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AUTHOR OR EDITOR

Martinez-Rivera, Wilmer González-Molano, Eliana Rocío Caicedo-García, Edgar

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Abstract

Based on monthly disaggregated Consumer Price Index (CPI) item series and macroeconomic series, we explore the advantages of forecast inflation from a disaggregated to an aggregated level by aggregating the forecasts. We compare the performance of this approach with the forecast obtained modeling aggregated inflation directly. For the aggregate level, we implement some of the techniques and models, helpful to work with many predictors, such as dimension reduction, shrinkage methods, and machine learning models. Also, we implement traditional time-series models. For the disaggregated data, we use its lags and a set of macroeconomic variables as explanatory variables. Direct and recursive forecast techniques are also explored. The sample period of the analysis is from 2011 to 2022, with forecasting and evaluation out of the sample from 2017. In addition, we evaluate the forecast accuracy during the COVID-19 period. We found a reduction in the forecast error from the disaggregate analysis over the aggregate one.