Economic Policy #05

Monetary Policy

Monetary Policy

- Introduction
- Instruments
- Objectives
- Institutions
- Transmission channels

Overview

- Money is old device but the concept of monetary policy (MP) emerged during interwar period
- During 50s and 60s MP was eclipsed by fiscal policy and primarily concentrated on minimizing the cost of public borrowing
- In the 70s the role of MP was reassessed with disinflation as an overriding policy objective
- By the late 90s MP geared toward achieving price stability
- Financial crisis in 2008 highlighted the role of CB as guarantors of financial stability, CB engaged in unconventional MP actions

What do central banks do?

Central banks:

- issue banknotes
- provide banks with liquidity
- impose compulsory reserves on commercial banks
- act as *'lender of last resort'* to banks

Liquidity provision

Liquidity is provided through:

- *open market operations* (purchases of financial assets by the CB from commercial banks) => *federal funds rate* (U.S.)
- *repurchase agreements* or *repos* (CB holds the corresponding assets for a fixed period) => *refinancing rate*

In so doing central banks set price of liquidity and control the quantity of base money.

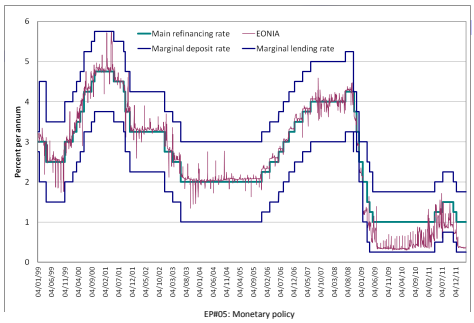
CB can also influence the banks' lending behaviour through *reserve requirements*.

C.S. Instruments of European Central Bank (ECB)

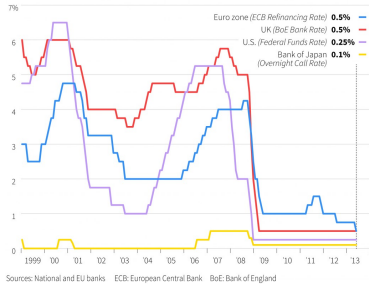
- *Minimum reserves* (1 % of the demand deposits and of time deposits shorter than two years)
- Two *overnight standing facilities*:
  - *Marginal lending facility* (ceiling rate)
  - *Marginal deposit facility* (floor rate)
- Weekly *refinancing operations* (competitive bids through which ECB provides liquidity against collateral => *refinancing rate* (the main rate of Eurosystem)

These three rates are sometimes called *leading interest rates.* Interbank rate fluctuates between floor and ceiling rate and in normal time close to refinancing rate.

Refinancing rates and market rate in euro area



Refinancing rates in the US, the euro area and Japan



The objectives of monetary policy

The objectives of MP have varied significantly over time:

- in 70s CB had broad mandates involving difficult trade-offs between alternative targets
- after inflation period during 70s price stability emerged as dominant goal
- some CBs pursue other objectives simultaneously
- after financial crisis 2007-09 discussion about gearing MP more towards financial stability

The objectives of MP: price stability #1

- Inflation should be **neither too high**:
  - Shoeleather costs, menu costs, redistribution effects, uncertainty weighting on individual decisions, risk of generalized indexation and ultimately of hyperinflation,..
  - Ex: Germany in the 1930s, Argentina in the 80s, Zimbabwe in the 2000s,..

The objectives of MP: price stability #2

- … **nor too low**
  - Upward bias in measured CPI
  - Risk of deflation and liquidity trap
  - Downward rigidity of nominal wages points toward 1-4 % inflation band

=> Most central banks have objectives between 1-3 %

The objectives of MP: exchange rate stability

- Until 90s transition countries relied on a fixed exchange rates as a means of controlling inflation
- MP of many European countries was geared toward maintaining the external value of the currrency vis-à-vis some larger country
- The attraction of fixed exchange rates has faded away in recent years

The objectives of MP: output stabilization

- MP can be used to stabilize aggregate demand, i.e. support demand through an *expansionary MP* in recession and a *restrictive MP* when demand is ballooning.
- The rationale for *counter-cyclical MP* goes back to the Great Depression in 1930s.
- But desirability and effectiveness of counter-cyclical MP are debated because of variable time lags involved in the transmission mechanism which can transform MP into a *procyclical policy*.

The objectives of MP: financial stability

- Usually not a formal objective, but in the 'genetic code' of CB
- Responsibility of the CB as a lender of last-resort to banks is inevitable, but should be exerted with great caution because of:
  - Moral hazard problem
  - Possible incompatibility with price stability
- Asset-price targeting as part of the central bank mandate?

The mandates of four central banks (US Fed)

- *Legal vehicle*
  - Full Employment and Balanced Growth Act ("Humphrey Hawkins Act")
- *Price stability*
  - Yes
- *Exchange-rate stability*
  - No, but may intervene on exchange markets, at the request of the US Treasury
- *Output stabilization*
  - Yes, on an equal footing with price stability
- *Financial stability*
  - Yes

The mandates of four central banks (ECB)

- *Legal vehicle*
  - EU Treaty (since Maastricht Treaty of 1992)
- *Price stability*
  - Yes
- *Exchange-rate stability*
  - No, but exchange rates are part of the second pillar of the monetary-policy strategy, and the ECB has the sole right to conduct foreign-exchange operations
- *Output stabilization*
  - No, but may intervene on exchange markets
- *Financial stability*
  - Not explicitly

The mandates of four central banks (Bank of England)

- *Legal vehicle*
  - Bank of England Act, 1998
- *Price stability*
  - Yes, definition of price stability belongs to government
- *Exchange-rate stability*
  - No
- *Output stabilization*
  - Yes, secondary to price stability
- *Financial stability*
  - Yes

The mandates of four central banks (Bank of Japan)

- *Legal vehicle*
  - Bank of Japan Law, 1997
- *Price stability*
  - Yes
- *Exchange-rate stability*
  - No, but may be instructed to intervene to exchange markets
- *Output stabilization*
  - No, only as a consequence of price stability
- *Financial stability*
  - Yes

Mandates of CB: key differences

- US Fed has dual mandate of full employment and price stability, while ECB has not
- ECB decides on objectives, while BoE and RBNZ do not
- Crisis has prompted fresh discussion on the central bank role in financial stability
- Example: creation in 2011 of European Systemic Risk Board chaired by ECB President.

Central bank credibility

CB ***credibility*** is very important for effective MP.

If the CB exploits expectation errors of economic agents and targets a higher level of output (i.e. output above its natural level) in order to reduce unemployment, the outcome is bound to be inflationary because only structural policies can lower structural unemployment. The other result is a lack of credibility.

Central bank credibility (cont.)

How can CB enhance its credibility?

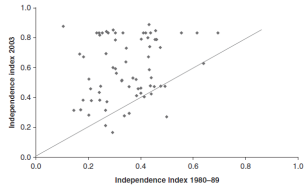
- By *adequate institutional design* (independence, transparency and accountability)
- By *tying its hands*: exchange rate peg, monetary policy rules
- By selecting *conservative central bankers*, i.e. more adverse to inflation than the average of society (K. Rogoff)
- By *incentive contracts*

Importance of CB independence

Why is CB independence so important?

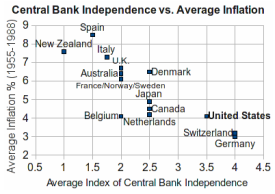
- independent central bank is insulated from the political pressures
- fiscal policy tends to follow a political business cycle, if central banks were subject to political approval, monetary policy would also follow this volatile pattern
- elected politicians do not have the technical savvy to conduct monetary policy
- If the CB was beholden to political interests, the government could amass large budget deficits then turn to the CB to pay off its debts

CB independence



- Increasing number of countries granted full independence to their CB during 1990s and 2000s.

CB independence and inflation



- This institutional move to independence resulted from the better ability of independent CB to cope with the inflationary pressures of previous decades.

Central bank independence

Consider three measures of CB independence:

- *instrument independence*: the central bank is free to set any monetary policy instrument/variable
- *goal independence*: the central bank is free to set its own goals for monetary policy
- *political independence*: the central bank is able to conduct monetary policy without legislative influence

Central bank accountability

- ***CB accountability*** reflects its exposure to external scrutiny and its answerability vis-à-vis its principal.
- in most countries CB are accountable to the legislative branch
  - US 'Humphrey Hawkins' testimony
  - 'Monetary dialogue' at European Parliament
  - BoE governor letter

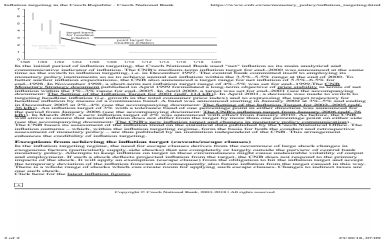
Communication

- Central banks can reduce uncertainty by communicating relevant information about macroeconomic fundamentals, the condition of financial institutions and the financial sector more generally, and the conduct of policy.
- Their communication differs quite a lot
  - ECB Press conference (ECB)
  - Disclosure of FOMC and BoE MPC meetings minutes and individual votes
  - Disclosure of expected interest rate path by Swedish Riskbank, Bank of Norway, RBNZ, Fed

What monetary strategy?

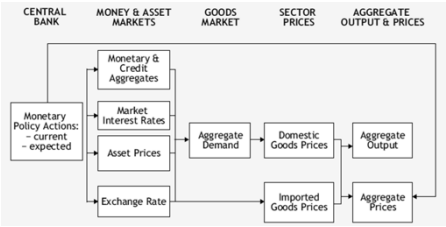
- Monetary rules useful to enhance credibility
- *Intermediate targeting* (e.g. of monetary aggregates) out of fashion
- ***Inflation targeting (IT)*** has become increasingly popular in the 2000s:
  - Target = CB inflation forecast, conditional on market expectation and policy rate
  - IT requires transparency on models, procedures and forecasts
  - Most central banks implement flexible inflation targeting, with some weight on the output gap

C.S. Inflation targeting in the Czech Republic



Transmission channels of MP

Transmission channels: the way monetary policy decisions affect output and inflation



The interest rate channel

Traditional Keynesian channel:

- Monetary expansion in the presence of nominal rigidities leads to a fall in the interest rate, hence to a revival of investment and durable-goods consumption and via multiplier affect to rise of aggregate demand (AD)
- Uncertainty: CB can directly affect overnight nominal interest rate, while AD rather depends on expected real long-term interest rates.

The asset-price channel

- Lower interest rate raises asset prices held by households, who in turn partially consume this extra wealth, which then stimulates AD.
- E.g. Japan in the early 1990s, U.S. in 2001.
- The importance of this channel has increased as a consequence of the general rise in the wealth-to-income ratio.

The credit channel

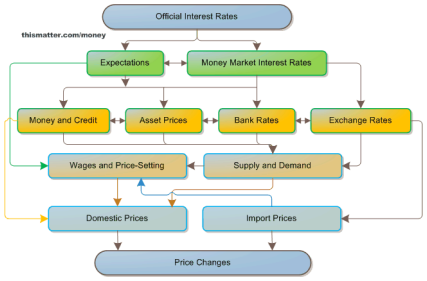
Lower policy rates stimulate commercial banks to relax credit constraints and hence to stimulate credit supply.

The banks' financial health is crucial for the transmission of MP. When the banks' balance sheets are burdened with *nonperforming loans* (loans with high probability of default) or with *impaired assets* (assets not traded any more or whose market value is much lower than they were purchased), banks are less willing to grant new loans => *credit crunch* (e.g. Japan at the end 90s and beginning of the 2000s).

The foreign-exchange channel

- lower policy rates stimulate net exports through an exchange-rate depreciation (Mundell- Fleming)
- important in small, open economies
  - interests rates alone cannot be sufficient indicator of the stance of monetary policy
  - *monetary condition index* (*MCI*)

ECB transmission mechanism



Reference textbook

Bénassy-Quéré, A. et al. *Economic Policy : Theory and practise*. Oxford University Press, 2010. ***Chap. 4***