ABSTRACT

Stock is a high risk and high return investment. The risk-comparison scale for both losses and profits is not much different. But the temptation to the lure of profits that can be given in the play of shares, sometimes make people less cautious and eventually fail to invest in stocks. To make right and profitable investment decisions, investors need to face uncertainty and fluctuating stock price movements. These phenomenon cause investors to predict stock price movements for minimizing risks.

The purpose of this study is to predict the Indonesian composite stock price index by using macroeconomic variables as a reflection of economic condition and as a good signal to forecast stock prices. The macroeconomic variables used in this research are Inflation, Interest Rates, and Exchange Rates. This study uses secondary data from Bank Indonesia and Indonesian Statistics Center from December 2005 to November 2017. The prediction is done using the method of Artificial Neural Network (ANN) and Backpropagation as its algorithm.

The results gained the accuracy of 96,38% and mean squarred error of 0.00457537 with best time delay of 2 months before the predicted month. Based on the accuracy level and the error, macroeconomic variables (exchange rate, interest rate, inflation rate, and money supply M2) are the proper indicator to predict IDX Composite movement.

Keyword   : Composite Stock Price Index, Prediction, Macroeconomic Variable, Artificial Neural Network, Backpropagation.