COMMENTS

KRYVTSOV AND PETERSEN, "EXPECTATIONS AND MONETARY POLICY: EXPERIMENTAL EVIDENCE"

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Overall

- Very interesting new exercise exploiting laboratory experiments with a DSGE model.

- Could be a path-breaking research agenda.

- Want to clarify several points with great interest.

Expectations and Monetary Policy

- Effectiveness of monetary policy relies on expectations
  - Inflation targeting
  - QEs
  - Forward guidance

- Monetary policy framework affects expectations
  - Time consistency problem: discretion vs. rule
  - Stabilization role of a simple policy rule
  - Economic policy uncertainty

Hard to Detect Empirically

- Empirical studies of macro models rely on *composite hypothesis* including expectation formations and other propagation mechanisms jointly.

- No direct information detecting the underlying expectations hypothesis.

- Nor is role of expectations on MP transmission.

Oleksiy's Approach

- Setting up the standard NK business cycle model with counter-cyclical nominal interest rates by a Taylor rule.

- Allowing for different expectations formations (RE, AE, sensitive, static ...)

- Measuring stabilizing roles of MP by conducting counterfactual exercises by shutting down counter-cyclical nominal interest rates along equilibrium path.

New Keynesian "Shooting Game"

- Lab experiments with participants who play a forecasting game about inflation and output which are determined by the maintained NK model.

- Median expectations (forecasts) over participants is fed into equilibrium of the model.

- Participants will be rewarded as their forecasts "shoot" the realized equilibrium better.

- A version of Bayesian target tracking

Main Results

- Calibrate the model's expectations formulation by fitting to several sample moments obtained from the lab experiments.

- The version with AE fits best.

- **Stabilizing role of MP is still quite large even under a non-rational expectations identified through the experiments.**

Comment 1: Micro Foundation?

□ Is expectations formation stable?

    □ The lab experiment is intended to control for other aspects of economy to extract information about expectations formation.

    □ Crucial presumption is that expectations formation is stable against changes in the economic environment the participants face.

    □ E.g., Can we believe that the participants form their expectations in the exactly same way when they play the shooting game and when they act as utility maximizing consumers?

Comment 1 (cont'd)

- No micro foundation behind expectation formations
  - Why do the participants form expectations in such different ways, RE, AE, sensitive, and static ...?

  - Behavioral assumptions, no structural interpretations.

  - A change in economic environment might affect expectations formation.

  - Is it free from the Lucas critique, especially for the policy evaluation purpose as in this paper?

Comment 2: Experimental Design

- The objective of the participants is completely different from that of the economic agents in the NK model.
  - Remember the objective of the participants is to shoot the target precisely, while the rep household in the NK model maximizes lifetime utility.

  - Comparing different moments.

  - Are sample moments from the experiments relevant for calibrating the NK model?

Comment 3: Who Play the Game?

- Who are the participants in the lab experiments?
  - Almost no information on the participants is reported.

  "The experiment was conducted at CIRANO's Experimental Economics Laboratory in Montreal, Quebec. This lab has access to a large subject pool with a large number of non-student participants."

  - What are characterizations of the non-student participants?

  - Do such characterizations represent population aspects of our macroeconomy?

Comment 4: Why Experiments First?

- Why don't fit models to macro time-series data?
  - Models with different expectations formations can characterize their own equilibrium paths.

  - If so, as conventional, why don't calibrate/estimate the models using time-series data of inflation and output gap?

  - Resulting model comparison will pick up the most suitable expectations formation and its role of MP transmission.

  - More fundamentally, what is the primary advantage of conducting the lab experiments over conventional structural estimation and resulting model comparison?

Comment 5: Counterfactual

- Counterfactual exercise with zero nominal interest rate response
  - The counterfactual assumes that the economy converges to the steady state at finite time.

  - Does this counterfactual satisfy the Taylor principle?

  - Does this have a unique saddle path to converge to the steady state?