

Interest Rates and Inflation

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Discussion by

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- Current monetary-policy instrument: Short interest rate, r_t
 - Interest rate increase: $r_t \uparrow \rightarrow \pi_{t+1} \downarrow$
 - Reject quantity theory?
 - Quantity theory?
 - * “Loose” QT: Long-run correlation between M_t and P_t
 - * Control money growth, $\mu_t \equiv \frac{M_t - M_{t-1}}{M_{t-1}}$,
in order to control inflation, $\pi_t \equiv \frac{P_t - P_{t-1}}{P_{t-1}}$
 - * “Strict” QT: Velocity exogenous. Rejected.

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- Can money be an instrument?

Variable	Control	Examples
Instrument	Perfect	Nonborrowed reserves
Operating target	Almost perfect	FF rate, monetary base
Intermediate target	Imperfect	M1, M2, M3
Target	Imperfect	Inflation, output gap

- Control (broad) money growth: Monetary targeting
Intertemporal loss function

$$E_t \sum_{\tau=0}^{\infty} \delta^\tau (\mu_{t+\tau} - \mu^*)^2$$

Instrument, $r_t \rightarrow$ Intermediate target, $\mu_{t+1} \rightarrow$ Target, π_{t+2}

- Monetary targeting is inefficient, since money growth is not the only predictor of future inflation

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- Conventional (neokeynesian) wisdom of the transmission mechanism and role of money (CGG JEL, Svensson JME, Woodford)
 $r_t \uparrow$, sticky prices $\rightarrow r r_t \uparrow$, AD $\rightarrow y_{t+1} - \bar{y}_{t+1} \downarrow$, AS $\rightarrow \pi_{t+1} \downarrow$
, MD \searrow
 $\mu_{t+1} \downarrow$
- Money, prices endogenous variables
- Demand for *real* money
- Money and prices correlated, consistent with loose quantity theory
- Causality money-prices depends

- What is the problem?

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- This paper: Model with segmented markets

- Exogenous velocity (v_t exogenous), strict quantity theory

$$P_t y = M_t \frac{1}{1 - v_t}$$

$$\pi_t = \frac{1 - v_{t-1}}{1 - v_t} (1 + \mu_t) - 1$$

- By construction, controlling μ_t is best way to control π_t
- Price nominal bonds

$$r_t = \rho - \log \left\{ E_t \left[\exp[-\phi(\mu_{t+1} - \mu_t)] \frac{1}{1 + \mu_{t+1}} \frac{1 - v_{t+1}}{1 - v_t} \right] \right\}$$

- Alternative transmission mechanism

$$\begin{array}{ccc} \mu_t \uparrow & \rightarrow & \pi_t \uparrow \\ & \searrow & \\ & & r_t \uparrow \downarrow \end{array} \quad \frac{\partial r_t}{\partial \mu_t} \text{ depends}$$

- Which model is most realistic? Strict quantity theory rejected

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- Sum up
 - Broad money cannot be an instrument
 - Monetary targeting is inefficient
 - There is no or little problem with the conventional neokeynesian wisdom
 - * Consistent with the loose quantity theory
 - The present paper makes money crucial in the transmission mechanism by construction, strict quantity theory
 - Model not convincing
 - * Broad or narrow money?
 - * Strict quantity theory rejected