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## **FORECASTING SRI LANKAN INFLATION: TIME SERIES APPROACH**

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Inflation, one of the principle macroeconomic problems faced up by Sri Lankan economy through a long period of time. The economic growth in this country is slowed down due to this problem. In general, several countries all over the world particularly South Asian countries together with Sri Lanka come across the problematic circumstances arise because of inflation, thus it is one of the foremost economic indicator which decides the consistency of a country's economy. Hence, predicting Sri Lankan inflation rates grow into a prime importance for its administration to build up financial policies and political strategies to beat any sudden inflation rises in this state. The approach of seasonal autoregressive integrated moving average model has been implemented in this study to forecast inflation rates in Sri Lanka. Monthly inflation data from January 1988 to July 2017 is chosen for the study. Using ADF test, the stationarity of the series is confirmed to be stationary on its first difference and the plots of ACF and PACF were perceived to detect the suitable model. Based on the least Akaike Information Criterion (AIC) and Bayesian information criterion (BIC) values the selected model is ARIMA (1,1,0)(0,0,1)<sub>12</sub>. The assumptions of model adequacy were checked to test the capability of the model and it was found to be capable enough as it well gratified the required assumptions. Grounded on the designated model, inflation rates of eight months beyond the sample period were forecasted. The observed inflation rate of August and September which was published by Sri Lanka Statistical Service Department coincide with the forecasted values obtained from the chosen model.

**Keywords:** *Forecasting, Inflation rate, SARIMA model, Sri Lanka, and Unit Root test.*

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