
[Download](#)

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

[Méndez-Vizcaíno, Juan Camilo Anzola, César Guarín-López, Alexander Grajales-Olarte, Anderson](#)

The series [Borradores de Economía \(Working Papers on Economics\)](#) contributes to the dissemination and promotion of the work by researchers from the institution. On multiple occasions, these works have been the result of collaborative work with individuals from other national or international institutions. This series is indexed at Research Papers in Economics (RePEc). The opinions contained in this document are the sole responsibility of the author and do not commit Banco de la República or its Board of Directors.

Publication Date:
Thursday, 21 of October 2021

Abstract

Since July 2021, Banco de la República strengthened its forecasting process and communication instruments, by involving predictive densities in the projections of its models, PATACON and 4GM. This paper presents the main theoretical and empirical elements of the predictive density approach for macroeconomic forecasting. This model-based methodology allows to characterize the balance of risks of the economy, and to quantify their effects through a joint probability distribution of forecasts. We estimate this distribution based on the simulation of DSGE models, preserving the general equilibrium relationships and their macroeconomic consistency. We also illustrate the technical criteria used to represent prospective factors of risk through the probability distributions of shocks.