Conference on

Forecasting and Monetary Policy

Berlin, 23-24 March 2009

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Discussion of „Combining Forecast Densities from VARs and DSGEs with Uncertain Instabilities“

Combining VAR and DSGE Forecast Densities

by

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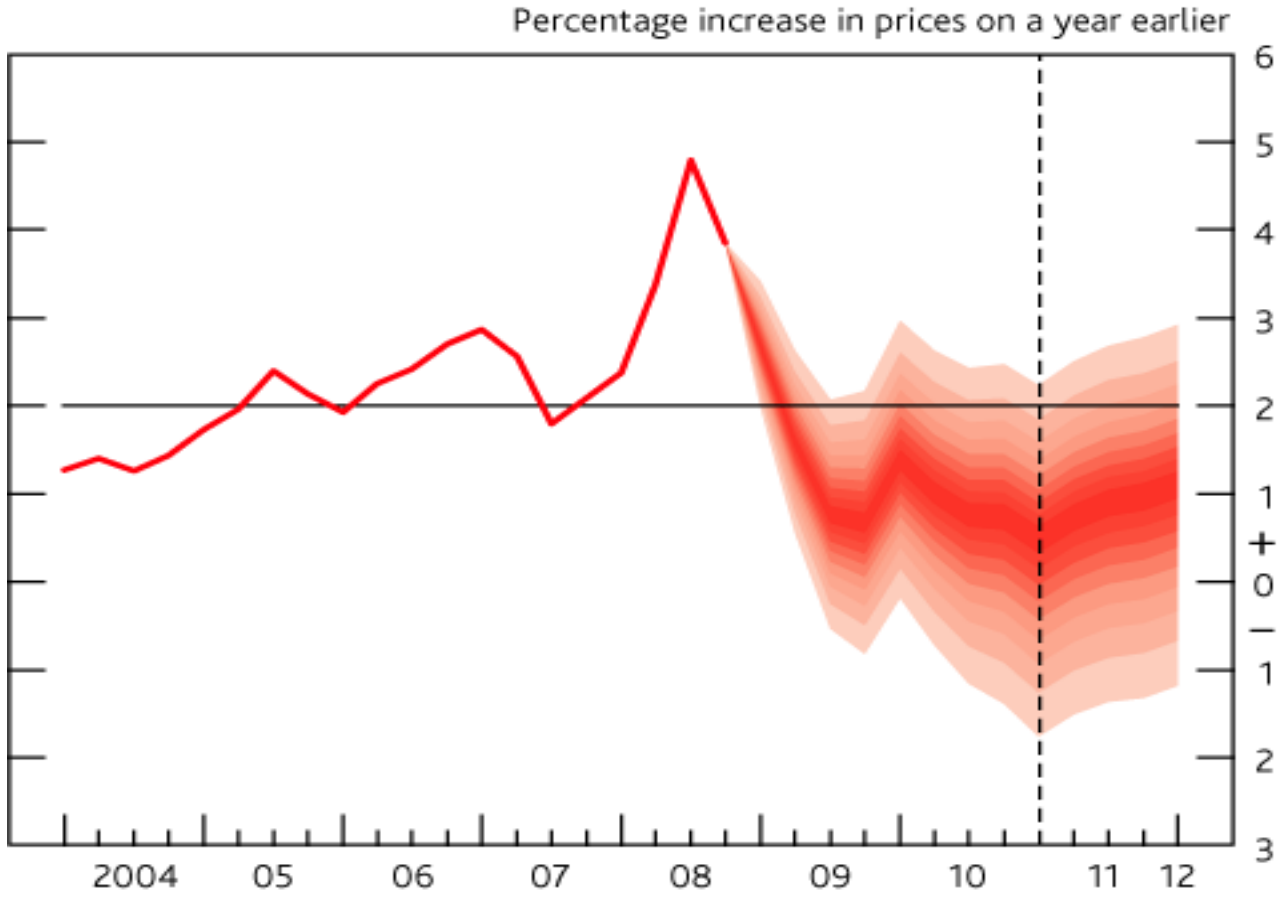
Framework

- Inflation projection, Bank of England, February 2009



Contributions

- Combination of forecast densities using „policy relevant“ models (VAR and especially DSGE)
- IMPORTANT: Can storytelling devices tell a story about the future?
- Consideration of structural breaks (at least for VAR)

Comments

- DSGE (NEMO) model somewhat disappointing compared to VARs
- Is it a “fair” competition?
  - Huge DSGE model vs. small VARs
  - Finding a better NEMO?
  - “Norway is today the third largest exporter in the world, […] and belongs to the ten biggest oil producers. In 2005, the sector accounted for 25% of value added, and was the largest industry in Norway.” from *OECD ECONOMIC SURVEY OF NORWAY 2007*
  - Possible taking account of the petroleum/gas sector?

Comments

- Parameter uncertainties are neglected
  - Interestingly, the DSGE forecast densities are based on posterior **modes**.
  - Is the numerical maximizer reliable for such a big model? (hold your finger crossed…)
- Potentially problematic in terms of pits evaluation
  - Theory ignores parameter uncertainties
  - Sample size is small enough to be worried about?
  - Number of parameters is large enough to be worried about?

Comments

- Why don’t we take the Bayesian estimation more seriously and obtain “correct” posterior predictive densities for all models?
- Pros:
  - Ready-to-go forecast combination technology via the BMA
  - Parameter uncertainties are incorporated
- Cons:
  - It will takes much more computer power
  - BMA requires carefully specified and comparable marginal likelihood. Clearly not the case here

Comments

- We need more competitive results on different weighting schemes:
  - Equal weights: Does it matter how we combine forecast densities?
  - Single model with the highest weight: Is combination actually superfluous?
- Relation to Pesaran, Pettenuzzo and Timmermann (2006), RES
  - Break dates are estimated, no need to estimate a large set of candidate break date models. Eliminate the computational burden!
  - Allows for out-of-sample breaks

Final Thoughts

- What is actually a „well-calibrated“ forecast density?
  - Importantly: What is the implication for the inflation projection fan chart?
  - To put it polemically: Is it value-added if the well-calibrated density produces oceans of blood intead of ill-calibrated rivers of blood?