

Forecasting All Share Price Index of the Colombo Stock Exchange

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The stock market of a country plays a significant role in the economy and stock price indexes are vital pieces of information for investors. This study attempts to forecast the All Share Price Index of the Colombo Stock Exchange (CSE) using time series econometric models. The study uses daily stock price index data published by the CSE from January 2010 to June 2011. Forecasting models were constructed using univariate time series techniques with a time trend component. Optimal forecasting model was selected out of twenty five models estimated using the SIC model selection criteria (Schwarz Information Criterion). ARMA (1, 1) model (autoregressive moving average) with a quadratic time trend was selected as the optimal forecasting model. A seven-step-ahead forecast (one week) was computed using the optimal model. Residuals of the optimal forecasting model were tested for stationarity and normality using Augmented Dickey-Fuller test and Box Pierce Q-statistic, respectively. The forecasted values have relatively low deviations from the actual observations which was confirmed with a difference in means test between the actual and the forecasted values. Thus, a simple ARMA model, considering a time trend component, can be effectively used to produce a reasonably good forecast of stock price index among many other time series models. For more accurate forecasts, one should examine a fair number of models with appropriate model selection criteria.