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Forecasting With Many Predictors. An Empirical Comparison

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Forecasting With Many Predictors. An Empirical Comparison Forecasting With Many Predictors. An Empirical Comparison* Eliana González**
egonzamo@banrep.gov.co Abstract Three methodologies of estimation of models with many predictors are implemented to forecast Colombian inflation. Two factor models, based on principal components, and partial least squares, as well as a Bayesian regression, known as Ridge regression are estimated. The methodologies are compared in terms of out-sample RMSE relative to two benchmark forecasts, a random walk and an autoregressive model. It was found, that the models that contain many predictors outperformed the benchmarks for most horizons up to 12 months ahead, however the reduction in RMSE is only statistically significant for the short run. Partial least squares outperformed the other approaches based on large datasets. Keywords: Partial least squares, Principal components, Ridge regression. JEL Classification: C11, C15, C52, C53. * The opinions expressed here are those of the authors and do not necessarily represent neither those of the Banco de la República nor of its Board of Directors. As usual, all errors and omissions in this work are my responsibility. Thanks to the valuable comments of Norberto Rodriguez, Luis Fernando Melo y Luis Eduardo Rojas. ** Member of the Macroeconomic Models Department.

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