

## **Appendix E.iv.a – Commercial Revenue – Top-down benchmarking**

### **Top-down benchmarking**

The CAA applied a top-down econometric benchmarking model to assess HAL's relative commercial revenue efficiency compared with other airports. The model estimates expected commercial revenue based on key drivers, including workload units, GDP per capita, fixed assets, and premium passengers, with any residual difference interpreted as an efficiency gap relative to peers. Consistent with standard regulatory practice, the efficient 'frontier' is defined with reference to the upper quartile of airports rather than a single comparator. The output of HAL's commercial revenue efficiency in the CAA's benchmarking model indicates a gap-to-frontier of 0.46% in 2019 and 1.28% in 2022.

Updating the datasets with 2023 data and excluding COVID years, we found that HAL's gap-to-frontier is 0.64%, indicating performance broadly aligned with the frontier. HAL ranked 13<sup>th</sup> out of 48 airports in 2023, just below the upper-quartile threshold, Brussels Airport. Testing the same model using a 2019 baseline yields a gap-to-frontier of 0.07%, lower than the frontier airport. These results do not materially affect HAL's relative position, which remains stable at 13<sup>th</sup> out of 48 airports in 2023, indicating the stability of HAL's commercial revenue relative to the frontier airport.

These findings demonstrate that HAL's commercial revenue performance is stable and robust to model specification and dataset updates. The small magnitude of the estimated gaps (all below 1%) suggests that any differences relative to the frontier are economically immaterial and within the normal range of model uncertainty, rather than indicative of systematic inefficiency. In addition, the econometric framework does not fully capture structural factors such as Heathrow's space constraints and passenger mix, which may influence observed commercial revenues. Overall, the evidence indicates that HAL is performing at or close to the efficient frontier in commercial revenue.