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**RBI Working Paper Series 11:
Forecasting Major Macroeconomic Variables in India: Performance
Comparison of Linear, Nonlinear models and Forecast Combinations**

The Reserve Bank of India today placed on its website, a Working Paper titled "[Forecasting major macroeconomic variables in India – Performance comparison of linear, nonlinear models and forecast combinations](#)" under the Reserve Bank of India Working Paper Series. This paper is written by Anirban Sanyal and Indrajit Roy of the Department of Statistics and Information Management, Reserve Bank of India.

This paper evaluates the accuracy of linear, non-linear time series models as also both models combined in forecasting major macroeconomic variables - Monthly series of Index of Industrial Production (IIP) and quarterly series of Gross Domestic Product (GDP) - in Indian context.

The paper observes that for IIP (and its sub component) series, in the short horizon (1-6 months), forecast combination (median) is found to be marginally better performing than linear as well as non-linear modelling framework. In the long horizon (7-12 months), non-linear models perform relatively better than linear models as well as combination forecast. For GDP (and its sub-component) series, forecast combination using median forecast, has been found to be performing relatively better for both short horizon as well as long horizon.

Additionally, the paper observes that the accuracy of the forecast improves by using combination forecast for series with long memory property/less volatile series.

** The Reserve Bank of India introduced the RBI Working Papers series in March 2011. These papers present research in progress of the staff members of the Reserve Bank and are disseminated to elicit comments and further debate. The views expressed in these papers are those of authors and not of the Reserve Bank of India. Comments and observations may kindly be forwarded to authors. Citation and use of such papers should take into account its provisional character.*

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