

Likelihood-Based Scoring Rules for Comparing Density Forecasts in Tails

Cees DIKS

Department of Quantitative Economics
Faculty of Economics & Econometrics
University of Amsterdam
Valckenierstraat 65-67
NL - 1018 XE Amsterdam
THE NETHERLANDS

We propose new scoring rules based on conditional and censoredlikelihood for assessing the predictive accuracy of competing density forecasts over a specific region of interest, such as the left tail in financial risk management. These scoring rules can be interpreted in terms of Kullback-Leibler divergence between weighted versions of the density forecast and the true density. Existing scoring rules based on weighted likelihood favor density forecasts with more probability mass in the given region, rendering predictive accuracy tests biased towards such densities. Using our novel likelihood-based scoring rules avoids this problem.