Open Market Operations & Effectiveness of Monetary Policy

To be presented to Bank of Thailand’s Symposium on Monetary Policy in a New Environment 3-4 July 2001

Outline

• How do ST interest rates pass through?
• Prepare for return of volatility
• Learn from past experiences of 8 DCs
  – Structural Issues
  – Tactics
• Micro-Macro Linkages of MP
  – Effectiveness of MP?
• Policy Implications

Monetary Transmission Mechanism
Frederic S. Mishkin: J Ec Persp, Fall 95

- Interest rate channel
  $M_t \rightarrow i_t \rightarrow I_t \rightarrow Y_t$
- Exchange rate channel
  $M_t \rightarrow i_t \rightarrow E_t \rightarrow NX_t \rightarrow Y_t$
- Asset price channels
  $M_t \rightarrow P_e \rightarrow q_t = (M_k Pr/Repl Costs) \rightarrow I_t \rightarrow Y_t$
  $M_t \rightarrow P_e \rightarrow Wealth \rightarrow C_t \rightarrow Y_t$
- Credit channels
  $M_t \rightarrow Bnk Dep \rightarrow Bnk Loans \rightarrow I_t \rightarrow Y_t$
  $M_t \rightarrow \rightarrow Adv Sel&Moral Haz \rightarrow L_t \rightarrow I_t \rightarrow Y_t$
  $M_t \rightarrow \rightarrow Cash Flow \rightarrow ASMH \rightarrow L_t \rightarrow I_t \rightarrow Y_t$
  $M_t \rightarrow \rightarrow Fin Distress \rightarrow C_t \rightarrow Y_t$

Trend in Reserve Requirements

<table>
<thead>
<tr>
<th>Country</th>
<th>90</th>
<th>96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Canada</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>France</td>
<td>0.5 - 5.5</td>
<td>0.5 - 1.0</td>
</tr>
<tr>
<td>Germany</td>
<td>4.15 - 12.1</td>
<td>1.5 - 2.0</td>
</tr>
<tr>
<td>Japan</td>
<td>0.125 - 2.5</td>
<td>0.05 - 1.3</td>
</tr>
<tr>
<td>UK</td>
<td>0.45</td>
<td>0.35</td>
</tr>
<tr>
<td>US</td>
<td>3.0 - 12.0</td>
<td>3.0 - 10.0</td>
</tr>
</tbody>
</table>

Lower RR & r Insensitivity

Money market rate
End of maintenance period effects on $r$

Interest Rate Corridor

General Principles

- Active Liquidity Management
- Increased Uses of Signaling
- Prevalence of Interest rate Corridor
- Clarify signals; Prevent abuses; Discretionary
  - ST rate varies from ‘target’ < 0.15%
  - Much Narrower than Corridor (0.5 - 2%)

Central Bank Balance Sheet

Vaez-Zadeh (1991)

- FA (net)
- CG (net)
- Claims on Bk (gross)
- Curr in Circ
- Reserve Dep
- Other Item (net)
- Capital Acc.

Decomposition of Variance of Mb

$M = \text{NFA} + \text{NDCG} + \text{DCP} + \text{OTH}$

$\sigma^2_{\text{M}} = \sigma^2_{\text{F}} + \sigma^2_{\text{G}} + \sigma^2_{\text{B}} + 2\sigma_{\text{FG}} + 2\sigma_{\text{GB}} + 2\sigma_{\text{FB}} + [2\sigma_{\text{FO}} + 2\sigma_{\text{GO}} + 2\sigma_{\text{BO}} + \sigma^2_{\text{O}}]$

$\sigma^{2*}_{\text{M}} = \sigma^2_{\text{M}} - 2\sigma_{\text{FG}} - 2\sigma_{\text{GB}} - 2\sigma_{\text{FB}} > \sigma^2_{\text{M}}$

$\text{OMO} = -2\sigma_{\text{gp}} - 2\sigma_{\text{fp}} - 2\sigma_{\text{fg}}$

$\sigma^2_{\text{m}} - 2\sigma_{\text{gp}} - 2\sigma_{\text{fp}} - 2\sigma_{\text{fg}}$

$\text{Accom.} = \frac{\sigma^2_{\text{m}}}{\sigma^{2*}_{\text{m}}}$
General Trends

- Interest Rate Volatility Declined
- Monetary Base Volatility Increased
  – Thai 2.5% below Others
- Monetary Accommodation rose
- Why Worry So Much about r-volatility?
The Tail that can wag the Dog: A Qualification (Hardy 1997)

- Optimal interest rates =? Unknown
- Limit intervention=> More info Acquisition
  - Info => market prices => r Policy
  - Micro-management => Loss of Information
- Opt Intervent:
  - r stability vs. info efficiency
  - Some room for fluctuation
- Money Market Input => MPB

So, has Thai MP been effective?

- Correlations improving after crisis
  - ER Flexibility => independent MP
  - Since 2000 => announce clear target: RP14d
- May be early to conclude
**Policy Implications**

- Market participants prepared for Mb volatility within limits
- More active liquidity management
  - r stability vs. discretion vs. moral hazard
- Place more emphasis on signaling
  - Standing Facility ~ safety valve &
  - Confirm signals
- Possible magnitude 2.5% of Mb ~ 12.5 bB
  - Both injections & withdrawals: ST only

**Benefits / Costs Analysis**

- What does society gain?
  - More efficient money market => Sustain Grwth
- What do commercial banks gain?
  - More convenient ST liq adjustments
- What does the BOT gain?
  - Stronger transmission mechanisms
  - More effective MP

**Other Structural Issues**

- Bond Market Development
  - Private Repo
- Prepare for RTGS & 24 Hrs Transactions
- Rapid speed of trans & Info assymmetry=>
  - Pre-Settlement Interbank Rounds
  - Tendency towards O/N rates
- Specific structure ~ country specific

**Sources of Mb Changes**

**Daily Changes in ER**

**The Mechanics of Money Multiplier**