Recap Information 7: Operating procedures, interest rates and monetary policy

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The lecture slides associated with this part of the course provide the most comprehensive information about what I find of relevance. Nevertheless, this note briefly lists the key concepts that you are supposed to know and be able to explain.

Key concepts you should know

Choice of monetary policy instrument/operating procedures

- The Poole (1970) model
- The importance of relative variances of shocks
- The importance of the goals of policy for the determination of optimal instrument
- Money base as potential instrument: more "financial" instability causing it more likely that interest rate is optimal instrument
- A money base rule covering three "extreme" operating procedures
  - Optimal rule as an intermediate case
- The importance of forecasts of shocks
- The importance of operating procedure for identification of monetary policy

Intermediate targets

- Adjusting policy instrument towards variable providing good information about ultimate goal variables
- Example of unobservable shocks, but observable money supply, under strict inflation targeting
- Adjusting interest rate to attain intermediate target for money supply
  - Good if demand and supply shocks are important
  - Bad if money demand shocks are important
- Desirability of an intermediate target variable depends on relative variances of shocks

Price level (in)determinacy

- Using the nominal interest rate as instrument may render the price level indeterminate
- Circumvention of problem by having the price level or money supply re-enter the model
  - Feedback interest rate rule towards price level
  - Feedback interest rate rule towards money supply

The term structure of interest rates

- The link between short and long interest rates
- The expectations theory of the term structure
  - Long rates as average of expected current and future short rates
  - The role of credibility of future short interest rate setting
- The yield curve as an indicator for expectations about future monetary policy
- Empirical problems with the expectations hypothesis
  - The importance of actual policymaking for the empirical failure of the expectations hypothesis
- The relationship between long rates and inflation expectations

Impact of interest rate rule parameters in simple model MIU style model

- Changes in policy rule parameters change impact of shocks
  - No "policy irrelevance"

Optimal interest rate rule parameters in simpler model

- Instability of economy for fixed nominal interest rate
- Optimal policy rule must:
  - Secure stability
  - Minimize output and inflation fluctuations
- Trick of treating expected demand as policy instrument
- Solution of optimal expected demand by dynamic programming
- Finding explicit solution for expected demand by method of undetermined coefficients
- Properties of optimal interest rate rule
  - Higher inflation increases nominal interest rate by more => higher real interest rate => stability
  - More weight on output stabilization; less weight on inflation in policy rule
- Optimal to respond to output, even if inflation is all that matters
  - Arguments in policy rules tells nothing about the ultimate goals of policy
  - Size of response to variable says nothing about policy preferences (may as well reflect the economic structure)

International evidence for interest rate rules

- The Taylor rule looks very much like the optimal rule derived above
  - Coefficient on inflation higher than one
  - Positive coefficient on output gap
- Not to be seen as a mechanical rule
- Other countries' policy rules also look like Taylor-type rules (but may be "forward-looking")