ABSTRACT

This research examines the forecasting performance of six macroeconomic variables for Pakistan economy (i.e. GDP, inflation rate, interest rate, exchange rate, industry output and unemployment) for the time period of 1990:1 to 2018:2 vis-a-vis political and economic shocks. In the ex-ante forecast period, the extent of macroeconomic shocks to the forecast of variables cannot be disassociate. In the face of such shocks and volatilities, this research provides various models of forecasting to improve the forecast accuracy. Root Mean Square Error (RMSE) is used to evaluate the performance and accuracy of the forecasting methods. In particular, the study employs univariate models (Autoregressive Integrated Moving Average (ARIMA) model and a suite of multivariate models Vector Autoregressive (VAR) model and Bayesian Vector Autoregressive (BVAR). Furthermore, the study combines the forecasts generated by individual models by means of three weighting schemes i.e. Simple Average approach (SA), trimmed average and Mean Square Error (MSE)weight average. The results exhibit that the performance of each forecast models varies across. However, combined forecast tends to generate lower forecast errors with minimum variance as compared to individual forecast models. The simple average approach generates much accurate forecasts results for most of the variables and forecast horizons. Besides, it also suggests that the combination forecasts improve the forecast accuracy and minimize the risk of forecasting failure, hence preferred to individual forecast model.