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Model Uncertainty Roundtable Discussion

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

27 May 2008 Model Uncertainty and Monetary Policy Design Bank of Korea

Views expressed are those of the author and do not necessarily reflect the views of the Federal Reserve System.

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The nature of macroeconomics

• William Poole:

James Bullard - Federal Reserve Bank of St. Louis

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- Lesson: Adjustment is everything.
- Macroeconomy may be vulnerable to "big ticket losses" during adjustment.

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Sources of model uncertainty

• We cannot write the "full" macroeconomic model down and study it.

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 - Result: We do not trust large models.
 - Result: We are uncertain about the correct model of the macroeconomy.
- How can we cope with these doubts?
 - In particular: Since the models are about people, are our doubts also their doubts?

Backrooms

Backrooms and frontrooms

• Sargent's amusing description of academia (backroom) vs policymakers (frontroom).

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- Implication: The focus in the policy world is on determining the state of the system by looking at lots of data.

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Sargent meets the Romers

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- It would be the Romer's pure forecast exercise if we take the Prescott view.

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Information flows

• Eric Leeper: information flow assumptions and realities affect interpretations of empirical work on the effects of fiscal policy changes.

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- Related work by Hamilton.

Monetary policy o o Stability o Robustness and fit

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More stability analysis

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Robustness and fit

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- Policymakers should strive first to avoid the big ticket losses associated with indeterminacy and expectational instability.





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- In the recent financial crisis ...
 - ... the threat might be best described as the possibility of a transition to a steady state with a low level of financial intermediation services.

Backrooms	Monetary policy	Stability	Robustness and fit
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• "Recursive least squares" just one in a family of recursive algorithms.

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- Even Bayesian learning implies some type of expectational stability condition.
 - Careful readers of Woodford's paper at this conference would see expectational stability in play there as well.

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Robustness and fit

Learning and robustness

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 - Agents are Bayesian learners with respect to the probabilities of states.
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 - The equity premium is large and declines only very slowly to the "true" value of zero.

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 - The equity premium is large and declines only very slowly to the "true" value of zero.
- The 1970s as a similar beliefs-twisting event?

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Fitting the data

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 - The fit to data gives us confidence that we are on the right track with our economic concepts.
 - But we do not want to push so hard in getting a good fit that we lose our economic grounding altogether.

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Robustness and fit

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