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Abstract
It is worthwhile to investigate “How to evaluate Taiwan Index Options”whenthe trading of Taiwan Index Options more and more prosperous. Even though thereare many variables to influence option price, but nevertheless we know the volatility

is the dominant factor to determine option price. So if we can grip the variation oftarget asset volatility, we can grasp the future changing direction of the option prices;therefore, we can facilitate the investment policy making. Moreover, in some

literatures, the often used Black-Scholes model has been

argued that the assumption of constant volatility does not conform to the real market situation.

So in this study we use the Taiwan index call options from Dec. 30, 2002 to Jan. 2, 2004 as sampling, making the asset return volatility as the function of exercise price and/or time, to construct four different regression equations, and then separately solve the model’s estimated values by the Black-Scholes formula and Partial Differential Equation method. In order to test which method is better for forecasting

performance, the study adopts the variation between out-of-sample option’s estimated value and actual value. The

empirical result shows that the Black-Scholes formula is

better than the Partial Differential Equation method in forecasting performance.implied volatility
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