Modeling Time-Varying Uncertainty of Multiple-Horizon Forecast Errors

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Abstract

We estimate uncertainty measures for point forecasts obtained from survey data, pooling information embedded in observed forecast errors for different forecast horizons. To track time-varying uncertainty in the associated forecast errors, we derive a multiple-horizon specification of stochastic volatility. We apply our method to forecasts for various macroeconomic variables from the Survey of Professional Forecasters. Compared to simple variance approaches, our stochastic volatility model improves the accuracy of uncertainty measures for survey forecasts.