Discussion of:

“Elastic Money, Inflation, and Interest Rate Policy”
by Allen Head and Junfeng Qiu

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The views expressed herein are my own and do not necessarily reflect those of the Federal Reserve Bank of New York or the Federal Reserve System.
Overview

- Interesting paper
  - takes a serious look at central bank policy tools
  - distinguishes between interest rate target and the money supply
  - says a lot about how policy tools can be used

Outline:

- Review the different policy tools and why they are needed
  - try to build up intuition, step-by-step

- Some specific comments
A Simple Model

- Consider a Lagos-Wright model with one modification
  - aggregate shock to utility in the decentralized market

**Q:** What is the optimal monetary policy?

**A:** The Friedman rule

- agents would carry sufficient real balances to purchase the efficient amount of consumption in the *highest* state
- in most periods, agents would end up with “idle balances”
- no loss from this (because of Friedman rule)
- could add credit markets; would not change anything
Death and (inflation) Taxes

• Suppose $\lambda$ randomly-selected agents die each period
  • shock realized at beginning of decentralized period; death occurs at end of period
  • these agents will spend all of their money (regardless of shock)

• Friedman rule no longer leads to the efficient allocation
  • if everyone carries large real money balances ...
  • exiting agents will consume too much

• Could set $M_{t+1}$ contingent on shock at date $t$
  • changes in $M_{t+1}$ affect $p_t$ in previous decentralized market
  • could inflate away the “excess” balances of exiting agents
Credit Markets and Money Growth

- Of course, this distorts consumption of continuing agents

- So ... suppose these agents have access to credit markets
  - structure markets so that these agents always consume the efficient quantity
  - regardless of changes in money supply, nominal interest rates

- Then CB can use state-contingent money-growth rule to implement efficient allocation (conjecture)
  - continuing agents operate in perfect credit markets
  - active monetary policy ensures efficiency for exiting agents
  - only one policy tool is required for efficiency
• Now suppose CB can only adjust money supply infrequently
  • two “decentralized” subperiods per “centralized” one
  • different preference shocks in each subperiod

• Then one policy tool (the money supply) is no longer sufficient

• Short-term interest rate (at which CB will borrow/lend)
  • affects nominal spending of continuing agents
    ⇒ affects price level in decentralized market

• Now CB has three tools and two objectives
  • problem would be solved, except ...
Balancing Act

- Zero lower bound on nominal interest rates
  - When $A_t$ is very low, want price level to be high
  - set interest rate low to raise nominal spending
    - but ... may not be able to set it low enough
    - inflation can partially mitigate this problem

- Optimal policy is not simple

- Interest-rate and money-supply policies both play important roles
(1) The Meaning of Life ... and Death

- Exiting agents described as “lacking access to loan market”
- But death (in this model) is more than that
  - these agents do not care about future consumption
  - otherwise, the would carry excess money balances into centralized market
  - Friedman rule would implement the efficient allocation (even with many subperiods, shocks, etc.)
- How should we think about these agents?
  - for example: how would one “calibrate” $\lambda$?
  - needs to be significant (20% per period in examples)
(2) The Goal of Policy

• Useful to keep in mind what policy is trying to achieve

• Here: increase the volatility of consumption
  • basic problem: consumption decisions of exiting agents are insensitive to shocks
  • policy needs to induce volatility in price level

• Different from the “usual” story
  • central bankers try to limit volatility of consumption, output

• Does this difference matter?
  • What is the objective of the paper?
(3) Policy Tools

- Here the central bank is able to set money supply, short-run interest rate independently
  - most central banks cannot do this
  - open market operations are used to set the interest rate

- Paper shows how a CB can separate the two policies
  - a particular way of paying interest on reserves

- If money supply is an independent tool, how should it be set?
  - important question; not much guidance available
  - this paper provides an answer: can target the price level at different horizons
FRBNY workshop on Money and Payments

- October 17, 2008 in New York
- watch for Call for Papers (deadline: Aug. 1)

Topic: Implementing Monetary Policy

- want to encourage research into the details of how central banks operate

One motivation: Interest on reserves

- Federal Reserve has been granted authority to begin paying interest on reserves
- how should this authority be used?