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# CBI Minimum Reserve Requirement



**Presented To: Central Bank of Iraq**

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**Beirut, Lebanon**

**Date: March 21, 2008**

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# Overview of Presentation

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- Controlling money aggregates (M2)  $M \equiv mB$ 
  - Control B
  - Forecast and influence money multiplier (m)
- Influencing the money multiplier
  - Minimum reserve requirement
- Best practice with the design of the reserve requirement

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# **Controlling the Money Multiplier**

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# The Money Multiplier



- $M \equiv C + D$
- $B \equiv C + R_b + VC \equiv C + R$
- $M \equiv m \cdot B$ , thus
- $m \equiv M/B \equiv (C + D)/(C + R)$ , where  $R \equiv RR + ER$

Thus

- $m \equiv (c + 1)/(c + rr + e)$

# Autonomous factors affecting multiplier



$$m \equiv (c + 1)/(c + rr + e)$$

- Currency/Deposit ratio - c
  - Forecast seasonal pattern
  - Increase in c reduces m (if  $rr + e$  is less than 1)
- Excess reserves/Deposit ratio
  - Estimate demand for excess reserves
    - State of market development
    - State of payment systems development
    - Predictability of policy actions
  - Increase in e reduces m and thus M

# Instrument for controlling multiplier

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$$m \equiv (c + 1)/(c + rr + e)$$

- Minimum reserve requirement ratio
  - $rr = RR/D$
  - Increases in  $rr$  reduce the multiplier (thus reduce  $M$ )

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# **Instrument Design**

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# Objectives of design

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- Primary purpose is to provide effective control of M via control of m
- Secondary purpose is to promote efficient market liquidity management and market development

# Controlling the money multiplier

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- Control of multiplier is maximized when:
  - Uniform  $rr$  applies to deposit components of  $M$  ( $D$ ), and
  - reserve assets are components of  $B$  ( $R$ )

# Efficiency and Market Development

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- Bank liquidity management is maximized when:
  - requirement is for average reserve holding,
  - Settlement period is long, and
  - banks determine mix of vault cash and current account balances at central bank

# Weaknesses of CBI RR

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- Different ratios for private and government deposits
  - More difficult to predict impact on multiplier of changes in deposit mix
- Permits use of dollar reserves to satisfy requirement against FX deposits
  - Results in less stable and less predictable multiplier
- Limits use of ID vault cash
  - Discriminates against banks with many branches
- Ratio very high and unremunerated
  - Tax on banks
  - Inefficient tool for reducing M

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# Summary

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# Conclusion

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- A minimum reserve requirement reduces and stabilizes m and can contribute to bank liquidity management
- Ratio should not be used actively
- CBI's reserve requirement follows some, but not all, best practices
- CBI could improve its regulation
  - should unify requirement ratio
  - Remove limit on vault cash
  - Allow use of only ID vault cash and current account deposits
- Ratio should be gradually reduced
  - Issue more bills to absorb reserves freed by lowering ratio



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**Thank you**

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