

## A case study on using advanced modelling approaches in a regulated IRB environment

### Abstract

Advanced analytical techniques offer significant advantages in model development; however, their perceived lack of transparency, interpretability, and explainability limits their adoption within regulated Internal Ratings-Based (IRB) models. This study explores the integration of advanced modelling techniques with simple interpretability methods to harness the benefits of machine learning while adhering to regulatory requirements. We propose a framework that maintains full transparency and interpretability of the final model while leveraging machine learning to enhance the efficiency and accuracy of key development steps. This approach demonstrates how advanced methodologies can be effectively incorporated within the established regulatory modelling framework.

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