MONEY AND BANKING

What is money?

The stock of assets that can be readily used to make transactions.

Fiat Money: Established as money by government decree or fiat.

Three Functions of Money

***Store of value*: transfer purchasing power from present to the future. Of course, money is an *imperfect* store of value.**

***Unit of account*: provides the terms in which prices are quoted and debts are recorded. The yardstick with which we measure economic transactions.**

***Medium of exchange*: we use it to buy goods and services. The ease with which money is converted into other things — goods and services — is called money's *liquidity*.**

WHY NOT A BARTER ECONOMY?

A barter economy permits only *simple* transactions.

Barter system requires *double coincidence of wants*.

Money makes more *indirect transactions* possible.

For instance, a professor uses his salary to buy books; the book publisher uses its revenue from the sale of books to buy paper; the paper company uses its revenue from the sale of paper to pay the lumberjack; the lumberjack uses his income to send his child to college; and the college uses its tuition receipts to pay the salary of the professor.

Money Supply in India

Narrow money: A] currency with the public

(M_1) = A + B

notes in circulation
circulation of rupee coins
circulation of small coins
cash in hand with banks

B] demand deposits of banks
'other' deposits with RBI

"Other" deposits with RBI (ex-Governors of RBI are permitted to use RBI as any other commercial bank). Also include the demand deposits with the RBI held by the central and the state governments, foreign central banks and foreign governments, international financial institutions (e.g. IMF).

MONETARY AGGREGATES IN INDIA

• **M2** = M1+ Time Liabilities of Savings Deposits with the Banking System + Certificates of Deposit issued by Banks + Term Deposits of residents with a contractual maturity of up to and including one year with the Banking System

= Currency with the Public + Current Deposits with the Banking System + Savings Deposits with the Banking System + Certificates of Deposits issued by Banks + Term Deposits of residents with a contractual maturity up to and including one year with the Banking System + 'Other' Deposits with RBI*.

Note: * 'Other' deposits with RBI comprise mainly: balances in the accounts of foreign Central banks and Governments; accounts of international agencies such as the International Monetary Fund, etc.

MONETARY AGGREGATES IN INDIA

• **M3 =** M2 **+** Term Deposits with a contractual maturity of over one year with the Banking System **+** Call/Term borrowings from 'Non-depository' financial corporations by the Banking System.

General definition:

$$Money\ Supply\ (M^S) = Currency + Deposits$$

MONETARY AGGREGATES IN INDIA

- $M_2 = M_1$ + Post Office savings deposits
- $M_3 = M_1$ + Time deposits of the public with banks — **Broad Money**
- $M_4 = M_3$ + Total post office deposits*

* *People maintain fixed deposits of various maturities with post offices, apart from savings deposits.*

RESERVE MONEY / HIGH POWERED MONEY (MONETARY BASE)

RM also called the government money is produced by the Central Bank (RBI, in India) and held by the people and the banks. It is composed of:

- ✓ **Currency with the public in circulation.**
- ✓ **Cash reserves of commercial banks: (i) cash reserves with the banks themselves and (ii) Bankers' deposits with RBI (which commercial banks maintain with RBI as reserve and consider as their '*vault*' cash).**
- ✓ **'Other' deposits with RBI.**

A commercial bank's required amount of reserves is equal to the required reserve ratio times the total deposits in the bank. **The difference between a bank's *actual reserves* and its *required reserves* is its *excess reserves*.**

Excess Reserves = [Actual Reserves – Required Reserves]

Commercial banks give loans up to the point where they can no longer do so because of the reserve requirement restriction, it means that *banks give loans up to the point where their excess reserves are zero*.

In addition to required reserves, banks hold excess reserves in order to meet unexpected withdrawals. Because reserves earn no interest, banks try to minimize excess reserves — *interest sensitivity of excess reserves*.

Changes in reserve requirements affect the amount of reserves that commercial banks must keep as deposits with the RBI and consequently the amount available for lending or investing.

By *raising the reserve ratio* to be maintained by every bank, the RBI can *reduce the volume of credit* and by *lowering the reserve ratio*, it can *expand the volume of credit*.

Excess cash reserves will induce commercial banks to expand credit and reduction of cash reserves will result in contraction of credit.

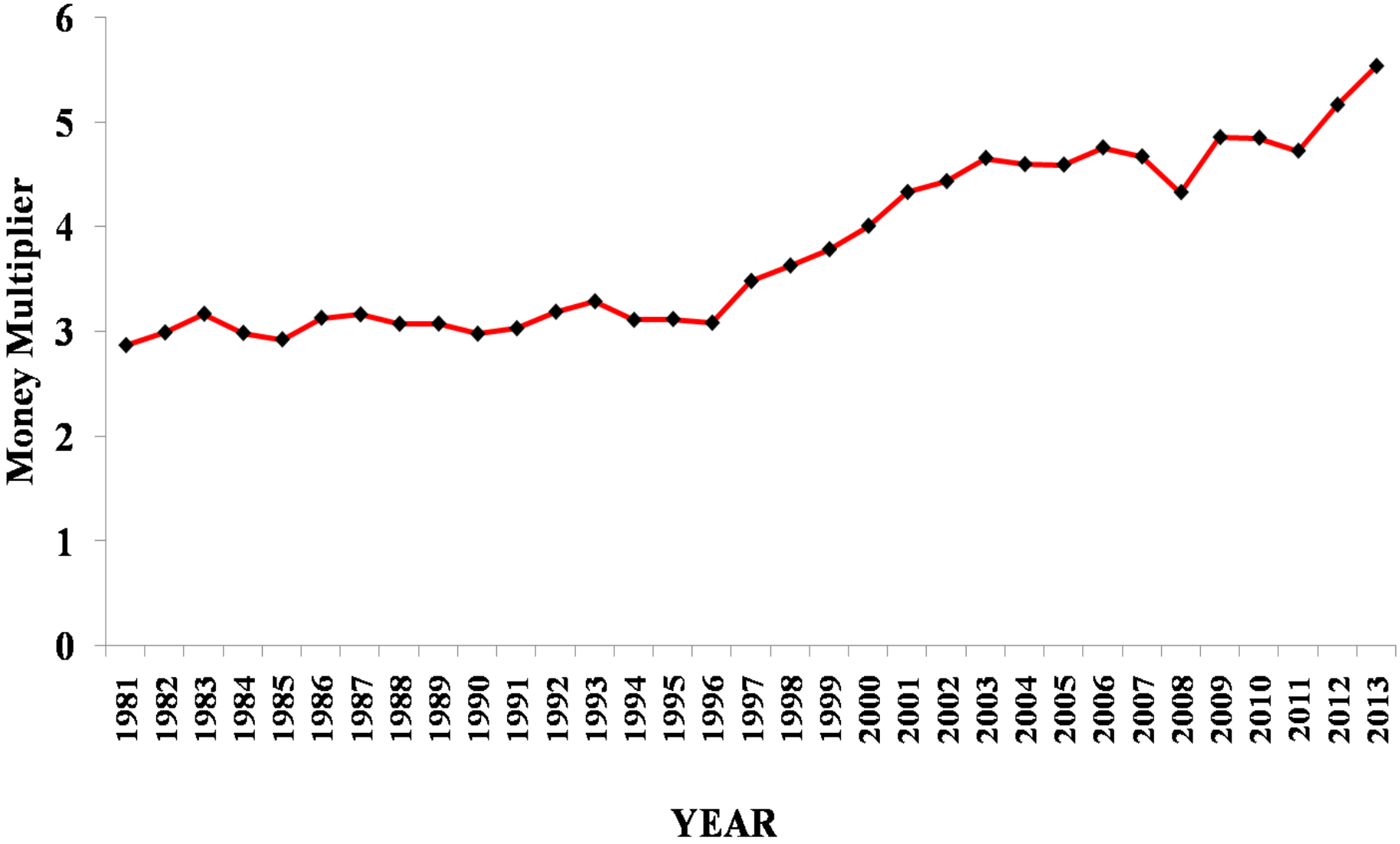
MONEY MULTIPLIER

Supply of money is an *increasing* function of *reserve money*.

$$M^S = m\,RM \quad \text{where } m > 1$$

$$m = \frac{M^S}{RM}$$

The money multiplier is the ratio of stock of money to the stock of high powered money.



Money Multiplier in India

Open Market Operations (OMO): the purchase and sale of government securities/bonds. An OMO by the RBI affects bank reserves.

Consider an open-market purchase by the RBI of a government security worth of Rs. 1,000. *Government securities constitute the major part of RBI assets.*

The RBI writes a cheque on itself, drawn on the Mumbai RBI. What happens to that cheque?

Suppose, Mr. B sold the security to the RBI. That individual B will take the cheque and deposit it at a local commercial bank, SBI Powai branch.

SBI will then present the cheque to the RBI for payment. And RBI will credit the SBI account by Rs. 1,000. The open-market purchase thus results in an increase of an equal amount in bank reserve deposits with the RBI.

The Mechanism of Monetary Expansion

The Federal Reserve/RBI requires that commercial banks retain a certain percentage of their liabilities as reserves, mainly as deposits in the Central Bank (FED/RBI).

Fed buys treasury bonds worth of $100 and consequently issues a chq drawn on itself to the seller. The seller then deposits that chq in his account in **Bank A**, creating $100 in liabilities for the bank and also $100 in assets for the bank, the claim on the Fed. If there is a 20% reserve requirement, **Bank A** can loan out $80 and must retain $20 as reserves.

The borrower spends this amount, transferring the $80 to the seller's bank (**Bank B**), which in turn loans out $64. This amount is then transferred to **Bank C** and the process continues. As a result, the total increase in the money supply from the $100 reserve increase is given by

$$\Delta M = \$100 + \$80 + \$64 + \ldots$$

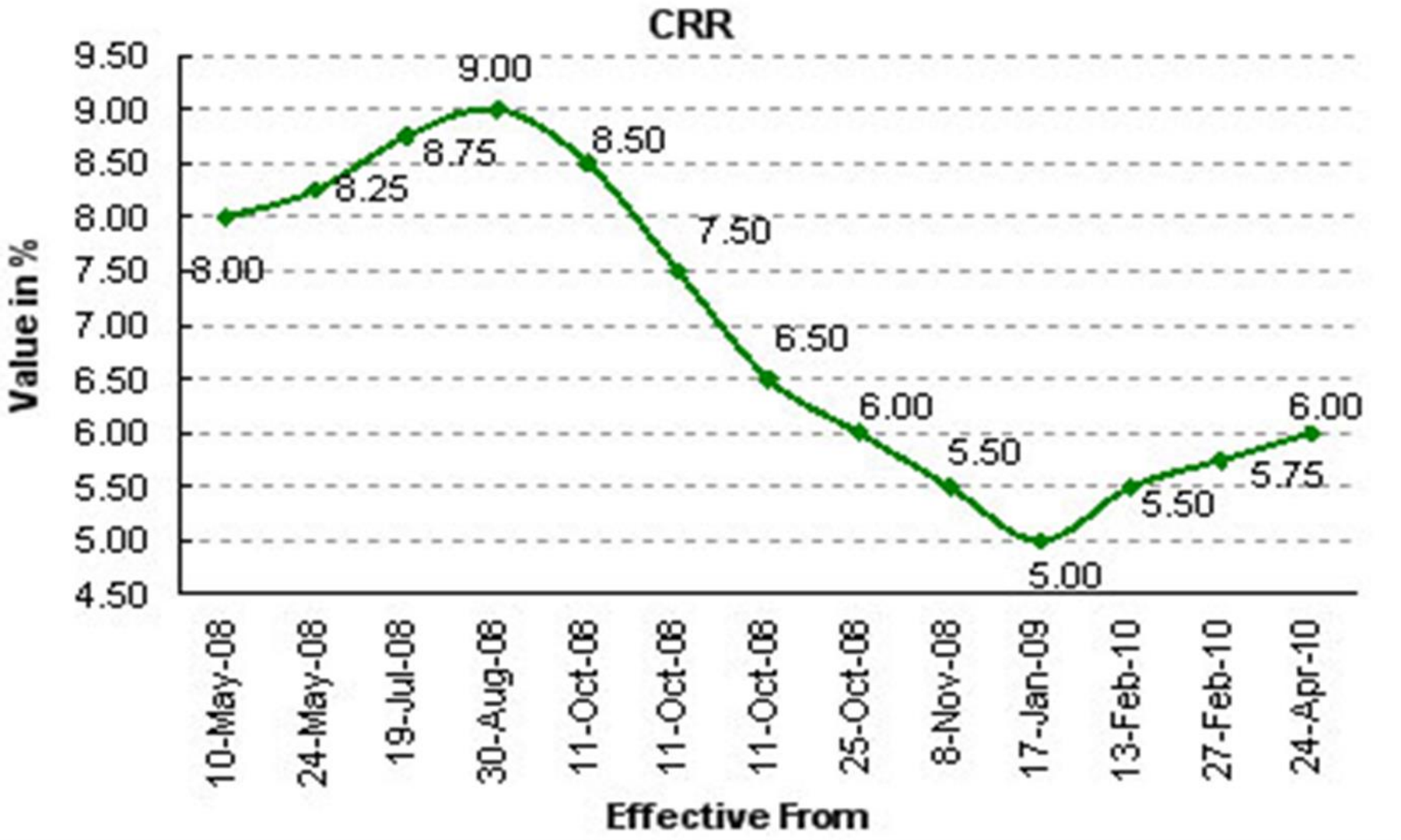
$$\Delta M = \$100\left[1 + 0.8 + (0.8)^2 + \ldots\right] = \frac{100}{1 - 0.8} = 500.$$

CRR (*Cash Reserve Ratio*) refers to a portion of deposits (as cash) which banks have to keep with the RBI. This serves two purposes: it ensures that a portion of bank deposits is totally risk free; and secondly, *it enables the RBI to control liquidity in the economy, and thereby inflation.*

Note that cut (increase) in CRR means more (less) money in terms of loan chasing the same number of borrowers, hence interest rate comes down (goes up).

Banks are also required to investment in government securities as a part of their SLR (*Statutory Liquidity Ratio*) requirements. The government securities (also known as gilt-edged securities or gilts) are bonds (e.g., IDBI, UTI bonds) issued by the Central government to meet its revenue requirements.

CRR MOVEMENTS IN INDIA



CRR and SLR in India: A Historical Chart