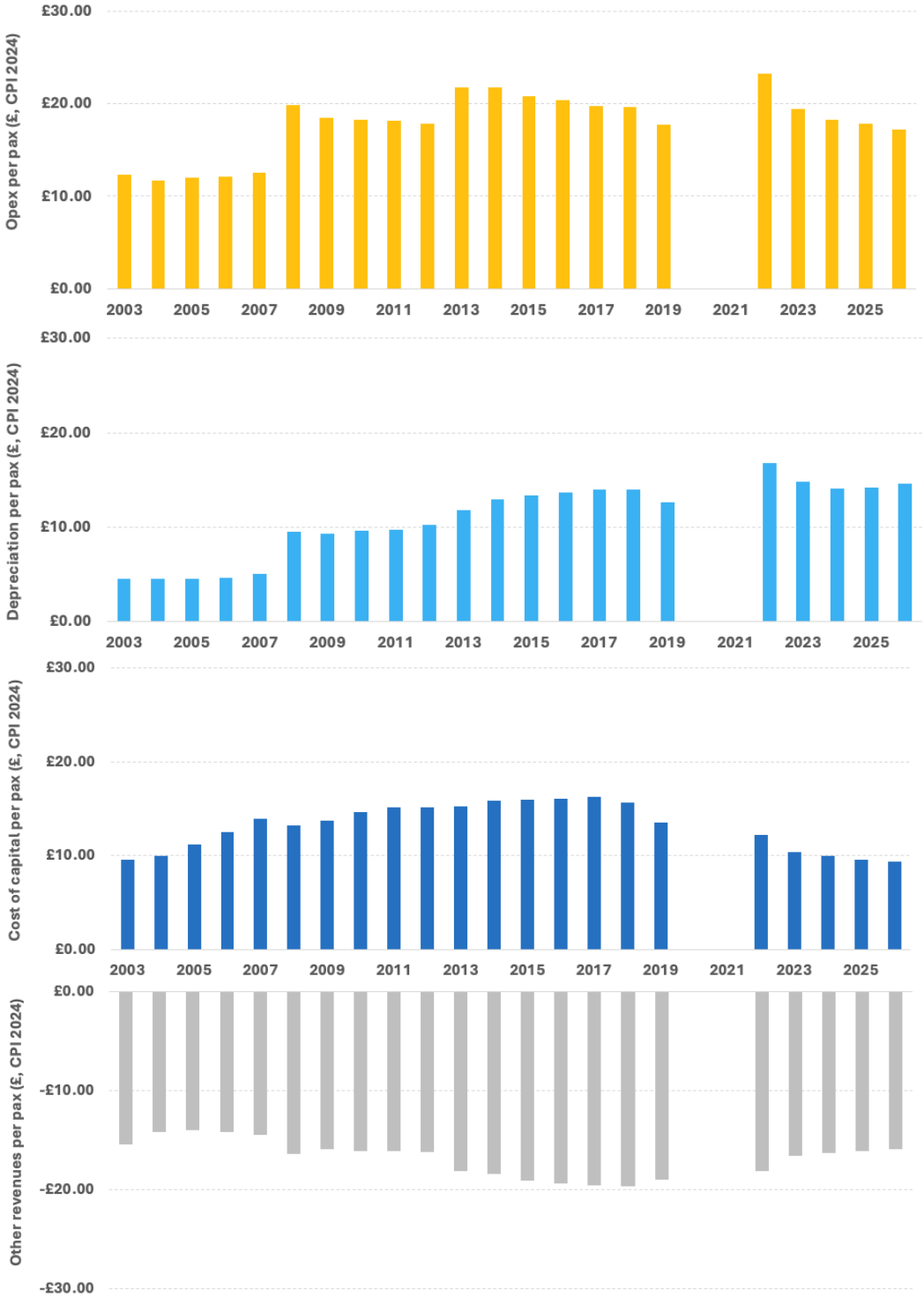
Source: Heathrow Airport Limited, Annual Reports, 2015, 2019 and 2023; Aéroports de Paris, Annual Reports, 2015, 2019 and 2023; Gatwick Airport Limited, Annual Reports, 2015, 2019 and 2023; Schiphol Group, Annual Reports, 2015, 2019 and 2023; Fraport, Annual Reports, 2015, 2019 and 2023; AENA, Annual Reports, 2015, 2019 and 2023.
Note: Financial information for Schiphol, Fraport, and AENA is reported at the group level and it was not possible to disaggregate the information to the individual airport level. Financial information for Aéroports de Paris covers the two Paris airports; Charles de Gaulle and Orly. Currency conversions from Euro to Sterling are made at the midpoint of reporting years (01/08 or the next day the markets are open).

Figure I.8: Non-aeronautical revenues per ATM



Source: Heathrow Airport Limited, Annual Reports, 2015, 2019 and 2023; Aéroports de Paris, Annual Reports, 2015, 2019 and 2023; Gatwick Airport Limited, Annual Reports, 2015, 2019 and 2023; Schiphol Group, Annual Reports, 2015, 2019 and 2023; Fraport, Annual Reports, 2015, 2019 and 2023; AENA, Annual Reports, 2015, 2019 and 2023.
Note: Financial information for Schiphol, Fraport, and AENA is reported at the group level and it was not possible to disaggregate the information to the individual airport level. Financial information for Aéroports de Paris covers the two Paris airports; Charles de Gaulle and Orly. Currency conversions from Euro to Sterling are made at the midpoint of reporting years (01/08 or the next day the markets are open).

Annex J. Breakdown of main building blocks per passenger (real, CPI 2024)



Source: CAA, Economic Regulation of BAA London Airports 2003 - 2008, 2003; CAA, Economic Regulation of Heathrow and Gatwick Airports 2008 – 2013, 2008; CAA, Economic regulation at Heathrow from April 2014: final proposals, 2013; CAA, Economic regulation of Heathrow Airport: H7 Final Decision – Summary, 2023; CAA, H7 Price Control Model; ONS, RPI All Items Index, 2024; ONS, CPI All Items Index, 2024; OBR, March 2024 Economic and fiscal outlook – detailed forecast tables: economy, 2024

Annex K. Examples of other major UK infrastructure projects

By way of comparison and illustration, Table 3 below compares Heathrow's past and future capital expenditure to a selection of other major infrastructure projects in the UK. For context, a recent study by the National Infrastructure Commission listed some of the projects included in the table below as being either examples of being 'poor value for money' or not being 'delivered to time or budget' (denoted in the table below with an asterisk).[233]

Table 3: Projects at Heathrow compared to other UK infrastructure projects

Heathrow's past and future plans	This is …
Heathrow incurred over £5 billion in capital expenditure during the Q6 price control period[234] (£6.8 billion in CPI 2024 prices), without delivering material upgrades to the terminal buildings.	Greater than: • Double the cost of building the entire M25 (£900 million in 1986, £2.6 billion in 2024 prices). • The cost of building both Westfield White City (£1.7 billion in 2008, £2.7 billion in 2024 prices)[235] and Westfield Stratford (£1.5 billion in 2011, £2.2 billion in 2024 prices).[236] • The cost of delivering the Inch Cape (£1.5 billion), Outer Dowsing (£1.5 billion), and East Anglia THREE (£1.4 billion) offshore wind projects, which combined, will power around 3 million homes[237] (all 2024 prices). • Four times the cost of delivering the East Midlands Main Line Railway Project (£1.5 billion); a significant upgrade to 640km of track, 16 tunnels and 35 stations.[238]
Heathrow's new baggage system is expected to cost £900 million[239]	Three times the cost of: • Delivering a large road project in Merseyside and Cheshire, that includes a new 3-mile dual carriageway (£300 million in 2017, £389 million in 2024 prices).[240] • The UK's £300 million (2024 prices) first commercial-scale liquid air energy storage plant (300MWh capacity) in Carrington.[241]

[233] National Infrastructure Commission, *Cost drivers of major infrastructure projects in the UK*, 2024, link.
[234] CAA, *Economic regulation of Heathrow Airport Limited from January 2020: notice of licence modifications*, 2019, link.
[235] Buildington, *Westfield London*, link,
[236] Buildington, *Westfield Stratford City*, link.
[237] Barbour ABI, *Top Construction Projects 2024*, link.
[238] Railway Technology, *Midland Main Line Upgrade*, 2021, link.
[239] Aecom, *Heathrow Airport – Future Terminal 2*, link.
[240] DfT, *£300 million road projects to improve journeys in Merseyside and Cheshire*, 2017, link.
[241] BBC, *Liquid air energy storage plant to create 700* jobs, 2024, link.

Heathrow's proposed £15 billion masterplan to enable incremental growth of 15 million additional passengers	Similar to: • The cost of building the Channel Tunnel (£9.5 billion in 1994[242], £19.4 billion, in 2024 prices).[243] • The cost of delivering the Elizabeth Line* (£18.9 billion in 2021 prices, £22.7 billion in 2024 prices).[244]
Heathrow's latest estimate of the cost of expanding to a three-runway airport could total as much as between c.£40 billion and c.£62 billion.	Similar to: • The revised estimated cost of building the Hinkley Point C* nuclear plant of £46 billion (and much higher than the original estimate of £26 billion in 2022, £28.5 billion in 2024 prices).[245] • The latest estimated cost of building the Sizewell C* nuclear plant of £40 billion.[246] • The Northern Powerhouse Rail programme, which aimed to transform the rail network in the North of England through a mix of new and upgraded railway lines, with an estimated cost of £39 billion (in 2019, £48.4 billion in 2024 prices).[247]

[242] PPIAF Global Infrastructure Hub, *The Channel Tunnel*, 2020, link.
[243] Bank of England, Inflation calculator, link. All subsequent inflation adjustments in this section use the same calculator.
[244] National Audit Office, *Crossrail – a progress update*, 2021, link.
[245] BBC, *Hinkley C: UK nuclear plant price tag could rocket by a third*, 2024, link.
[246] FT, *Cost of Sizewell C nuclear project expected to reach close to £40bn*, 2025, link.
[247] Transport for the North, *At a glance … Northern Powerhouse Rail*, 2019, page 9, link.

Annex L. Examples of capital expenditure plans at other airports

Table 4 provides a summary of various capital expenditure plans from both UK and international airports, with detailed descriptions of each project's scope set out in the rest of this Annex. The airports included in the list below offer a diverse range of project types (e.g. terminal replacement, new terminal development, new runway construction, surface access improvements) and project purpose (e.g. to expand operations and increase passenger throughput, to modernise existing facilities).

Table 4: Planned capital expenditure projects at UK and international airports

Airport	Project type	Planned capex (£bn)	Change in total airport capacity (pax, mn)	Cost of additional capacity (£ per pax)
Stansted	Terminal expansion (2028).	£1.1	13.7	£80
Luton	New terminal; improvements to airfield and airside facilities (2043).	£2.4	14.0	£171
London City	Terminal expansion; improvements to airfield and airside facilities (2031).	£0.5	2.5	£200
Gatwick	Terminal expansion; repurposing standby runway (2047).	£2.2	13.0	£169
New York LGA	Two new terminals (replacement) (2022).	£6.3	27.5	£227
New York JFK	Two new terminals; two terminal expansions (2030).	£14.9	37.5	£396
Chicago O'Hare	New terminal; two satellite concourses (2032).	£6.7	14.8	£450
Hong Kong International	New runway; runway reconfiguration, terminal expansion (by reclaiming land from the sea) (2024).	£14.2	45.0	£315
Seoul Incheon	Terminal expansion; new runway (2025).	£2.7	29.0	£94
Dubai Al Maktoum	Two new runways; new terminal; four new concourses (2035).	£27.4	260.0	£105

Istanbul	New airport; four terminals; six runways (2028).	£10.2	110.0	£92
Madrid	Two terminal expansions, three (separate) terminal modernisations (2031).	£2.0	20.0	£102
Frankfurt	New terminal (2026).	£0.9	19.0	£49
Amsterdam	Pier reconstruction; whole airport modernisation. (2029).	£5.1	N/A	N/A
Munich	Terminal expansion (2025).	£0.6	6.0	£94
Dublin	Two apron expansions, one new apron (2030).	£2.0	4.0	£508
Barcelona	Terminal expansion (2031).	£0.6	N/A	N/A
Heathrow	Two terminal expansions. (2032).	£15.0	15.0	£1,000

Source: See detailed descriptions below.
Note: currency conversions made using average 2024 exchange rates. Table includes N/A when additional passenger capacity figures were not readily available. In some cases, including Gatwick, the passenger capacity increase is the difference between a future 'no project' counterfactual (rather than current passenger volumes) and a future 'with project' scenario.

Capital expenditure plans at other UK airports include:

- **Stansted**: A five-year, £1.1 billion programme, with the construction of a £600 million extension to the existing passenger terminal set to begin in 2025. The aim is to increase the airport's capacity to handle 43 million passengers annually, up from the 29.3 million passengers it served over the past 12 months. The extension will add 16,500m^2 to the terminal, enhancing passenger facilities with an expanded immigration hall, a larger departure lounge, and bigger arrivals baggage carousels. The programme also includes the construction of a 14.3-megawatt on-site solar farm to meet the airport's energy needs and upgrades to taxiways.[248]
- **Luton**: A £2.4 billion expansion programme aimed at increasing capacity from 18 million to 32 million passengers per year by 2043. The project includes the construction of a new terminal (Terminal 2), major earthworks to extend the current airfield platform, new airside and landside facilities, surface access network enhancements, extension of the Luton DART rail link, and various infrastructure initiatives to support zero-emission ground operations by 2040. The development will also feature additional taxiways, multi-story car parking facilities near the terminal, a new bus station, taxi ranks, and associated support buildings.[249]
- **London City**: A £480 million development programme to increase annual passenger capacity from 6.5 million to 9 million by 2031 (an increase of 2.5 million passengers). The centrepiece is a

[248] Stansted Airport, *London Stansted unveils £1.1bn investment programme as it embarks on "exciting new chapter"*, 2024, link; Momberger's Global Airport Development News, No. 1229, 28 October 2024. Please note that the timings for the project may vary as final approval has been delayed. Stansted's Sustainable Development Plan (published December 2024; link here) indicates the forecast for growth to 43 million passengers per year was based on forecasts from 2018, which does not account for developments in how airlines are investing in new aircrafts (i.e. larger planes as airlines renew their fleets). Its early analysis of these fleet changes suggests that 48-51 million passengers per year would be feasible.
[249] Construction News, *Plans in for £2.4bn Luton Airport expansion*, 2023, link.

24,500m^2 terminal expansion, complemented by a new three-story passenger pier and eight additional aircraft stands. The project includes significant airfield improvements with a new parallel taxiway and a pioneering 50-metre digital control tower equipped with HD cameras providing 360-degree views. The development also features new baggage handling facilities and expanded security areas with next-generation scanning equipment, while maintaining the airport's signature 20-minute check-in promise.[250]

- **Gatwick**: The £2.2 billion privately-funded expansion programme at Gatwick Airport aims to increase capacity to 75.6 million passengers per year by 2038, with further growth to 80.2 million passengers by 2047, which would represent a c.13 million passengers increase over its estimated 'no project' scenario. The project's main aspect is converting the existing standby northern runway into regular use, requiring it to be repositioned 12 metres north of its current location. The development includes terminal building expansions, a new pier, modified aircraft stands, and new facilities, including a waste facility, additional hangar space, and fire training grounds. Ground transport improvements include 18,500 new car parking spaces. The project remains subject to government approval, with Gatwick commenting that construction could start in 2025 if it receives approval to proceed.[251]

Further afield, other major international airports appear to also be able to deliver considerably greater value for money. For example:

- **New York LaGuardia**: A USD $8 billion redevelopment programme (two-thirds of which came from private financing and existing passenger fees), which started in 2016 and was completed in 2022. The programme's centrepiece was two new terminals: the USD $4 billion Terminal B, spanning 1.35 million square feet with 35 gates, and Delta's USD 4 billion Terminal C with 37 gates. The new terminal B was built to handle more than double the capacity of its predecessor, while the new Terminal C is 85% larger than the two terminals it replaced. The transformative programme featured innovative dual pedestrian skybridges allowing aircraft to taxi underneath, a unified central hall connecting both terminals, and approximately 5 miles of new roadways with 18 new bridges spanning over 2.5 miles. The works overcame the significant challenge of needing to build a brand-new airport while keeping the existing one fully operational – the first such project in the US since Denver International Airport opened in 1995.[252]
- **New York JFK**: A transformative USD $19 billion (c.£15 billion) redevelopment programme to modernise one of the world's busiest airports, with completion planned for 2030. The centrepiece is the USD $9.5 billion (c.£7.5 billion) New Terminal One, spanning 2.6 million square feet with 23 gates, which will make it the airport's largest terminal. The project also includes a new 1.2 million square foot Terminal 6 with 10 gates (USD $4.2 billion), featuring a centralised security area, a 2,000-space parking facility, and a 122-metre pedestrian bridge connecting to Terminal One. There are also planned improvements to Terminal 4 (involving increased aircraft parking capacity, extra domestic baggage claim carousel, new check-in hall, and technological enhancements) and Terminal 7 to redevelop and expand it. Ground transportation improvements include a USD $2 billion AirTrain replacement, enhanced roadway access, and expanded transit connections to the

[250] London City Airport, *Future Airport & Planning*, link; Financial News, *London City Airport's Expansion Gets Government Nod*, link.
[251] Gatwick Airport, *Northern Runway plans,* 2024, link; West Sussex County Council, *Gatwick Northern Runway project,* 2024, link.
[252] A Whole New LGA, *The Project*, link; Reuters, *New York LaGuardia airport reveals $8 bln makeover*, 1 June 2022, link; Business Insider, *Delta is getting a new $4 billion terminal at New York LaGuardia Airport— and it looks amazing*, 9 August 2017, link; International Airport Review, *LaGuardia to open new concourse as part of $8 billion transformation*, 31 October 2019, link; Port Authority New York New Jersey, *Port Authority Records Busiest Year Ever*, 2024, link.

New York City subway and Long Island Rail Road. The programme aims to increase capacity from the current 63 million annual passengers to 75 million by 2030 and 100 million by 2050.[253]

- **Chicago O'Hare**: A USD $8.5 billion expansion programme aimed at modernising and expanding the airport's facilities, with the major development being the new state-of-the-art Global Terminal (replacing the existing Terminal 2 and due for completion in 2032) and two satellite concourses. The project will increase gate capacity by approximately 25%, increase the number of passengers flying out of the airport by 20%, and add a second customs and immigration checkpoint. The plan also involves constructing an underground connecting tunnel and a people mover system. Additional improvements include the USD $300 million ElevateT3 project upgrading Terminal 3, and ongoing investments in Terminal 5, including a new six-story parking garage.[254]
- **Hong Kong International**: A HKD $141.5 billion (c. £14.5 billion) transformation programme to expand the airport to a three-runway airport was completed in November 2024.[255] The expansion involved a new 3,800-metre third runway (completed November 2022), reconfiguration of the existing central runway, and expansion of Terminal 2 – all made possible through reclaiming 650 hectares of land from the sea. The airport's annual capacity is set to increase from 75 million to 120 million passengers, while cargo handling capacity will grow from 4.3 million to 10 million tonnes. Other elements include a new 283,000m^2 passenger concourse offering a range of passenger amenities (e.g. shopping and dining options, high-tech facilities) and an apron with 57 new aircraft parking positions, a 2,600-metre automated people mover system capable of transporting 10,800 passengers per hour, and a new baggage handling system.[256]
- **Seoul Incheon:** The USD $3.5 billion project includes a fourth runway and a major expansion of Terminal 2, increasing the airport's capacity to 106 million passengers and 6.3 million tonnes of cargo annually. This will position Incheon Airport as the world's second-largest logistics hub. Terminal 2's expansion improves passenger flow with new concourses, advanced baggage handling, and improved security screening. The project also integrates smart airport technologies, such as automated check-in and AI-powered immigration processing, to streamline operations.[257]
- **Dubai Al Maktoum:** A USD $35 billion (£28 billion) expansion programme aimed at creating the world's largest airport, with a capacity to handle up to 260 million passengers annually. The project will transform Dubai Al Maktoum International Airport (DWC) into Dubai's primary international hub, replacing Dubai International Airport (DXB). Key components include the construction of four large concourses, each spanning 2.7km with a built-up area of 2.3 million square metres and featuring 100 boarding gates each. The expansion will add two more runways to the existing infrastructure, resulting in five parallel runways. A new West Terminal building will cater to origin and destination passengers, with dedicated halls for different travel classes. The development includes a 14-station Automated People Mover (APM) system for efficient passenger transport within the airport. Additionally, a multi-modal cargo hub will be capable of

[253] Port Authority Builds, *Transforming JFK Into A World-Class Global Gateway*, link; Investcorp, *Investcorp Invests in Sponsor of JFK Airport Terminal 6 Redevelopment Project*, 2024, link; New York State, *Governor Hochul Announces Plan to Build World-Class $9.5 Billion International Terminal at JFK Airport*, 2021, link; JFKT4, *JFK Airport's Terminal 4 Set for $3.8B Transformation*, 2020, link; Airport Advisory Panel, *A Vision Plan for JFK International Airport*, 2017, link; PR Newswire, *Plans for Next Phase of Terminal Expansion at JFK Airport*, 2013, link. Airport Technology, *JFK International Airport Redevelopment*, 2018, link.

[254] Chicago Mayor's Press Office, *Mayor Johnson Unveils Next Phase of O'Hare Expansion Project*, 2024, link; Illinois Economic Policy Institute, *The Economic Impacts of Completing the O'Hare 21 Modernization Program,* 2024, link.

[255] International Airport Review, *Hong Kong International Airport launches three-runway system, boosting capacity and solidifying aviation hub status*, 2024, link. While the new runway was completed in November 2022, the airport continued as a two-runway airport as it then temporarily closed the central runway for reconfiguration. It started operating as a three-runway airport in November 2024.

[256] Airport Technology, *Hong Kong International Airport (HKIA) Expansion, Hong Kong*, 2022, link; CAPA - Centre for Aviation, *Hong Kong's three-runway airport system to be completed by end of 2024 – 26 years after opening*, 2024, link.

[257] The Korea Post, *Incheon International Airport Completes Phase 4 Expansion*, 2024, link; Korea Herald, *Incheon Airport in final phase of expansion*, 2024, link.

processing 15 million tonnes of cargo annually. The project will be implemented in phases, with Phase 1 aiming to achieve an annual capacity of 130 million passengers, and Phase 2 adding a further 20 million passenger capacity. The entire expansion is scheduled for completion within the next decade.[258]

- **Istanbul**: A €12 billion (c.£10.3 billion) mega-project to create one of the world's largest airports, which opened in 2019 with an initial capacity of 90 million passengers annually. The project aims to expand capacity to 120 million passengers by end-2025 and, ultimately, to 200 million passengers when all phases are completed by 2028. Built on more than 76 million square metres, it includes four terminals, six runways (including Europe's first triple parallel runway system), 16 taxiways, and 500 aircraft parking positions, enabling simultaneous take-offs and landings that boost hourly air traffic capacity from 120 to 148 movements. The development includes a large solar power project, making it the world's first airport to meet all electricity needs through renewable energy, new terminal facilities and expanded cargo infrastructure spanning 1.4 million square metres. The airport has already become, by some measures, the world's best-connected airport, serving 309 unique, non-stop destinations.[259]
- **Madrid Barajas**: A €2.4 billion expansion programme aimed at increasing capacity from 70 million to 90 million passengers per year by 2031. The project focuses on refurbishing and expanding existing facilities rather than constructing new terminals. Key components include the expansion of Terminals T4 and T4S (€1.7 billion) and the remodelling of Terminals 1, 2, and 3 (€700 million), along with the construction of a new processing building and comprehensive renovations across all terminals. The development aims to enhance Madrid's role as a primary gateway from Europe to Latin America, and bolster connections to Asia.[260]
- **Frankfurt**: A €1.1 billion new Terminal 3, set to enter service in 2026. The new terminal, with a footprint of 176,000m^2, will boost the airport's capacity by 19 million passengers annually. The project also includes new freight facilities, maintenance buildings and car parks. A new Sky Line people-mover system will connect Terminal 3 with the existing terminals, with the aim of ensuring optimal transfer options for passengers, which will be furthered by the new luggage system having a seamless link with the other two terminals.[261]
- **Amsterdam Schiphol**: The "biggest investment plan in the airport's history" of €6 billion was announced in August 2024, aimed at revitalising its infrastructure, improving working conditions, and enhancing service quality, with work due to be carried out between 2024 and 2029. The focus will be on extensive maintenance, upgrades to passenger and employee facilities, and new construction projects, including the reconstruction of Pier C and the development of a new baggage handling basement. Critical infrastructure elements, such as climate control systems, aircraft stands, taxiways, and escalators, will undergo significant maintenance or replacement. These upgrades are designed to boost passenger satisfaction ("*not at the required level*"),

[258] New Civil Engineer, *£28bn plans unveiled to create 'world's largest airport' in Dubai*, 2024, link; The Independent, *Plans revealed for Dubai to move its busy international airport to $35 billion new space*, 2024, link.
[259] Airport Technology, *Istanbul New Airport, Black Sea Coast, Turkey*, 2023, link; TRTWorld, *Istanbul's new airport to launch today with aim of boosting aviation sector*, 2018, link; Daily Sabah, *Istanbul Airport to lift passenger capacity to 120M by end-2025*, 2024, link; Airport World, *iGA Istanbul Airport planning 'year of investments'*, 2024, link; CNN Travel, *This is the world's best-connected airport right now*, 2024, link.
[260] Centre for Aviation – CAPA, *Madrid Barajas Airport expansion to cost EUR2.4 billion; profitable AENA gets airport charges boost*, 2023, link; AirportIndustry-News, *Aena Advances €2.4bn Expansion Project at Madrid-Barajas Airport*, 2023, link; KHL, *Spain's Madrid airport set for US$2.6 billion expansion*, 2024, link.
[261] Airport Technology, *Frankfurt International Airport Expansion Project, Frankfurt, Germany*, 2023, link; Market Screener, *Frankfurt Airport boss: Airlines want to go to new Terminal 3,* 2023, link.

enhance operational efficiency, and improve working conditions, supporting the post-pandemic recovery and future growth.[262]

- **Munich**: Terminal 2 expansion was completed in 2016 at a cost of €900 million, providing an additional capacity of 11 million passengers a year.[263] Currently, there is a €665 million expansion programme focused on Terminal 1, set to be completed by the end of 2025. This project aims to increase the terminal's capacity by an additional 6 million passengers annually. The expansion includes a new pier extending into the western apron that will be connected to the central building complex, and will also include 16 additional piers, 12 security screening lanes with cutting-edge CT technology, and a revamped baggage claim area with four carousels. The new facility will span 95,000 square metres across six levels, featuring a marketplace, expanded commercial areas, and improved passenger amenities. The pier will accommodate up to 12 aircraft simultaneously, including two stands for Airbus A380.[264]

- **Dublin**: A €2.4. billion expansion programme aimed at growing operational capacity by 4 million passengers a year to 40 million passengers a year and modernising the airport's infrastructure. The project includes 11 distinct infrastructure projects to be implemented over a 15-year period. Key components include the expansion of both North and South Aprons to accommodate new aircraft parking stands, improvements to Terminal 1 and 2 check-in areas, security, and baggage systems, and the development of new piers. The plan also involves upgrading the Ground Transportation Centre, expanding long-term car parking, and enhancing surface access. The South Apron expansion will also include development of additional screening lanes within an extended US Customs & Border Protection building and the provision of a passenger boarding zone.[265]

- **Barcelona El-Prat:** A €700-750 million expansion programme focused on remodelling Terminal 1, with additional plans for potential runway expansion. The Terminal 1 project aims to modernise the facility and adapt it to meet growing passenger demands. Key aspects of the project include expanding check-in areas, baggage claim, and security controls, as well as upgrading commercial and catering facilities.[266] The development will also improve energy efficiency and operational capacity. A separate, more contentious €1.7 billion expansion plan involves extending the third runway (06R/21L) by approximately 500 metres towards the La Ricarda lagoon.[267] The Catalan government aims to begin expansion works by 2027, with a new masterplan expected in early 2025. The urgency for expansion is highlighted by the airport's rapid approach to its current 55 million passenger capacity, with 31.4 million passengers handled between January and July 2024, a 12.2% increase from 2023. The Terminal 1 remodelling is projected to start in 2028 and be completed by 2031.[268]

[262] Schiphol, *Major investment plan of 6 billion to improve Schiphol,* 2024, link; Momberger's Global Airport Development News, No. 1225, 2 September 2024.
[263] Airport Technology, *Munich International Airport Expansion,* 2016, link.
[264] Airport Technology, *Munich International Airport Terminal 1 Expansion,* 2024, link.
[265] Dublin Airport, *33.3m passengers went through Dublin Airport's terminals in 2024*, 2025, link; Dublin Airport, *Infrastructure Application*, 2024, link; Dublin Airport, *Projects*, link. Note that Dublin has a planning cap of 32 million passengers per year, but 'operational capacity' of 36 million passengers per year.
[266] AirportIndustry-News, *Aena Awards Contract for Terminal 1 Remodelling at Barcelona*, 2024, link; Momberger's Global Airport Development News, No. 1235, 27 January 2025.
[267] Aviacionline, *Catalan government accelerates Barcelona-El Prat expansion talks amid record passenger growth*, 2024, link.
[268] Salir por Barcelona, *The refurbishment of Terminal 1 at Barcelona airport: a monumental project that will mark the future of El Prat*, 2024, link.

Annex M. Comparison of features of regulating Heathrow compared to other UK-regulated sectors

	Heathrow	NATS	Wholesale telecoms	Gas & electricity transmission	Gas & electricity distribution	Water & wastewater	Rail
Bespoke or standardised infrastructure	Highly bespoke	Largely standardised	Largely standardised	Largely standardised	Largely standardised	Largely standardised	Largely standardised
Complexity assessing engineering requirements and establishing efficient costs	High complexity	Lower complexity	Lower complexity	Lower complexity	Lower complexity	Lower complexity	Lower complexity
Distinct sub-services within the regulated offering	Many	Few	Few	Few	Few	Few	Few
Distinct steps or touchpoints for user service delivery	Many	Few	Few	Few	Few	Few	Few
All or most aspects of service quality can be quantified	No	No	Yes	Yes	Yes	Yes	Yes