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**CONDITIONAL VAR USING GARCH-EVT APPROACH WITH
OPTIMAL TAIL SELECTION****Abstract:**

Accurate risk prediction plays a key role in effective risk management process. A conditional GARCH-EVT approach combines Extreme Value Theory and GARCH methodology and it allows us to estimate Value at Risk with high accuracy. The approach requires to pre-specify a threshold indicating distribution tails. In this paper we use an optimal tail selection algorithm of Caeiro and Gomes (2016) to estimate out-of-sample VaR forecasts. Unlike other studies we update the optimal fraction of the tail for each rolling window of the data set. Results are presented for a long and a short position applying ten U.S. blue chips. The GARCH-EVT model enables us to estimate risk precisely. However, it is not possible to notice the improvement of VaR accuracy relative to conservative approach taking the 95th or 90th quantile of returns as a threshold.

Keywords:

Value-at-Risk, optimal tail selection, Extreme Value Theory, GARCH-EVT

JEL Classification: C22, C53