

## „Backtesting Systemic Risk Forecasts using Multi-Objective Elicitability“

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### Abstract:

Systemic risk measures such as CoVaR, CoES and MES are widely-used in finance, macroeconomics and by regulatory bodies. Despite their importance, we show that they fail to be elicitable and identifiable. This renders forecast comparison and validation, commonly summarised as `backtesting', impossible. The novel notion of multi-objective elicibility solves this problem by relying on multivariate scores equipped with an order. We apply this concept to systemic risk forecasts by proposing Diebold--Mariano type tests that utilise two-dimensional scores equipped with the lexicographic order. We illustrate the test decisions by an easy-to-apply traffic-light approach. Finally, we apply our traffic-light approach to DAX 30 and S&P 500 returns, and infer some recommendations for regulators.