Real-Time Datasets Really Do Make a Difference: Definitional Change, Data Release, and Forecasting

Valentina Corradi1, Andres Fernandez2, and Norman R. Swanson3
1University of Warwick, 2,3Rutgers University, and 2Universidad de Los Andes

this version - June 2009

Abstract

In this paper we empirically assess the extent to which early release inefficiency and definitional change affect prediction precision. In particular, we carry out a series of ex-ante prediction experiments in order to examine: the marginal predictive content of the revision process; the trade-offs associated with predicting different releases of a variable; the importance of definitional change; and the rationality of early releases of economic variables. An important feature of our rationality tests is that they are based solely upon the examination of ex-ante predictions, rather than being based on in-sample regression analysis, as are many tests in the extant literature. Our findings point to the importance of making real-time datasets available to forecasters; the revision process has marginal predictive content, and predictive accuracy does increase when multiple releases of data are used by the practitioner. We also present further evidence that early releases of money are efficient, whereas price and output are inefficient. Finally, we find that the “target” variable to be predicted is any release of prices, using only “first release” data in prediction model estimation and forecast construction yields mean square forecast error best (MSFE-best) predictions, while models estimated using “latest release” data are MSFE-best for predicting any release of money. We also carry out an empirical illustration in which we examine the real-time predictive content of money for income; and we find that vector autoregressions with money do not perform significantly worse than autoregressions, when predicting output during the last 20 years, suggesting that money is a useful policy control variable.

Keywords: bias; efficiency; generically comprehensive tests; rationality; preliminary, final, and real-time data.
JEL classification: C32, C53, E01, E37, E47.

---

Valentina Corradi, Department of Economics, University of Warwick, Coventry, CV4 7AL, UK, v.corradi@warwick.ac.uk. Andres Fernandez, Department of Economics, Rutgers University, 75 Hamilton Street, New Brunswick, NJ 08901, USA, afernandez@fas-econ.rutgers.edu; and Department of Economics, Universidad de Los Andes, Cra. 1 No. 18A-10 Edificio C. Bogota, Colombia. Norman R. Swanson, Department of Economics, Rutgers University, 75 Hamilton Street, New Brunswick, NJ 08901, USA, nswanson@econ.rutgers.edu. The authors also thank Nii Ayi Armah, Jörg Breitung, Dick van Dijk, Philip Hans Franses, Thomas Gilbert, Jan-Egbert Sturm, and participants at the following conferences for many useful comments: Forecasting and Monetary Policy at the Deutsche Bundesbank, 2009, and Recent Developments in Macroeconomic and Financial Forecasting, Rotterdam, 2009. Corradi gratefully acknowledges ESRC grant RES-062-23-0311, and Swanson acknowledges financial support from a Rutgers University Research Council grant.