Monetary macroeconomics for monetary policy making: recent progress and some challenges

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Plan

- Briefly characterise some progress in monetary macro.
- Nothing on financial frictions or the crisis, except by analogy.
- Advertise a paper of my own, which is an allegory about the dangers of believing too wholeheartedly in this apparent progress.
Disclaimer

• Views expressed here are mine alone and should not be taken to reflect the views of the Bank of England or its Monetary Policy Committee.
Addressing Lucas (1976)

• Lucas critique-proof models with credible identification restrictions.
  – Model equations are the decision rules agents use to solve explicit problems.

• ….that fit the data almost as well as unrestricted VARs.
  – These models have multiple real and nominal frictions.
Designing and evaluating models

• A sharpening of our understanding about what facts models should fit:
  – Study of macro time series moments; e.g. the impulse response to a monetary policy shock: consensus that real variables respond; that inflation and output are persistent.
  – Search for appropriate micro facts: e.g. studies of price stickiness; claim that we don’t see small price changes.

• Controversy about how to fit and evaluate models; calibration vs. estimation.

• Bayesian methods as a way of reconciling two competing approaches: micro data inform priors; these modified by the likelihood of the model given the macro data.
Study of monetary policy

• Conception of central bank policy as a monetary policy rule.
• Study of optimal policy rules; control techniques learned in 70’s applied in modern models.
• Observed regimes reconciled with policies that maximise welfare in microfounded models.
• Optimism that stabilisation policy can and should do more than Friedman recommended.
‘Self-confirming inflation persistence’, Rhys Bidder, Kalin Nikolov and Tony Yates

- Central bank believes inflation is persistent.
- Sets monetary policy optimally, given belief.
- New data generated, central bank updates belief using constant gain learning.
Figure 1: Central bank beliefs and inflation persistence in the baseline case
Artificial central bank naively applied many of the lessons from the literature

- It used Lucas critique proof model; explicit microfoundations, but they were false.
- It used modern time series methods, but these only reconfirmed false beliefs.
- It applied prescriptions of optimal policy faithfully under the assumption that the model was true.
Observations on the state of the art

- Old macro controversies are not solved, they are live.
- Microfoundations of frictions needed to match data are shaky:
  - Price and wage stickiness
  - Habits
  - Value of money
  - Financial frictions
- Time series methods alone not sufficient to validate models.
- Monetary policy conducted in the face of pervasive model uncertainty.