Monetary Policy rule in the presence of persistent excess liquidity: the case of Trinidad and Tobago

Anthony Birchwood, CCMF

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Objectives of study

- Study examines and compares the pass through of the policy rate to the
  - money market
  - credit market.
- Policy rate is the Repo rate, the treasury bill rate is used as the representative money market rate and the Prime lending rate is used as the representative credit market rate.

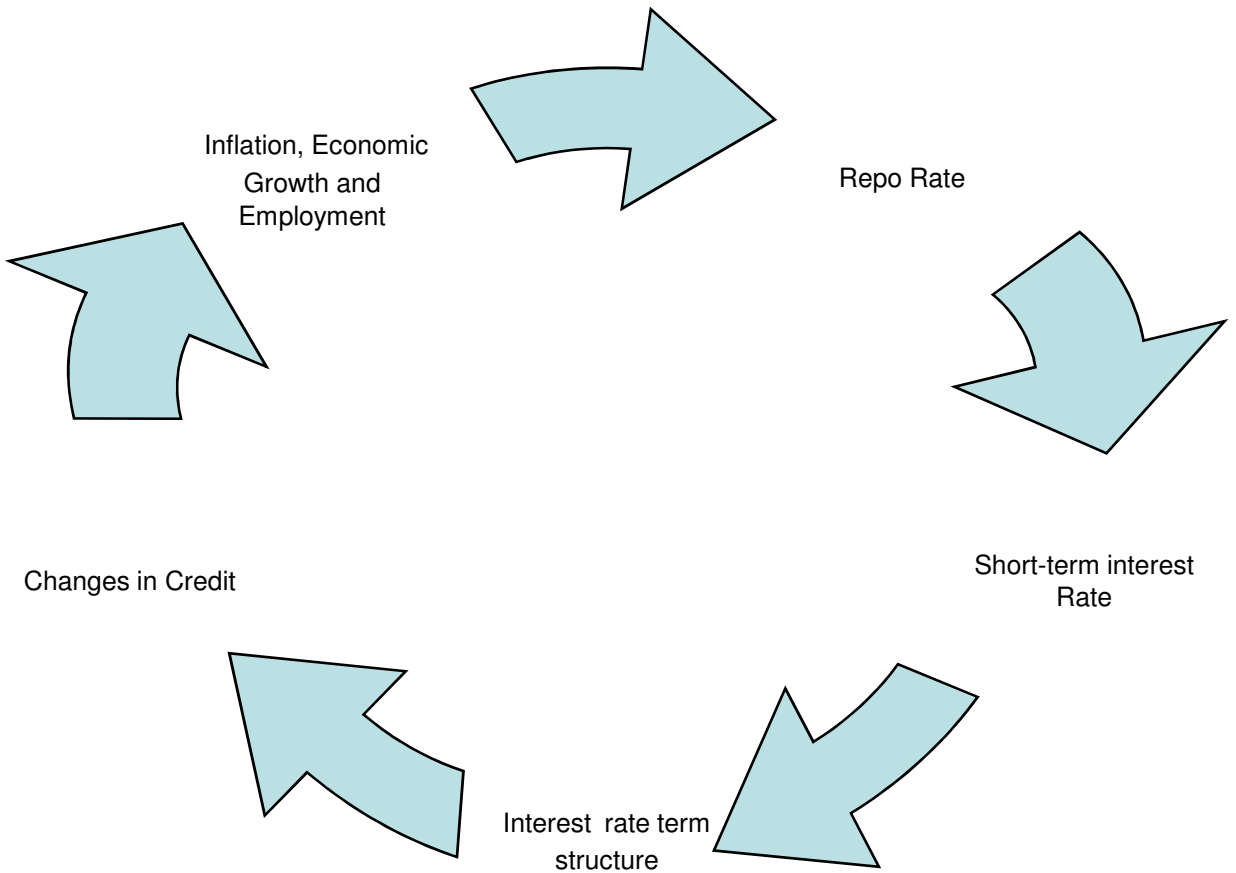
New Style of Monetary Policy Adopted in Trinidad and Tobago

- Trinidad and Tobago currently use managed float alongside market based instruments.
  - This is also the case of Guyana and Jamaica.

- In recent years the policy rate has evolved in advanced industrialized countries as the key policy lever by which the central bank can stabilize the economy.
  - Pass through tend to be from the policy rate to the short-term rate and then through the maturity profile of interest rates.

- The new style necessitated the development of a money market.
  - Repo rate was used as the policy rate in Trinidad and Tobago from March 2002.
  - Interbank rate was available from December 1999.
  - Regular open market operations using 3 month Treasury bills have been used since 1996.

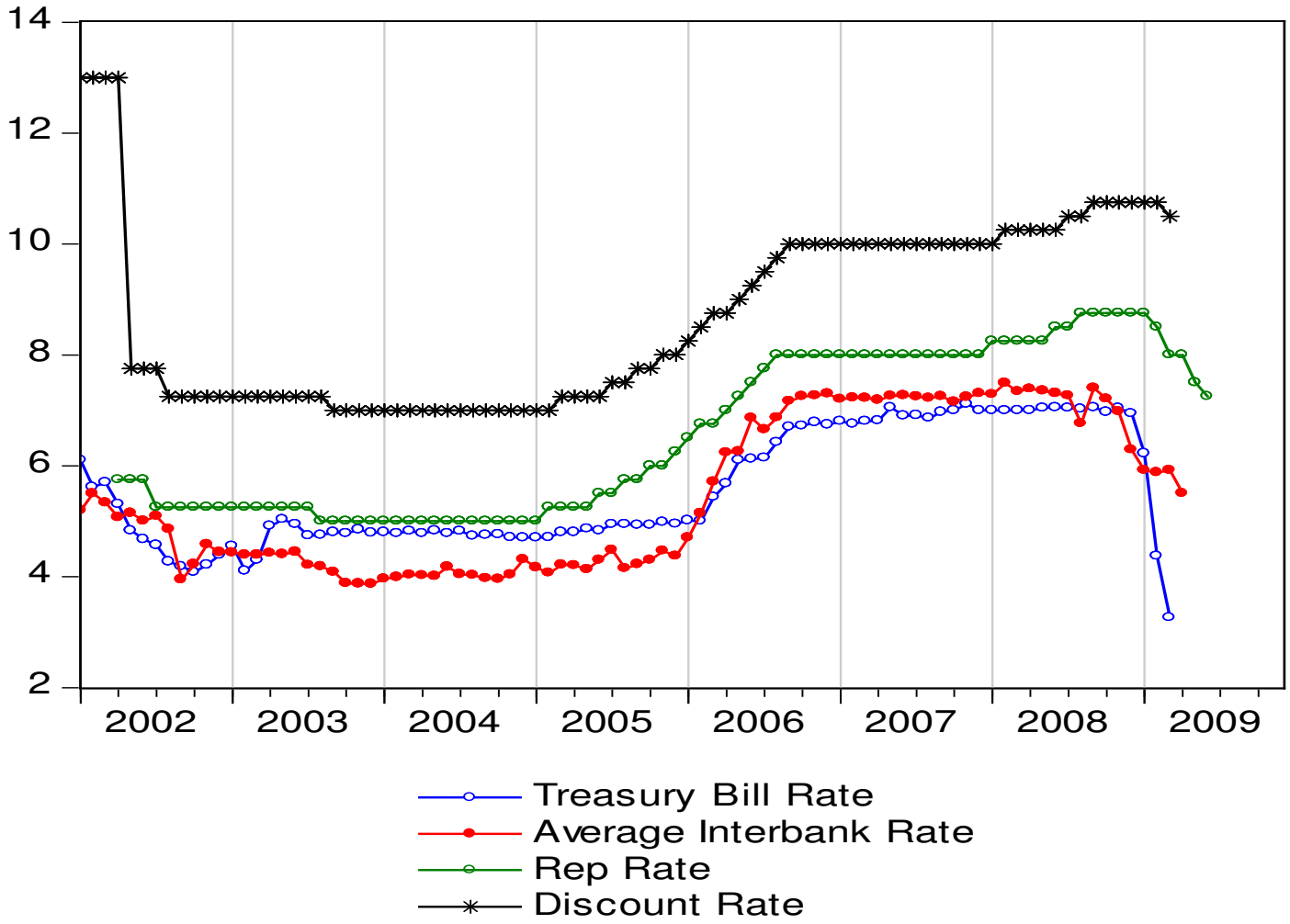
Expected Transmission of Repo Rate to the Real Sector



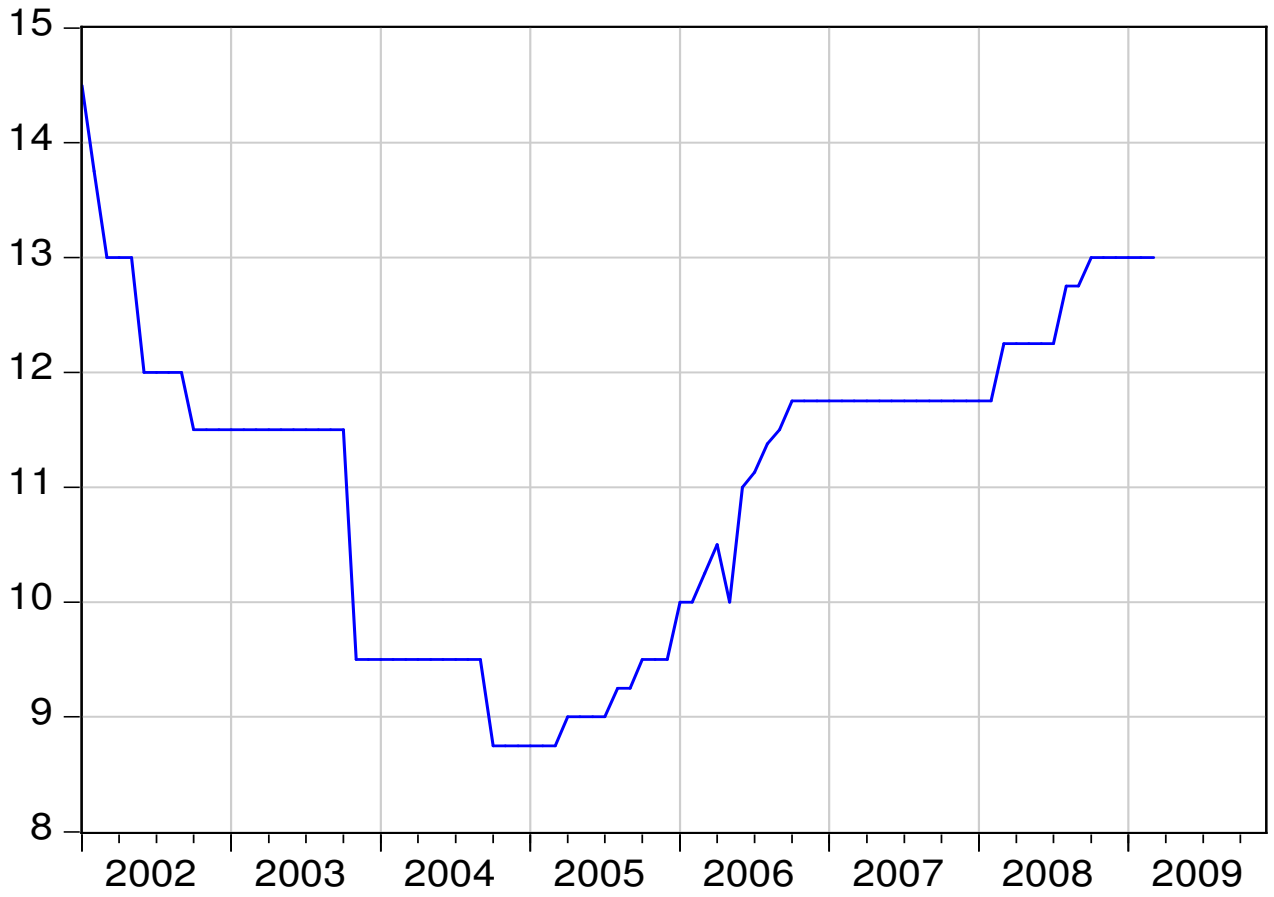
What can go wrong?

- Persistent excess liquidity can loosen the transmission mechanism.
  - Persistent excess liquidity is structural given shortage of bankable investment projects.
  - Surged in excess liquidity between 2004 to 2009 owing to extraordinary capital inflows.
    - Foreign exchange constraint may not have been a binding factor for this period of time.
- Markup on the base rate may be uncertain given market reaction to inflation.

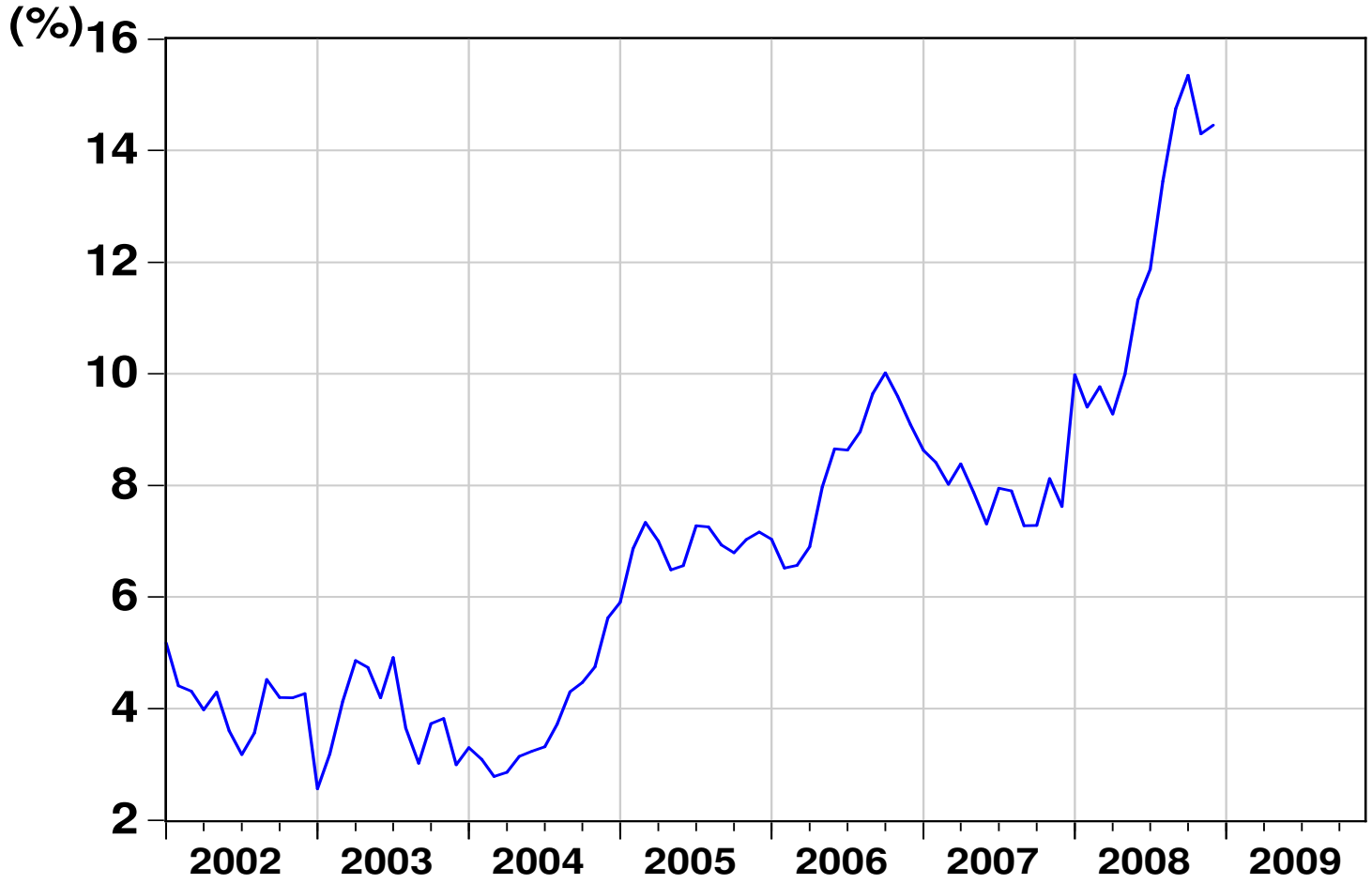
Money Market Rates



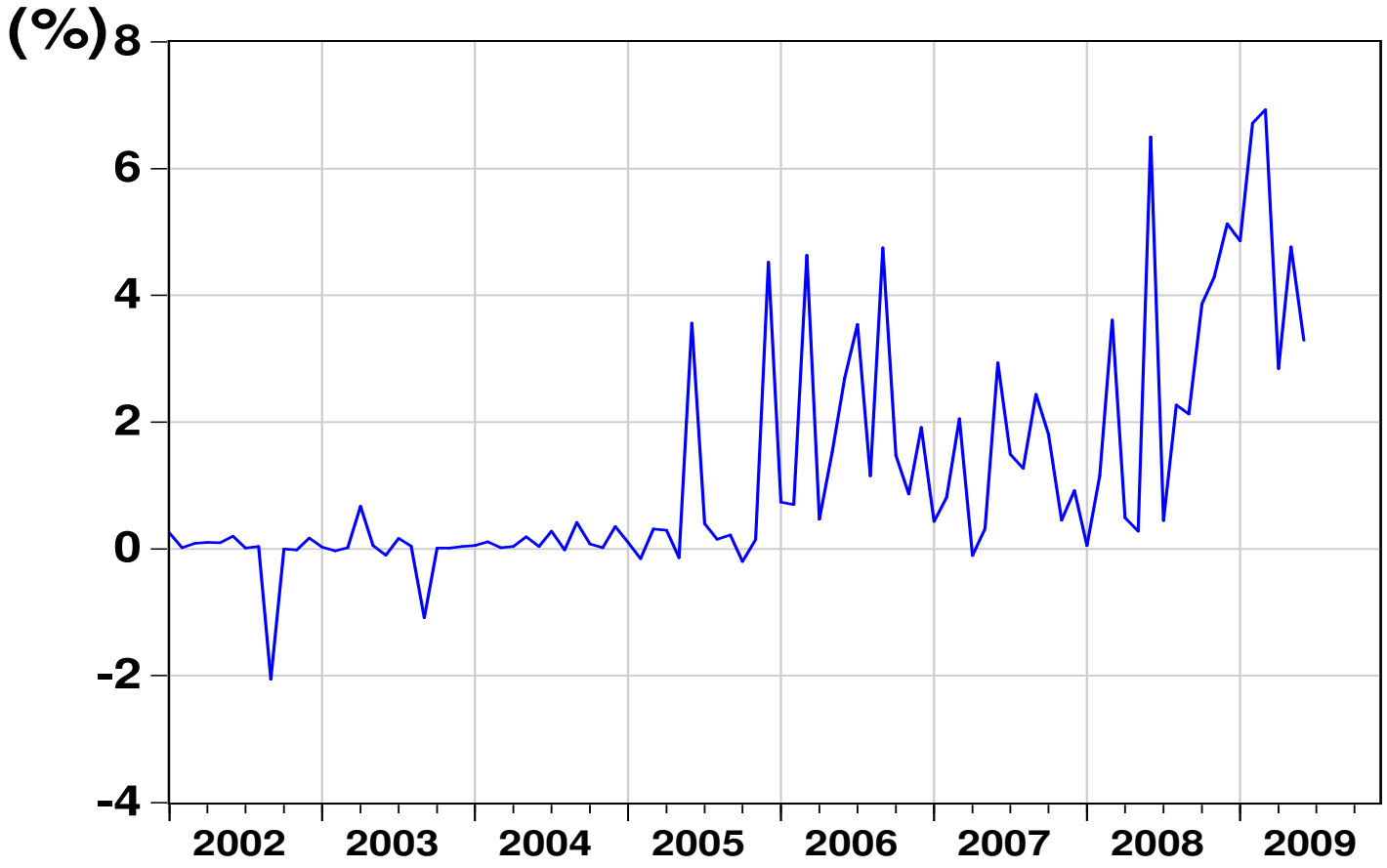
Prime Lending Rate



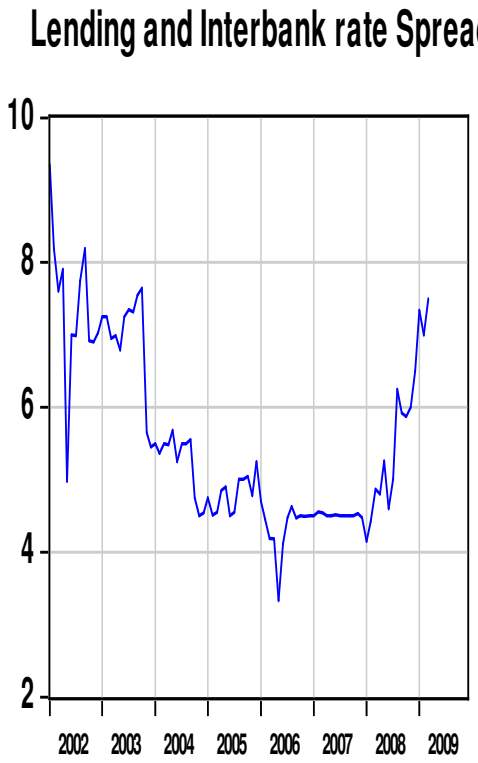
Inflation Rate

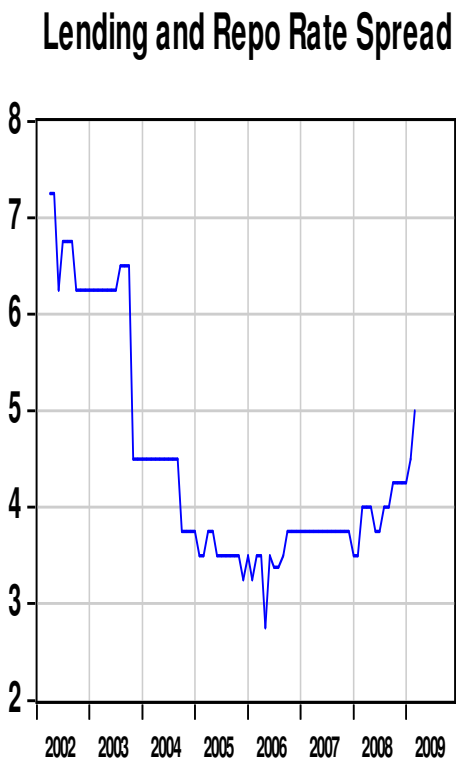


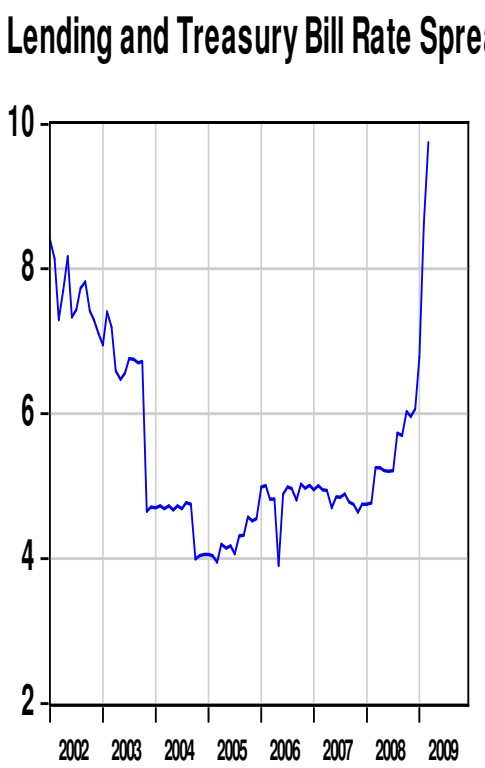
Excess Reserves as a percentage of deposit liabilities



Spreads Between credit market rates and repo rate







Behaviour of interest rates

- Prime lending rates were moving closer to the repo rates up to 2005 when
  - inflation rates were relatively low, and
  - excess liquidity was under 1%.
- The spread increased after 2005 when inflation and excess liquidity increased.
  - Predictability of the credit rate therefore declined.

Alternative Specifications

A: $i_t^m = \beta_{00} + \beta_{01} i_t^r + \varepsilon_t$

B: $i_t^m = \beta_{00} + \beta_{01} i_t^r + \beta_{02} \pi_t + \beta_{03} exres_t + \varepsilon_t$

C: $i_t^m = \beta_{00} + \beta_{01} i_t^r + \beta_{02} \pi_t + \beta_{03} exres_t + \beta_4 OC_{t-1} + \varepsilon_t$

- m is the Treasury Bill Rate or Prime Lending Rate; r is the repo rate; exres is excess reserves; OC is the Opportunity cost of holding excess reserves.

Estimation Methodology

- GMM Estimation was preferred.
- Wald test used to see significance of differences between markets.
- Time period: Sample split into two.
  - Overall Sample: 2002 to 2008: 96 data points.
  - Subsample: 2005 to 2008: 48 data points.
- Instruments:
  - For overall sample – 6 lags for dependent and independent variables. Independent variables were the growth in loans.
  - Subsample – 2 lags for dependent and independent variables. Independent variables were the growth of loans.

Regression A Estimation Results

- Complete pass through between repo and credit market rates. This occurred regardless of sample tested.
- Pass through less than complete with respect to the money market.
- Pass through significantly different across markets but not over time periods.

Regression B & C Estimation Results

- Pass through to the credit market continue to be higher than pass through in the money market.
- The inflation rate was negatively related to the money market rate. Positively related in the credit market.
- Excess reserves had a negative impact on interest rates in all markets and all time periods.

Concluding Remarks

- Lower Pass through in the money market could be attributable to
  - less influence of the central bank over bidders.
  - Lack of sophistication of the market.
- Higher pass through of policy rate to the credit market compared to the money market.
  - Higher pass through could have been the result of moral suasion applied to that market.
  - Could have also be assisted by liquidity absorption in this market before changes in the repo rate are made.

Concluding remarks (Cont'd)

- The negative coefficient of the inflation rate in the money market could suggest that
  - investors take short positions in this market.
  - Distortions created by limited investment options in the money market.
- Banks may take longer positions in the credit market, hence the positive coefficient with respect to inflation.

Conclusion Remarks (Cont'd)

- Central bank must take excess reserves into account in setting the repo rate.
  - Excess reserves tend to have a dampening effect on market interest rates.
  - Excess reserves can have a bias towards higher levels of demand.
  - Excess liquidity would remove the forcing mechanism with respect to the repo rate. This would lead the central bank to be highly dependent on moral suasion.