

TESTS OF PRICING EFFICIENCY OF THE INDIAN INDEX OPTIONS MARKET

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ABSTRACT

In this paper, we examined if the Black and Scholes model is a good descriptor of option pricing in the Indian context. We use data for Standard Poor CRISIL NSE Index 50 (S&P CNX Nifty index) options from 1st January, 2004 to 31st December, 2005. We operationalise the Black and Scholes model using two alternative measures of Historical volatility and Weighted implied volatility. Employing the historical volatility measure, we find that both call and put options are fairly priced in India subject to the trading asymmetry condition in the spot market. However, weighted implied volatility measure grossly underestimates option values resulting in large and positive pricing errors. Thus, option pricing in India seems to be conditionally efficient and historical volatility does a good job as a measure of true volatility of the underlying asset. Our work contributes to the options market literature for an emerging market and hence is pertinent for academicians, market practitioners and financial regulators.

Keywords: Efficiency; Index options; Historical volatility; Implied volatility; Trading asymmetry