

ABSTRACT

This study uses a combination of regression and multivariate Markov chain. Regression was used to estimate parameters of the model, while the multivariate Markov chain is used to determine the chances of upward movement or in the price of gold. The price movement of gold is influenced market demand, more demand for gold then the price of gold will rise and vice versa. In addition to demand for gold, gold is also affected by the exchange rate of the dollar against the rupiah. Based on data correlation between the gold price and the exchange rate of the dollar against the rupiah by 39%, meaning that there is a positive linear correlation between the gold price and the exchange rate of the dollar against the rupiah. If the gold price rises, the value of the dollar against the rupiah also rose, and vice versa, if the price of gold down the exchange value of the dollar against the rupiah also dropped. The purpose of this study was able to establish regression models and multivariate Markov chain to prediction of the gold price in Indonesia is based on the exchange rate of the dollar against the rupiah and gain accuracy Markov chain models and multivariate regression for the prediction of the gold price. The results of the gold price predictions using regression models and multivariate Markov chain has a mean absolute percentage error (MAPE) of 10.0738%.

Keywords : Gold Price, Exchange Rate, Regression Model, Multivariate Markov Chain.