

QUANTILE BASED ESTIMATION OF FINANCIAL MARKET MELTDOWN

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ABSTRACT

The study aims at estimating the downside risk using Value at Risk (VaR) and drawdown based performance measures of 30 indices subdivided into equity index, currency exchange index, sovereign bond index & volatility Index and commodity index. To calculate the Value at risk(VaR) estimate six competing models namely Filtered historical simulation(FHS), GARCH model, Cornish Fisher, Delta normal, Box Cox Transformation and Kernel VaR Box are used. The accuracy of the models is judged using Christofferesen unconditional coverage and independence tests. Apart from this, the study also assesses the risk profile of the indices using the drawdown based measures like Maximum Drawdown(MDD), Conditional Drawdown-at-Risk (CDaR), Average drawdown, Calmar Ratio, Sterling Ratio, Burke and modified Burke Ratio and Pain ratio.

Key Words: Value at Risk, Filtered historical simulation, Maximum Drawdown(MDD)