



9 August 2022

USS RESPONSE TO CAA H7 FINAL PROPOSALS

This is the confidential response by the Universities Superannuation Scheme to the CAA's Final Proposals' consultation for Heathrow's H7 price control.

1. THE UNIVERSITIES SUPERANNUATION SCHEME

- 1.1 This response is provided by USS Investment Management Limited ("**USSIM**"), the principal investment manager and adviser of Universities Superannuation Scheme Limited ("**USSL**") (acting in its capacity as sole corporate trustee of the Universities Superannuation Scheme) ("**USS**" or the "**Scheme**"). USSIM is based in the London office of USS, whose registered office is Royal Liver Building, Liverpool, Merseyside, L3 1PY. USSIM is a wholly-owned subsidiary of USSL and provides services only to USSL and / or investment vehicles owned by USSL.
- 1.2 USS was established in 1974 and is the principal pension scheme for academic and comparable staff in UK universities and other higher education and research institutions. USS has circa 500,000 members (as of 31 March 2022) across more than 300 institutions.
- 1.3 USS is one of the largest private pension schemes in the UK with assets under management of over £90.8 billion as at 31 March 2022 and in the top 50 worldwide. USS's equity investment in Heathrow Airport is part of its private markets group ("**Private Markets Group**") portfolio which has approximately £28bn in assets in total.
- 1.4 USSL is the Scheme's trustee. It is a corporate trustee which has overall responsibility for scheme management, led by a non-executive board of directors and employing a team of pension professionals in Liverpool and London. The trustee's primary responsibility is to ensure that benefits promised to members are delivered in full on a timely basis.
- 1.5 USSL has appointed USSIM as the Scheme's principal investment manager and adviser. USSIM currently has circa 140 employees based in London, including (as at 31 March 2022) a dedicated Private Markets Group team comprising 58 employees with significant experience in executing



transactions and in asset management.

- 1.6 USSL established its private markets investment programme in 2007 and now manages over £28 billion of private market assets (as at 31 March 2022). USSIM has a strong track-record of investing in infrastructure and infrastructure-like businesses and continues to seek to acquire leading infrastructure companies which can deliver attractive returns over the long-term to the Scheme's members. A primary focus of the Private Markets Group mandate is to deploy capital in strong UK businesses, which can provide stable cash flows to match USS's obligations in meeting members' pension liabilities. Key UK investments include Heathrow Airport, NATS, Moto, Thames Water, Westerleigh, Dukes Education, G.Network and the GIB portfolio of offshore windfarms.
- 1.7 USSIM, on behalf of USSL, has also submitted a letter dated 4 March 2021 in support of Heathrow's position on the RAB adjustment.
- 1.8 References to "We" is to USSIM in its capacity as investment manager and adviser of USSL, and, to, in turn, USSL (as sole corporate trustee of USS).
- 1.9 Silence in this document on any point raised by the CAA should not be considered as an expression of support.
- 1.10 Where this response refers to a document, a copy has been provided or an extract from the document is provided in the appendix.

2. STRUCTURE

- 2.1 This remainder of this document consists of six sections, starting at section 3, as follows:
 3. Summary
 4. The impact of Covid on investment risk;
 5. USS's views on regulation including H7 and the key importance of predictability and consistent treatment of the RAB;
 6. The CAA's approach to risk sharing;



7. Considerations regarding further investment in airports and Heathrow.
8. Appendix containing document extracts.

3. SUMMARY

- 3.1 USS is a UK pension provider and the Scheme's liabilities are indexed to UK inflation. USSIM, on behalf of USSL, selects investments carefully to provide USS with long-term index-linked cash flows that allow USS to meet its pension liabilities. Put at its simplest: the Scheme needs reliable, index linked income so that it can pay the index-linked pensions for retired university and higher education institutions' lecturers and administrators in the UK.
- 3.2 The UK economic regulatory environment is uniquely attractive to asset owners such as USS who have liability driven investment strategies. We are precisely the type of investor that the regulation was designed to attract. As a result, we have actively sought, and been encouraged by the UK government and economic regulators, to deploy capital in the economically regulated sectors in the UK with robust regulatory frameworks. These frameworks, particularly the RAB construct, have historically given us confidence to invest in UK infrastructure and USS has over £4bn invested in UK infrastructure assets, £2bn of which is in the UK economic regulated sectors, to the benefit of our members and UK's public services.
- 3.3 As such, regulatory factors, particularly changes to our perception of regulatory risk, are a key input into our investment decisions. As a very long-term investor, our investments are uniquely exposed to significant regulatory risk and, as such, we need to have confidence in the regulatory framework to deliver "fairness" to shareholders as well as other stakeholders. A credible regulatory framework is one that delivers an appropriate balance in outcomes between consumers, investors and wider society. This is absolutely critical. We can understand not always getting everything that we want but the regime needs to offer predictability in its implementation and represent a "fair bet" to investors such that they receive a fair, risk adjusted return for the risks that they face.
- 3.4 This is the opportunity for the CAA to restore our confidence in their ability to deliver a fair regulatory determination and fair outcomes. The CAA has not delivered fair outcomes at



Heathrow in its response to COVID to date nor does its Final Proposals represent a fair outcome. Our view is also directly informed by our experience as investors in NATS En Route Limited (“NERL”) where USSL indirectly holds 20.9% of the equity through our shareholding in The Airline Group. There the CAA has chosen not to implement a clear and explicit traffic risk sharing (TRS) arrangement as described in the NERL licence at the very moment that NERL needed it.

- 3.5 The aviation sector has changed post COVID following the unprecedented and exceptional impact on aviation traffic which has exposed investors to extreme risks not considered at the point of investment. Our confidence in the regulatory framework and the sanctity of RAB is even more important as a result but that has been challenged by our experience at Heathrow and actions of the CAA to date.
- 3.6 We welcome the inclusion of a TRS in the H7 determination. However, the CAA materially overestimates its impact in terms of the reduced risk, as expressed in the asset beta and WACC, failing to recognise the increased risk of aviation in general and its own actions in terms of disapplying the NERL TRS during COVID.
- 3.7 The exceptional impact of COVID and the actions of the UK government restricting air travel was not incorporated in the current regulatory determination (Q6) or previous determinations. If it had been, the cost of equity for investors would have been substantially higher. However, Q6 did allow for a reopening of the regulatory determination in the event of such exceptional circumstances, and it is quite right that Heathrow shareholders should rely on that to deliver a fair outcome. USS explicitly referenced an intra-period re-opening of the Q6 determination as a risk mitigation to more extreme scenarios in its investment memorandum at the time of approval of its acquisition of a stake in Heathrow. For example, USS considered a “Loss of BA Due to business collapse”; under this scenario, we considered it likely to justify a re-opener. These scenarios were much less severe in their impact on passenger numbers compared to the impact during COVID.
- [Extract A in appendix].***
- 3.8 As an investor in Heathrow, the upside is capped both practically through the capacity constraint at the airport but also the price regulation determined by the CAA. However, absent appropriate action from the CAA, COVID has shown that the downside for an investor is essentially uncapped.



- 3.9 No rational equity investor would invest on the basis of “capped upside and uncapped downside”, not without a substantial increase in their cost of equity. That scenario is uninvestable and does not represent a “fair bet” for investors. The “fair bet” is a long established regulatory principle and should allow for potential upside from any investment to offset the downside risk. That is why RAB based regulated sectors in the UK, such as energy and water, allow for the re-opening of regulatory determinations to ensure the “fair bet” principle is maintained.
- 3.10 The £300m RAB adjustment implemented by the CAA is explicit recognition that the Q6 regulatory framework envisaged that the CAA would make appropriate adjustments to ensure that a “fair bet” for shareholders is maintained. However, the size of the adjustment is wholly inadequate compared to the £1.8bn “loss” of the RAB during COVID and £4bn of cumulative losses. It is inconsistent with the basis upon which shareholders, including USS, accepted the Q6 determination.
- 3.11 The USS view of expansion is that the regulatory arrangements for the existing two-runway model of Heathrow needs to be fixed first to incentivise long term investment before we would consider investing in a third runway.

4. THE IMPACT OF COVID ON INVESTMENT RISK

An introduction to USS and its approach to investment

- 4.1 USS, through its principal investment manager and adviser USSIM, has a strong track-record of investing in infrastructure and infrastructure-like businesses both in the UK and overseas. A primary focus of the Private Markets Group mandate is to deploy capital in strong UK businesses which can provide stable cash flows to match USS’s obligations in meeting members’ pension liabilities. USSIM has experience of investing in different economic regulatory regimes in UK, including Ofwat and Ofcom, as well as international regulated infrastructure markets. This gives us unique insight into regulatory norms and best practice and an ability to allocate capital to where we see “fair” regulatory outcomes for investors.
- 4.2 Philosophically, USS is a very long-term investor reflecting the long term nature of our pension liabilities that can extend into the next century. We are also a responsible steward of the assets we invest in. We believe that the way a company is run and overseen and how it manages its



environmental and social risks, such as its approach to climate change or health and safety, will impact the long-term financial returns that it will make for its investors.

- 4.3 USS acquired an initial 8.65% equity stake in Heathrow in October 2013 with a further 1.35% stake acquired in October 2014. At that point, our 10% equity stake allowed USS to appoint a director to the Heathrow board of directors.
- 4.4 Historically, USS viewed Heathrow – from an investment perspective - as a hybrid of airport and utility because of the shared underpinnings of the regulatory framework including the RAB model. We saw it as quasi-utility with a narrow distribution of outcomes. Some variability of outcome was caused by relatively minor variability in passenger numbers but not to the exceptional degree that we saw during the COVID pandemic. In the event of more extreme outcomes in passenger traffics, USS viewed the regulatory framework as a risk mitigation including the intervention of the regulator intra-period. The extreme scenarios considered were much less severe than experienced during COVID.

Impact of Covid on investment risk

- 4.5 The pandemic has made the world a higher risk environment given the extraordinary impact it had on the global economy and financial assets, particularly within the aviation sector. The reaction of the UK government and other governments to essentially close international air travel had not historically been contemplated by investors. All else being equal, ex-ante required returns should be higher to offset this extreme downside risk and the higher skew of outcomes for investors. COVID represented an existential threat to the airport, which incurred cumulative losses of more than £4bn. Such an extreme outcome would not have been contemplated by investors and indeed was not by USS in its investment underwriting. USS did consider a number of severe scenarios including a severe, short term “Spike” downturn caused by a SARS or 9/11 type event. However, these assumed a fraction of the impact on passenger traffic we have witnessed during COVID. *[Extract B in Appendix]*

5. USS’S VIEWS ON REGULATION INCLUDING H7 AND KEY IMPORTANCE OF PREDICTABILITY AND CONSISTENT TREATMENT OF THE RAB

- 5.1 We assume we hold our investments over a 30-years plus period to align with our pension



liabilities that are long term and can extend into the next century. The predictability of regulation and the actions of the regulator is the number one requirement for us to invest for the long term. The decisions of the CAA, in particular, to the impact of COVID on Heathrow in terms of the initial RAB adjustment and NERL in terms of the application TRS, has had a significant negative impact on our view of regulatory predictability and as such, our perception of regulatory risk. The Final Decision is the CAA's opportunity to redress this.

- 5.2 USS sees the role of the CMA as a “regulator of last resort” in the regulatory framework as a significant positive for investors in ensuring fair outcomes. The decisions of the CMA in recent appeals, such as the water sector as well as NERL, has been and remains, a positive consideration for USS in its investment decisions in economic regulated sectors.
- 5.3 USS has been vocal in expressing our views, both publicly and directly to government and regulators themselves, on economic regulation and the economic regulators including the CAA. As a responsible steward of our assets, we believe we are obligated to ensure that economic regulation “works” and delivers for consumers and investors. We have emphasised the importance of long-term investment and its benefit to future consumers and ensuring regulators including the CAA recognise the need of incentivising investment as well as the short-term impact on current consumers bills. In relation to the RAB model, we have also specifically highlighted our concerns about how it is being applied in the aviation sector (*see copies attached of USS Letter to Lord Grimstone of Boscobel dated 21 January 2021 and of USS Letter to Greg Hands dated 24 November 2021*).
- 5.4 The RAB is a core underpinning to the regulatory framework and our view of regulatory predictability - the sanctity of the RAB is key regulatory principle for investors. It underpins the ability to invest substantial capital on the basis that, if efficiently incurred, you will recover that investment and earn a return on those assets. This enables investors like USS to provide capital at a relatively low cost to the benefit of consumers. The de facto loss of a significant portion of Heathrow's RAB, through regulatory depreciation during COVID, despite it being efficiently incurred, runs contrary to this.
- 5.5 The initial £300m RAB adjustment implemented by the CAA is explicit recognition that an adjustment to the RAB is required under the regulatory framework. However, it is clearly



inadequate compared to the £1.8bn “loss” of the RAB through regulatory depreciation alone during COVID. We are concerned that the actions of the CAA in relation to the RAB adjustment, unless redressed in the Final Decision, will undermine investor confidence in the RAB model with negative consequences for investment and consumers.

- 5.6 The UK government is proposing a RAB based approach for nuclear power generation. The UK Government recognised in their July 2019 consultation for the application of a RAB model for nuclear that protection would be needed to be offered to investors “for specified low probability but high impact risks that the private sector would not be able to bear – either at all or at an efficient price”. There is an obvious parallel, in our view, between nuclear and Heathrow because of the (now) tail risk of severe adverse events, so the CAA’s Final Decision on the RAB adjustment is very important in providing confidence for USS to invest in nuclear. We have raised this specific issue orally in meetings with the UK government (including directly with the Prime Minister and Lord Grimstone, Minister for Investment) and how it impacts on our view of the risk of investing in new nuclear power (*see a copy attached of USS Letter to Lord Grimstone of Boscobel dated 21 January 2021*).

6. THE CAA’S APPROACH TO RISK SHARING

- 6.1 USSIM views the sector as being higher risk than pre-COVID and that should be seen in an asset beta (excluding a TRS) that’s higher than it has been historically. The extreme downside outcome that investors have been exposed to in terms of passengers and the negative skew of those outcomes undermines the previous view of airports, specifically Heathrow as a regulated airport, that it has utility-like characteristics.
- 6.2 The impact of the TRS on the asset beta should be a combination of the degree to which it offsets the impact of extreme events such as COVID and the confidence that it will actually be applied as intended when those extreme events occur.
- 6.3 The CAA’s Final Proposals state that Heathrow’s asset beta is lower than the observable data for other airports with TRS mechanisms or other similar ways of dealing with volume risk post-COVID and that determined by the CMA in RP3 for NERL which was pre-COVID. This is hard to rationalise from USS’s perspective as an experienced investor and the clear observable evidence from other



airports.

- 6.4 Our confidence in the CAA applying the proposed TRS for Heathrow has been severely impacted by the CAA's behaviour in relation to NERL and its TRS mechanism. A TRS was introduced for NERL following the bankruptcy of NATS after the events of 9/11 in order to ensure that it remained financeable. The TRS allowed NATS to become a commercial and operational success as it provided confidence to investors, including USS, to support the company with low-cost capital to the benefit of its customers.
- 6.5 However, when it was needed during the pandemic, the CAA sought to disapply the TRS as outlined in the licence because it was unwilling to put an additional financial burden on airlines at a time when their finances were also in a parlous state. The CAA raised the possibility that due to their decision to not apply the TRS as described, that shareholders will need to invest further equity to ensure financeability of the company.
- 6.6 Given our experience with NERL, we have significant doubts that if another COVID type event occurred, that the CAA would apply the TRS as described. The CAA Final Proposals for the TRS also excludes key elements from the licence itself, reinforcing our concern around the TRS being applied as intended.
- 6.7 To be clear, we do welcome the inclusion of a TRS in the H7 determination however the CAA materially overestimates its impact in terms of the reduction in risk, as expressed in the asset beta and WACC, failing to recognise the increased risk of aviation in general and its own actions in terms of disapplying the NERL TRS during COVID.

7. CONSIDERATIONS REGARDING FURTHER INVESTMENT IN AIRPORTS AND HEATHROW

- 7.1 Heathrow remains a significant investment for USS although its value has reduced materially since COVID. Given its role in supporting the UK economy, and USS's approach as a responsible owner and steward of its assets, it remains a very important investment.
- 7.2 Heathrow is our sole airport investment and given our experiences during COVID, we are not currently intending to invest in any more UK airport assets outside of Heathrow.



- 7.3 We could invest further in Heathrow but that would depend on the Final Decision. The cost of capital is important but that needs to be seen in the context of the risk, and consistent with it. We understand that any investment is not risk-free but it needs to represent a “fair bet” in terms of the range of outcomes we are exposed to. The impact of COVID and the subsequent actions of the CAA make it clear that it did not represent a “fair bet” for investors and this needs to be redressed in the Final Decision.
- 7.4 We cannot separate H7 and expansion: the regulatory arrangements for the existing two-runway model of Heathrow needs to be fixed first before we would commit to investing in a third runway. We have made reasonable assumption about the H7 regulatory determination. These assumptions have been challenged by the CAA’s Final Proposals and as such we will need to reassess our investment appetite in light of the Final Decision.
- 7.5 An additional runway will expose Heathrow and its shareholders to even more passenger risk than we have experienced as a two-runway airport. As such, confidence in the regulator in providing a fair bet is even more important.
- 7.6 We want to invest more, we want to support expansion at the airport, and it is an important asset for USS and for the UK economy but we need economic regulation and a regulator that supports and incentivises such long term investment.



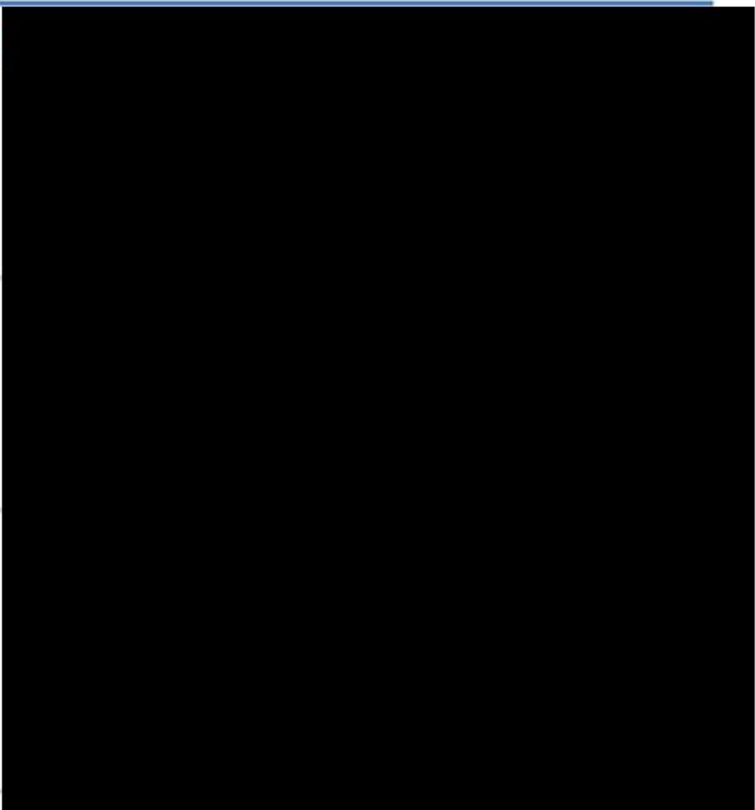
APPENDIX.

Extract A. Source: USSIM Final Alternatives Investment Committee Memo 25/04/2013 REDACTED

Overview of Temporary Sensitivities Considered

Scenarios simulate temporary shocks in Q6 that reduce aero revenues as aero yields are based on the initial regulatory forecasts (detailed assumptions in appendix)

	Traffic	Aero
4 World GDP Decline	<ul style="list-style-type: none"> General decline in traffic demand across the world ATM remain but load factors drop Airlines unlikely to give up IFR slots 	<ul style="list-style-type: none"> Aero yields would remain fixed as based on higher regulatory forecast from beginning of Q. Aero revenues would therefore drop significantly
5 UK GDP Decline	<ul style="list-style-type: none"> General decline in traffic across UK ATM remain but load factors drop Network airlines 'top up' with connecting passengers 	<ul style="list-style-type: none"> Aero yields would remain fixed as based on higher regulatory forecast from beginning of Q. Aero revenues would therefore drop significantly
6 Loss of BA Due to business collapse	<ul style="list-style-type: none"> GDP loss triggers BA business collapse Short-term reduction in flights as business is restructured Inherently profitable BA routes are picked up by other carriers Possible LT loss of some connecting traffic depending on identity of new owner 	<ul style="list-style-type: none"> Progressive BA decline will have been included in forecast Subsequent sudden major collapse likely to justify model re-opener, though major recovery of most of the passenger traffic following a 'land grab' by other carriers may limit downside

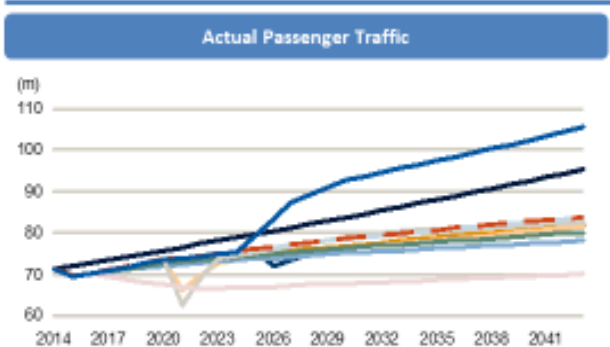




Extract B. Source: USSIM Final Alternatives Investment Committee Memo 25/04/2013 REDACTED.

Comparison of Key Variables

USSIM's base case takes a substantial haircut on management projections; in addition, USSIM has also considered several downside scenarios which further haircut performance



— Gatwick new runway — Stansted new runway — BA collapse — World GDP decline — UK GDP decline — Optimistic
— Spike — Worst case — Management Business Plan (incl R3) — Management Business Plan — Base Case

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