Replication of 'The Power of Forward Guidance Revisited'

November 26, 2018

Outline

1. Motivation
2. MNS's heterogenous agent NK model
3. Steady state
4. Dynamics: forward guidance

Motivation

- In the basic NKM, output/inflation response to forward guidance is implausibly large.
- A potential reason is the complete markets assumption.
- Is the output response to forward guidance smaller in a model with idiosyncratic income risk and incomplete markets?

Forward guidance in the basic NKM

Consider the plain vanilla NKM studied in class

$$y_t = \mathbb{E}_t[y_{t+1}] - \sigma(i_t - \mathbb{E}_t[\pi_{t+1}] - r_t^n) \qquad \text{'NK IS curve'}$$

$$\pi_t = \beta\mathbb{E}_t[\pi_{t+1}] + \kappa y_t \qquad \text{'NKPC'}$$

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with monetary policy rule:

$$r_t = i_t - \mathbb{E}_t[\pi_{t+1}] = r_t^n + \epsilon_{t,t-j},$$

where $\epsilon_{t,t-j}$ is a monetary shock in period t that is announced in period $t-j$.

Forward guidance in the basic NKM

ADD IMPULSE RESPONSE

Forward guidance in the basic NKM

Why is the output response so big?

$\Longrightarrow$ Euler equation ($\sigma = 1$):

$$\mathbb{E}_t[\Delta \tilde{c}_{t+1}] = \beta \tilde{r}_t$$