

The Potential Instruments of Monetary Policy

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Introduction

Standard DSGE models assume that no one ever defaults (e.g. transversality condition). So everyone can borrow, or lend, at single riskless interest rate. No risk premia, no financial intermediaries, (banks), (and no money).

Central Bank sets short rate, via reaction function. Only degree of freedom is expectation of future policy rates, Woodford (Jackson Hole, 2012) and expectations of inflation.

But are such future forecasts

- 1) Credible (BoJ and inflation)?
- 2) Desirable?

The Money Multiplier

$$M = D + C$$

$$H = R + C$$

$$\text{So } M = H \frac{(1 + C/D)}{(C/D + R/D)}$$

But which way did causation go?

If CB sets interest rates (i), then it has to provide banks with enough R to validate chosen level of i .

$$M = f(Y, i, \text{Bank profitability, etc.})$$

So Money Multiplier determines H .

No longer true when $i \rightarrow 0$. H can then be independently set, e.g. by QE.

Historically money multipliers reasonably constant over time, at about 10.

Once QE starts they collapse to less than 1.

Tiny multipliers (PNFCs and the Household sector), per cent

June 2008 to June 2009 (For Japan: March 2001 to March 2006)	Change in Bank Reserves Held at Central Bank	Change in Broad Money	Change in Bank Lending to Private Sector
UK	371	2	1
USA	1853	9	4
Eurozone	122	4	2
Japan	103	8	-17

Source: Goodhart, et al. (2009).

Key assumption of money multiplier has been that banks are (generally) liquidity constrained. Rarely true, not true now.

Instead banks will expand assets, and hence money, if it enables them to meet desired RoE. Why RoE?

So bank lending depends on:-

Equity requirement (CAR)	S↓
Target RoE on equity requirement	S↓
Funding cost of residual debt (Bk funding cost at a variable spread over official rate)	S↓
Achievable spread over funding cost	S↓ D↓
Probability of Default	S↓

Bk lending to public sector

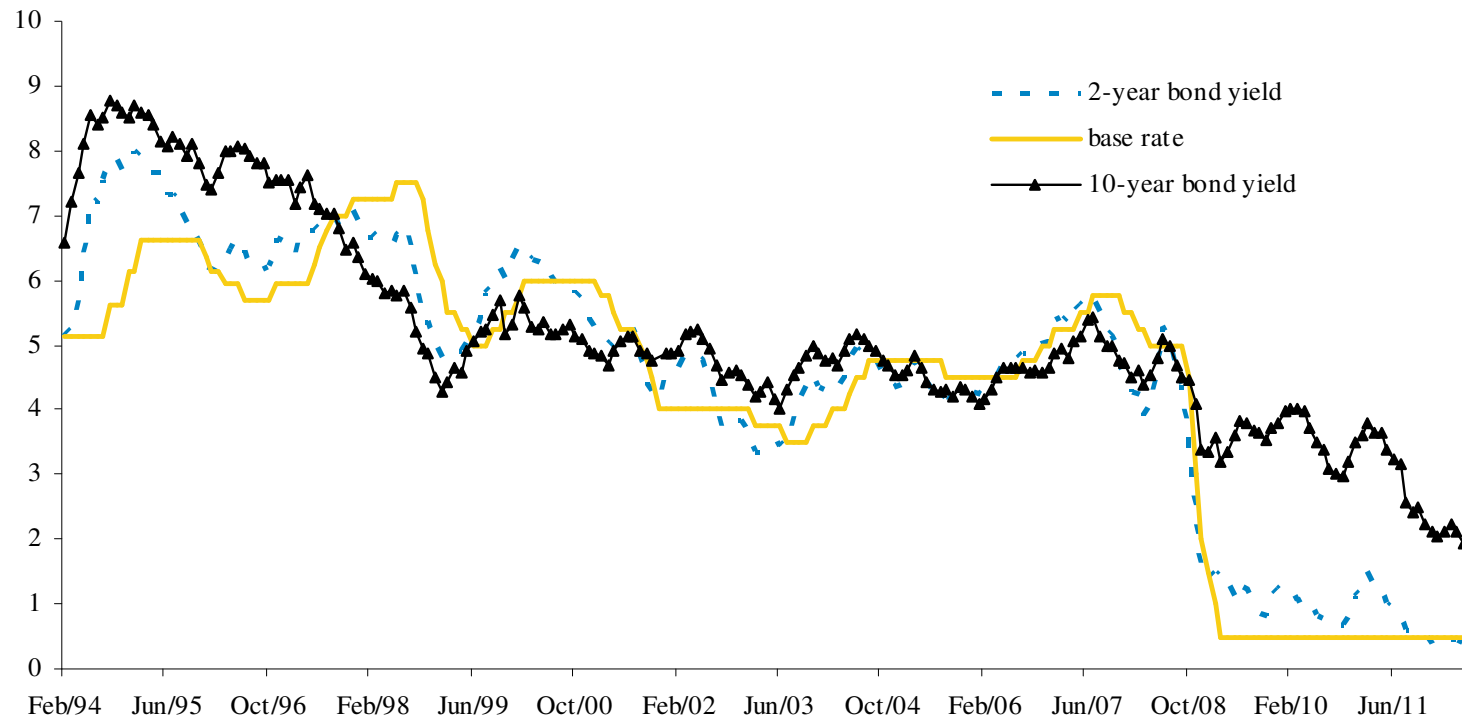
Equity requirement = 0

PD = 0 for full sovereigns

So such lending should expand if:-

Expected Return > Expected Funding Cost

Bank of England Base rate and 2-year and 10-year bond yields



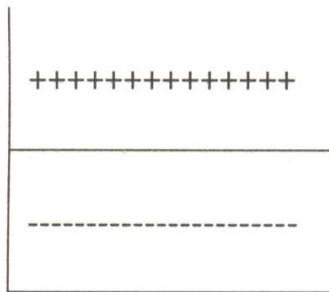
Source: Ashworth and Goodhart, Haver Analytics

So bank deposit rate sets the floor for public sector rates.

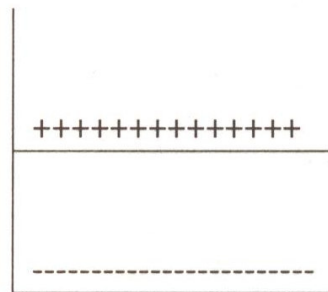
This should provide us with another instrument.

The Corridor and the Official Rate

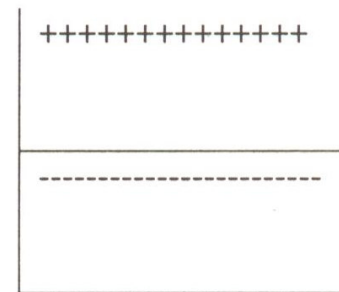
Normal



Expansionary



Contractionary



_____ official rate ----- deposit rate ++++++ loan rate

Could one make deposit rate negative?

Anti:

- Fairness
- Profitability
- Other money market operations
- Currency as an alternative

But Divorce average from marginal.

A public sector bank?

No

- Take too long
- Recipient of refused (lemon) projects
- Objectives unclear
- High losses
- Lower comparative returns (unfair competition)
- Corruption and political direction

How to Encourage more lending to Private Sector:

- 1) Reduce CAR (not likely)
- 2) Lower borrower PD (guarantees? Part loss? A good deal for taxpayer?)
- 3) Lower funding costs (FLS, others)
- 4) Force down ROE by threatening to inject new equity into bank whose lending is growing too slowly. Akin to TARP, but should it be done?