Evaluating Performance of Value at Risk Models for the MENA Islamic Stock Market Portfolios

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Abstract : In this paper we investigate the issue of market risk quantification for Middle East and North Africa (MENA) Islamic market equity. We use Value-at-Risk (VaR) as a measure of potential risk in Islamic stock market, for long and short position, based on Riskmetrics model and the conditional parametric ARCH class model volatility with normal, student and skewed student distribution. The sample consist of daily data for the 2006-2014 of 11 Islamic stock markets indices. We conduct Kupiec and Engle and Manganelli tests to evaluate the performance for each model. The main finding of our empirical results show that (i) the superior performance of VaR models based on the Student and skewed Student distribution, for the significance level of $\alpha=1\%$, for all Islamic stock market indices, and for both long and short trading positions (ii) Risk Metrics model, and VaR model based on conditional volatility with normal distribution provides the best accurate VaR estimations for both long and short trading positions for a significance level of $\alpha=5\%$.