



THE UNIVERSITY OF
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Department of Statistics

MASTER'S THESIS PRESENTATION

ZHENG XU

Department of Statistics
The University of Chicago

Two-Stage Selection Method for Value-at-Risk Models

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ABSTRACT

This paper introduces a two-stage model selection method for different Value-at-Risk (VaR) estimation models. In the first stage, we test the property of 'correct conditional coverage' of the models and perform a regression test for the high-order dependence. In the second stage, we apply a 'loss function' approach to evaluate the quality of VaR models. In application, we first implement our method in the simulated data and find it useful to filter various models. After experimenting with real data, the S&P 500 index and the NSE-50 (Nifty) index, at the 99% and 95% levels, our two-stage model selection procedure does prove to be effective in reducing many models to a smaller set and finally discovering the most appropriate model.