

Seminario Aleatorio

Sesión 429

Bayesian Nonparametric Methods for Macroeconomic Forecasting

Massimiliano Marcellino

Economics Department of Bocconi University

Website

Abstract

We review specification and estimation of multivariate Bayesian nonparametric models for forecasting (possibly large sets of) macroeconomic and financial variables. The focus is on Bayesian Additive Regression Trees and Gaussian Processes. We then apply various versions of these models for point, density and tail forecasting using datasets for the euro area and the US. The performance is compared with that of several variants of Bayesian VARs to assess the relevance of accounting for general forms of nonlinearities. We find that medium-scale linear VARs with stochastic volatility are tough benchmarks to beat. Some gains in predictive accuracy arise for nonparametric approaches, most notably for short-run forecasts of unemployment and longer-run predictions of inflation, and during recessionary or otherwise non-standard economic episodes.

Working paper: https://repec.unibocconi.it/baffic/baf/papers/cbafwp24224.pdf

Seminario vía zoom:

https://itam.zoom.us/j/94446870531?pwd=cnBuakIwWDFmR2lvZkxLSU5hcFQyUT09 Meeting ID: 944 4687 0531 Passcode: 774808

> Viernes 20 de septiembre de 2024, 10:00 horas de CDMX