Good Policy or Learning Evolution? A Markov-Switching approach to Understanding the Determinants of Fed policy

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*Views are my own and do not represent the position of the Banque de France or the Eurosystem.

What can explain the evolution of the Fed's policy?

Policy function of a CB

$$i_t = \sum_{k=1}^{K} \alpha_t Z_{t-k} + \gamma_t i_{t-1}$$

where $Z_t = [x_t, \pi_t]$ is a vector of state variables, k is a lag

- Time-varying parameters can be caused by
 - Changes in preferences (hawks vs doves)
 - CB having imperfect knowledge about the economy's structure and learning about the parameters governing the economy
- Contribution: bring these two explanations in one model allowing for Markov Switching DSGE where policy preferences can evolve and the CB is learning about the economy

What can explain the evolution of the Fed's policy?



Minor comments



- There is a nice picture to be made here, comparing the fit with: (i) MS between two regimes only, (ii) and learning only
- Is it possible to quantify through variance decomposition of the policy rule coefficients the contribution of policy preferences vs "bad policy" or "timid fed" because of poor knowledge about the economy?

Comment 1: Model vs actual FFR



- It seems the model-implied rate follows the effective FFR but with a lag
- It seems linked to higher shocks volatility in the model : lower precision matrix of the regressors, higher uncertainty because of volatility of shocks
- Would be interesting to graph the precision matrix of the regressors
- How to reconcile the difference with the data?

Comment 2: Brainard's attenuation principle (1967)

- CB is uncertain about the structure of the economy, more particularly the link between inflation and demand (Phillips curve), and therefore how the interest rate affects demand
- Uncertainty over the effects of the policy response calls for attenuating the policy response, "caution bias"
- Unless the CB internalizes its effect on inflation expectations (the private sector foreseeing the CB attenuating its response)

Comment 3: CBs mea culpa on modelling

ECB issues mea culpa for poor inflation forecasts

Central bank says it was blindsided by 'exceptional' energy prices while German inflation hits fresh 40-year high



- Assumption that the private sector take the parameters of the CB's policy rule as fixed
- CBs do communicate about the evolving nature of their understanding of the economy or how they model it
- Is a middle ground between fully rational agents and the current set up, e.g., agents expecting parameters to change over a finite horizon, feasible?