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Title: The informativeness of temperature data to forecast natural gas prices in real-time: Evidence from the Henry Hub

Abstract: This paper provides evidence of the pivotal role of temperature to forecast natural gas prices at the Henry hub in real-time. Considering a newly constructed temperature index as an additional exogenous variable in a bayesian vector autoregressive (BVAR) framework significantly increases the forecast accuracy of various models such as models allowing for stochastic volatility and/or fat tails. Our analysis thus provides evidence that predictive models derived from a structural model considering variables that are likely to be revised can be enhanced using true real-time data such as temperature.

Key words: Bayesian VAR; Natural gas price; Forecasting; Real-time data; Temperature