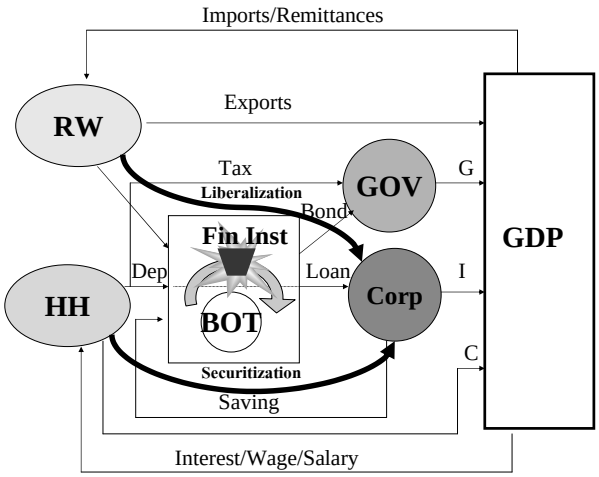
Open Market Operations & Effectiveness of Monetary Policy

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

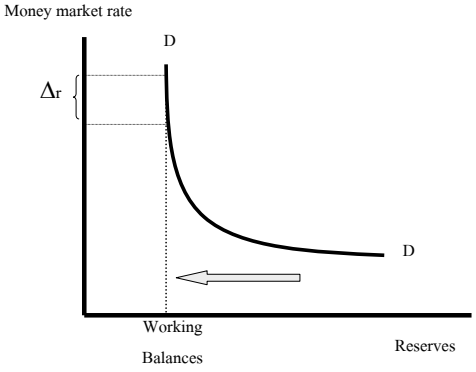
Frederic S. Mishkin: J Ec Persp, Fall 95

- **Interest rate channel**
  - **M⇩ => i⇧ => I⇩=> Y⇩**
- **Exchange rate channel**
  - **M⇩=> i⇧=> E⇧=> NX⇩=> Y⇩**
- **Asset price channels**
  - **M⇩=> Pe⇩=>q=(Mk Pr/Repl Costs)⇩=> I⇩=> Y⇩**
  - **M⇩=> Pe⇩=> Wealth⇩=> C⇩ => Y⇩**
- **Credit channels**
  - **M⇩=> Bnk Dep⇩=> Bnk Loans⇩=> I⇩=> Y⇩**
  - **M⇩=> Pe⇩=> Adv Sel&Moral Haz⇧=> L⇩=>I⇩=> Y⇩**
  - **M⇩=> i⇧=> Cash Flow ⇩=> ASMH⇧=> L⇩=> I ⇩=> Y ⇩**
  - **M⇩=> Pe⇩=> Fin Distress⇧=> C⇩=> Y⇩**

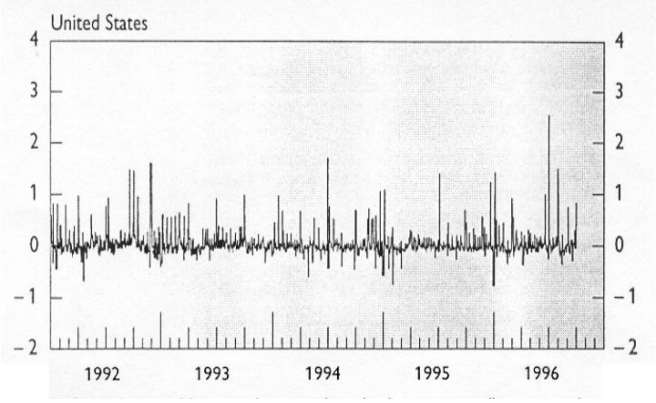
Trend in Reserve Requirements

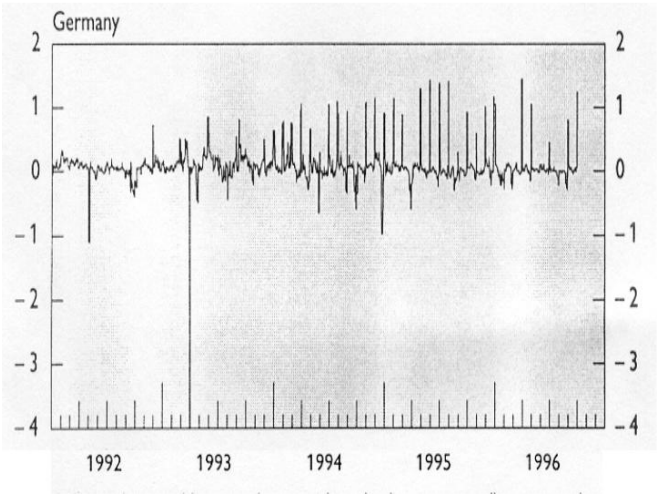
	90	96
Australia	1.0	1.0
Canada, NZ	--	--
France	0.5 - 5.5	0.5 - 1.0
Germany	4.15 - 12.1	1.5 - 2.0
Japan	0.125 - 2.5	0.05 - 1.3
UK	0.45	0.35
US	3.0 - 12.0	3.0 - 10.0

Lower RR & r Insensitivity

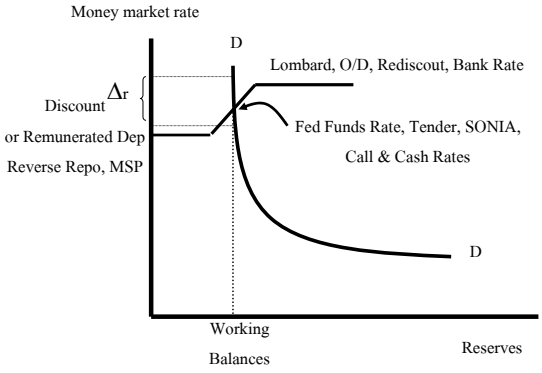


End of maintenance period effects on r





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

} **Mb**

- Other Item (net)
  - Capital Acc.

Decomposition of Variance of Mb

M = NFA + NDCG + DCP + OTH

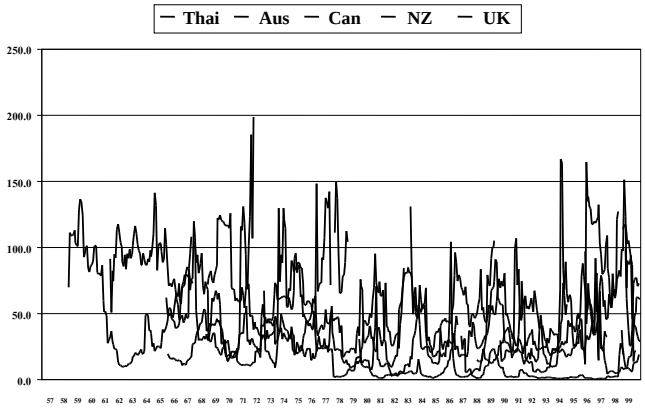
$$\sigma^2_M = \sigma^2_F + \sigma^2_G + \sigma^2_B + 2\sigma_{FG} + 2\sigma_{GB} + 2\sigma_{FB} + [\, 2\sigma_{FO} + 2\sigma_{GO} + 2\sigma_{BO} + \sigma^2_O \,]$$

$$\sigma^{2*}_M = \sigma^2_M - 2\sigma_{FG} - 2\sigma_{GB} - 2\sigma_{FB} > \sigma^2_M$$

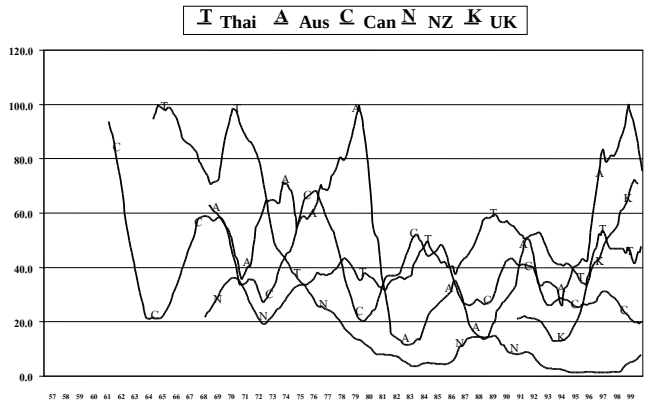
$$\text{OMO} = \frac{-2\sigma_{gp} - 2\sigma_{fp} - 2\sigma_{fg}}{\sigma^2_m - 2\sigma_{gp} - 2\sigma_{fp} - 2\sigma_{fg}}$$

$$\text{Accom.} = \sigma^2_m \,/\, \sigma^{2*}_m$$

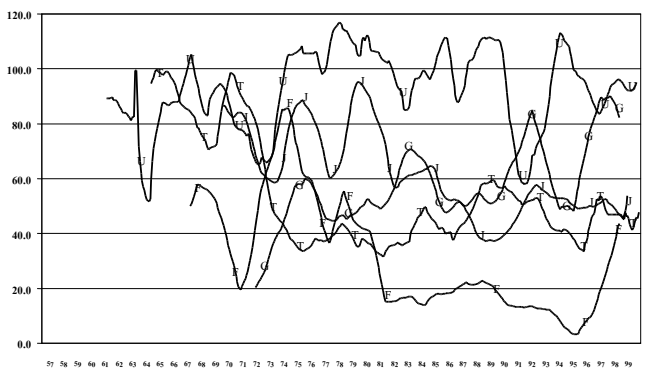
IT Countries' Accommodation



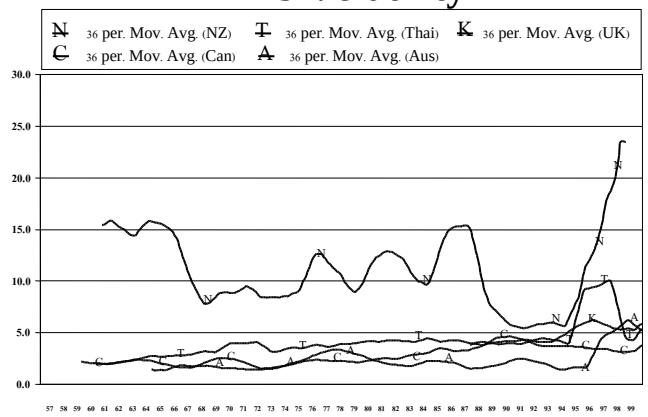
IT Countries' Accommodation



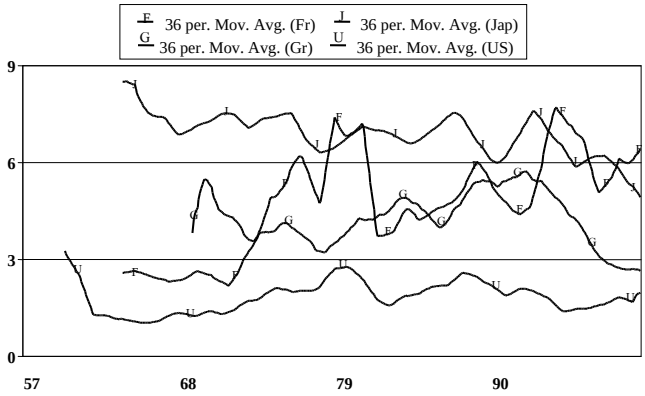
Non-IT Accommodation



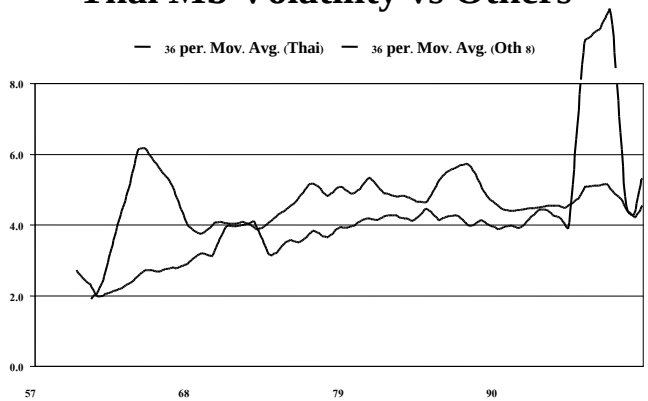
IT Mb Volatility



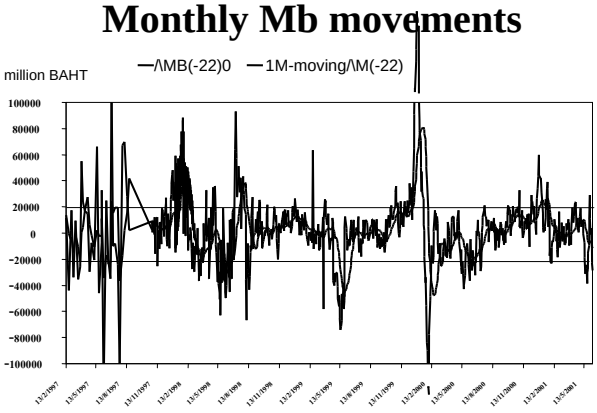
Non-IT Mb Volatility



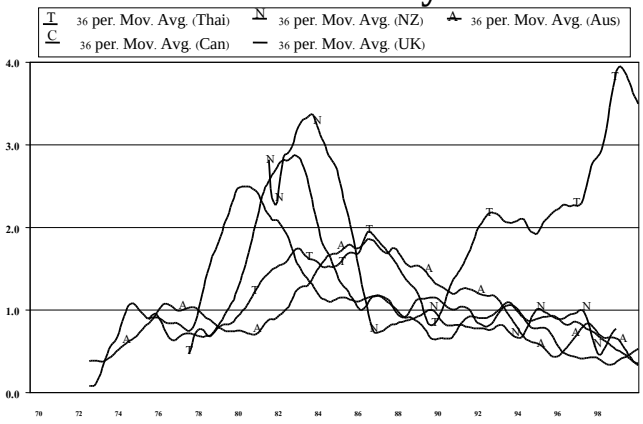
Thai Mb Volatility vs Others



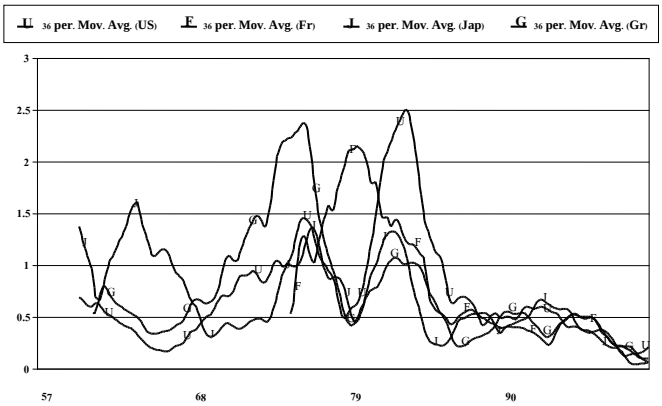
Monthly Mb movements



IT r Volatility



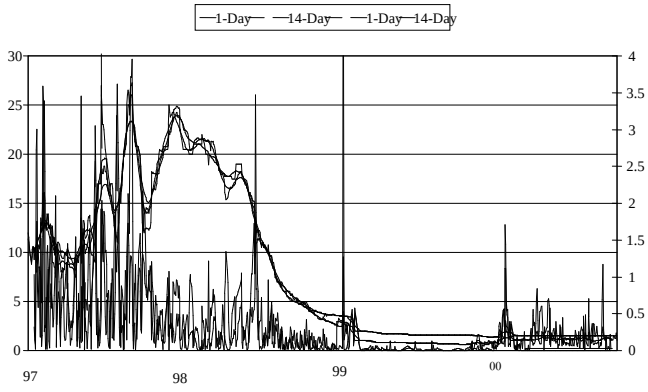
Non-IT r Volatility



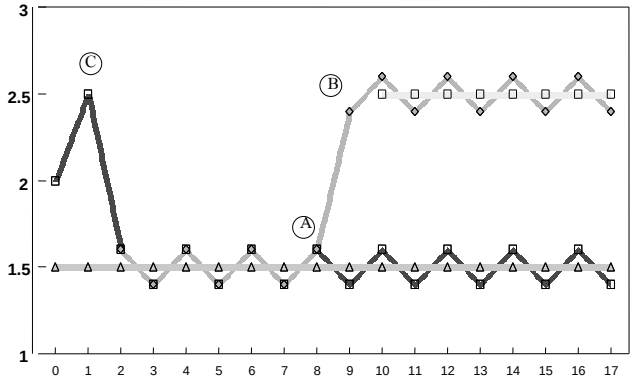
General Trends

- Interest Rate Volatility Declined
- Monetary Base Volatility Increased
  - –Thai 2.5% below Others
- Monetary Accommodation rose
- Why Worry So Much about r-volatility ?

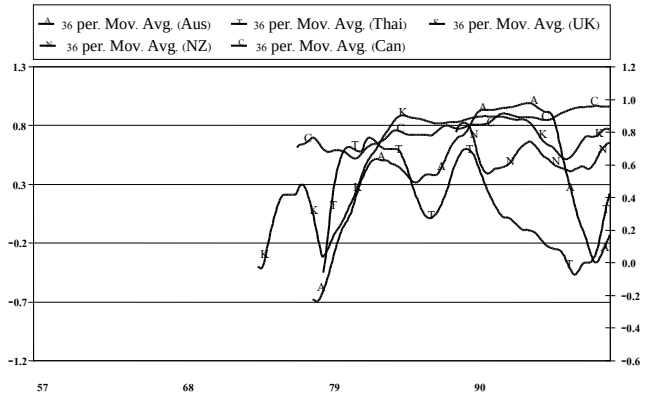
Daily Changes in r from RP14d Target



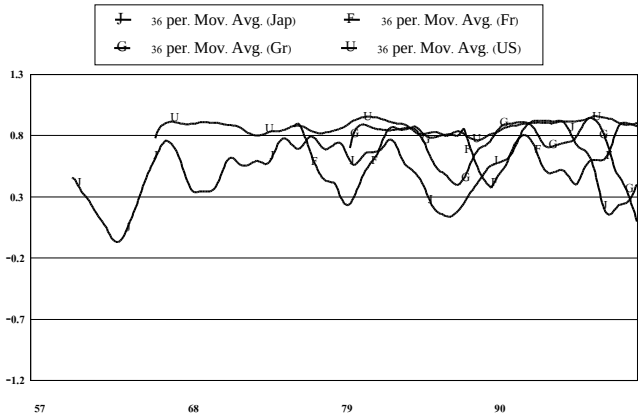
Clear vs. Unclear Signals



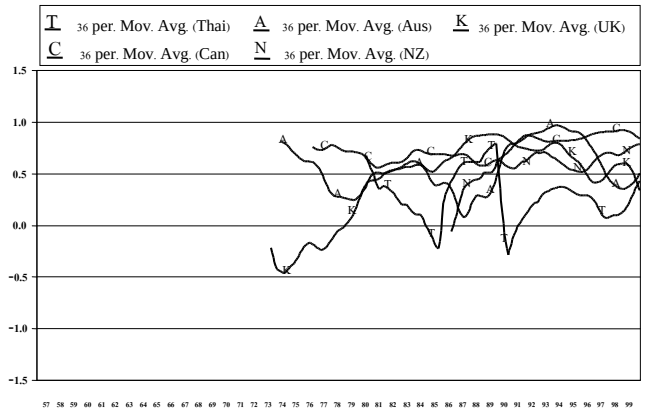
IT Correlation r & rl



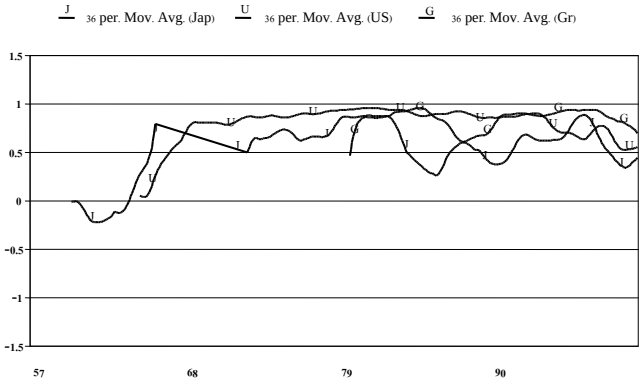
Non- IT Correlation r & rl



IT Correlation r & rd



Non- IT Correlation r & rd



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 Intervention:**
  - **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 $\underline{\sim}$ 12.5 bB
  - Both injections & withdrawals: ST only

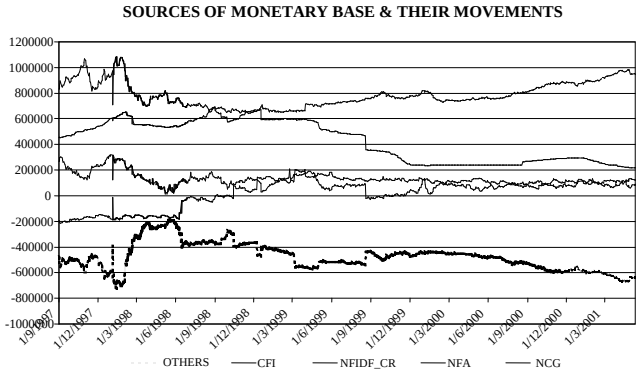
Benefits / Costs Analysis

- 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

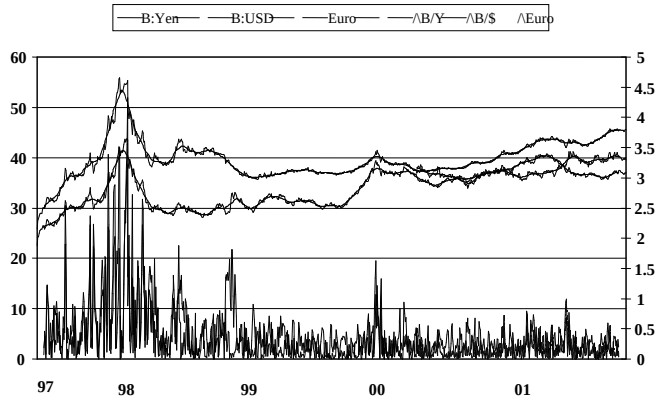
Other Structural Issues

- 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

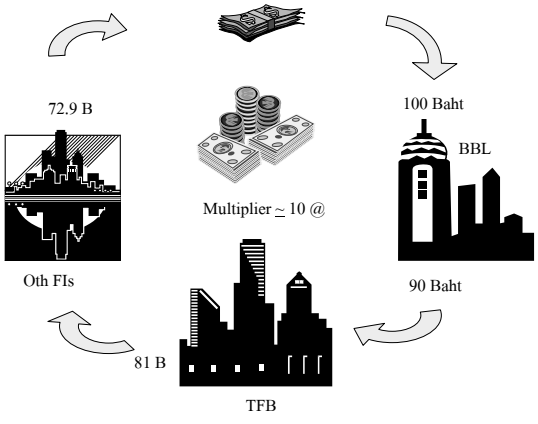
Sources of Mb Changes



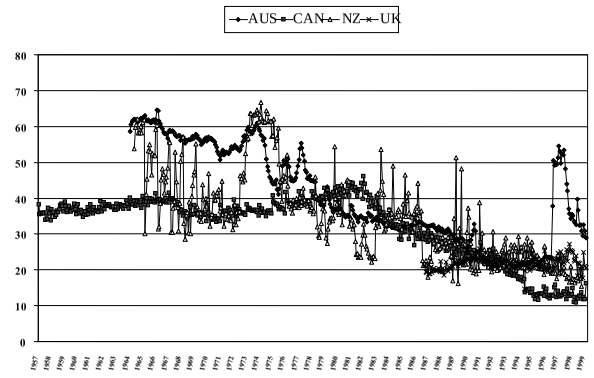
Daily Changes in ER



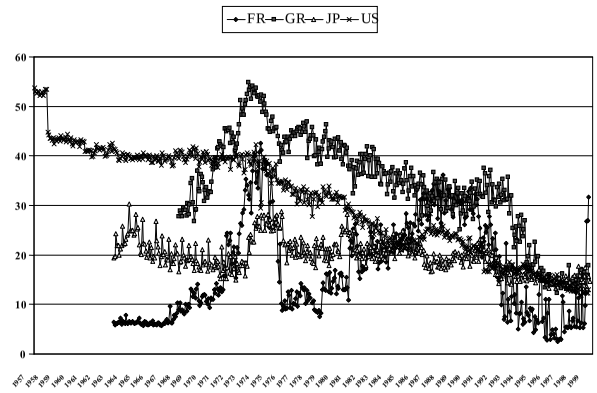
The Mechanics of Money Multiplier



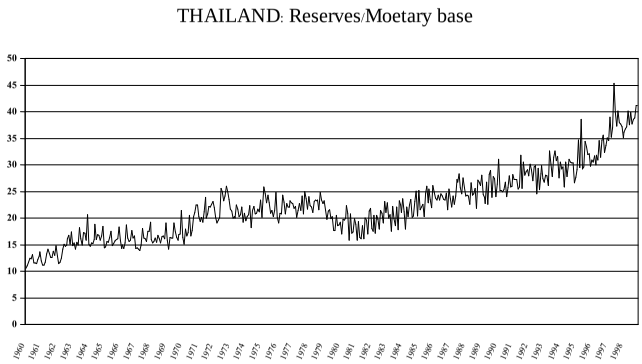
Reserve / Mb Ratios (IT)



Reserve/Mb Ratios (Non-IT)



Reserve/Mb Ratio (Thailand)



Comparison of Monetary Base Growth Rates (MA5Yrs)