



Institute
and Faculty
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Model Risk Management at the Pensions Regulator

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Background

The Macpherson Review

- On 3 October 2012, the Secretary of State for Transport announced that the competition to award a 13 – 15 year franchise to run train services on the West Coast Main Line had been cancelled, an eventuality that was to cost DfT over £50M in compensation.
- The report of the Transport Committee, published in January 2013, noted five causes, all of which derived from the *use of mathematical models*.
- Noting weaknesses in the governance applied to modelling at DfT, the Cabinet Secretary initiated the Review of Modelling QA across government, led by Nick Macpherson.
- The Review's final report, published in March 2013, set out Recommendations that apply to all Departments and ALBs, including TPR.
- Since the Review views QA as an end-to-end process covering the life and uses of a model, and does so on the basis of risks, we address its Recommendations from the perspective of risk management.

Model Risk

- Our model risk is mainly operational; we focus our efforts here, and manage its strategic aspects separately.
- Example risks involve using the wrong data or assumptions, or misreporting what model outputs are, or mean.
- Outputs of TPR's models are consumed both internally and externally. While much model use incurs significant risk, the *body* of risks are concentrated in inefficiencies and impediments to our agility



TPR's Model Risk Framework

The Model Risk Framework

- **How it came about and what it does**
- An assessment of model risk informed the design of a proportionate, principles-based risk management framework. This work was carried out with the assistance of GAD.
- This Framework addresses both the modelling environment and process, and allows Execs, managers and staff to monitor and manage model risk.
- **What it looks like**
- Two technical panels each provide advice and challenge. These each have a fixed Chair; other staff attend as needed for specific agenda items. Most dialogue takes place 121, or via emails.
- A quarterly governance panel oversees the Framework, monitoring and reporting risks
- Single named individuals are responsible for managing specific risks – all models and uses have owners.
- The Framework provides guidance and training. These set out expectations in regard to culture, in addition to providing guidance on best practice, and instructions and advice on using the Framework.
- A SharePoint portal makes logging and reporting information easy. Key information on what models are intended to do; their uses; and the risks that attach to them are captured and logged in the portal.
- Reporting processes promote effective summarising and dissemination of risk information.
- Each Exec Director affirms compliance with the Framework quarterly.
- Control of some key drivers of model risk management fall outside the Framework, including, for example, resource decisions and data management.