

Cost benchmarking of Network Rail's maintenance expenditure 2024 to 2025 - Technical report on our modelling approach for cost benchmarking

Annex A: Institute for Transport Studies assurance
statement, 2024 to 2025 analysis

Professors Phill Wheat and Andrew Smith, 15
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To support value for money monitoring of Network Rail during Control Period 7 (2024 to 2029), the Office of Rail and Road has undertaken analysis of the costs of Network Rail's Regions and Maintenance Delivery Units (MDUs) using econometric techniques. As part of this work, ORR commissioned Professor Phill Wheat and Professor Andrew Smith to provide late-stage advice on their approach and an independent peer review of their work.

We have not carried out a detailed audit of modelling code, or been involved in discussions about data quality, though we are aware that data issues remain an ongoing challenge. We consider that ORR has taken an appropriate and robust approach to the development of a reasonable set of models, utilising both regional and MDU data, bearing in mind the variables available for inclusion in the model and the sample sizes. Relevant statistical tests and theoretical / engineering criteria, as well as considerations of transparency and parsimony, have been used to guide the selection of

variables to include or exclude from the model, and different estimation approaches have been tested and compared. The selected models are similar in nature and structure to those made in other UK regulatory contexts, as are the types of variables and the modelling approaches considered as part of that selection process. We have not commented in detail on all aspects of ORR's technical report, but provided guidance on drafting to aid precision of statistical concepts.

We consider the following areas are priorities to be taken forward for further exploration in the next round of modelling: (1) random effects models for the MDU models to better understand differences against OLS and consideration of which should be preferred; (2) if and how to capture input price variation in the modelling framework; (3) comparisons between the CEPA and ORR dataset and models; and (4) further exploration of data quality issues.

- [← Previous 3. Data issues](#)