Transmission of Monetary Policy Within Banks

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Introduction

- Monetary policy is a key instrument of macroeconomic management
- Does it work? If so, how?
- Need to understand transmission mechanism for monetary policy
- Paper addresses an important issue

Macroeconomic transmission

- Macroeconomists think of monetary transmission as having 4 stages

1. Policy tool to bank rates
2. Bank rates to credit aggregates
3. Credit to aggregate demand
4. Aggregate demand to output and inflation

- Paper focuses on stages 1 and 2

This paper

- Focus: transmission of monetary policy through bank lending
- Look at lending by banks at the branch level
- Data from Indian banks: 125,000 branches over two decades (since 1996)
- Monetary policy variable is the cash reserve ratio (CRR)

Main findings

- Variation in lending is mostly within-banks, not between-banks
- Branch characteristics that increase response to CRR changes:
  - more officers, high credit-deposit ratios
  - more rural branches (not very robust)
- Charactersistics that dampen response:
  - high interest rate spreads, lower deposit base
  - high NPAs, larger loans, more long term loans
- Results robust to controls for time-bank fixed effects as well as macro variables

Background

- Two views on monetary transmission mechanism:
  - money view (conventional IS-LM)
  - credit view
- Views try to link policy to aggregate demand and real activity
- Credit view operates through contracting problems
  - monetary policy affects external finance premium for borrowers
- Paper self-sorts into the bank lending channel of credit view

The Credit Channel

- Credit view of monetary transmission
  - wedge between external and internal cost of funds for borrowers
  - external finance premium comoves with policy
- Reason for movements in external finance premium
  - balance sheet effects induced by changes in policy
  - shift in supply of loans by banks due to changes in policy
- Hard to disentangle the two effects from aggregate data
- Problem in disentangling supply effects from demand effects

Micro data on banks

- Bank lending channel requires imperfect supply of alternative sources of loanable funds
- Kashyap-Stein (2000) contrast behavior of banks sorted by liquidity of assets
  - less liquid banks reduce loans more when monetary policy is tightened
- Can branch level data tell us more about bank lending channel?

Is it the lending channel?

- Authors find branch characteristics that correlate with lending sensitivity to CRR
- Cash-reserve-ratio operates at the aggregate bank level
  - banks can allocate reserves internally as they see fit
  - reallocation can occur under both demand and supply shocks
- Branch lending could fall due to worsening client balance sheets
  - branches with greater human capital may have stronger relationship lending
  - more sensitive to changes in clients' balance sheets

Branch banking

- To distinguish between alternative transmission channels one needs a theory of branch banking
- Without a theory, no way to use the data to uncover constraints operating at the branch
- There is no clear null hypothesis
- Unclear what one is learning about any monetary transmission channel

Two thoughts on monetary transmission in India

Bank lending channel

- Dataset could be used to examine the bank lending channel
  - look at the data at the level of the bank, not branch
  - contrast bank behavior around monetary policy events by sorting by bank type
    - small vs large; liquidity of assets; external cost of non-insured funds
- Examine sensitivity by type of borrower from bank
  - small versus large firms
  - PSU versus private firms
  - may indicate the importance of the credit channel broadly

Two thoughts on monetary transmission in India

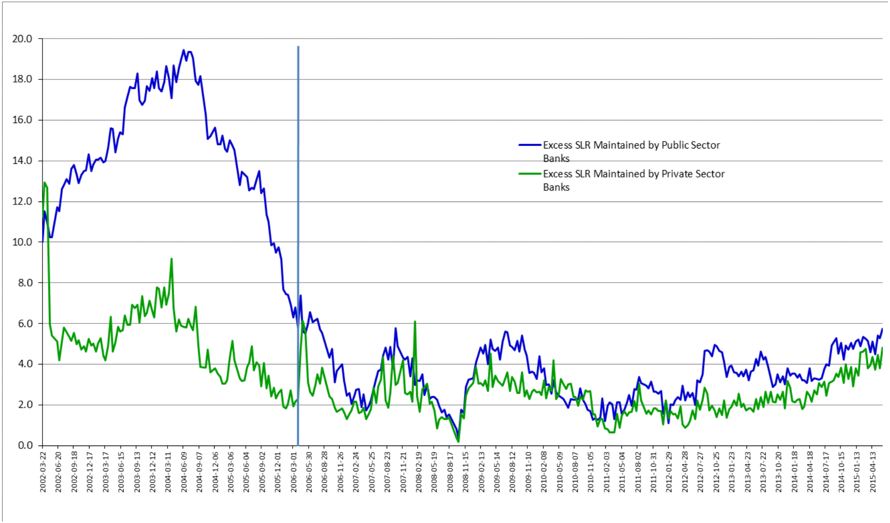
How binding is the CRR?

- What is the composition of bank assets?
- Are banks lending out all their potential loanable funds
- Do they hold excess reserves?
- Transmission of CRR policy depends on whether it binds

Example: Statutory Liquidity Ratio (SLR)

- Banks have to hold 21.5 percent of time and demand deposits in approved government securities
- Most have been holding excess SLRs
- Some excess SLR is precautionary: can borrow against them from the RBI
- The rest is a loss since outside lending rates are greater than government bond rates

Excess SLRs



20.0
18.0
16.0
14.0
12.0
10.0
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Excess SLR Maintained by Public Sector Banks
Excess SLR Maintained by Private Sector Banks
2002-03-22
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2002-12-17
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2003-06-15
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2004-03-11
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2015-01-13
2015-04-13

Non-binding contraints and transmission

- Same issue with CRR
  - are banks holding excess reserves?
  - difference in monetary policy sensitivity of banks based on this?
- Excess reserves may be related to NPAs of banks
  - high NPAs$\longrightarrow$excess reserves$\longrightarrow$less sensitive to CRR changes

Overall

- Nice paper and fabulous dataset
- Can be used to potentially uncover deeper transmission channels of monetary policy
- Need a theory of branch banking to say more about monetary transmission
- Data could be useful for examining optimal bank management practices
  - cumultive losses of 20 PSBs in India: $2 billion in 2015Q4
  - mostly due to provisioning for NPAs
  - is this correlated with internal resource allocation?