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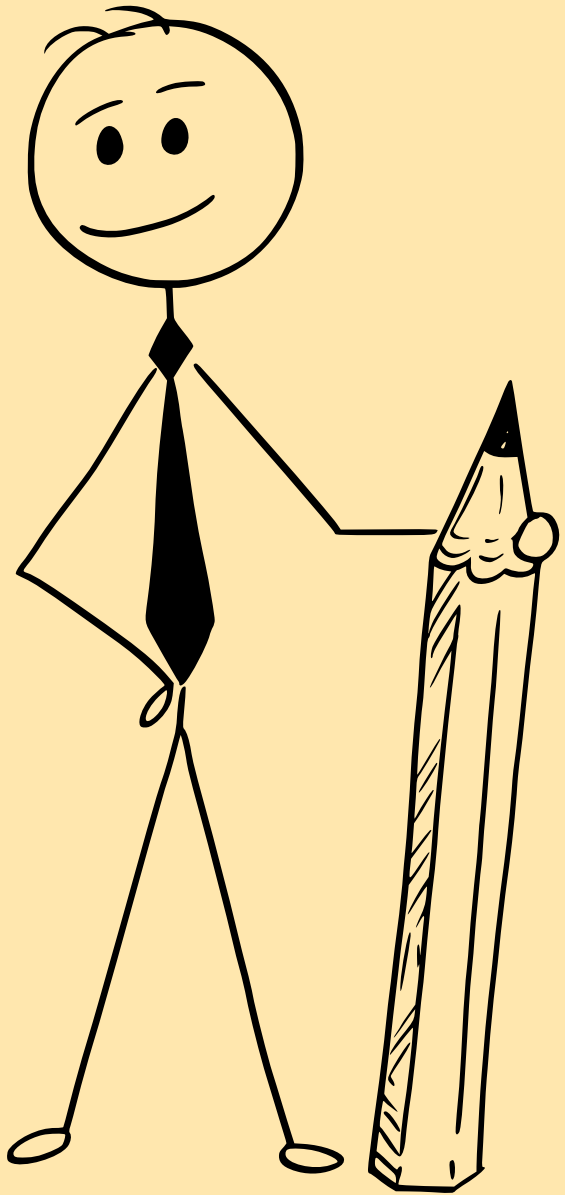
MASTER NOTES



MONEY

Daily Practice Problems

MONEY

WHAT IS MONEY?

Money is the commonly accepted medium of exchange. It is used to buy and sell a commodity to satisfy the demands in an economy.

EVOLUTION OF MONEY

Before money came into being, the economic exchange happened through the Barter System. In this system, commodities(for example fruits) can be exchanged only from someone who hasfruits and is in need of some other commodity that you can supply to him. Thus, the system was rigid due to the following reasons:

1. It required mutual exchange of commodities only when the persons were physically present to exchange.
2. The commodities could not be compared as they were very diverse and exchanged only on the basis of need. They could not be counted to determine the equivalent value.
3. As the commodities were items of consumption, they were usually perishable goods and could not be stored for long in case of surplus production.

FUNCTIONS OF MONEY

Hence, money was developed to solve the above issues.
1. It acts as a **medium of exchange** and does not require the trade to be done only for commodities in need. One commodity could be bought to be exchanged with another even if they are not needed and are just used as intermediate goods to buy another desired product.
2. It has a fixed value(in a territory) and can be accounted for by measurement to buy and sell different unrelated commodities, like Maggi and Fruits. Thus it acts as a **unit of account.**
3. It is a non-perishable item. It can be stored for long periods unlike the perishable goods. Thus it acts as a **store of value.**

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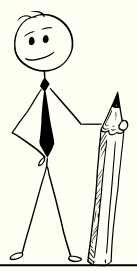


CHARACTERISTICS OF MONEY

The value of money is more than the material that is used to make it. For instance: the value of metal used in a 5 rupees coin is lesser than Rs. 5.

Why is this so? Refer Mohammad Tughlaq Case of Money Tokenisation during the Tughlaq Period(1320–1413 CE)

Hence, who will then use the money to buy something valuable when the material value of money is not equal to the item. For this reason, money is backed with guarantee from the state(or issuing authority) i.e. if someone produces the money to the issuing authority, the person will get the same value in return of the printed value on the money. Example: Refer a Rs. 20 note and see if there is any guarantee by the RBI Governor.

This nature of money is called **Fiat.** It does not have an intrinsic value like gold or silver coins.

Fiat Money cannot be refused from being taken by anyone in a transaction as it is backed by authority. This nature is called Legal Tender. However, cheques and demand drafts(DD) can berefused as they are not **legal tender.** (Even torn notes cannot be refused especially when you are buying Maggi with it)

TYPES OF MONEY

FIAT MONEY

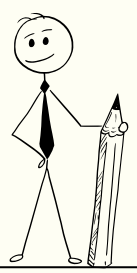
Fiat money is currency issued by a government that has no intrinsic value but is accepted as legal tender because of trust in the government. It is not backed by physical commodities like gold or silver. Examples include the **Indian Rupee (INR), US Dollar (USD), and Euro (EUR).** Fiat money derives its value from the public's trust in the government and monetary policies.

COMMODITY MONEY

Commodity money is based on the intrinsic value of the material it is made from, such as gold, silver, or other commodities. Historically, gold coins or silver coins were widely used as money because the material itself held value. For example, in ancient India, **gold coins (Suvarna)** were used for trade and savings.

FIDUCIARY MONEY

Fiduciary money is issued based on the promise of convertibility into a physical or valuable asset, but it has no intrinsic value of its own. Examples include **banknotes or cheques,** which can be exchanged for goods or services because people trust the issuer, typically a bank or government.



NEAR MONEY

Near money refers to financial assets that are not direct currency but can quickly and easily be converted into cash. Examples include **fixed deposits, government bonds,** and **savings accounts.** These are not used directly in transactions but are highly liquid and can be accessed when needed.

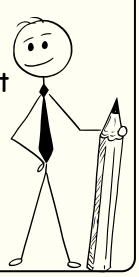
MODERN TYPES OF MONEY

1. Plastic Money:
This refers to credit cards, debit cards, and prepaid cards. They eliminate the need for carrying physical cash. They can be used to transact with the help of **Point-of-Sale(PoS)** devices. Examples include **Visa, MasterCard, and RuPay cards.**
2. E-Wallet Money:
Digital wallets allow users to store and use money for online or offline transactions.Examples are **Paytm, Google Pay, and PhonePe.** These wallets link to bank accounts and offer convenience for payments.
3. Cryptocurrency:
Digital or virtual currencies that use blockchain technology for secure transactions. They are decentralized and not controlled by any government. Examples include **Bitcoin, Ethereum, and Dogecoin.** Cryptocurrencies are highly volatile and speculative.
4. Central Bank Digital Currency (CBDC):
A digital form of fiat money issued by central banks. It is centralized and backed by the government. The **Digital Rupee (e₹)** issued by the Reserve Bank of India is an example.
It combines the advantages of fiat money with digital innovation
5. E-Rupi:
A government initiative in India, e-Rupi is a digital voucher system delivered via SMS or QR codes. It is used for targeted subsidies and welfare payments. For example, e-Rupi vouchers can be issued for healthcare services.

ISSUING AUTHORITY

IN BRIEF

Money is usually issued by Central Banks. In India, all types of notes except Rs.1 note is issued by RBI under the **Reserve Bank Of India Act, 1934.**
Similarly, all the coins and Rs. 1 note are issued by the Government of India under the **Coinage Act 1911.** Rs. 1 note is issued by the Ministry of Finance under the signature of the Finance Secretary.
However, for every money created by RBI, it needs to keep an equivalent reserve in Government guaranteed chests in the form of **Gold or Foreign Currency Assets.** Thus, the government is the guarantor of money issued by the RBI. This reserve is called the **Minimum Reserve System(MRS).**



MONEY DENOMINATION

The **Government of India (Denomination) Act, 1976** is a legislative framework that governs the issue of banknotes and coin denominations in India. Under this act, the **central government** has the authority to determine which denominations can be issued, withdrawn, or demonetized. The act allows the government to declare certain denominations of currency as no longer legal tender. This means that those denominations can no longer be used for transactions, and individuals must exchange them for new notes or coins.

NEED FOR MONEY

Money is needed to fulfill two motives

TRANSACTION MOTIVE

Money is used for daily transactions. You need to spend money to meet your daily, weekly and monthly expenses. As a physical commodity is not the only thing a person needs now, therefore every goods and service is transacted in terms of money

SPECULATIVE MOTIVE

As money is a store of value, people save money for difficult periods or for even future planning.They invest money in various forms like shares, bonds, movable and immovable assets in order to meet their demands in present as well as in future. As an economy is always in motion, people speculate about the trends in the economy and plan their investment accordingly with the help of money.

RELATED CONCEPTS

LIQUIDITY

It is the ability of an asset or currency to be easily transacted. It is required to know how easilyan asset or currency can be transacted in order to meet one's demands. For example: If you have $5 million in cash and a land whose cost is $5 million. You need to buy a Maggi factory from someone. What do you think the person will prefer more? Cash or land?

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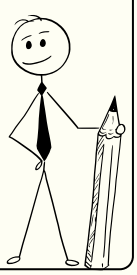

VELOCITY OF CIRCULATION

It is the number of times money changes hands in a unit time period. An asset having high liquidity will be able to easily get transacted and therefore will change more hands. Thus, velocity of circulation of liquid assets is higher.

LIQUIDITY TRAP

In an economy, there are two basic ways for speculative motives of money. Either the person(or business) saves his money in banks and earns interest on the amount or he lends it to the government(or private sector) in terms of bonds(or shares). When people lose preference in either of the two and invest heavily in the other, the rate of interest or return provided by the one seeing low investment comes down. However, when there is a situation when people do not invest in either of the two even if the interest rates are very low and keep the money with themselves, the economy sees stagnation. Even if the government(or banks) supply more moneyin the market to boost the consumption, it goes into more savings by the people. This is called a Liquidity Trap. Some causes of **Liquidity Trap** are:

- Expectations of Deflation or Low Inflation
- Weak Economic Confidence
- Low or Zero Interest Rates
- High Levels of Debt
- Preference for Cash or Safe Assets
- Ineffectiveness of Monetary Policy

MONEY MULTIPLIER

The money multiplier is a concept in monetary economics that explains how an initial deposit in the banking system can lead to a much larger increase in the total money supply. It is based on the amount deposited in banks and the reserve ratio that the bank is mandated to keep in cash or securities with RBI and with itself, respectively.

It is given as $\frac{M3}{M0}$ as M3 is the aggregate money supply and MO is the monetary base upon which money supply is initiated by the financial intermediaries like banks.

To explain this, let us see how it works.

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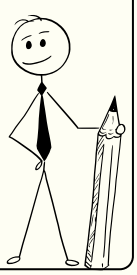

HOW IT WORKS

1. Initial Deposit: A customer deposits money in a bank.
2. Reserve Requirement: The bank keeps a portion of this deposit (set by the central bank, known as the reserve ratio) and loans out the rest.
3. Re-Depositing and Lending: The money loaned out is eventually deposited into other banks, which again keep a portion and loan out the remainder.
4. Chain Reaction: This process continues, with each loan creating additional deposits and money in the economy.

Example: Let initial deposit in bank A be Rs. 100. Let the reserve ratio(to prevent a bank run) be 10%.
1. Bank A deposit 10% of Rs. 100 i.e., Rs. 10 as reserve and lends Rs. 90.
2. The Rs. 90 loan is eventually deposited by the borrower in Bank B.
3. Bank B keeps 10% of Rs. 90 (which is Rs. 9) as reserves and lends out Rs. 81 (i.e., Rs. 90 – Rs. 9).
4. The Rs. 81 loan is deposited in Bank C, which keeps 10% (Rs. 8.10) in reserve and lends out the remaining Rs. 72.90 and so on.

This process continues in an economy. Eventually, we can find out the total money supply which is the loanable amount at every stage(remember Money Supply = CU + Bank deposits + Post office deposits).

Using geometric progression series, Total sum S = a / (1–r) where,
a=100 (the initial deposit)
r=0.90 (ratio, as every next term is 0.9 times of next term)

We get a total amount = Rs. 1000. This is the M3 amount according to the definition of M3.
M0 = Rs. 100 (M0 is the foundation upon which additional money is created through the banking system.)

Therefore, in the above case, Money Multiplier = $\frac{M3}{M0} = \frac{Rs\ 1000}{Rs\ 100} = 10$

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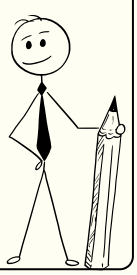


IMPORTANCE OF MONEY MULTIPLIER

The money multiplier highlights how central banks, by setting reserve requirements, influence the potential expansion of money supply and credit in the economy, affecting inflation, interest rates, and overall economic growth. More reserve requirements, less available loanable amount for banks. Thus less money circulated and less money supply. And hence, we obtain a weak money multiplier.

NET DEMAND AND TIME LIABILITIES (NDTL)

Liabilities and Assets: Assets are resources owned by an individual or organization that have economic value, such as cash, property, and equipment. Liabilities are obligations or debts owed to others, like loans or accounts payable. When you deposit an amount in banks, it becomes debt for the bank and thus a liability to return it back to you with interest

Demand and Time Liabilities

There are usually three ways to deposit an amount in banks.
Current Account (CA): A type of bank account used for frequent transactions, offering unlimited withdrawals and deposits but typically no interest.
Savings Account (SA): A bank account designed for saving money, offering interest on deposits with limited withdrawals.
Fixed Deposit (FD): A savings instrument where money is invested for a fixed term at a specified interest rate, with penalties for early withdrawal.
Recurring Deposit (RD): A savings scheme where individuals deposit a fixed amount monthly for a specified tenure, earning interest over time. At maturity, the total principal and interest are paid out. It also has restrictions and penalties for withdrawal.
CA and **SA** fall under **Demand Liabilities** as there is no fixed term of deposit and withdrawals can be made when required. **FD** and **RD** come under **Time Liabilities.**
Liquidity, as already explained, is the ability to get easily transacted or converted into money as money is the most liquid asset. From above, the order of liquidity is:

CA > SA > RD > FD

It is easiest to transact through CA, easier in SA and difficult through FD and RD as they have a fine in early withdrawals.

Net Demand and Time Liabilities include the total of CA, SA, RD and FD, i.e, the total Demand and Time Liabilities of the bank. (It does not include inter-bank deposits and therefore it is called Net)

MONEY SUPPLY

TOTAL STOCK OF MONEY

It is the total amount of monetary assets available in an economy at a specific time. It include:

- Money with the public in the form of cash and savings in banks
- Money held with the Government
- Money held with RBI

Out of this, the money held with the public is called the Money Supply as it is into circulation in the economy.

Thus, Money Supply = Cash held with Public + Bank Savings + Post Office Savings

The Money Supply does not include:

- CRR/SLR Money
- Government Money
- RBI Money
- Inter-Bank Deposits

CHANGES IN MONEY SUPPLY

Using the same expression,

Money Supply = Cash held with Public + Bank Savings + Post Office Savings

So if we transfer funds from one place to another between any of the entities mentioned in the above expression, the sum total will remain the same.

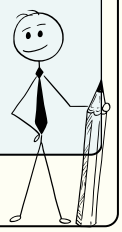
For instance:
Let us have Rs. 50 in cash, Rs. 40 in CA, Rs. 100 in SA, Rs. 60 in FD and Rs. 100 in Post office deposits. Then the money supply is

= Cash held with Public + Bank Savings + Post Office Savings
= Rs. 50 + Rs. (40 + 100 + 60) + Rs. 100 = **Rs. 350**

Now, let us deposit some cash in hand into various other deposits.

Of Rs. 50 in hand as cash, let us deposit Rs. 10 in CA, Rs. 5 in SA, Rs. 10 in FD and Rs. 5 in Post Office. Then the new expression becomes:
Money Supply = Rs. 20 + Rs. (50 + 105 + 70) + Rs. 105 = **Rs. 350**

Hence, there is no **change in Money Supply**



MEASURES OF MONEY SUPPLY

Money supply in the market contains currency with the public, with the banks, and with Post Offices. RBI has characterized Money Supply in the market in Four ways.

- M1: Currency with the public(CU) + Demand Deposits (CA, SA) with the banks. It is also called Narrow Money as it represents a small part of the total money supply. It is the most liquid form of money among the four measures.
- M2: M1 + Demand Deposits with Post Office = CU + DD(banks) + DD(Post office). It is also called Narrow Money.
- M3: M1 + Net time deposits of commercial banks = CU + DD(banks) + TD(banks, like fixed deposit).

Thus, M3 is equal to Currency with public (CU) + Net Demand & Time Liabilities (NDTL) of banks.Thus, it is also called as a Liability on the Banks. It covers nearly 88% of the money supply in the economy. Therefore, it is also called Broad Money. It is less liquid than M1 and M2 due to time deposits. It is the most commonly used measure of money supply and thus it is also called Aggregate Monetary Resources.

- M4: M3 + Total deposits with the Post Office = CU + DD(banks) + TD(banks) + DD(post office) + TD(post office). It is also called Broad Money due to its coverage of money supply. It is the least liquid type of money.

MO: It is the total liability of the RBI. It is also called Monetary Base or High Powered Money. These are the claims that the general public, banks and Government have on RBI. It consists of:

- Currency with the public(CU: notes and coin in circulation)
- Deposits held by the Government
- Deposits of commercial banks held with the RBI
- Deposits of other countries and IMF with the RBI

These are the most liquid forms of money as they are always in circulation. RBI uses this money for Open Market Operations(OPO) whenever required. Hence, they need to be very liquid.

Order of Liquidity: MO > M1 > M2 > M3 > M4

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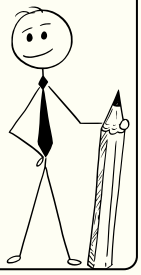

FACTORS AFFECTING MONEY SUPPLY

CENTRAL BANK POLICIES

- Monetary Policy Tools: Central banks, such as the Reserve Bank of India (RBI), use tools like open market operations, cash reserve ratio (CRR), and statutory liquidity ratio (SLR) to control the money supply.
- Repo and Reverse Repo Rates: Changes in these rates affect borrowing costs for commercial banks, influencing their ability to lend and thereby affecting money supply

RESERVE REQUIREMENTS

- The central bank mandates that commercial banks hold a certain percentage of deposits as reserves. A higher reserve requirement reduces the amount of money banks can lend, decreasing the money supply.

LEVEL OF CREDIT CREATION BY BANKS

- Commercial banks play a crucial role by lending money, which multiplies through the banking system. The money multiplier effect depends on the reserve ratio and the willingness of banks to lend.

PUBLIC'S PREFERENCE FOR CASH

- If people prefer to hold cash rather than depositing it in banks, it reduces the amountavailable for credit creation, thereby lowering the money supply.

GOVERNMENT FISCAL POLICY

- Deficit financing, where the government borrows from the central bank, injects additional money into the economy, increasing the money supply.
- Taxation and spending policies also influence how much disposable income people have, indirectly affecting money supply

FOREIGN INFLOWS

- Foreign direct investment (FDI), foreign portfolio investment (FPI), and remittances increase the money available in the domestic economy.
- Exchange rate policies also affect the amount of foreign currency converted into local money.

ECONOMIC ACTIVITY

- During periods of economic expansion, businesses and individuals borrow and spend more, leading to an increase in the money supply.
- Conversely, during recessions, borrowing and spending tend to decrease, reducing the money supply

TECHNOLOGICAL ADVANCEMENTS

Innovations like digital banking, mobile payments, and e-wallets make money circulation faster and more efficient, indirectly affecting the perceived money supply.

MONETARY POLICY

We have understood that

Money Supply = Cash held with Public + Bank Savings + Post Office Savings
Hence, when money supply increases(or decreases), the money held with public increases(or decreases). Keeping the supply of goods in the market at a given point of time constant, the increase(or decrease) in money with the public increases(or decreases) the demand for goods. This brings in inflation(or deflation) in the market and affects the stability of the economy. Therefore, there must be someone who can gauge the issue and make arrangements to maintain the stability of the market. That someone is the **Monetary Policy Committee(MPC).**

FORMATION OF MPC

On the recommendations of **Urjit Patel Committee(2014)**, the Technical Advisory Committee (TAC), which was earlier responsible for monetary policy and was wholly under RBI, was dissolved and MPC was established in 2016 by amending the RBI Act, 1934, giving the government a greater say in monetary policy.
Composition: The MPC has six members. These include:

- RBI Governor(Chairperson),
- Deputy Governor,
- Senior RBI Officer nominated by the central board, and
- Three distinguished members with experience in finance, economics, or banking nominated by the Government of India.

Tenure of Members: Members of Monetary Policy Committee (MPC) serve a four-year term. However, members appointed by the central government are not eligible for re-appointment.
Meeting of MPC: The MPC meets **at least four times a year**(to review the four quarters in a financial review), and a **quorum of four members** is required. Each member has one vote, but the **Governor** has a second or **casting vote** in the event of a tie.

Usually the MPC meets six times in a year and presents the minutes of the bi-monthly meetings.

KEY RESPONSIBILITIES

● **Policy Rate Decisions:** The MPC sets the repo rate(or policy rate), the rate at which the RBI lends to commercial banks. Changes in the repo rate influence borrowing costs, impacting spending, investment, and inflation. (Types of interest rates explained in later sections)
● **Bi-monthly Reviews:** The MPC meets every two months to assess economic conditions and decide on policy measures. This schedule allows for regular adjustments to meet the inflation target and support economic growth.
● **Publishing Minutes:** After each meeting, the MPC publishes a resolution and the minutes, explaining the rationale for decisions and allowing for transparency in its actions.

MPC only sets the repo rate. The decisions taken by MPC are binding on the RBI.

❖ **Word Of Thought (WOT):**
In every meeting, MPC has to take a stance namely:
● Hawkish: increasing interest rates to reduce money supply
● Accommodative: reducing interest rates to increase money supply
● Neutral: keeping the rates unchanged

These stances help businesses and individuals speculate the conditions of the market and invest accordingly

TOOLS OF MONETARY POLICY

As discussed above, there are various functions that RBI carries out. The RBI uses certain qualitative and quantitative tools to carry out these functions. Their detailed explanation is given under topic functions of RBI.

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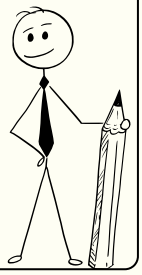

QUALITATIVE TOOLS

These are specific and direct in nature. These are used to control the activities of specific entities and have direct affect on them.

These include:

- **Credit Rationing:** The RBI may impose limits on loans to specific sectors or industries, controlling credit flow to prevent over-lending in high-risk areas.
- **Margin Requirements**: The RBI can adjust the minimum amount a borrower must deposit when taking a loan (the margin). Higher margins reduce loan amounts, while lower margins increase them. For example, if an investor has $5,000 and wants to buy stock ABC with a 50% margin requirement, they can buy an amount whose 50% the investor will be able to pay i.e., up to $10,000 worth of stock ABC.
- **Moral Suasion:** The RBI uses persuasion to influence banks to follow desired policies, such as encouraging lending to certain sectors(eg. Priority Sector Lending) or limiting credit to speculative areas.
- **Direct Action:** The RBI may take direct steps, like penalizing banks that don't follow guidelines or limiting their activities, to enforce compliance with its monetary policies. (eg. recent action on PayTM Payments Bank)
- **Priority Sector Lending (PSL):** It refers to the mandated lending by commercial banks to specific sectors considered critical for economic development but often underserved by the formal credit system. These include **agriculture, micro, small and medium enterprises (MSMEs), education, housing, renewable energy,** and other weaker sections of society. In India, the Reserve Bank of India (RBI) requires scheduled commercial banks to allocate **40% of their Adjusted Net Bank Credit (ANBC)** to these sectors. PSL aims to ensure inclusive growth by channeling funds to priority areas, fostering economic equity and stability.

Additional Note: When banks fail to meet their PSL targets, they are required to contribute the shortfall amount to the **Rural Infrastructure Development Fund (RIDF)** or similar funds set up for financial inclusion, managed by institutions like NABARD.

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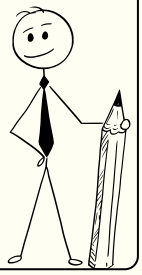

QUANTITATIVE TOOLS

These are general and not direct in nature. These are used to control general metrics in the banking and financial markets that affect the money supply. These include Liquidity Adjustment Facility, Reserve Ratios, Open Market Operations, G-SAP and Operation Twist.

LIQUIDITY ADJUSTMENT FACILITY (LAF)

It is a monetary policy tool used by the Reserve Bank of India (RBI) to regulate short-term liquidity and maintain stability in the money market. These help in controlling inflation, stabilizing interest rates, and ensuring adequate liquidity in the banking system.
It includes:

❖ REPO RATE

- **Definition:** The interest rate at which the central bank lends money to all types of banks/governments/non-banking financial intermediaries against non-SLR government securities/cash management bills/treasury bills as collateral.
- **Impact on Interest Rates:** A lower repo rate encourages banks to borrow more, leading to increased liquidity in the system and potentially lower interest rates on loans. Conversely, a higher repo rate discourages borrowing, reducing liquidity and potentially leading to higher interest rates.
- **Collateral:** Government securities.
- **Time Period:** Short-term, typically overnight or a few days.

❖ REVERSE REPO RATE

- **Definition:** The interest rate at which the central bank borrows money from all types of banks/governments/non-banking financial intermediaries by selling non-SLR government securities/cash management bills/treasury bills.
- **Impact on Interest Rates:** A higher reverse repo rate encourages banks to park their excess funds with the central bank, reducing liquidity in the system and potentially leading to higher interest rates. A lower reverse repo rate discourages banks from parking funds with the central bank, increasing liquidity and potentially leading to lower interest rates.
- **Collateral:** Government securities.
- **Time Period:** Short-term, typically overnight or a few days.

❖ LONG-TERM REPO OPERATIONS (LTRO)

- **Definition:** A monetary policy tool where the central bank provides long-term liquidity to commercial banks through longer-term repo operations.
- **Impact on Interest Rates:** LTROs can help reduce short-term interest rate volatility and provide long-term funding to banks, which can impact the interest rates they offer to customers.

● Collateral: Government securities.
● Time Period: Longer-term, typically weeks or months.

❖ **STANDING DEPOSIT FACILITY (SDF)**

● **Definition:** A facility where commercial banks can park their excess funds with the central bank at a fixed interest rate.
● **Impact on Interest Rates:** SDF can help the central bank absorb excess liquidity from the system, which can potentially stabilize interest rates.
● **Collateral:** Not required.
● **Time Period:** Overnight.

❖ **MARGINAL STANDING FACILITY (MSF)**

● **Definition:** A facility where banks can borrow funds overnight from the central bank against eligible collateral.
● **Impact on Interest Rates:** The MSF rate is typically set higher than the repo rate, acting as a penalty rate for banks that borrow from the central bank as a last resort. It can influence the overall cost of funds for banks and indirectly impact the interest rates they charge.
● **Collateral:** Government securities.
● **Time Period:** Overnight.

Relationship: The repo rate acts as a floor for short-term interest rates, while the MSF rate acts as a ceiling. Unlike Bank Rate, Repo rate requires collateral. The reverse repo rate is less than SDF as in SDF, RBI does not provide collateral thus pays higher interest to banks for their loans. These rates help manage liquidity in the system and can influence the overnight interest rates. Repo and Reverse Repo are together called **Liquidity Adjustment Facility.**

Current values(2024)

Repo rate: 6.50%
Reverse repo rate: 3.35%
Standing Deposit Facility (SDF) rate: 6.25%
Marginal Standing Facility (MSF) rate: 6.75%
Bank rate: 6.75%

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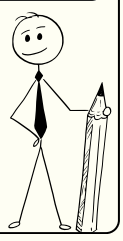

RESERVE RATIOS

These are regulatory requirements imposed by the RBI on banks to maintain a portion of their deposits as reserves, ensuring stability and controlling money supply. These ratios influence the lending capacity of banks and are tools for managing inflation and economic growth. CRR and SLR are together called **Reserve Ratios.**

Cash Reserve Ratio (CRR)

- The amount of total Net Demand and Time Liabilities (NDTL) banks maintain as reserves in the form of cash, either in their own vault or with the RBI.
- It is governed under **Reserve Bank of India Act, 1934**. It does not have any minimum or maximum value and is decided by RBI every **fortnightly**(14 days). It is mainly aimed at managing the Money Multiplier effect by controlling the amount of loanable funds available with the banks.
- Example: Higher the CRR, higher will be the reserve requirement out of total NDTL. Then lesser amounts will be left to loan, lesser transactions will be made, and lesser will be the money multiplier effect.

Statutory Liquidity Ratio (SLR)

- The amount of NDTL reserves banks must keep in the form of Government securities like treasury bills, State Development Loans, Gold assets and Cash to prevent a bank run.
- In CRR, the banks must keep cash reserves only. Thus, as cash is a commodity that does not accrue any interest, banks do not earn anything rather have to bear opportunity cost for maintaining physical reserves of cash. Hence, under **Banking Regulation Act, 1949** RBI has provided banks some relief to keep reserves in terms of financial instruments, listed above, which can bring interest(securities) or increase in face value with time(gold). The cash under SLR is also eligible for interest.
- This reserve is to be maintained with banks only. There is an **upper limit of 40%** under BRA, 1949 and a recent amendment has maintained a **lower limit at 18%.**

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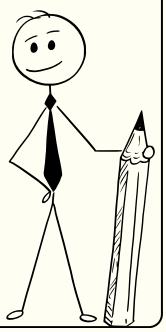

OPEN MARKET OPERATION (OMO)

It refers to the buying and selling of government securities by a central bank, such as the Reserve Bank of India (RBI), in the open market. **Government securities,** often called "G-Secs," are debt instruments issued by a government to raise funds. They are essentially a loan taken by thegovernment from investors, with a promise to pay interest at regular intervals and repay the principal amount at maturity. G-Secs are considered low-risk because they are backed by the government's credit. Examples include Treasury Bills (short-term) and Government Bonds (long-term).

Therefore, the mechanism is like:

Bond Issuer(Debtor eg. Government)--->Create Securities(through RBI)---> OMO –> Banks buy G-Sec from RBI and sell to public–> Bond Holder (Creditor eg. Public)--->Buys securities and earns interest on securities –> Government gets money to finance expenditure.

Due to this, money with the public decreases. This reduces the overall demand. Then as demand is less, the already supplied products in the market have to be sold at lower prices to clear the stocks. Hence, prices get reduced and inflation is controlled. A similar reverse process happens while boosting money supply into the market where RBI buys G-secs.

Therefore,

G-Sec selling => Money supply in market reduced
G-Sec buying => Money supply in market increased

Before understanding types of OMOs, let us first understand how Government Bonds and Bank interest rates work.

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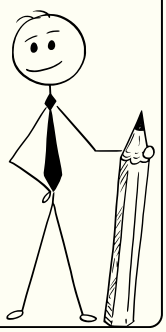

G-SAP AND OP-TWIST

Government Securities Acquisition Programs (G-Sap): This is a structured OMO where the RBI pre-announces its plan to buy a specified amount of long-term government securities over a period, helping to stabilize bond yields and support liquidity.

When RBI acquires long-term government securities(which have a long maturity period), there is a deficit of long-term Government securities in the market. When supply of something is less compared to its demand, its price increases. Hence, bond price increases. Consequently, Bond Yields get reduced.

Thus, when people have less returns due to less bond yield, they have to switch to other financial instruments in the market to gain more returns. Then people start buying private corporate bonds.

This allows the private sector to realize more capital and invest in more projects generating a lot of revenue and jobs in the market. This boosts the economy.

G-Sap is also done to stabilize the amount of G-Sec in the market to maintain the bond yield. As G-Sec are government backed instruments, their rate of return determines the government's ability to pay and in turn shows the strength(or weakness) of the economy. This affects foreign investment.

Operation Twist (Op-Twist): This is also an OMO but involves simultaneously buying long-term securities and selling short-term ones to adjust the yield curve rather than altering overall liquidity.

When RBI buys long-term bonds, their yield gets reduced and people invest in corporate bonds for a longer time. However, buying a lot of G-sec increases liquidity in the market and therefore RBI also sells short-term bonds to maintain the liquidity.

Hence, simultaneously buying and selling the G-Secs helps increase corporate bonds selling and boost private investment in the economy, without affecting much liquidity in the market.

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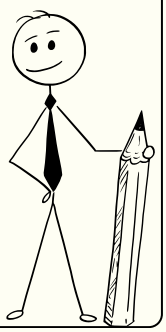


❖ **Word of thought:**

Government Bonds

● Government issues bonds of some face value(fixed value) and sells it at a lower price. This lower selling price is variable depending on the market dynamics. When a person buys a G-Sec he/she pays this price. Their returns on the G-Sec is the difference between the Face value and the present value of the G-Sec. This difference is called **Bond Yield.**

● As the Government receives the lower amount and has to pay a larger amount(=face value) to the bond bearer on maturity, it is desirable that the Bond yield is lowest so that Government has greater funds for the same face value. Let us understand this with an example:

● Suppose there is a Bond of face value Rs.100 held by Iron Man. He bought the bond at Rs. 40. When he bought the bond, the bond yield was Rs. 100 – Rs. 40 = Rs. 60. Thus, for this bond, the government receives just Rs. 40 but would have to pay Iron Man Rs. 100 on maturity.

● Now, Iron Man has to produce a new suit and needs some cash immediately. Instead of waiting to sell the bond at maturity to the government, he sells it to Captain America at Rs. 60. Now, for Captain the bond yield has reduced to Rs. 100 – Rs. 60 = Rs. 40. Hence, at this stage the government could have realized more money against the face value. Also, there is an increase in the price of bond value now from Rs. 40 to Rs. 60.

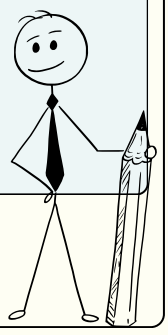
● Hence, we can say that **Bond Yield and Bond price are inversely related**.

Bank Interest Rates

● The banks are financial institutions which also work on a profit creation motive. They need to maintain their returns to meet their expenses as well as to expand their services and earn more revenue. Hence, when they have a certain amount of money to give loans, they charge an interest on it. They also have to provideinterest to depositors for their money. However, the interest charged by them to debtors for loans is more than the interest they have to give to their customers. The difference is their profit. This profit already serves their different needs.

● Now, when banks have less funds to give in loans, they will increase the interest rate on loans as they have to realize the same profit to meet the same needs. Similarly, when they have more funds, they have to reduce their interest rates to allow more people to take loans. More loans means their cumulative profit levels can be easily realized.

● This is how bank interest rates and Government Bond yields function in an economy



Sterilization

● Sterilization is an economic strategy used by central banks to neutralize the impact of foreign exchange interventions on the domestic money supply. When a central bank buys or sells foreign currency to stabilize exchange rates, it can affect the money supply. To counteract this, the central bank undertakes offsetting operations, such as buying or selling government bonds, to keep the domestic money supply stable.

● For example, if the Reserve Bank of India (RBI) buys dollars to prevent the rupee from appreciating, it increases rupee liquidity in the domestic market. To sterilize this excess liquidity, the RBI may sell government bonds, absorbing the surplus rupees. This ensures that the intervention in the foreign exchange market does not lead to inflationary pressures in the domestic economy

INFLATION TARGETING

It is a policy framework where the Reserve Bank of India (RBI) aims to keep inflation within a predetermined range to ensure price stability while supporting economic growth. The target is **set by the Government** and updated periodically in consultation with RBI.

In 2016, the Government of India and the RBI signed a **Monetary Policy Framework Agreement (MPFA)** based on recommendations of the Urjit Patel Committee. According to this, MPC was tasked with setting and reviewing the repo rate (the main tool for controlling inflation) based on inflation trends and other economic factors.

The main objective of inflation targeting is to keep inflation under control, ensuring it remains within a specified target range. This helps protect the economy from volatile price changes and provides a stable environment for growth.

India's inflation target(based on Consumer Price Index (CPI)) is set at 4%, with a tolerance band of +/- 2%, meaning inflation should ideally remain between 2% and 6%. The target is set for a **period of 5 years.**

In India it is called **Flexible Inflation Targeting** because apart from controlling inflation, the MPC also targets other factors including exchange rates, growth, output ratios, employment status, etc.

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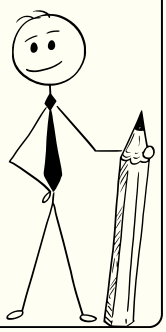

❖ **Word Of Thought (WOT):**

Let us also understand some other essential terms sometimes asked in exams:

Currency Deposit Ratio (cdr): Ratio of currency held by the public to that they hold in bank deposits (CU/Deposits). It varies with seasonal behavior of the public. Example: It increases in festive season when deposits are taken out from the bank and converted to cash in hand.

Reserve Deposit Ratio (rdr): Banks keep a part of deposit money as reserve money(CRR/SLR) and loan out the rest to various investment projects. This is because RBI demands banks to keep a reserve to meet the demands for cash of the public and to also prevent a bank run (all customers claiming their deposits together and bank unable to pay all of them). This reserve is maintained either in vault cash of the banks(CRR and SLR) or with the RBI(CRR).

RBI uses an interest rate called **Bank Rate** to control rdr. Commercial banks can borrow money from RBI when they run short of reserves. RBI increases Bank rate to prevent banks from borrowing money from RBI and maintain healthy buffer stock themselves.

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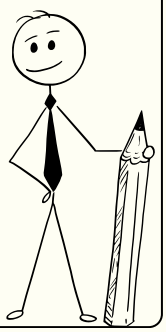

PRO TIPS FOR SOLVING MCQS ON MONEY SUPPLY

● **Understand the Core Concepts:** Ensure you have a solid understanding of key terms such as Money Supply, Fiat Money, Legal Tender, Fiduciary Money, and the role of the Reserve Bank of India (RBI). Know the differences between types of money (e.g., currency vs. deposits).

● **Focus on Money Supply Definitions:**

◯ M1, M2, M3, and M4 represent different measures of money supply. **M1** is the most liquid (currency + demand deposits), **M3** is the most commonly used (includes net time deposits).

◯ Pay attention to which assets are included or excluded in each measure.

● **Identify the Issuing Authorities:** Recognize that money is issued by authorities like the RBI and the government, but they issue different denominations (e.g., coins by the government, notes by the RBI). This helps with questions regarding legal tender or the issuance of money.

● **Understand the Role of the Monetary Policy Committee (MPC):**

◯ Be clear on the MPC's role in controlling inflation, including the use of tools like the **repo rate and the reverse repo rate.**

◯ Understand the different policy stances (Hawkish, Accommodative, Neutral) and their effects on money supply and interest rates.

● **Liquidity and Circulation:**

◯ Familiarize yourself with liquidity and its impact on money supply. For example, money that is more liquid (like cash) will have a higher velocity of circulation.

◯ Understand the **liquidity trap** and its causes, such as low economic confidence or zero interest rates.

● **Effects of Changes in Money Supply:**

◯ Practice scenarios where you transfer funds between various accounts (e.g., from cash to bank deposits). This will help you grasp how money supply stays constant even if the form of money changes (e.g., cash into demand deposits).

● **Know the Monetary Policy Tools:**

◯ Quantitative tools like **Cash Reserve Ratio (CRR), Statutory Liquidity Ratio (SLR), and Open Market Operations (OMO)** are critical. Know how each affects the money supply.

◯ Also, review the **qualitative** tools like **credit rationing** and **moral suasion** used by the RBI to control lending.

● **Importance of the Minimum Reserve System (MRS):**

◯ Recognize that the RBI must maintain a reserve in government-guaranteed assets (gold/foreign currency) to back the money it issues. Questions may involve the concept of MRS and how it affects money creation.

● **Remember Key Acts and Frameworks:**

◯ The **Government of India (Denomination) Act, 1976** and **Coinage Act 1911** provide the legislative framework for issuing currency. Understanding these helps when answering questions on the legal framework of money

PREVIOUS YEAR QUESTIONS

Consider the following statements in respect of the digital rupee:

1. It is a sovereign currency issued by the Reserve Bank of India (RBI) in alignment with its monetary policy.
2. It appears as a liability on the RBI's balance sheet.
3. It is insured against inflation by its very design.
4. It is freely convertible against commercial bank money and cash.

Which of the statements given above are correct?

(a) 1 and 2 only
(b) 1 and 3 only
(c) 2 and 4 only
(d) 1, 2 and 4

(UPSC Prelims-2024)

Which one of the following activities of the Reserve Bank of India is considered to be part of 'sterilization'?

(a) Conducting 'Open Market Operations'
(b) Oversight of settlement and payment systems
(c) Debt and cash management for the Central and State Governments
(d) Regulating the functions of Non-banking Financial Institutions

In India, which one of the following is responsible for maintaining price stability by controlling inflation?

(a) Department of Consumer Affairs
(b) Expenditure Management Commission
(c) Financial Stability and Development Council
(d) Reserve Bank of India

If the RBI decides to adopt an **expansionist monetary policy**, which of the following would it not do?

(1) Cut and optimize the Statutory Liquidity Ratio
(2) Increase the Marginal Standing Facility Rate
(3) Cut the Bank Rate and Repo Rate

Select the correct answer using the code given below:

(a) 1 and 2 only
(b) 2 only
(c) 1 and 3 only
(d) 1, 2 and 3

PREVIOUS YEAR QUESTIONS

1. The money multiplier in an economy increases with which one of the following?
a) Increase in the Cash Reserve Ratio in the banks.
b) Increase in the Statutory Liquidity Ratio in the banks
c) Increase in the banking habit of the people
d) Increase in the population of the country

(UPSC Prelims-2021)

With reference to the Indian economy, demand-pull inflation can be caused/increased by which of the following?
1. Expansionary policies
2. Fiscal stimulus
3. Inflation-indexing wages
4. Higher purchasing power
5. Rising interest rates

(UPSC Prelims-2021)

Which one of the following activities of the Reserve Bank of India is considered to be part of 'sterilization'?
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In India, which one of the following is responsible for maintaining price stability by controlling inflation?
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THE END

Now We will be starting our next topic – **"Banking"**

*OG Master notes for Banking will be shared with the lecture.