Optimal Monetary Policy in the Euro Area
Stefano Neri and Tiziano Ropele

Discussion

Pelin Ilbas

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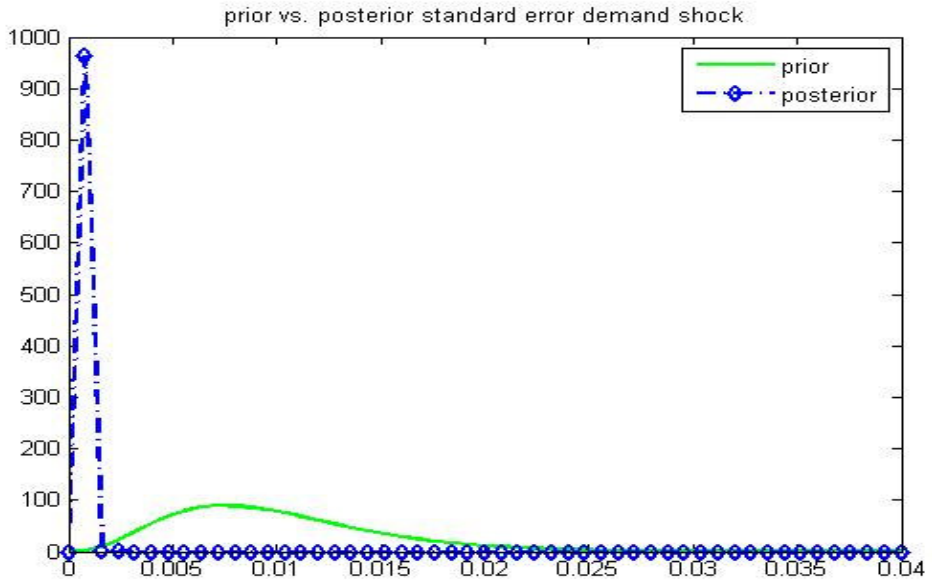
Summary

- Small-scale DSGE model (Ehrmann and Smets, 2003) estimated for the euro area.
- using **real time data**; results are compared to estimations with revised data.
- Both private agents and central bank are **imperfectly informed**; signal extraction problem.
- Additional source of persistence in the model.
- Very interesting paper, issues addressed are of practical relevance for policy makers.

Bayesian estimation results

- Plot of the priors against the posterior distributions for standard errors is missing, e.g. demand shock (PI-EP):

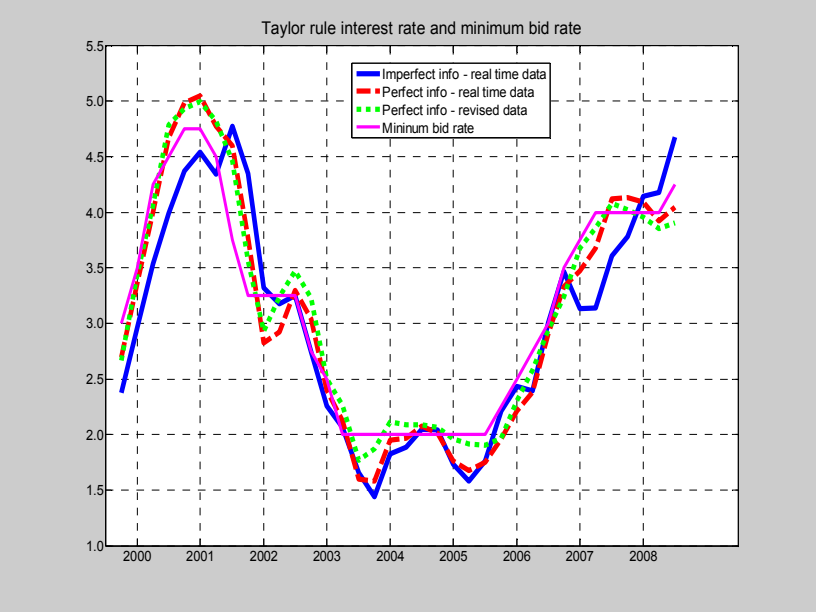


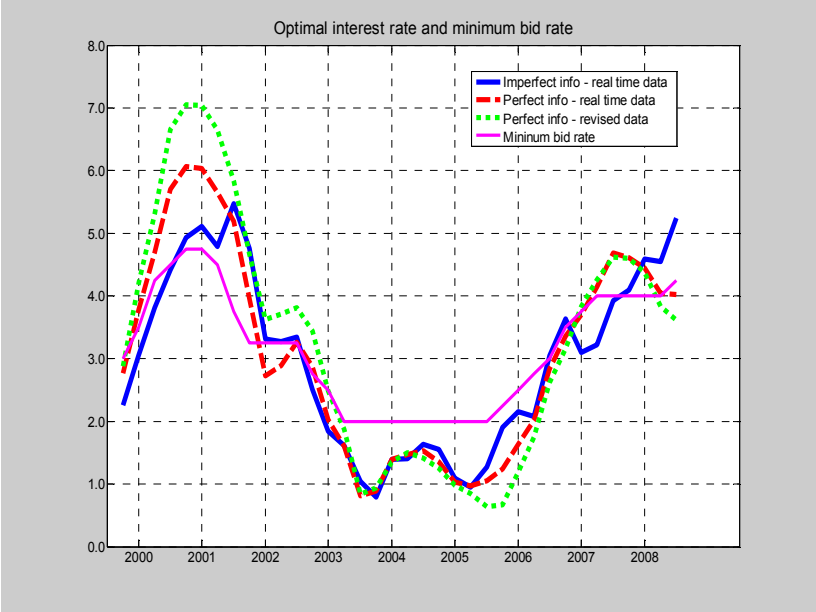
Bayesian estimation results

- Posterior interval is very narrow, also for some structural parameters with revised data; Why?
- Data is extremely informative?
- Or the MH algorithm stuck around the mode and not exploring the tails of the distribution? Jump is too small?
- What is the value of the acceptance rate? Report details for convergence diagnostics!

Policy Implications

In general, minimum bid rate relatively better captured by the Taylor rule than the optimal discretionary rule, especially in period 2002-2005. How sensitive are the results to the choice of both the loss function type and parameterization?





The loss function

- Loss function:

$$W_t = \frac{1}{2}\left\{\pi^2_{t,t-4} + \nu_x\left(y_t - \overline{y}_t\right)^2 + \nu_R\left(R_t - R_{t-1}\right)^2\right\}$$

$$\nu_x = 0.25 \qquad \nu_R = 2$$

- Higher value for the interest rate differential than output gap deserves further justification as it affects dynamic implications; interest rate smoothing more important than output gap stabilization?

The loss function

- Choice of loss function parameters should be better justified.
- Difficult to place in context (cfr. ”dual mandate” of the Fed, to some extent support for non-inflationary growth at the ECB)…
- Period 2002-2005 might be better captured by the optimal rule with a different type of loss function or different parameterization.
- Sensitivity analysis might be useful.

Estimating the loss function under commitment in a popular medium-scale DSGE model

- Pelin Ilbas (2007): Estimating the medium-scale DSGE Smets and Wouters euro area model under optimal monetary policy under commitment, assuming the following period loss function:

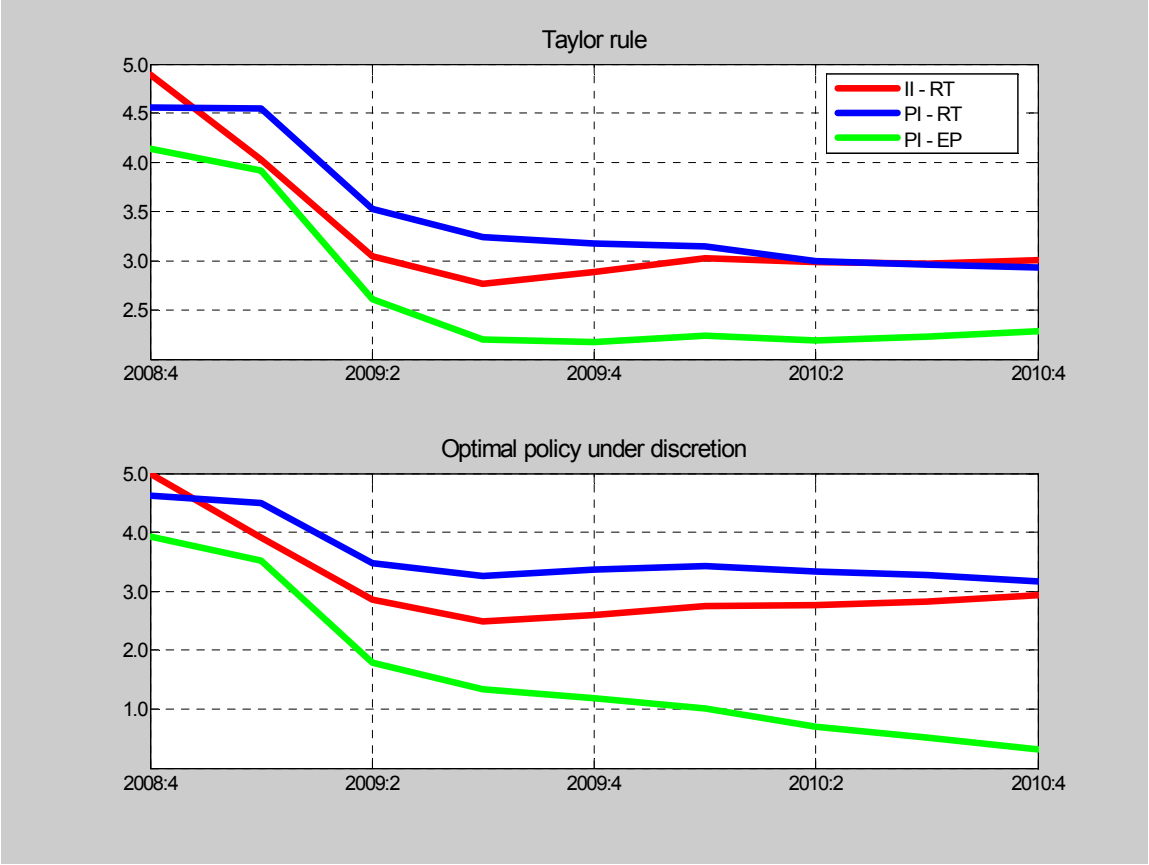
$$\text{Loss}_t = \pi_t^2 + q_y(Y_t - Y_t^p)^2 + q_r(R_t - R_{t-1})^2$$

- Preference parameters q_y and q_r in loss function estimated jointly with structural parameters assuming monetary policy is committed. Consequence: which values for the past Lagrange multipliers?
- The Ilbas (2007) paper proposes a **new estimation methodology** from **timeless perspective:** use a **presample** to initialize the Lagrange multipliers. If the presample is long enough → Timeless perspective.

Estimating the loss function under commitment in a popular medium-scale DSGE model

- Extension: Pelin Ilbas (2008) estimates a medium-scale DSGE model for the US under optimal policy, the timeless perspective. Can US monetary policy history be described by optimal behaviour? Answer: under Greenspan, yes.
- Results: output gap is a very important target variable, in addition to interest rate smoothing in the euro area. In the US, output gap difference (i.e. speed-limit targeting) is important under Greenspan era.

Interest rate projections



Interest rate projections

- When estimated with **real time data**, implied interest rate under both policies is lower with imperfect information. Does this result also hold up when model is estimated with revised data? Robust to dataset?
- In the case of perfect information estimated with **revised data**, both policies imply a significantly lower interest rate. Why? Comparison with the case imperfect information with revised data would give a more clear picture.
- Is there a data-effect or information-effect?

Conclusions

- Robustness of the results to parameterizations of the loss function needs to be checked.
- Results imply that discretion displays history-dependence under partial information. It would be interesting to know to which extent the gains from commitment and size of stabilization bias are affected by the presence of limited information.
- Conclusions based on optimal policy conditional on discretion; looking at commitment would add a lot of value to the paper.
- Imperfect information framework and measurement issues; analysis of welfare consequences of speed-limit targeting (Orphanides et al., 2000), **AND** helps to provide better justification to the choice of discretionary approach in the paper (Walsh, 2003).
- Very interesting paper, relevant for monetary policy.