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*Model-Implied Measures of Risk-Adjusted Returns in Stochastic Volatility Models.*

In finance, the rate of return is a performance measure used to compare financial instruments. With the adage no risk, no return in mind, rates of return can be better represented by attaching to them the associated risk describing the volatility of the return. Much of financial literature explores the derivation of risk-adjusted measures of return and aims to best characterize the performance of underlying financial instruments.

We use simulation to investigate the distributional properties of several risk-adjusted measures of return implied by the following three different stochastic volatility option pricing models: the Black-Scholes, Heston, and Bates models. We derive the necessary computational machinery—which is not published in the literature—and employ Monte Carlo methods in our approach. While the measures we consider have been well-researched in empirical studies of historical data, little work had been done to better understand the statistical properties of these measures within the context of stochastic option pricing models. We address this need in our analysis. Additionally, we assess model-implied differences between measures of return across different option pricing models. (Received September 09, 2012)