Assessing Long Strangle Strategy in Gold Price Index Using 1985-2020 Data

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ABSTRACT

According to the gold price index from 1985 to 2020 data cited from www.gold.org with the XAU code, the gold price index fluctuated between these periods. Price index fluctuation impacted to daily return value. Fluctuations in returns indicated that there was price volatility. Concerning its price, it is necessary to have risk management to anticipate its volatility. The options strategy can be used to minimize the risk of a volatile market. There are two kinds option such as Call Option (right to buy) and Put Option (right to sell). This research aims at testing implementation of options model between Black Scholes and GARCH on gold price index using Long Strangle strategy which data came from www.gold.org year 1985 till 2020. By employing comparative research, this research seeks to compare the errors that arise between the Black Scholes method with historical volatility and the Black Scholes method with GARCH. The accuracy testing was done using with an error value using the Average Mean Square Error (AMSE) method. This method is the average squared error between the forecast value and the actual value, which is usually used to check the estimated error value of the forecast. AMSE values that are low or close to zero indicate forecast results that are following actual data and are stated to be good values compared to those far from zero. Maturity periods of option contract are using 3 methods such as 1-month, 2-months and 3-months.

Keywords: Gold Price, Options Contract, Black Scholes, GARCH, Long Strangle, AMSE