ESTIMATION OF MULTI-STATE EUROPEAN CALL OPTION PRICE USING BINOMIAL MODEL

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Abstract
An option is a contract which gives the holder the right to buy (call option) or sell (put option) the underlying asset with predetermined price (strike price) by a certain date (before or at expiration date). Recently, the option development arise many pricing models to estimate option price, one of the model which is used is Black-Scholes formula.

The multi-state option is an option which has payoff based on two or more underlying asset. There are several methods can be used to estimate call option price, one of the method is binomial model to estimate various option models such as multi-state call option. Then, the result of call option estimation using binomial model is obtained. it is the best formula based on error calculation with mean square error.

From the error calculation mean error is obtained from each formula on binomial model. The result of mean error shows that estimation using 5 point formula is better than 4 point formula.

Keywords : Multi-state option, Black-Scholes formula, binomial model.