

Using Macroeconomics to innovate Secured LGD models

Abstract

Logistic regression represents an easily interpretable methodological framework extensively employed within credit risk modelling for the estimation of binary outcome probabilities. However, the predictive accuracy of these models tends to decline over time, potentially leading to a misalignment with observed outcomes. The present study investigates approaches to integrate external factors that can influence customer behaviour into the probability of possession given default model used for secured IRB purpose within Nationwide, with a specific focus on the incorporation of macroeconomic variables. Various methodologies for utilising macroeconomics in a linear regression framework, from slope and intercept modelling to direct inclusion in the scorecard, were tested and the resulting predictions compared with observed data. Our findings indicate that while the tested models achieved satisfactory results, they exhibited increased reactivity and volatility. Future research should focus on exploring methods to mitigate the observed volatility in the outputs of these models.

Speaker

Mr Richard Knight

Senior Risk Manager

Nationwide Building Society

Using Macroeconomics to innovate Secured LGD models