Comments on «DSGE models: still useful in policy analysis?» by Jesper Lindé

Victoria Sparrman

Norwegian Ministry of Finance conference on macroeconomic models and methods

Statistisk sentralbyrå
Statistics Norway

5. December 2017

Outline of the article

II. Critique against DSGE literature

- DSGE models did not predict the financial crises, but neither did several alternative approaches.
- More worrying: the predictions were outside of the posterior densities (also the case for BVAR-models). These two models are both linearized.
- Also other models (e.g. FRB/US, and Rudebusch-Svensson (1999)) had challenges in predicting the outcome of the financial crisis.

III. Where do we go from here?

- 5 criteria for a useful core policy model
- Only DSGE and FRB/US models satisfy all the core criteria
- Development of new models and role for a suite of models

Evaluation of forecast failure

- Most economic models will have trouble in predicting the outcome of a large shock such as the financial crisis
- Relevant follow up questions:
  - How long does it take before the model is back on track (given that the economy is exposed to an unforeseeable shock)?
  - How persistent the effect of shocks is in the model framework?
  - Does the model contain variables that detect potential imbalances, e.g. public spending, trade balance, household debt ratio etc.?
- How many (essential) relationships changed as a response to the shock?

Lindés five criteria for a core policy model

1. Alternative scenarios and counterfactuals in line with the institutional view
2. Credible communication about future policies matter for outcomes today in a way that is in line with the institutional view
3. Historical decompositions in line with the institutional view
4. Forecasting performance not too subpar relative to other advanced time series tools (important to build credibility with senior staff and policy-makers)
5. Simple and transparent enough so that knowledge about the essentials of model properties can be well understood by principals (i.e. senior staff and policy-makers) and retention is feasible when model builders leave or move on to other assignments

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Comments to criteria 1-3:
the institutional view

- Lets say that I develop a model for fiscal policy. Who represents the institutional view, and how do I interact with it?

- Will the institutional view adapt to new knowledge and where does it come from if it is not from model development?

  "Inspired by the work of Gelain et al. (2015), the standard assumptions about one-period debt contracts and rational expectations regarding house prices were replaced by long-term debt contracts and simple moving average forecast rules. As a result, the model's ability to produce long cycles in house prices and credit as observed in the data improved greatly."

  (Norges Bank, Staff MEMO 8 | 2017)

- To what extent is the institutional view anchored empirically?

- Is the institutional view informative/detailed enough?
  - Sign
  - Magnitude
  - Timing

  On all target variables

Comments to criteria 1-3, continued:
Fiscal multipliers on unemployment

Positive multiplier:

- Bruckner and Pappa (2012), SVAR 10 OECD countries: increased government spending leads to higher unemployment, but also to increased GDP and increased employment.

Negative multiplier:

- The effect of public purchases may depend on the size of the output gap, monetary regime, type of public purchases, labour market institutions, openness of the economy, level of public debt etc. (Holden and Sparrman (2017))
- IMF - fiscal consolidations in 15 OECD countries, Monacelli et al. (2010), SVAR US data

Comments to criteria 4: Forecasting performance can not be too subpar

In the DSGE approach, how does one modeler:

- Account for large shocks at the end of the sample period and/or in the projection period?
- Detect and account for change in mean at the end of the sample period and/or in the projection period?

  Hendry and Mizon, G. E. (2011, 2014) and

  http://www.voxeu.org/article/why-standard-macro-models-fail-crises;

  Hendry and Muellbauer (2018)

- Account for time-varying multipliers depending on state of the economy

  (Corsteti et al (2013), Erceg and Lindè (2010, 2013), Lemoine and Lindè (2017), Holden and Sparrman (2017), SSB – KVARTS non-linear effects of unemployment)

Comments to criteria 5: Simple and transparent enough

- Norwegian wages are considerably influenced by collective agreement. Should this be treated in/outside the core model?
- How simple can the model be when the fiscal policy has more than one target variable?
- At which level should one draw the line for complicated?
- Does this criteria imply that the models must be publically available?

Structural model - also structure between the core model and a suite of models

- Should the core model be estimated
  - for each of the satellites?
  - and all of them simultaneously?
  - is it a completely recursive structure?
  - what about interaction between satellites?
- Who decides when each of the satellite models should be used – assume a Liquidity Trap or not?

Summary

- Evaluation of forecast failure – is it more than a prediction error?
- Is the institutional view detailed enough regarding the effects of fiscal policy and will it adapt to new knowledge?
- Structural model – is it a structure also between the core model and a satellite model?

Thank you for **the opportunity to comment on your paper**, I have learned a lot!