TRUTH AND PROBABILITY 000

Some Problems with Romer and Romer

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DISCUSSION OF ELLISON AND SARGENT: WHAT QUESTIONS ARE STAFF AND FOMC FORECASTS SUPPOSED TO ANSWER?

James Bullard* President and CEO Federal Reserve Bank of St. Louis

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SARGENT'S ADDRESS IN SEOUL

- Motivated by a speech by Chairman Bernanke in October 2007.
- Bernanke's speech was about how policymakers might think about model uncertainty: Bayesian versus robust control methods.
- Policymakers that can place a prior over competing models are Bayesian.
- Policymakers that cannot instead use multiple priors and robust control, using a worst-case analysis to put bounds on performance.
- Relevant, or techno-babble?
 - Paraphrasing Greenspan: Uncertainty is the defining feature of the economic landscape.
- Re-analyze a comment David and Christina Romer on FOMC forecasting.



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MODEL UNCERTAINTY

- The level of model uncertainty faced by the FOMC is profound.
 - Many of the "big ideas" from academia are simply not part of the analysis.
 - This leaves one wondering how important these omissions are.
 - Examples: Output gap measures, credit market frictions, multiplicity of equilibria.
- Is it right to be so far off of the research frontier?
- I do not think we would allow it in the space program or in the design of weapons systems.
- One important defense: forecasting.



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FORECASTING IS TRACKING

- Most of the focus in policy discussions concerns today's state vector.
- Further out is normally slow mean reversion.
- Through experience, forecasters learned that the near random walk model works best.
- Tracking requires careful attention to incoming data and revisions to recent data.
- What we would really like is to accurately predict the consequences of an unparalleled policy action.
 - This is the big ticket item.
 - For this we would need much better models than we have.
 - Result: FOMC must make its own judgements from models which are plainly deficient in many respects.

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WHAT THE FOMC DOES

- The FOMC members make quarterly forecasts which are summarized and published.
- The staff "Greenbook" forecast is released to the public only after five years.
- One purpose of the FOMC forecasts is to communicate to the public, especially concerning medium run expectations.
- This alone is valuable.

More on what the FOMC does

- The FOMC members forecasts are made "under appropriate monetary policy."
- The Greenbook forecast necessarily contains a policy assumption.
- For many years this was a constant or nearly constant policy rate.
- Greenbook forecast is heavily judgementally-adjusted.
- If members feel that actual policy would differ materially from the assumption, they should turn in a different forecast.
- Also, should a single member try to predict what the Committee will do?
 - If so, one might forecast poor macro performance because of a lack of faith in the Committee.
 - If not, one might forecast what may achievable if the Committee followed the fully optimal policy.

DOES THE FOMC EXERCISE MAKE SENSE?

- Not as a pure forecasting exercise.
- For that, one would have to assume, like Prescott, that the actual path of monetary policy has a very limited impact on macroeconomic outcomes.
- This is probably the opposite view from Romer and Romer.

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WHAT ROMER AND ROMER DO

- Romer and Romer (AER Papers and Proceedings, 2008) compare forecasts of the Committee and the staff.
- They find that the Committee's forecasts do not improve upon the Greenbook.
- They find that the Committee sometimes acts on differences in the forecast.
- This suggests that the staff forecast should be worse, since the staff is "surprised" by the renegade actions of the Committee.
- This does not seem to have happened.

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DOES THE ROMERS' EXERCISE MAKE SENSE?

- No.
- The "appropriate policy clause" arguably makes the question: What can be achieved in the current circumstances?
- Since forecasting is tracking and contains little information, perhaps not so interesting.
- The equilibrium is that the staff and the Committee think exactly alike.
- But the models in use are plainly missing many elements that may be very important at certain junctures.

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WHAT ELLISON AND SARGENT DO

- The Committee may be better interpreted as responding to specification doubts.
- Doubts are abundant on the Committee.
- Then members do a worst-case analysis over multiple priors.
- This biases the forecasts toward worst-case outcomes.
- Question: Why do this? To signal other members about a potential pitfall?

More on what Ellison and Sargent do

- The model: Primiceri (QJE 2006), unobserved NAIRU.
- Comment: the level of model uncertainty is far more profound than the details of this model would suggest.
- Staff has the approximating model.
- FOMC has preferences for robustness.
- Question: The staff works for the FOMC, should they also have preferences for robustness?
- Question: Learning and robust control—after a long enough time period, policymakers would learn that pessimism does not pay off.

DOES THE ELLISON AND SARGENT EXERCISE MAKE SENSE?

- It makes more sense than Romer and Romer.
- It allows policymakers to have a concern for robustness which differs from the staff concerns.
- This concern could drive a systematic difference between the forecasts of the Committee and the staff.
- Still, the staff could be asked to calculate forecasts with a concern for robustness.
- And, this interpretation blurs the communication role of timely publication of FOMC forecasts but not staff forecasts.
- Level of model uncertainty far greater than suggested here.

POLICYMAKING WITH A CONCERN FOR ROBUSTNESS

- Tracking will remain important.
 - Tracking incorporates average past policy behavior.
- Forecasting the effects of important policy interventions is critical.
- For that we need better models.
- Current forecasting/tracking does not tell us much and is unlikely to get better.

Some questions I would like to be able to answer

- What are the chances that the global economy could become entrenched in the deflationary trap equilibrium described by Benhabib, Schmitt-Grohe and Uribe (2001)?
- What is the optimal regulatory response if we interpret private information to be at the heart of the current worldwide financial turmoil?
- To what extent can global coordination improve on worldwide equilibrium outcomes in the current environment?
- If I put some weight on a fiscal theory of the price level, should I be concerned about inflationary prospects going forward?
- These are the big ticket items. To get good answers, we need good models.