

Abstract

The prediction of stock return volatility is a phenomenon that currently has a very large impact on the existence of financial markets. There are many models that can be used to predict volatility. Research that has been done to predict stock return volatility using the echo state network has obtained a good performance value using 1 time step forecast parameter where an average R Square value of 0.763 is obtained for 15 IDX30 stocks. compared to using forecast parameters of 5 or 21 time steps. And the average MSE value of 15 IDX30 stocks has a value of 2,312, which is better than using forecast parameters of 5 or 21 time steps.

Keywords: *volatility, stock return, esn*