Comments:
Improving Monetary Policy Models

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Federal Reserve Board
Honored to be included

- Awed by progress in DSGE modelling
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- DSGE Models can (and do) make vital contribution to policy
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- Awed by progress in DSGE modelling
- Fabulous that CBs & IMF at forefront
- DSGE Models can (and do) make vital contribution to policy
- Special pleasure to examine Chris’s ongoing dialog
DSGE Models: Where are we?

- DSGE policy work in its infancy
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- Payoff is still mainly potential
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- Will gains be realized?
DSGE Models: Where are we?

- DSGE policy work in its infancy
- Payoff is still mainly potential
- Will gains be realized?
- Sims: unclear
1980: MPS Model
Simsian annotated timeline

- 1980: MPS Model bad
Simsian annotated timeline

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- 2002: FRBUS
Simsian annotated timeline

- 1980: MPS Model bad
- 2002: FRBUS worse
  “more regress than progress”
Simsian annotated timeline

- 1980: MPS Model bad
- 2002: FRBUS worse
  "more regress than progress"
- 12/3/2005: BEQM
Simsian annotated timeline

- 1980: MPS Model bad
- 2002: FRBUS worse
  “more regress than progress”
- 12/3/2005: BEQM worse?
Re-casting the issue

- Assume CB agents (staff & Bd.) are rational
Re-casting the issue

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- By revealed preference.: new models = progress
Re-casting the issue

- Assume CB agents (staff & Bd.) are rational
- By revealed preference.: new models = progress
- Q.E.D., Thanks for having me
Important issues

■ How have CBs hidden the progress?
Important issues

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- Could this be made more clear?
Important issues

- How have CBs hidden the progress?
- Could this be made more clear?
- Could clarification facilitate more progress?
Where’d they hide the progress?

Somewhere in the 4-steps of model building
1. Start with well understood theory...
2. Lay a solid (micro) foundation...
3. Build core model

“Pump house model”
4. Add some bits, and voila

“Tower of London Model”
In case too subtle, key step is:

Pump house → Tower of London
Pump house to tower

- Example: BEQM recent, new approach, documented
Pump house to tower

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- What design criteria lead to *that*?  
  note: red italics indicate *horror*
Pump house to tower

- Example: BEQM recent, new approach, documented
- What design criteria lead to *that*? note: red italics indicate *horror*
- Answer could clarify/advance progress
Objective 1

- Have microfoundations
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- Love to have ’em
Objective 1

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- Weak form: Behavior comes from explicit optimization
Objective 1

- Have microfoundations
- Love to have ’em
- Weak form: Behavior comes from explicit optimization
- Strong form: Weak form plus objectives & constraints well-founded in theory/ev. on behavior
My view

- No tower model has or will have strong form soon
My view

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- Value of weak form poorly expostited
My view

- No tower model has or will have strong form soon
- Value of weak form poorly exposited
  - What value?
My view

- No tower model has or will have strong form soon
- Value of weak form poorly explicated
  - What value?
  - How trade off against other objectives?
Objective 2

- Complete pr. model
Objective 2

- Complete pr. model
- Conceptual framework clear
Objective 2

- Complete pr. model
- Conceptual framework clear
- So beautiful that abandoning would hurt like tooth extraction
For large problems, with humans, no successful example of complete pr. approach exists
My view (Is pol. hard?)

- For large problems, with humans, no successful example of complete pr. approach exists
  - Methods don’t scale well
My view (Is pol. hard?)

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  - Methods don’t scale well
  - Example: Prior over high-dimensional nuisance parm.
My view (Is pol. hard?)

- In some other tech. fields other approaches dominate
My view (Is pol. hard?)

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- Modeling: Air combat, Chess, computer network traffic
My view (Is pol. hard?)

- In some other tech. fields other approaches dominate
- Modeling: Air combat, Chess, computer network traffic
- They write clearly about the compromises
What are the other objectives?

- The skeletons in the closet are the objectives leading to, e.g., BEQM
What are the other objectives?

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- Repository of “standard view”
What are the other objectives?

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- Repository of “standard view” probably needed, how best attain?
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- Internal consistency
What are the other objectives?

- The skeletons in the closet are the objectives leading to, e.g., BEQM
- Repository of “standard view” probably needed, how best attain?
- Internal consistency greatly overvalued, but watch out!
Wrap up

- Pay attention to Simsian criticism
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- Clarify realistic objectives & constraints
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- Clarify realistic objectives & constraints
- Will reveal sense in which new models = progress
- I suspect will lead to new and potentially better tower models