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"Risk Model–at–Risk"[☆]

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Abstract

The experience from the global financial crisis has raised serious concerns about the accuracy of standard risk measures as tools for the quantification of extreme downward risk. A key reason for this is that risk measures are subject to a model risk due, e.g. to specification and estimation uncertainty. While regulators have proposed that financial institutions assess the model risk, there is no accepted approach for computing such a risk. We propose a remedy for this by a general framework for the computation of risk measures robust to model risk by empirically adjusting the imperfect risk forecasts by outcomes from backtesting frameworks, considering the desirable quality of VaR models such as the frequency, independence and magnitude of violations. We also provide a fair comparison between the main risk models using the same metric that corresponds to model risk required corrections.

Keywords: Model Risk, Value–at–Risk, Backtesting.
J.E.L. Classification: C50, G11, G32.

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