

FORECASTING CURRENCY EXCHANGE RATES USING ARIMA, FISHER FORMULA AND NEURAL NETWORK - APPLICATION IN YEN VS. US DOLLAR

Adil Yousif

Department of Math, Stat and Physics
Qatar University
aeyousif@qu.edu.qa

ABSTRACT

These days exchange rates are playing a major role in economy and since most of the economic activities are now virtual, forecasting exchange rates will help in making right decision. This study was designed to forecast currency exchange rate. Three different techniques were used to process the data for forecasting namely, Artificial Neural Network Software (Multilayer Perceptron), Fisher formula for exchange rate, and the Box-Jenkins (ARIMA) model. Based on the data set collected during the period of 1996-2011 calculated biweekly for the following five months (January 2012- June 2012).

The results showed that the Neural network is more competent with a higher degree of accuracy for forecasting currency exchange rate in comparison with the Fisher formula and ARIMA model.

Keywords: Exchange Rate, Fisher, Yen, Forecasting, Neural Network, ARIMA,