Banco de la República | Colombia
Somos el banco central de Colombia

# Bayesian Forecast Combination for Inflation Using Rolling Windows: An Emerging Country Case

Borrador de economía, núm. 705 Keep in mind
The series Working Papers on Economics is published by the Office for Economic Studies at the *Banco de la República* (Central Bank of *Colombia*). It contributes to the dissemination and promotion of the work by researchers from the institution. This series is indexed at Research Papers in Economics (RePEc).

On multiple occasions, these works have been the result of collaborative work with individuals from other national or international institutions. The works published are provisional, and their authors are fully responsible for the opinions expressed in them, as well as for possible mistakes. The opinions expressed herein are those of the authors and do not necessarily reflect the views of Banco de la República or its Board of Directors.

AUTHOR OR EDITOR Luis Fernando Melo, Rubén Albeiro Loaiza AUTHORS AND/OR EDITORS Rubén Albeiro Loaiza

Typically, when forecasting inflation rates, there are a variety of individual models and a combination of several of these models. We implement a Bayesian shrinkage combination methodology to include information that is not captured by the individual models using expert forecasts as prior information. To take into account two common characteristics in emerging countries' economies, possible parameter instabilities and non-stationary dynamics, we use a rolling estimation windows technique for series integrated of order one. The empirical results of Colombian inflation show that the Bayesian forecast combination model outperforms the individual models and the random walk predictions for every evaluated forecast horizon. Moreover, these results outperform shrinkage forecasts that consider other priors as equal or zero weights.

Fuente: https://www.banrep.gov.co/en/node/27969