

ABSTRACT

At present currency is a tool used for all legal payment methods in each country. The exchange of money is one thing of special concern because it involves many parties. The exchange uses a currency that is spelled out from the group of "convertible currencies" which is a trust in the economy throughout the world because it has a value that is considered stable. In this study, US dollars will be issued against the rupiah, which will depend on policies and market protection. In 2018 a sustainable economy occurred where the value of the rupiah declined and volatility also changed by up to 25% and made economists worry about protecting their assets. From that concern, experts in the economic field began to look for ways to help request the value of their assets by using existing derivative products, namely forward, option, swap and also option. Models that are widely used to predict future values Which are widely used in research are the Black Scholes model and will compare with the Binomial model on options for reporting the rupiah against the dollar and both models are needed using Average Mean Square Error (AMSE) to see small errors obtained. Results obtained In the agreement with a period of one month, it is known that the Black Scholes model is better for call options while the Binomial model is better for put options. Because it has a small error for the simulation that has been previously published. If within two months, the Binomial model is better than the Black-Scholes model for call or put. This is because the Binomial model has errors that are approved for three call simulations and also places those that have been previously agreed upon. Likewise in the agreement for three months, the Binomial model is better than the Black Scholes model for placing and calling because it has a small error

Keywords: Exchange Rates, USD, IDR, Derivatives, Options, Binomials, Black-Scholes. Average Mean Square Error (AMSE) to see how small the error is which is obtained.

