ONLYIAS BY PHYSICS WALLAH

UDAAN

PRELIMS WALLAH (STATIC)

PRELIMS 2025

ECONOMY

QUICK AND COMPREHENSIVE REVISION SERIES

ONLYIAS
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INDIAN ECONOMY

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PREFACE

A highly skilled professional team of PW ONLY IAS works arduously to ensure that the students receive the best content for the UPSC exam.

A plethora of UPSC study materials are available in the market, but PW ONLY IAS professionals continuously work to provide supreme-quality study material for our UPSC students.

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This book adopts a multi-faceted approach to mastering and understanding the concepts and equipping the students with the knowledge for this competitive exam.

The main objective of the study material is to provide short, crisp, concise and high-quality content to our students.

BOOK FEATURES

- Holistic coverage of topics, strictly as per exam syllabus.
- One-stop solution for prelims based, subject-wise coverage.
- Diagrams and timelines for quick understanding and revision.
- Quick revision module for the UPSC prelims examination.
- Every topic is structured in headings and bullets for easy understanding of the students.

CONTENTS

1 Basic Microeconomics

INTRODUCTION

Microeconomics is the branch of economics that studies the behaviour of individual agents, such as households, firms, and individuals, and how they make decisions to allocate limited resources. It focuses on **supply and demand**, **price mechanisms**, and the **allocation of resources** within specific markets. Microeconomics examines how these decisions impact the utilisation and distribution of resources, aiming to achieve optimal efficiency and equity in the market.

Scarcity of Resources, Problem of Choice, Theory of Unlimited Wants, and Opportunity Cost

- **Scarcity of Resources**
  - Resources such as **land**, **labour**, and **capital** are limited in supply and cannot fulfil all human needs and desires. This **scarcity** is fundamental to economics, as it requires that choices be made to prioritise how resources are allocated.
- **Problem of Choice**
  - Given the scarcity of resources, individuals and societies must make choices about how to allocate resources most effectively. This leads to questions about *what* to produce, *how* to produce, and *for whom* to produce.
  - **Example:** A factory must choose between producing cars or bicycles based on demand and potential revenue.
- **Theory of Unlimited Wants**
  - Human desires and needs are **boundless**; as one want is satisfied, new wants arise. This ongoing cycle intensifies the pressure on limited resources, forcing individuals and societies to prioritise certain needs over others.
  - **Example:** A person may wish for both a vacation and a new car, but with limited funds, they must decide which to pursue.
- **Opportunity Cost**
  - **Opportunity cost** refers to the value of the next best alternative that is forgone when a choice is made. It represents the benefits lost by choosing one option over another.
  - **Example:** If the factory chooses to produce cars instead of bicycles, the opportunity cost is the revenue it could have earned from selling bicycles.

If a commodity is provided free to the public by the Government, then the opportunity cost is transferred from the consumers of the product to the tax-paying public. **[UPSC 2018]**

ORGANIZATION OF ECONOMIC ACTIVITIES

To address **scarcity** and meet societal needs, economic activities are organised in various ways, often combining elements of the following systems:

- **Market Economy**
  - In a **market economy**, prices and production are determined by **supply and demand** forces. The private sector primarily drives economic activities, with minimal government intervention.
  - **Example:** In a market-driven economy, the price of bread depends on consumer demand and producer supply.
- **Command Economy**
  - In a **command economy**, the government directs most economic decisions, including what goods to produce, how to produce them, and who will receive them. This system aims to reduce inequalities but may lack efficiency.
  - **Example:** The government may choose to allocate resources to produce essential goods like food and healthcare over luxury items.
- **Mixed Economy**
  - Most modern economies are **mixed**, blending features of market and command economies. Both the private sector and government influence economic decision-making to balance efficiency with social welfare goals.

THEORY OF CONSUMER BEHAVIOR

The **Theory of Consumer Behavior** explores how consumers maximise **utility** within budget constraints. It examines choices based on preferences, available resources, and market conditions.

Utility

- **Utility** represents the satisfaction derived from consuming goods or services.
- **Total Utility (TU):** The overall satisfaction from all units consumed.
- **Marginal Utility (MU):** The additional satisfaction from consuming one more unit.

Law of Diminishing Marginal Utility

- As more units of a good are consumed, the **Marginal Utility** of each additional unit decreases.
- **Example:** The first slice of pizza provides high satisfaction, but subsequent slices offer less additional satisfaction.

Utility Analysis

- **Cardinal Utility Analysis**
  - Assumes that utility can be assigned a measurable value.
  - **Utility Maximisation:** Consumers allocate income to maximise total utility, choosing goods where the **Marginal Utility per Rupee (MU/P)** is equal across goods.
- **Ordinal Utility Analysis**
  - Assumes consumers rank preferences without exact values, leading to **Indifference Curve Analysis**.

Indifference Curve and Map

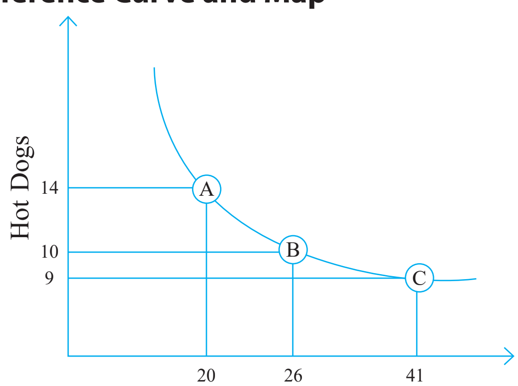


Fig.: Indifference Curve

Indifference Curves represent combinations of two goods yielding equal satisfaction.

Indifference Map shows a set of indifference curves, each representing different utility levels. Higher curves indicate greater utility.

Look at this indifference curve. You may be indifferent to buying a combination of 14 hot dogs and 20 hamburgers, a combination of 10 hot dogs and 26 hamburgers, or a combination of nine hot dogs and 41 hamburgers if you like both hot dogs and hamburgers. Each of these three combinations provides the same utility.

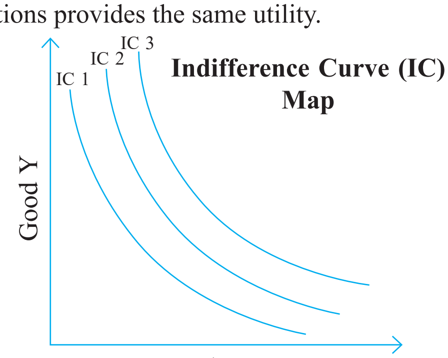


Fig.: Indifference curve map

Higher Indifference Curves: An indifference curve to the right of another indicates more goods available to the consumer, which means more utility. This is based on the assumption of monotonic preferences.

Budget Set and Budget Line

- **Budget Set:** All possible combinations of goods a consumer can buy given income and prices.
- **Budget Line:** The line representing combinations of two goods that can be purchased with a fixed income.
- Here p1 and p2 represent the price of 1 unit of Mangoes and bananas each.

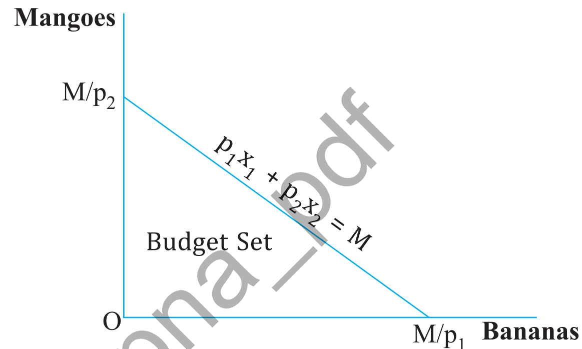


Fig.: Budget Set: Quantity of bananas is measured along the horizontal axis and quantity of mangoes is measured along the vertical axis. Any point in the diagram represents a bundle of the two goods. The budget set consists of all points on or below the straight line having the equation $p_1x_1 + p_2x_2 = M$.

Marginal Rate of Substitution (MRS)

- The **MRS** represents the rate at which a consumer is willing to trade one good for another while maintaining the same utility level.
- **Example:** Bananas and apples-If a consumer is willing to give up 6 bananas for 3 apples, then the MRS is –6/3 = –2.

Optimal Choice of Consumer

- The optimal point of consumption is where the **Budget Line** is tangent to the highest **Indifference Curve**.
- This is because a consumer would want to maximise his utility and remain in Budget also. Thus the point where the budget line touches indifference curve is optimum Choice of consumer.

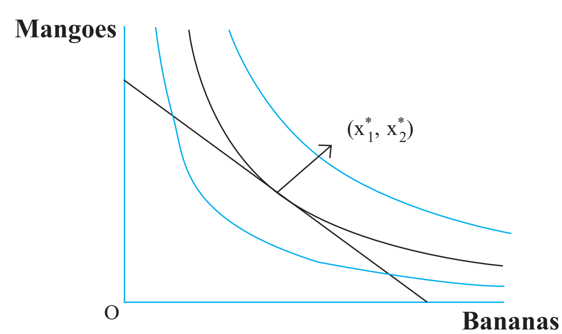


Fig.: Consumer's Optimum: The point (x_1^*, x_2^*), at which the budget line is tangent to an indifference curve represents the consumers optimum choice

LAW OF DEMAND

The Law of Demand states that, all things being equal, as the price of a good or service increases, consumer demand for that good or service will decrease, and vice versa.

Example: If the price of smartphones decreases, consumers are likely to purchase more smartphones. Conversely, if the price increases, the demand for smartphones typically drops. This inverse relationship between price and quantity demanded is a fundamental principle of consumer behaviour in economics. However, this law applies only to ***normal goods***.

Demand Curve

- For any change in price, there is an inverse change in quantity demanded
- Normally, the demand slopes downwards from left to right. But there are some unusual demand curves which do not obey the law/usual demand curve. For them, a fall in price brings about a contraction of demand and a rise in price results in an extension of demand. Therefore, the demand curve slopes upwards from left to right.
- **Speculative Effect** reverses the demand curve due to expectation of certain future events. If the price of the commodity is increasing then the consumers will buy more of it because of the expectation that it will increase still further. For example: stock markets.

Demand Curve from Indifference Curves and Budget Constraints

- The **Demand Curve** can be derived by observing changes in optimal consumption as prices vary, based on **Indifference Curves** and **Budget Constraints**.

TYPES OF GOODS [UPSC 2021]

Inferior goods

It is an economic term that describes a good whose demand drops when people's incomes rise. These goods fall out of favour as incomes and the economy improve as consumers begin buying more costly substitutes instead.

Example: cheap cereals and food grains like rice (inferior goods) will be replaced by better quality food items like eggs, milk when income rises.

Giffen goods

A Giffen good is a low income, non-luxury product that defies standard economic and consumer demand theory. Demand for Giffen goods rises when the price rises and falls when the price falls. This results in an upward-sloping demand curve, contrary to the fundamental laws of demand which create a downward sloping demand curve.

The generally accepted explanation is that Giffen goods are a type of inferior good without a substitute. For example, when the price of rice increases, people cannot shift out of rice but rather eat only rice instead of other vegetables.

- Examples of Giffen goods can include bread, rice, and wheat. These goods are commonly essentials with few near-dimensional substitutes at the same price levels

Substitute Goods

They are pairs of competing goods which, in the opinion of buyers, can replace each other. For example, if tea is costly, buyers may drink coffee.

Complementary goods

They are pairs of goods that are interdependent or compatible. **For example:** Bread and jam, Tea and sugar etc.

Veblen Effect: Conspicuous Consumption of Luxury Goods. It means spending money on luxury goods and services to display financial power. Demand for Veblen goods increases with a rise in their price. For example - A Rolex watch or Rolls Royce car is desirable because of their high price and associated status symbol.

SHIFTS IN DEMAND CURVE

Factors like income changes, prices of related goods, and preferences shift the **Demand Curve**. Increase shifts the curve rightward, and decrease shifts it leftward.

Market Demand

The total demand for a good from all consumers in the market, calculated by summing individual demand curves horizontally.

Elasticity of Demand

Elasticity of demand is a measure of the responsiveness of the quantity demanded of a good or service to a change in its price. It helps us understand how sensitive consumers are to price changes.

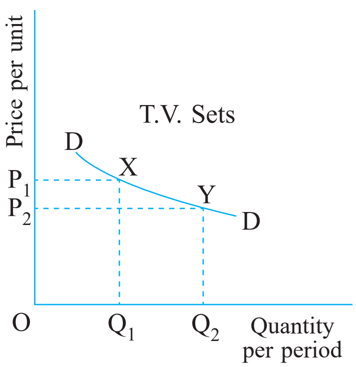


Fig.: (*a*) Elastic Demand

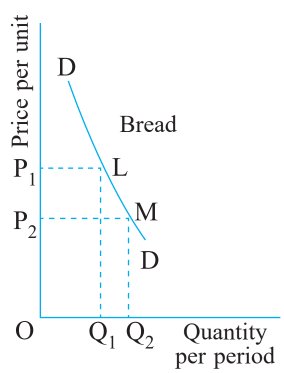


Fig.: (*b*) Inelastic Demand

Types of Elasticity of Demand

- **Perfectly Elastic Demand:** Infinite change in quantity demanded for a very small change in price.
- **Perfectly Inelastic Demand:** No change in quantity demanded regardless of price changes.
- **Relatively Elastic Demand:** Large change in quantity demanded for a small change in price.
- **Unitary Elastic Demand:** Proportional change in quantity demanded equals the change in price.

- **Relatively Inelastic Demand:** Small change in quantity demanded for a large change in price.

LAW OF SUPPLY

The Law of Supply states that, other things being equal as the price of a good or service increases, the quantity supplied of that good or service also increases, and vice versa.

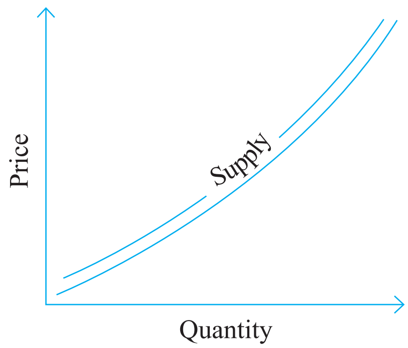


Fig.: Law of Supply

Example: If the market price of coffee beans rises, farmers are incentivized to grow more coffee beans,increasing the supply. Conversely, if prices fall, farmers may reduce their coffee production due to lower profitability. This principle illustrates the direct relationship between price and supply in economics.

Elasticity of Supply

Elasticity of supply is a measure of the responsiveness of the quantity supplied of a good or service to a change in its price. It helps us understand how producers will adjust their output levels in response to price fluctuations.

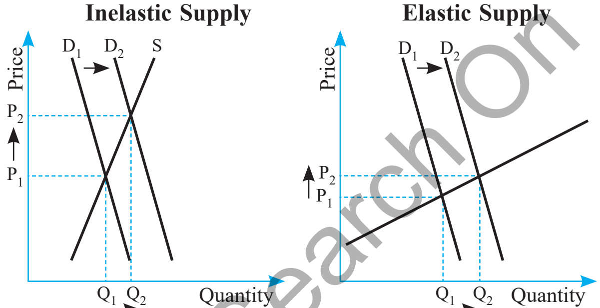


Fig.: Elasticity of supply

- **Relatively Elastic Supply:** More than proportional change in quantity supplied due to price change.
- **Unitary Elastic Supply:** Proportional change in quantity supplied equals the change in price.
- **Relatively Inelastic Supply:** Less than proportional change in quantity supplied due to price change.

Income and Cross Elasticity

- **Income Elasticity:** Measures how quantity demanded or supplied responds to changes in income.
- **Cross Elasticity:** Examines how the quantity demanded or supplied of one good responds to changes in the price of another good.

PRODUCTION, COSTS, AND INCREMENTAL CAPITAL OUTPUT RATIO (ICOR)

- **Production Function**
  - **Definition:** Represents the relationship between input factors (labour and capital) and the maximum output produced.
  - **Formula:** Q = f(L, K) where Q is the output, L is labour, and K is capital.
  - Timeframes influence input flexibility, impacting costs and output.
- **Short Run and Long Run Production Periods**
  - **Short Run:** At least one input (usually capital) remains fixed, while labour can adjust to influence output.
  - **Long Run:** All inputs, including capital, are variable, allowing firms to scale production up or down more freely.
- **Total, Average, and Marginal Product**
  - **Total Product (TP):** Total output produced with a given set of inputs.
  - **Average Product (AP):** Output per unit of input, such as labour.
  - **Marginal Product (MP):** Additional output from one more unit of input.
- **Law of Diminishing Marginal Product and Law of Variable Proportions**
  - **Law of Diminishing Marginal Product:** Adding more of a variable input to fixed inputs eventually decreases marginal product.
  - **Law of Variable Proportions:** In the short run, varying a single input results in three stages: increasing, diminishing, and negative returns.
- **Returns to Scale**
  - **Definition:** Long-run relationship between proportional input increase and output change.
  - **Types:**
    - **Increasing Returns to Scale (IRS):** Output rises more than inputs.
    - **Constant Returns to Scale (CRS):** Output rises proportionately to inputs.
    - **Decreasing Returns to Scale (DRS):** Output rises less than inputs.

COSTS IN PRODUCTION

Short Run and Long Run Costs

- **Short Run Costs:** Comprise both variable and fixed costs, with limited flexibility due to fixed capital.
- **Long Run Costs:** All costs are variable, allowing for economies of scale, which reduce per-unit costs as production grows.

Incremental Capital Output Ratio (ICOR)

- **Definition:** ICOR measures the additional capital required to produce an additional unit of output, reflecting capital efficiency.
- **ICOR=ΔK/ΔY**, ΔK is the increase in capital, and ΔY is the increase in output.
- **Significance:** A lower ICOR indicates higher efficiency, meaning less capital is needed for growth. It's a critical factor for economic planning:
  - **India:** Higher ICOR of India leads to higher capital requirement for growth.
  - **China:** Lower ICOR from efficient capital allocation and high infrastructure investments.
  - **USA:** Maintains a moderate ICOR, balancing advanced technology with high capital investments.

Importance of Marginal Product and ICOR Across Economic Sectors

- **Agriculture:** ICOR helps in determining optimal capital investment in technology to boost productivity.
- **Manufacturing:** High marginal product and low ICOR allow firms to scale effectively, particularly in capital-intensive sectors.
- **Service Sector:** Efficiency gains from technology investment improve productivity, affecting ICOR positively.

THEORY OF FIRM

The **theory of the firm** describes how businesses decide on production levels and pricing to maximise profits. Firms are assumed to operate with the goal of profit maximisation, producing up to the point where **marginal cost (MC)** equals **marginal revenue (MR)**. This theory also considers factors like **cost structures**, **production functions**, and **revenue analysis**. It explains how individual firm supply curves are derived and how firms react to changes in market prices.

Perfect Competition

A **perfectly competitive market** is characterised by:

- **Many Buyers and Sellers:** No single participant can influence the market price.
- **Homogeneous Products:** Goods are identical across sellers, so consumers are indifferent between firms.
- **Free Entry and Exit:** Firms can enter or leave the market freely, maintaining long-term equilibrium.
- **Perfect Information:** All participants are fully informed about prices and product quality.

Firms in this setting are "price takers," meaning they must accept the prevailing market price.

Other Types of Competition

Other market structures contrast with perfect competition:

- **Monopoly**: A single seller with no close substitutes controls the market, influencing price and quantity.
- **Oligopoly**: A few large firms dominate, leading to interdependent pricing and potential collusion.
- **Monopolistic Competition:** Many firms sell differentiated products, allowing them to set prices to some extent.

Each structure influences pricing, output, and market efficiency differently.

MARKET SUPPLY AND SUPPLY CURVE

The **market supply curve** represents the total quantity of a good that all firms are willing to supply at various prices. It is derived by summing individual firm supply curves. Typically, the supply curve slopes upward, indicating that higher prices encourage firms to supply more, often due to increasing marginal costs.

Market Equilibrium

Market equilibrium occurs when the quantity demanded equals the quantity supplied, resulting in a stable price where the intentions of buyers and sellers align. At this price, there is no incentive for change unless an external factor shifts either demand or supply.

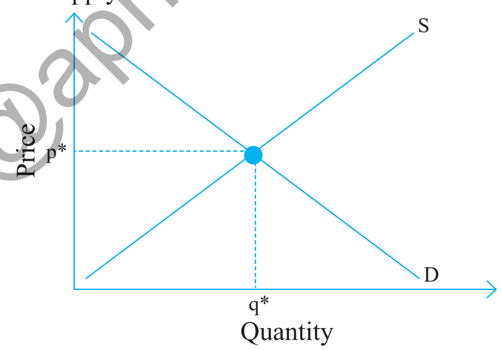


Fig.: Equilibrium Price

Excess Demand and Excess Supply

- **Excess Demand:** When demand exceeds supply at a given price, leading to upward pressure on prices.
- **Excess Supply:** When supply exceeds demand, resulting in downward pressure on prices until equilibrium is restored.

These imbalances drive price adjustments toward equilibrium.

Equilibrium with a Fixed Number of Firms

In markets with a **fixed number of firms**, equilibrium occurs where the market demand intersects the combined supply of these firms. Price adjustments occur due to shifts in demand or supply but do not affect the number of firms in the market.

Equilibrium: Free Entry and Exit

In markets allowing **free entry and exit**, firms can join or leave based on profitability. High profits attract new firms, increasing supply and lowering prices until only normal profits remain. If firms incur losses, some exit, reducing supply and pushing prices up to equilibrium.

2 National Income Accounting

INTRODUCTION

Macroeconomics, as a separate branch of economics, emerged after the British economist **John Maynard Keynes** published his celebrated book **The General Theory of Employment, Interest and Money** in 1936.

Macroeconomics focuses on the study of aggregate economic variables and the interrelationships among different sectors of an economy. It emerged in response to the **Great Depression of the 1930s**, with **John Maynard Keynes** playing a significant role in its development. Macroeconomics views an economy as consisting of households, firms, government, and the external sector, all interacting in a circular flow.

Methods for calculating aggregate income, including income, product, and expenditure approaches, have been discussed, along with various economic indicators like **GDP, GNP, and price indices**. However, it is essential to recognize that GDP alone may not accurately represent the overall welfare of a country, considering factors such as income distribution and externalities.

Economic Players

- **Firms:** Private entrepreneurs or firms play a key role in capitalist economies. They hire wage labour, use capital and land, and produce goods and services for profit.
- **Government:** The state enforces laws, provides public infrastructure, runs schools, and delivers public services. It may also undertake production and taxation.
- **Household Sector:** Households consist of individuals or groups that make consumption decisions, save, and pay taxes. They earn income through work (wages, salaries, or profits).

SOME BASIC CONCEPTS OF MACROECONOMICS

Final Goods

- Final goods are products meant for ultimate consumption and do not undergo further transformation in the economic process. **Example:** food, tea leaves, clothing, etc.
- Final goods can be divided into consumption goods (goods consumed directly) and capital goods (durable goods used in production).

Intermediate Goods

- Intermediate goods are products used by producers as inputs in the production of other commodities.
- They are not considered final goods and do not enter the consumption stream directly.
- **Examples** are steel sheets used for making automobiles and copper used for making utensils.

The Role of Money

- Money is used as a common measuring rod to quantify the total value of final goods and services produced in an economy.
- Money allows for the aggregation of the monetary value of different goods and services, providing a quantitative measure of final output.

Stocks and Flows

- Stocks are assets or goods existing at a specific point in time, while flows represent quantities over a Period.
- **Capital goods**, such as machinery, are stocks, while changes in capital goods over time are flows.
- **Gross Capital Formation:** Refers to the aggregate of gross additions to fixed assets (that is fixed capital formation) plus change in stocks during the counting period.

PHYSICAL CAPITAL [UPSC 2024]

Physical capital refers to the tangible, man-made assets that are used in the production process. It includes tools, machinery, buildings, and raw materials that play a vital role in enhancing productivity . For example the substitution of steel for wooden ploughs in agricultural production is an example of Capital-augmenting technological progress. **[UPSC 2015]**

Physical capital can be categorized into fixed capital and working capital, each having distinct characteristics.

Types of Physical Capital

- **Fixed Capital**
  - Refers to assets that can be used repeatedly in the production process over a long period.
  - **Examples:** Machines, tools, buildings, vehicles, and computers. These are not consumed or exhausted during production but provide long-term value.

- **Working Capital**
  - Refers to resources used up in the production process and needs to be replenished regularly.
  - **Examples:** Raw materials, money in hand, fuel, and intermediate goods. These are directly consumed in production or short-term operational requirements.

Intangible capital [UPSC 2023]

Intangible investments are assets that are not physical in nature, such as patents, trademarks, copyrights, and human capital. They are often associated with higher productivity and growth in companies, sectors, and economies. Brand recognition, intellectual property, and mailing list of clients. These assets have no physical form, but they can generate value for the business by enhancing its reputation, innovation, and customer loyalty.

Gross Investment

- **Gross Investment** refers to the total expenditure made by businesses, governments, and households on acquiring or producing new capital assets within a specific period.
- Gross investment encompasses capital goods and infrastructure like machinery, buildings, roads, and bridges within an economy's final output, indicating its commitment to future development. Economic growth in country will necessarily have to occur if there is capital formation in that country. **[UPSC 2013]**

Depreciation and Net Investment

- Depreciation is an annual allowance for the wear and tear of capital goods over their useful life.
- **Net investment** is the gross investment minus depreciation. Net investment shows how much new capital is being added to the economy after accounting for the wear and tear of existing capital goods.

Consumption vs. Investment

Feature	Consumption	Investment
Definition	Spending on goods and services for immediate use	Spending on capital goods for future production
Examples	Food, clothing, housing, entertainment	Machinery, equipment, buildings, infrastructure
Impact on Economy	Drives short-term demand and economic activity	Contributes to long-term economic growth and productivity

Capital Output Ratio

- It is the amount of capital needed to produce one unit of output. It depends on factors such as technological progress, prices of capital goods/machinery. In India, High Capital Ratio is among the reasons for subdued growth rates. Despite being a high saving economy, capital formation may not result in significant increase in output due to high capital to output ratio **[UPSC 2018]**

Incremental Capital-Output Ratio (ICOR)

- ICOR is an additional unit of capital or investment needed to produce an additional unit of output.
- ICOR in India: 3.8 (2016) → 4.9 (2018) → 6.9 (2019).
- A higher ICOR means is a country's production is less efficient

CIRCULAR FLOW OF INCOME IN THE ECONOMY

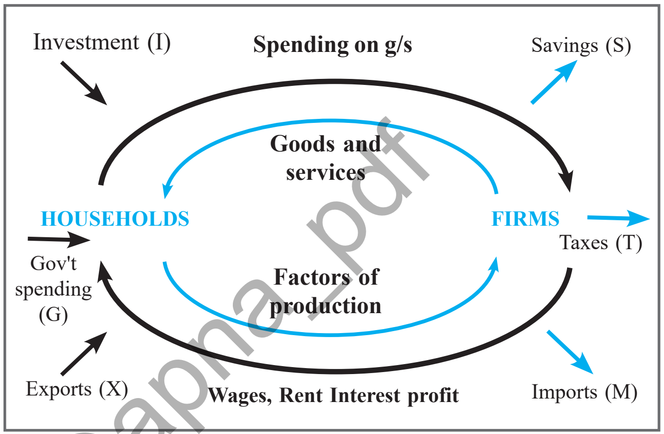


Fig. Circular Flow of Income in a Simple Economy

- The circular flow of income connects production and consumption.
- Firms pay income to factors of production (Land, Labour, Capital, Entrepreneurship), which enable individuals to purchase goods and services.
- The production process generates **factor payments** (wages, profits, rents, and interests), which create purchasing power for consumers.
- This description of the economy provides a simplified model without government intervention, external trade, or savings.
- In this model, households receive income from firms for their productive activities, and there are **four types of contributions: labour (wage), capital (interest), entrepreneurship (profit), and natural resources (rent)**.
- Households spend their entire income on goods and services produced by domestic firms, and there are no taxes or imports.

NATIONAL INCOME ACCOUNTING: GDP AND METHODS OF CALCULATION

National Income Accounting is a method used to measure and analyze a country's overall economic activity. It provides various ways to calculate the total income generated within an economy, the value of its production, and how resources are allocated. The two main indicators used in National Income Accounting are **Gross Domestic Product (GDP)** and **National Income (NI)**.

GDP and National Income [UPSC 2013]

- **Gross Domestic Product (GDP)** is the total market value of all final goods and services produced within a country's borders over a specific period (usually a year). It includes output by both domestic and foreign companies operating within the country.
- **National Income (NI)** represents the total income earned by residents and businesses of a country, regardless of where they operate. Unlike GDP, National Income excludes the income earned by foreign companies within the country's borders but includes income earned abroad by domestic entities.
- **Example:**
  - If an American company operates in India and generates revenue of Rs 500 crore, this revenue is part of **India's GDP** because it is produced within India. However, it is **not included in India's National Income** because the earnings belong to a foreign entity.
  - Conversely, if an Indian company operates in the USA and earns Rs 300 crore, this revenue is included in **India's National Income** but **not in India's GDP** because it was produced outside India.

Methods of Calculating GDP

- **Product/Value Added Method**
  - This method calculates GDP by summing up the value added by all firms in the economy. Each firm's contribution (or **value added**) is the difference between the value of its output and the value of its intermediate goods (materials, components used in production).
  - **Example:** A farmer produces wheat worth Rs 100, and a baker uses Rs 50 worth of this wheat to produce bread worth Rs 200. The **value added** by the farmer is Rs 100, and the value added by the baker is Rs 150 (Rs 200 - Rs 50). Gross Value Added = 100 + 150 = 250
  - **Formula: GDP = ∑ Value Added of All Firms**
- **Expenditure Method**
  - This method calculates GDP based on total spending within the economy, focusing on the demand side. It includes expenditures on **consumption (C)**, **investment (I)**, **government spending (G)**, and **net exports (X - M)**, where X represents exports and M represents imports.
  - **Example:** If consumers spend Rs 500 on domestic goods, firms invest Rs 200, the government spends Rs 300, exports are Rs 150, and imports are Rs 50, then: **GDP = C + I + G + (X − M)** = 500 + 200 + 300 + (150 − 50) = Rs 1100
- **Income Method**
  - The income method calculates GDP by adding up all the incomes earned by residents and businesses, including wages, interest, profits, and rent.
  - **Formula: GDP = ∑ (Wages + Profits + Interest + Rent)**

Gross and Net Measures

- **Gross Domestic Product (GDP):** Total value of goods and services produced without accounting for depreciation.
- **Net Domestic Product (NDP):** Calculated by subtracting depreciation (wear and tear on capital) from GDP. This gives a clearer view of an economy's actual increase in value.
  - **Formula:** NDP = GDP − Depreciation
  - **Example:** If GDP is Rs 1,00,000 crore and depreciation is Rs 10,000 crore, then: NDP = 1,00,000 − 10,000 = Rs 90,000 crore

PRICES: FACTOR COST, BASIC PRICE, AND MARKET PRICE

- **Factor Cost (FC):** The cost of production excluding taxes and subsidies, representing the income received by producers. It includes wages, rent, interest, and profits.
- **Basic Price:** Includes **factor cost** and **production taxes** (like property taxes on factories) minus **production subsidies** (such as government assistance for factory operations).
  - **Example:** If a factory's factor cost is Rs 200 crore, with Rs 10 crore in production taxes and Rs 5 crore in subsidies, the basic price would be:
    - **Basic Price = Factor Cost + Production Taxes − Production Subsidies** = 200 + 10 − 5 = Rs 205 crore
- **Market Price (MP):** Includes basic price plus product taxes (like VAT or sales tax) minus product subsidies, reflecting the final price consumers pay.
  - **Formula: Market Price = Basic Price + Product Taxes − Product Subsidies**
  - **Example:** If a good's basic price is Rs 100, with Rs 10 in product taxes and Rs 3 in subsidies, the market price is: Market Price = 100 + 10 − 3 = Rs 107

Measures of GDP and NDP at Various Prices

- **GDP at Factor Cost (GDP@FC):** Total value of goods and services produced measured at factor cost.
- **GDP at Market Prices (GDP@MP):** Total value of goods and services at market price, including all taxes and subsidies.
  - **Formula: GDP@MP = GDP@FC + Production Taxes + Product Taxes − Production Subsidies − Product Subsidies**

- **NDP at Factor Cost (NDP@FC):** GDP at factor cost minus depreciation, showing net production.
  - **Formula: NDP@FC = GDP@FC − Depreciation**
- **NDP at Market Prices (NDP@MP):** GDP at market prices minus depreciation, providing net value considering market dynamics.
  - **Formula: NDP@MP = GDP@MP − Depreciation**

Key Concepts Related to National Income Accounting

- **Intermediate Consumption:** Goods and services used up in the production process, excluded from GDP to avoid double-counting.
  - **Example:** Flour used by a bakery to make bread.
- **Depreciation:** The reduction in asset value over time due to use and obsolescence. It is subtracted from gross measures to get net values, like NDP.
- **Product Taxes and Subsidies:** Taxes and subsidies applied directly to goods and services. Product taxes increase market prices, while subsidies reduce them.
- **Production Taxes and Subsidies:** These affect producers' costs rather than consumer prices, impacting basic price but not directly altering market prices.

GNP, NNP, PERSONAL INCOME, DISPOSABLE INCOME

There are various macroeconomic identities and concepts related to national income measurement, including **Gross National Product (GNP), Net National Product (NNP), National Income (NI), Personal Income (PI), and Personal Disposable Income (PDI)**. These identities help in understanding how income is distributed within an economy and how it is affected by various factors like depreciation, taxes, subsidies, and transfers.

Gross National Product (GNP)

GNP represents the total economic output produced within a country, including income earned by domestic factors of production abroad minus income earned by foreign factors of production within the country. It is calculated as GDP plus net factor income from abroad.

GNP = GDP + Net Factor Income from Abroad

It is important to note that a "closed economy" is an economy in which Neither exports or imports take place.**(UPSC 2011)**

Net National Product (NNP)

NNP is obtained by subtracting depreciation (wear and tear of capital) from GNP. Depreciation does not contribute to anyone's income, so it is deducted to obtain a more accurate measure of income.

NNP = GNP - Depreciation

National Income (NI)

NI is NNP evaluated at market prices, taking into account indirect taxes and subsidies. It represents the income that accrues to factors of production within the country.

NI = NNP at Market Prices - Net Indirect Taxes (Indirect Taxes - Subsidies) = NNP at factor cost

Note:- All these variables are evaluated at market prices. We get the value of NNP evaluated at market prices. But market price includes indirect taxes. **When indirect taxes are imposed on goods and services, their prices go up. Indirect taxes accrue to the government. We have to deduct them from NNP evaluated at market prices in order to calculate the part of NNP that actually accrues to the factors of production**. Similarly, there may be subsidies granted by the government on the prices of some commodities (in India petrol is heavily taxed by the government, whereas cooking gas is subsidised). So we need to add subsidies to the NNP evaluated at market prices. The measure that we obtained by doing so is called Net **National Product at Factor cost or National Income.**

Personal Income (PI)

PI is the income received by households from NI. It is calculated by deducting undistributed profits, corporate tax, and net interest payments made by households, and adding transfer payments received from the government and firms.

- NI, which is earned by the firms and government enterprises, a part of profit is not distributed among the factors of production. This is called Undistributed Profits (UP).
- The households receive transfer payments from the government and firms (pensions, scholarships, prizes, for example) which have to be added to calculate the Personal Income of the households.
- **PI = NI - Undistributed Profits - Net Interest Payments Made by Households - Corporate Tax + Transfer Payments to Households**

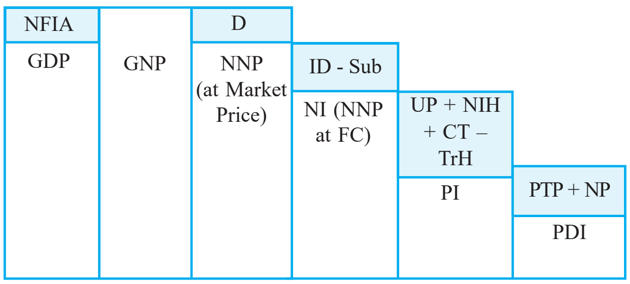
- **National Disposable Income = Net National Product at market prices + Other current transfers from the rest of the world**.
  - The idea behind National Disposable Income is that it gives an idea of what is the maximum amount of goods and services the domestic economy has at its disposal. Current transfers from the rest of the world include items such as gifts, aids, etc.
- **Private income** is the total of all factor and transfer incomes that the private sector receives from all sources, both within and outside the country. The private sector includes both households and corporations.
  - **Private Income = Factor income from net domestic product accruing to the private sector + National debt interest + Net factor income from abroad + Current transfers from government + Other net transfers from the rest of the world.**

Personal Disposable Income (PDI)

PDI is the income available to households after deducting personal tax payments (such as income tax) and non-tax payments (like fines) from PI. It represents the income that households have at their disposal for consumption or savings.

PDI = PI - Personal Tax Payments - Non-Tax Payments

Nominal GDP



Diagrammatic Representation of the Relations between these major Macroeconomic Variables

NFIA: Net Factor Income from Abroad

D: Depreciation

ID: Indirect Taxes

Sub: Subsidies

UP: Undistributed Profits

NIH: Net Interest Payments by Households

CT: Corporate Taxes

TrH: Transfers recived by Households

PTP: Personal Tax Payments

NP: Non-Tax Payments.

- Nominal GDP is the total value of goods and services produced in an economy at current market prices. It does not account for changes in prices over time.
- For example, suppose a country only produces bread. In the year 2000 it had produced 100 units of bread, price was Rs 10 per bread. GDP at current price was Rs 1,000. In 2001 the same country produced 110 units of bread at price Rs 15 per bread. Therefore nominal GDP in 2001 was Rs 1,650 (=110 × Rs 15). Real GDP in 2001 calculated at the price of the year 2000 (2000 will be called the base year) will be 110 × Rs 10 = Rs 1,100.

Real GDP

- Real GDP is a measure of economic output that adjusts for changes in prices. It evaluates goods and services at constant (base-year) prices, allowing for a comparison of production volumes across different years.
- Real GDP helps eliminate the impact of price changes, making it a useful tool for assessing actual changes in economic production.
- **Real GDP = (Nominal GDP / GDP Deflator) * 100**

GDP Deflator

- The GDP deflator is an index that measures the average change in prices of all goods and services included in GDP over time. A GDP deflator of 150% implies that prices have increased by 50% compared to the base year.
- It is calculated as the ratio of nominal GDP to real GDP, expressed as a percentage.
- **GDP Deflator = (Nominal GDP/Real GDP) * 100**

CPI, WPI, PPI, IIP

Consumer Price Index (CPI) [UPSC-2020]

The CPI measures changes in the prices of a fixed basket of goods and services typically purchased by a representative consumer. It quantifies the inflation experienced by consumers. CPI is expressed as a percentage change in prices from a base year.

CPI = (Cost of Basket in Current Year / Cost of Basket in Base Year) * 100

The CPI measures changes in the price level of a **basket of consumer goods and services** purchased by households. It reflects **inflation** at the retail level.

Type of CPI	Description	Base Year	Frequency	Released By
CPI for Industrial Workers (CPI-IW)	Measures inflation for industrial workers.	2016	Monthly	Labour Bureau, Ministry of Labour
CPI for Agricultural Labourers (CPI-AL)	Measures inflation for agricultural labourers.	1986-87	Monthly	Labour Bureau, Ministry of Labour
CPI for Rural Labourers (CPI-RL)	Measures inflation for rural labourers.	1986-87	Monthly	Labour Bureau, Ministry of Labour
CPI Combined (CPI-C)	Measures overall retail inflation (urban + rural).	2012	Monthly	National Statistical Office (NSO), Ministry of Statistics and Programme Implementation (MoSPI)

Components of CPI (CPI-C Combined)

Components	Weightage (%)
Food and Beverages	45.86
Housing	10.07
Clothing and Footwear	6.53
Fuel and Light	6.84
Miscellaneous (Health, Education, Transport, etc.)	30.70

CPI vs GDP Deflator

Here, notice that CPI may differ from the GDP deflator because:

- The goods purchased by consumers do not represent all the goods which are produced in a country whereas the GDP deflator takes into account all such goods and services.
- CPI includes prices of goods consumed by the representative consumer, hence it includes prices of imported goods but the GDP deflator does not include prices of imported goods.
- The weights are constant in CPI – but they differ according to the production level of each good in the GDP deflator.

Wholesale Price Index (WPI) [UPSC 2020]

The WPI is an index that tracks changes in the prices of goods at the wholesale level. It is used to assess inflation in the early stages of production and distribution. In some countries, it may be referred to as the Producer Price Index (PPI).

- WPI measures changes in the price of goods at the **wholesale level**. It reflects inflation trends at the producer level.

Parameter	Details
Released By	Office of Economic Adviser, Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry
Base Year	2011-12
Main Components	• Primary Articles (22.62%) • Fuel & Power (13.15%) • Manufactured Products (64.23%)
Frequency	Monthly

Producer Price Index (PPI)

PPI measures the **average change over time in the selling prices** received by domestic producers for their goods and services.

- In India, the **WPI acts as a proxy for PPI**, as the PPI system is not yet fully adopted

Index of Industrial Production (IIP)

The IIP measures the growth rate of **industrial production** over a given period. It acts as a barometer for industrial activity in the economy.

Parameter	Details
Released By	National Statistical Office (NSO), Ministry of Statistics and Programme Implementation (MoSPI)
Base Year	2011-12
Frequency	Monthly
Purpose	Measures short-term industrial growth trends.

Components of IIP with Weightage

Sector	Weightage (%)	Description
Manufacturing	77.63	Includes industries producing finished goods.
Mining	14.37	Extractive industries like coal, minerals.
Electricity	7.99	Power generation and distribution

8 Core Industries of IIP with Weightage [UPSC 2015]

Core Industry	Weightage (%)
Refinery Products	28.04
Electricity	19.85
Steel	17.92
Coal	10.33
Crude Oil	8.98
Natural Gas	6.88
Cement	5.37
Fertilizers	2.63

GDP AND WELFARE

Using Gross Domestic Product (GDP) as a sole indicator of the welfare of a country's people has its limitations, and there are several reasons why GDP may not accurately reflect the overall well-being of a nation:

Income Distribution

GDP measures the total economic output of a country, but it does not provide information about how that output is distributed among its citizens. If GDP increases, but the gains are concentrated in the hands of a few individuals or entities, the majority of the population may not experience improved welfare. Unequal income distribution can lead to disparities in well-being.

Non-Monetary Exchanges

Many valuable activities in an economy are not monetized or included in GDP calculations. For instance, domestic work performed at home, volunteer activities, and barter exchanges (where goods and services are directly swapped without money) are not typically accounted for in GDP. This omission can result in an underestimation of economic activity and well-being.

Externalities

GDP does not consider externalities, which are unintended side effects of economic activities, which can be positive or negative. For example, a factory may contribute to GDP growth, but if it also pollutes a nearby river, causing harm to local communities and ecosystems, this harm is not reflected in GDP. Conversely, positive externalities, such as education and research, may enhance well-being but are not directly captured by GDP.

ALTERNATIVE METHODS TO CALCULATE ECONOMIC WELFARE

Green GDP

A measure that subtracts environmental degradation and resource depletion from GDP to account for the cost of environmental damage.

Human Development Index (HDI)

A composite measure that considers a country's health, education, and income. The United Nations Development Programme (UNDP) developed the HDI.

Gross National Happiness (GNH)

Bhutan's approach prioritises GNH over GDP, focusing on well-being, cultural preservation, and environmental conservation.

Genuine Progress Indicator (GPI)

An American metric that considers environmental and social factors, such as crime, poverty, and the cost of ozone depletion.

SUMMARY OF NATIONAL INCOME AGGREGATES

Gross Domestic Product at Market Prices (GDP_{MP})	• GDP is the market value of all final goods and services produced within a domestic territory of a country measured in a year. • All production done by the national residents or the non-residents in a country gets included, regardless of whether that production is owned by a local company or a foreign entity. • Everything is valued at market prices. **$GDP_{MP} = C + I + G + X - M$**
GDP at Factor Cost (GDP_{FC})	• GDP at factor cost is gross domestic product at market prices, less net product taxes. • Market prices are the prices as paid by the consumers Market prices also include product taxes and subsidies. The term factor cost refers to the prices of products as received by the producers. Thus, factor cost is equal to market prices, minus net indirect taxes. GDP at factor cost measures the money value of output produced by the firms within the domestic boundaries of a country in a year. **$GDP_{FC} = GDP_{MP} - NIT$**
Net Domestic Product at Market Prices (NDP_{MP})	• This measure allows policy-makers to estimate how much the country has to spend just to maintain their current GDP. If the country is not able to replace the capital stock lost through depreciation, then GDP will fall. **$NDP_{MP} = GDP_{MP} - \text{Depreciation}$**
NDP at Factor Cost (NDP_{FC})	• NDP at factor cost is the income earned by the factors in the form of wages, profits, rent, interest, etc., within the domestic territory of a country. **$NDP_{FC} = NDP_{MP} - \text{Net Product Taxes} - \text{Net Production Taxes}$**

Gross National Product at Market	• GNPMP is the value of all the final goods and services that are produced by the normal residents of India and is measured at the Prices (GNP_{MP}) market prices, in a year. • GNP refers to all the economic output produced by a nation's normal residents, whether they are located within the national boundary or abroad. • Everything is valued at the market prices. **$GNP_{MP} = GDP_{MP} + NFIA$**
GNP at Factor Cost (GNP_{FC})	GNP at factor cost measures the value of output received by the factors of production belonging to a country in a year. **$GNP_{FC} = GNP_{MP}$ - Net Product Taxes - Net Production Taxes**
Net National Product at Market Prices (NNP_{MP})	• This is a measure of how much a country can consume in a given period of time. NNP measures output regardless of where that production has taken place (in domestic territory or abroad). **$NNP_{MP} = GNP_{MP}$ - Depreciation** **$NNP_{MP} = NDP_{MP} + NFIA$**
NNP at Factor Cost (NNP_{FC}) Or National Income (NI)	• NNP at factor cost is the sum of income earned by all factors in the production in the form of wages, profits, rent and interest, etc., belonging to a country during a year. • It is the National Product and is not bound by production in the national boundaries. It is the net domestic factor income added with the net factor income from abroad. **$NI = NNP_{MP}$ - Net Product Taxes - Net Production Taxes** **$= NDP_{FC} + NFIA = NP_{FC}$**
GVA at Market Prices	GDP at market prices
GVA at basic prices	**GVA_{MP} - Net Product Taxes**
GVA at factor cost	**GVA at basic prices - Net Production Taxes**

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3 Money and Banking

Barter System

In a **barter system** where goods are directly exchanged without the use of money, double coincidence of wants is an essential feature.

Double coincidence of wants: Both parties have to agree to sell and buy each other's commodities.

FUNCTIONS OF MONEY

- **Money as a Medium of Exchange:** Money serves as an intermediate step in an economy, eliminating the need for a double coincidence of wants.
- **Convenient Unit of Account:** A standard measure used to set prices and value goods and services.
- **Universal Acceptability:** The characteristic of money being widely accepted as a medium of exchange within an economy.
- **Store of Value:** An asset that retains its worth over time, enabling future wealth retrieval without significant depreciation.
- **Dynamic in Nature:** When commodity **prices increase** in terms of money, the **purchasing power of money decreases,** allowing a unit of money to purchase less of any commodity.
- **Cashless nature**: Eg: **Jan Dhan accounts, Aadhar-enabled payment systems, e-wallets etc.**

MODERN FORMS OF MONEY

Currency

- Currency — **paper notes and coins.** It is accepted as a medium of exchange because the currency is **authorised by the government of the country.** Currency notes and coins are therefore called **fiat money.** They do not have intrinsic value; Currency note is zero interest; anonymous bearer bond / Promissory Note.
- They are also called **legal tenders** as they cannot be refused by any citizen of the country for settlement of any kind of transaction. **[UPSC 2018]**
- **The government issues all coins up to ₹ 1,000, using powers of the Coinage Act 2011. Presently, the government issues Rs.50 paisa to Rs.20 coins.**
- The **Government of India issues coins** and **notes of Rupee one. The Reserve Bank of India** issues **currency notes** (except rupee one note) on behalf of the central government.
- **Seigniorage**: It is the difference between the value of currency/money and the cost of producing it. It is essentially the profit earned by the government by printing currency.

Cheque

Paper instructing the bank to pay a specific amount from the person's account to the person in whose name the cheque has been issued. Cheques drawn on savings or current accounts can be refused by anyone, making demand deposits **not legal tenders.**

Cheque Truncation System (CTS)

- It is an online image-based cheque clearing system undertaken by the RBI for faster clearing of cheque.
- It eliminates the associated cost of movement of physical cheque.

- RBI has mandated NPCI to operationalise CTS. NPCI will act as a Cheque Processing Centre (CPC) and will process electronic cheques and images received from member banks.
- RBI will manage the Clearing House, carry out settlement of clearing transactions that NPCI processes and look into all policy related matters.

Cryptocurrency

A **digital or virtual form of currency** that uses **cryptography for security** and **operates on a decentralised network** typically based on blockchain technology. Notable examples include Bitcoin, Litecoin, Monero, Dogecoin, and Bitcoin Cash. **Dinesh Sharma Committee** recommended a total ban on cryptocurrencies.

Bitcoin

- Bitcoin is not tied to a bank or government and allows users to spend money anonymously.
- Anyone with a Bitcoin address can send and receive Bitcoins from anyone else with a Bitcoin address.
- Online payments can be sent without either side knowing the identity of the other. **[UPSC 2016]**

Non-Fungible Token (NFT) [UPSC 2022]

Serves as a distinct cryptographic asset designed to establish and verify ownership of digital assets. NFT may also be used in storing physical assets.

- E.g. Ownership document of house, boat, physical-painting, etc.
- **NFT cannot be subdivided**.Their individual sub-units cannot be exchanged with one another because their values are different based on buyer's preference. Hence NFTs are non-fungible.

Fungibility is the quality of an asset that makes it interchangeable with another of the same type and value, ensuring uniformity in trade. For example, money is fungible because one Rs.10 note can be exchanged for another Rs.10 note without any difference in value. Similarly, commodities like gold or oil are fungible as they are consistent in quality and can be traded universally. In contrast, unique items like real estate, collectibles, or digital assets like NFTs are non-fungible, as they possess distinct characteristics that affect their value and prevent one-to-one interchangeability.

Central Bank Digital Currency

A digital form of a country's official currency, issued and controlled by its central bank. It's essentially like cash but in digital form.

E-rupee vs E-Rupi

Feature	E-Rupee	E-Rupi
Issued by	**RBI**	**NPCI**
Features	**Central Bank Digital Currency** Users will be able to transact with e₹-R through a digital wallet offered by the participating banks and stored on mobile phones/devices. Transactions can be both Person to Person (P2P) and Person to Merchant (P2M). Payments to merchants can be made using QR codes displayed at merchant locations. The e₹-R would offer features of physical cash like trust, safety and settlement finality. As in the case of cash, it will not earn any interest and can be converted to other forms of money, like deposits with banks.	**Digital GIFT CARD/SMS Code to help beneficiary do shopping/avail services.** This is a tool to use money. The e-RUPI would be shared with the beneficiaries for a specific purpose or activity by organizations via SMS or QR code. This contactless e-RUPI is easy, safe and secure as it keeps the details of the beneficiaries completely confidential. The entire transaction process through this voucher is relatively faster and at the same time reliable, as the required amount is already stored in the voucher.
Fiat money and legal tender?	Yes (when it becomes fully operational. Presently, it is in TRIAL STAGE).	No. Because, this is not currency.

Digital Payment

NPCI - National Payment Corporation of India

- An umbrella organisation for operating retail payments and settlement systems in India.
- Initiative of RBI and Indian Banks' Association (IBA) under the provisions of the **Payment and Settlement Systems Act, 2007**, for creating a robust Payment & Settlement Infrastructure in India.
- **Not for Profit Company** under Section 8 of Companies Act, 2013.

NPCI Operated Systems

- **BHIM:** Based on Unified Payment Interface (UPI) to facilitate e-payments directly through banks. It is interoperable with other UPI applications, and bank accounts.
- **Aadhaar Enabled Payment System (AePS):** Allows people to carry out financial transactions on a Micro-ATM by furnishing just their Aadhaar number and verifying it with the help of their fingerprint/iris scan.
- **National Electronic Toll Collection (NETC):** Helps in electronic toll collection at toll plazas using FASTag.
- **National Automated Clearing House (NACH):** Service offered by NPCI to banks which aims at facilitating interbank high volume, low value debit/credit transactions, which are repetitive and electronic in nature.
- **Immediate Payment Service (IMPS):** It offers an instant 24×7 interbank electronic fund transfer service through mobile phones. Amount that can be transferred ₹1 to maximum ₹5 lakhs.
- **Bharat Bill Payment System (BBPS)**: Function as entities facilitating collection of repetitive payments for everyday utility services, such as, electricity, water, gas, telephone and Direct-to-Home (DTH).
- **Rupay:** It is an indigenously developed Payment System. Rupee + Payment = RuPay card is the world's 7th payment gateway similar to Mastercard, Visacard, China's Union Pay. Works in 3 channels: 1) ATM, 2) Point of Sale Device (PoS/card reader machine), 3) Online Portals. It supports the issuance of debit, credit and prepaid cards by banks in India.

RBI Operated Systems

Feature	Real Time Gross Settlement (RTGS)	National Electronic Funds Transfer (NEFT)
Minimum Transfer Amount	Typically Higher (minimum is ₹2 lakh)	Lower, even ₹1 allowed
Maximum Transfer Amount	Very high (crores of rupees)	Lower limit, set by banks
Settlement	Real-time settlement of funds	Batch settlement of funds
Purpose	Large value transactions for business purpose	Smaller value retail transactions
Fees	Typically higher due to real-time processing	Lower fees compared to RTGS

Automated Teller Machine

- The ATM network **operates on NPCI - National Financial Switch.**
- **National Financial Switch (NFS)** is the largest network of shared Automated Teller Machines (ATMs) in India facilitating interoperable cash withdrawal, card to card funds transfer and interoperable cash deposit transactions etc.

Types of ATMs

- **Bank ATMs:** Owned, managed and installed by banks.
- **Brown label ATMs**
  - **Owned by banks** and banks **outsourced the ATM operations** to a third party (a nonbanking firm).
  - The **concerned banks** only **handle** part of the process that is **cash handling and back - end server connectivity.**
  - They **carry the logo of the bank** which outsources their service.
- **White label ATMs**
  - **Owned and operated by a third party** (a non - banking firm).
  - They **do not bear the logo of the banks they serve** (that is why such a name).
  - In place, they carry the logo of the firm which owns them.

Merchant Discount Rate **[UPSC 2018]**

- Merchant Discount Rate (MDR) is a **fee that businesses pay to a payment processing company for each debit or credit card transaction**. It's also known as the transaction discount rate
- The MDR is split among several entities involved in the transaction, including the issuing bank, the acquiring bank, the card network, and the payment processor.
- MDR hurts merchants' profit margin, discourages them from adopting Point of Sale (PoS) terminals (card swiping machine) → obstacle to digital economy

Money as Deposits with Banks

- **Demand deposit:** Deposits in the bank accounts can be withdrawn on demand.
- **Overdraft:** When a person has insufficient bank balance, still he may withdraw money from his account (as a loan). Such a facility is called Overdraft.
- **Term deposit or fixed deposit:** Deposits can be withdrawn after a stipulated time period otherwise one has to pay a penalty.

Nostro and Vostro Accounts

- **Nostro Account:** Maintained by Indian banks in foreign countries where they have operations for facilitating easy clearing of their transactions.
- **Vostro Account:** The account maintained by foreign banks in India with their corresponding banks is called vostro accounts.

Letter of Undertaking/Letter of Comfort

It is a form of bank guarantee under which a bank can allow its customer to raise money from another Indian bank's foreign branch in the form of a short term credit.

SWIFT System

Society for Worldwide Interbank Financial Tele-communication. It is a messaging network used by banks to securely send and receive information, such as money transfer instructions.

NRI Banking and International Transactions

Account Type	Currency Use for Account	Taxation	Repatriation	Other Features
FCNR (Foreign Currency Non-Resident)	Freely convertible foreign currency	Interest and principal non-taxable	Freely repatriable	Exclusively term deposits
NRE (Non-Resident External)	Indian Rupees	Interest and principal non-taxable	Freely repatriable	Current, Savings, Recurring, or Fixed Deposit
NRO (Non-Resident Ordinary)	Indian Rupees	Interest and principal taxable	Repatriation restricted	Current, Savings, Recurring, or Fixed Deposit

DEMAND AND SUPPLY OF MONEY

Demand for Money

Total demand for money in an economy is composed of:

- **Transaction Demand**: The amount of money required for current transactions of companies and individuals.
- **Speculative Demand**: Money held to take advantage of future investment opportunities or to avoid potential losses from holding other assets.

The former is directly proportional to real GDP and price level, whereas the latter is inversely related to the market rate of interest. **[UPSC 2013]**

Bond, Interest Rate and Speculative Demand for Money

- If the supply of money in the economy increases and people purchase bonds with this extra money, demand for bonds will go up, bond prices will rise and the **rate of interest will decline.**
  - When the interest rate comes down, more and more people expect it to rise in the future and anticipate capital loss. Thus they convert their bonds into money giving rise to a **high speculative demand for money**.
  - When the interest rate is very high, everyone expects it to fall in future and hence anticipates capital gains from bond-holding. Hence people **convert their money into bonds.** Thus, **speculative demand for money is low**.

Bond and Interest Rate Relation

- Most bonds pay a fixed interest rate, so existing bonds become more attractive if interest rates fall, driving up demand for them and increasing their market value.
- If interest rates rise, investors won't want the existing bonds with a lower fixed interest rate, and their prices will decline until their yield matches that of new bond issues.
- **Bond Yield:** The bond's yield is the return you receive in the form of interest. The current yield of a bond is determined by dividing its annual interest payment by its current price.
- When a bond's price falls, its yield rises because the annual interest payment remains the same. Similarly, when the price rises, its yield falls because interest payment is divided by a larger number.

- **Velocity of circulation of money:** The number of times a unit of money changes hands during the unit period.

  M = the money supply

  P = price level

  Y = aggregate output (income)

  P × Y = aggregate nominal income (nominal GDP)

  V = velocity of money (average number of times per year that a dollar is spent

  $$V = \frac{P \times Y}{M}$$

  $$M \times V = P \times Y$$

- **Liquidity Trap**
  - Occurs when interest rates are very low, yet consumers prefer to hoard cash rather than spend or invest their money in higher-yielding bonds or other investments.
  - In a liquidity trap, **people are indifferent between bonds and cash because the rates of interest both financial instruments provide to their holder is practically equal.**
  - The interest on cash is zero and the interest on bonds is near-zero. Hence, the central bank cannot affect the interest rate any more (through augmenting the monetary base) and has lost control over it.

MONEY SUPPLY

- **Aggregate Money Supply**
  - It is Total currency with the public + Demand deposits of the public with banks.
  - When you withdraw Rs. 1,00,000 from the bank, it goes to the currency in hand from demand deposits in banks but it does not change the value of the money supply. **[UPSC 2020]**

Measures of Money Supply in India

The money supply refers to the total amount of monetary assets available in an economy at a particular point in time. It includes currency in circulation (coins and paper money) and demand deposits held by the public.

The Reserve Bank of India (RBI) classifies money supply into different categories (M0, M1, M2, M3, and M4) based on liquidity. These measures provide a comprehensive understanding of money circulation in the economy.

Measure	Components	Liquidity [UPSC 2013]	Use Case
M0	Currency in circulation + Bankers' deposits with RBI + Other deposits with RBI. (High powered money)	Highest	Basis for all other measures

M1	Currency with public + Demand deposits + Other deposits with RBI	High	Short-term liquidity analysis
M2	M1 + Savings deposits with post office	Moderate	Broader liquidity including postal savings
M3	M1 + Time deposits with banks	Moderate-Low	Total monetary resources in banking
M4	M3 + Total post office deposits (excluding. NSC)	Lowest	Broadest measure of money supply

RESERVE BANK OF INDIA (RBI)

The Reserve Bank of India (RBI) was established in 1935. It plays a crucial role in the Indian economy as the central bank.

Functions of RBI

- **Issuing of Currency:** Responsible for issuing and managing the currency of the country.
- **Control of Money Supply and Inflation:** Manages the money supply and price stability using tools such as: **[UPSC 2022]**
  - Bank rates
  - Reserve ratios (SLR and CRR)
- **Banker to the Government**
  - Acts as the banker, agent, and debt manager for the government.
- **Banker to Banks**
  - Other banks retain their deposits with the RBI.
  - Provides funds to commercial banks during financial crises.
  - Advises commercial banks on monetary matters. **[UPSC 2012]**
- **Regulation of Commercial Banks**
  - Ensures liquidity of assets using SLR and CRR.
  - Regulates branch expansion.
  - Oversees merger and winding-up of banks. **[UPSC 2013]**
- **Lender of Last Resort**
  - Offers loans to banks or institutions facing financial difficulty or near collapse. **[UPSC 2021]**
- **Custodian of Foreign Exchange Reserves**
  - Manages and safeguards the country's foreign exchange reserves.

Governor of RBI

- **Appointment**
  - Proposed by the Financial Sector Regulatory Appointments Search Committee (FSRASC), headed by the Cabinet Secretary.
- **Tenure**
  - As per Section 8(4) of the RBI Act, the Governor and Deputy Governors hold office for a term not exceeding three years, as fixed by the Central Government at the time of appointment.
  - Eligible for re-appointment.
- **Powers**
  - The Governor derives powers from the RBI Act, 1934. **[UPSC 2021]**
  - The Act does not specify any particular qualifications for the Governor.
- **Removal**
  - The Governor can be removed by the Central Government.
- **Section 7 of RBI Act, 1934**
  - The Central Government can issue directions to the RBI, after consultation with the Governor, in the public interest.
  - No such provision exists in the Constitution of India. **[UPSC 2021]**

Minimum Reserve System of RBI

- The RBI maintains a minimum reserve of ₹200 crores:
  - ₹115 crores must be in the form of gold or gold bullion.
  - ₹85 crores in foreign currencies.
- The remaining reserve is backed by government securities issued and held by the RBI.

Publications of RBI

1. **Annual Publications**:
   - Report on Trend and Progress of Banking in India
2. **Half-Yearly Publications**:
   - Financial Stability Report
   - Monetary Policy Report
   - Report on Foreign Exchange Reserves
3. **Bi-Monthly Publications**:
   - Bi-monthly Policy Statement
4. **Quarterly Publications**:
   - Industrial Outlook Survey of the Manufacturing Sector
   - Consumer Confidence Survey
5. **Other Reports**:
   - Report on Financial Review

Various Committee Recommendations

1. **Usha Thorat Committee (2004)**
   - Recommended that RBI should maintain 18% of its total assets as reserves.
2. **Malegam Committee (2013)**
   - Suggested transferring the entire net profit annually to RBI.

3. Bimal Jalan Committee (2019)

- Recommended that the surplus distribution policy should consider total realized equity.
- Surplus can be transferred to the government only if realized equity exceeds the requirement (5.5% to 6.5%).

Deposit Insurance and Credit Guarantee Corporation (DICGC)

The **Deposit Insurance and Credit Guarantee Corporation (DICGC)** was established under the **DICGC Act, 1961**, as a wholly owned subsidiary of the **Reserve Bank of India (RBI)**. It insures all bank deposits, including **savings**, **fixed**, **current**, and **recurring deposits**, up to ₹500,000 per depositor in a bank. This means that if a person has multiple accounts in a bank, they are entitled to only ₹500,000 in case of a bank failure.

- **Premium Payment:** The bank (not the depositor) pays the premium for the insurance.

Mandatory Coverage: The following types of banks are mandated to provide deposit insurance from DICGC

- All **Scheduled Commercial Banks (SCBs)**
- **Local Area Banks (LABs)**
- **Foreign Banks** with branches in India
- **Cooperative Banks**

Exempted Deposits (No insurance cover is provided for)

- **Deposits of Foreign Governments**
- **Deposits of Central/State Governments**
- **Inter-bank deposits**
- Deposits received **outside India**
- **State Land Development Banks** deposits with **State cooperative banks**
- Any deposit that the corporation specifically excludes with prior approval from the **RBI.** **[UPSC 2012]**

BANKS IN INDIA

Commercial Banks

Commercial Banks in India are governed under the **Banking Regulation Act, 1949**. They are divided into **Scheduled Commercial Banks (SCBs)** and **Non-Scheduled Commercial Banks (NSCBs)**.

Scheduled Commercial Banks (SCBs)

SCBs are listed under the **Second Schedule of the RBI Act, 1934** and are regulated by the RBI. They must fulfill the following criteria:

- Minimum **paid-up capital** and reserves of ₹5 lakh.
- Operations must prioritize the welfare of depositors as per RBI regulations.

SCBs are further classified into five categories:

Type of Bank	Key Features
State Bank of India (SBI)	Largest public sector bank, providing comprehensive banking services.
Nationalised Banks	Banks nationalised by the government; e.g., Bank of India, Bank of Baroda.
Indian Private Banks	Private sector banks like HDFC, ICICI.
Private Sector Foreign Banks	Foreign banks like HSBC, Standard Chartered.
Regional Rural Banks (RRBs)	Established to cater to rural areas, 50% owned by the government, focus on agricultural credit.

[UPSC 2013]

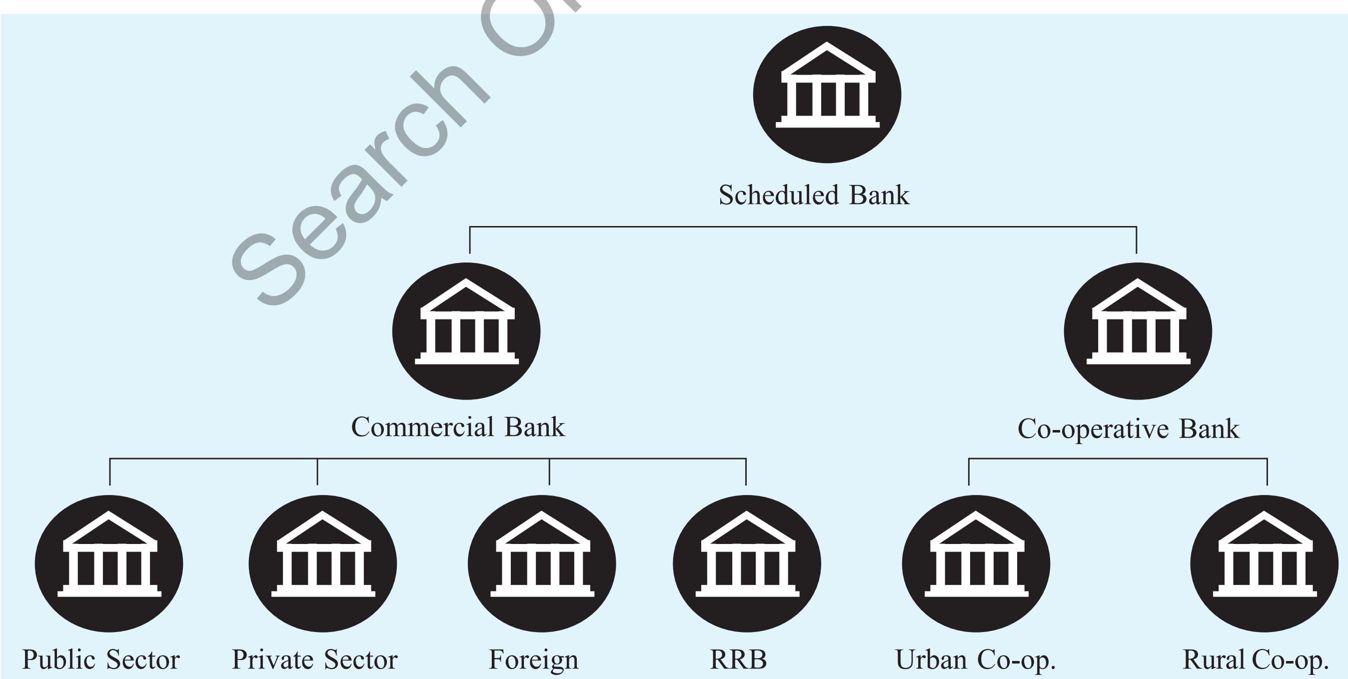


Fig.: Classificaton of Banks in India

Regional Rural Banks (RRBs)

RRBs were set up with the primary objective of providing credit to **rural households**. The ownership structure is as follows:

- 50% by Central Government
- 35% by Sponsor Banks
- 15% by State Governments **[UPSC 2021]**

Differentiated Banking

Differentiated banks are banks that offer specialized services or products to a specific segment of customers. The Reserve Bank of India (RBI) introduced the concept of differentiated banks in 2013 based on the recommendations of the **Nachiket Mor Committee.** Small finance banks, Payment banks, Urban Cooperative Banks (UCBs), Primary Agricultural Credit Societies (PACS), Regional Rural Banks (RRBs), and Local Area Banks (LABs) etc. are a few examples of differentiated banking.

Small Finance Banks (SFBs) vs Payment Banks

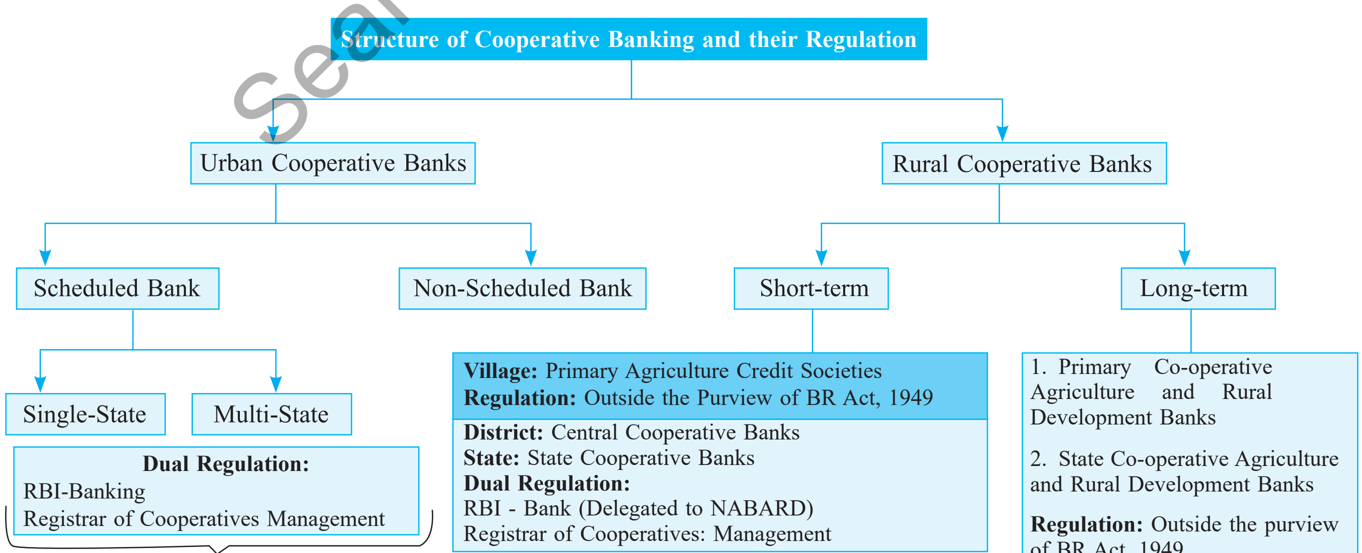
Feature	Small Finance Banks (SFBs)	Payment Banks
Examples	Capital Small Finance Bank, Ujjivan, Utkarsh	Airtel, India Post, FINO, Paytm, Jio, NSDL
Eligibility (Initial License)	Microfinance institutions with 10 years of banking/finance experience, NBFCs	Resident Indians, NBFCs, mobile telephone companies
CRR, SLR, Repo	Same as Indian private banks	Same as Indian private banks, with special terms for SLR
Rural Penetration	Mandatory: 25% branches in unbanked rural areas	Not mandatory, but 25% access points must be in rural areas (e.g., Kirana stores)
Deposit Acceptance	Yes, no restrictions	Yes, only demand deposits with a maximum balance of ₹2 lakh per customer
Loans	Yes, with specific requirements: * 75% of loans must be in Priority Sector Lending (PSL) * 50% of loan portfolio must be below ₹25 lakh	No, cannot offer loans
Credit Cards	Yes	No

[UPSC 2016]

Cooperative Banks

Co-operative Societies are governed under the **Co-operative Societies Act, 1904**. The structure of Cooperative Banks in India consists of **four distinct tiers**:

- **Central Cooperative Banks**: Operate at the district level, providing loans primarily to affiliated primary societies. One of the most important functions of DCCBs is to provide funds to the Primary Agriculture Credit Societies. **[UPSC 2020]**
- **State Cooperative Banks**: Operate at the state level.
- **Primary Cooperative Banks**: Serve urban and semi-urban areas, focusing on non-agricultural businesses.
- **Land Development Banks**: Cater specifically to farmers' needs, offering credit for development purposes.



- Recently, urban cooperative banks were brought under the regulatory framework of the **RBI**, following the **Banking Regulation (Amendment) Act, 2020**. **[UPSC 2021]**

Development Banks

Development banks provide long-term financial assistance to the economy, especially in sectors crucial for growth and infrastructure development.

Development Bank	Ownership	Focus Area
NABARD (National Bank for Agriculture and Rural Development) **[UPSC 2013]**	Fully owned by the Government of India	Provides refinance facilities to Commercial Banks, State Cooperative Banks, and Rural Banks
SIDBI (Small Industries Development Bank of India)	Government of India with other institutions	Promotes and facilitates the growth of small industries in India
EXIM Bank (Export-Import Bank of India)	Government of India	Foreign trade and export credit
National Housing Bank	Government of India	Housing finance
MUDRA Bank	Government of India	Microfinance
NaBFID (National Bank for Financing Infrastructure and Development)	Government of India	Infrastructure financing

Foreign Banks in India

Foreign banks are banks incorporated outside India, operating in India through branches, wholly owned subsidiaries (WOS), or representative offices.

RBI Guidelines:

- **Branch Model:** No minimum capital requirement; subject to certain restrictions.
- Wholly Owned Subsidiary (WOS) Model: **[UPSC 2024]**
    - Minimum capital requirement: ₹500 crore.
    - At least 50% of the board must be Indian nationals.

Examples of Foreign Banks in India:

- Standard Chartered Bank, Citibank, HSBC, etc.

Banking Regulation (Amendment) Act, 2020

Type of Bank	Regulator
Commercial (e.g., SBI, Axis)	RBI
Cooperative (Single State, Rural)	RBI+State Government
Cooperative (Single State, Urban)	RBI
Cooperative (Multi-State)	RBI
Cooperative (PACS)	State Government

Non-Banking Financial Companies (NBFCs)

NBFCs provide financial services without holding a banking license and are regulated under the **Companies Act, 2013**.

Key characteristics of NBFCs

- Cannot accept demand deposits.
- Cannot create credit.
- Cannot issue checks drawn on themselves.
- Do not participate in payment and settlement systems.
- Deposit insurance is not available for NBFCs.
- Cannot directly access the Liquidity Adjustment Facility (LAF) window of the Reserve Bank of India (RBI). **[UPSC 2024]**

Types of NBFC and Regulation

Category	Type of Institution/Company	Regulator
NBFCs Regulated by Other Regulators	Housing Finance Institutions	National Housing Bank
	Merchant Banking, Venture Capital, Stockbroking, and Collective Investment Schemes	SEBI
	Nidhi Companies, Mutual Benefit Companies	Ministry of Corporate Affairs (MCA)
	Chit Fund Companies	State Governments
	Insurance Companies	Insurance Regulatory and Development Authority (IRDA)
Non-Banking Non-Financial Companies	Companies registered under the Companies Act, 1956	Ministry of Corporate Affairs (MCA) & State Governments

Different Types of NBFCs as per RBI

Type of NBFC	Description
Asset Finance Companies (AFCs)	Provide finance for physical assets like vehicles, machinery.
Loan Companies (LCs)	Provide loans but are not involved in asset financing.
Investment Companies (ICs)	Primarily invest in shares and securities.
Infrastructure Finance Companies (IFCs)	Fund infrastructure projects.
Microfinance Institutions (MFIs)	Provide micro-loans to low-income groups.
Core Investment Companies (CICs)	Specialize in the acquisition of shares and securities.

[UPSC 2015]

NIDHI Companies and CHIT Funds

Nidhi

- Included in the definition of **NBFCs.**
- Registered under the **Companies Act, 1956** and are **regulated by the Ministry of Corporate Affairs.**
- It **receives deposits** from, and **lends to its members only**, for their mutual benefit.

Chit Funds

It is a type of savings scheme where a specified number of subscribers contribute payments in installments over a defined period.

- Covered in the **Concurrent List.**
- RBI does not regulate the chit fund business and SEBI Act specifically excludes chit funds.
- Chit fund business is **regulated under the Central Chit Funds Act, 1982** and the **rules framed** under this Act **by the various state governments** for this purpose.

Ponzi Schemes: These schemes promise high returns with little or no risk.The Ponzi scheme generates returns for older investors by acquiring new investors. example - Saradha Scam.

Difference between NBFCs and Banks

Feature	NBFCs	Banks
License	Not required to hold a banking license	Must hold a banking license
Demand Deposits	Cannot accept demand deposits	Can accept demand deposits
Regulation	Regulated under the Companies Act, 2013	Regulated under the Banking Regulation Act, 1949
Deposit Insurance	Not available	Available via DICGC
Credit Creation	Does not create credit	Banks can create credit
Foreign Investment	Up to 100% foreign investment allowed	Up to 74% foreign investment for private banks
Payment and Settlement	Not part of the system	Integral part of the system

Basel Norms for Banking Regulation

- **Overview:**
  - Basel norms regulate global banking standards under the **Basel Committee on Bank Supervision (BCBS)**.
  - India currently follows **Basel III** norms.

[UPSC 2015]

- **Basel III Requirements:**
  - **Capital Adequacy:**
    - Tier 1 and Tier 2 assets must be at least **10.5%** of risk-weighted assets.
  - **Tier 1 Capital:**
    - **Definition:** Primary funding source, including shareholders' equity and retained earnings.
  - **Tier 2 Capital:**
    - **Components:** Revaluation reserves, hybrid capital instruments, subordinated term debt, etc.
    - **Reliability:** Less liquid and less reliable than Tier 1 capital.
- **Liquidity Coverage Ratio (LCR):**
  - **Definition:** Ensures banks maintain adequate liquidity to survive for 30 days during financial stress.

PRIORITY SECTOR LENDING (PSL)

Priority Sector Lending refers to the portion of lending that banks are mandated to dedicate to sectors that are vital for national development.

- **Overall target for Scheduled Commercial Banks:** 40% of Adjusted Net Bank Credit (ANBC) or **Credit Equivalent of Off-balance Sheet Exposures** (CEOBE), whichever is higher.
- **Foreign banks with less than 20 branches:** 40% of ANBC or CEOBE, with up to 32% for exports and at least 8% for other priority sectors.
- **Foreign banks with 20 or more branches in India** must lend 40% of their total credit to priority sectors, the same as domestic commercial banks. This is known as the Priority Sector Lending (PSL) target.
- **Regional Rural Banks and Small Finance Banks:** 75% of ANBC or CEOBE

Categories for Lending

The key sectors for priority lending are: **[UPSC 2013]**

- Agriculture
- Micro, Small, and Medium Enterprises (MSMEs)
- Export Credit
- Education
- Housing
- Social Infrastructure
- Renewable Energy
- Others (as specified)

Sector-wise targets are fixed by RBI from time to time.

Target Category	Target as % of Total Net Bank Credit (NBC)
Total Priority Sector Lending	**40%** of total net bank credit
Weaker Sections (e.g., SC/ST, women, small farmers, etc.)	**12%** of total net bank credit or 10% of PSL, whichever is higher
Agriculture	**18%** of total net bank credit
Small and Marginal Farmers (within agriculture)	**10%** of the total net bank credit
Micro Enterprises (as per Credit Equivalent Amount of Off Balance Sheet Exposure)	**7.5%** of the total net bank credit or Credit Equivalent Amount of Off Balance Sheet Exposure, whichever is higher

- **Note:** The credit allocation to agriculture includes a specific sub-target for **small and marginal farmers**, emphasizing their importance in the agrarian economy.

Non-compliance with PSL Targets

If a bank fails to meet the prescribed PSL targets, it must deposit the shortfall into designated funds. These include:

1. **Rural Infrastructure Development Fund (RIDF)** administered by the **National Bank for Agriculture and Rural Development (NABARD)**.
2. **Urban Infrastructure Development Fund**.
3. **SIDBI**, **MUDRA Ltd**, and the **National Housing Bank (NHB)**, among others.

The amount to be deposited is periodically determined by the RBI.

Priority Sector Lending Certificates (PSLC)

To facilitate flexibility in meeting PSL targets, the **PSL Certificates (PSLC)** scheme allows banks that exceed their PSL targets to sell their surplus PSL credit to banks that are falling short. This system ensures that the overall objective of funding priority sectors is met, even if individual banks struggle to achieve it.

Co-lending with Non-Banking Financial Companies (NBFCs) and Housing Finance Companies

Banks can also **co-lend** with **NBFCs** and **housing finance companies** (HFCs) to meet PSL targets. This arrangement allows for greater reach and risk-sharing, particularly in areas like **housing** and **MSMEs**, where funding requirements may be larger or more complex.

MONEY CREATION BY THE BANKING SYSTEM

Assets and Liabilities of Banks

- **Assets of the Bank:** These are resources owned by the bank that generate income:
  - **Investments:** Bonds, securities, or mutual funds purchased by the bank.
  - **Money at Call and Short Notice:** Short-term loans given to other banks or financial institutions.
  - **Loans and Advances:** Loans extended to customers and businesses.
  - **Bills Discounted and Purchased:** Bills receivable purchased at a discount. **[UPSC 2019]**
- **Reserves:**
  - Deposits held by commercial banks with the **RBI** as cash or financial instruments like treasury bills.
  - **Purpose**: To meet cash withdrawal demands and regulatory requirements.
- **Liabilities of the Bank**:
  - **Deposits:** Money owed by the bank to account holders.

Demand Liabilities of a Bank (CASA)

- **Current Account, Savings Account, Demand Draft (CASA)** balances are part of demand liabilities.
- Overdue balances in fixed deposits and unclaimed deposits also fall under this category.
- **Net Worth of the Bank:** Net Worth = Assets – Liabilities

Key Ratios in Banking

- **Money Multiplier (m)**
  - Indicates how many times the initial deposit expands to form the total money supply.

$$m = \frac{\text{Money Supply (M)}}{\text{High-Powered Money (H)}}$$

  - **Explanation**: Higher the money multiplier, more effective is the banking system in creating credit. The money multiplier in an economy increases with increase in the banking habit of the people. **[UPSC 2019, 2021]**
- **Fractional Reserve Banking**
  - Banks are required to keep a fraction of their deposits as reserves and lend the rest.
  - Encourages **money creation** through repeated lending.

- **Currency Deposit Ratio (CDR)**
  - Reflects the proportion of cash held by the public relative to their bank deposits.

$$CDR = \frac{\text{Currency in Circulation}}{\text{Demand Deposits}}$$

- **Reserve Deposit Ratio (RDR)**
  - Percentage of total deposits retained by banks as reserves.

$$RDR = \frac{\text{Reserves (Cash + Deposits with RBI)}}{\text{Total Deposits}}$$

  - **Components of Reserve Money**:
    - Vault cash in banks.
    - Deposits of commercial banks with the RBI.
- **Provision Coverage Ratio (PCR):**
  - Represents the proportion of NPAs covered by provisions. It helps banks buffer against future asset impairments. A higher PCR is preferable as it indicates better preparedness for potential losses.
- **Net Non-Performing Assets (NNPA):**

  NNPA = Gross NPAs – Provisions
  - It represents NPAs after accounting for the provisions made by the bank.

BANKING SECTOR REFORMS

Narasimham Committee (1991 & 1998)

- Advocated the **merger of strong banks** (public & private sector) to enhance efficiency and competitiveness.
- Recommended reduced government interference in bank operations.

CAMEL Parameters (Bank Performance Evaluation Framework)

- **C:** Capital Adequacy – Ensures banks maintain sufficient capital reserves to absorb risks.

  Capital Adequacy Ratio (CAR)

$$= \frac{\text{Bank's Capital}}{\text{Risk-weighted Assets}} \times 100$$

  - Bank's capital = Tier 1 + Tier 2 assets
  - Minimum CAR as per Basel III norms: **10.5%**.
- **A:** Asset Quality – Examines the quality of loans and advances.
- **M:** Management Efficiency – Focuses on governance and operational soundness.
- **E:** Earnings Quality – Measures profitability and sustainability.
- **L:** Liquidity – Assesses ability to meet short-term obligations.

Scale-Based Regulation for NBFCs

- **Scale-Based Regulation (SBR)**, introduced by the **Reserve Bank of India (RBI)**, aims to regulate **Non-Banking Financial Companies (NBFCs)** based on their size and systemic importance. The approach ensures that larger, more significant NBFCs face stricter regulatory requirements, while smaller ones are subject to lighter norms.
- **Differentiated Approach:** NBFCs are classified into **four tiers** based on their asset size and systemic impact:

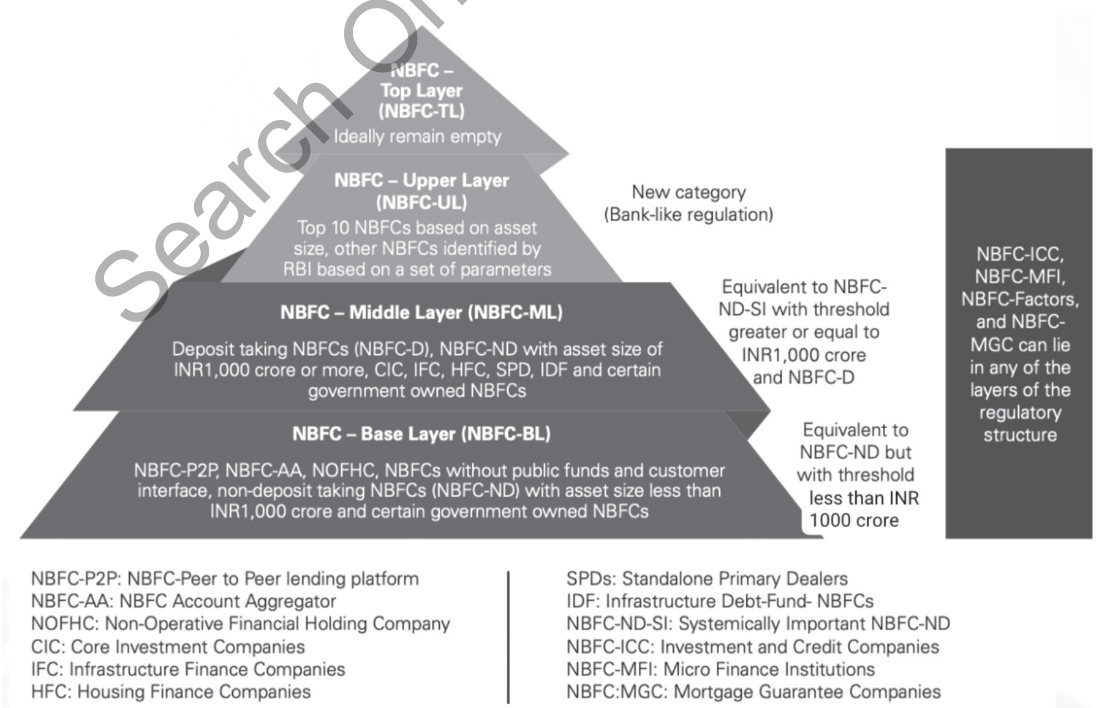


Fig. SBR Framework

- **Tier 1:** Systemically Important NBFCs (SI-NBFCs), with significant impact on the financial system.
- **Tier 2:** Medium-sized NBFCs.
- **Tier 3:** Smaller NBFCs.
- **Tier 4:** Niche-focused NBFCs.

- **Regulatory Requirements:** Larger NBFCs are required to maintain higher **capital adequacy**, **liquidity ratios**, and **disclosure norms**. Smaller NBFCs face relatively lighter requirements.
- **Governance and Risk Management:** Larger NBFCs must adopt robust **risk management** and **corporate governance** practices. **Tier 1 NBFCs** are more stringently monitored for risks like credit, market, and liquidity.
- **Capital Adequacy and Liquidity:** The **capital adequacy ratio (CAR)** is higher for **Tier 1 NBFCs**, ensuring financial stability. For instance, **SI-NBFCs** are required to maintain a **CAR** of **15%** or higher, based on RBI guidelines.
- **Data for SI-NBFCs:** As of recent RBI data, **Systemically Important Non-Banking Financial Companies (SI-NBFCs)** have a **combined asset size** exceeding ₹500 crore and are required to meet stringent **capital adequacy** and **liquidity norms**.

Mission Indradhanush

- A **7-pronged strategy** (ABCDEF&G) to resolve Public Sector Bank (PSB) challenges:
  1. **Appointments:** Separation of CEO and MD roles.
  2. **Bank Board Bureau (BBB)** setup to oversee appointments.
  3. **Capitalization:** Infused ₹70,000 crores to meet Basel III norms.
  4. **De-stressing:** PSBs by addressing NPAs.
  5. **Employment:** Enhanced autonomy in hiring.
  6. **Framework for Accountability:** Use Key Performance Indicators (KPIs).
  7. **Governance Reforms:** Encouraged conclaves like Gyan Sangam.

Bank Board Bureau (BBB)

- Acts as a **middleman** to separate PSBs from government control.
- **Functions:**
  - Recommends appointments for senior roles in PSBs.
  - Develops strategies for capital-raising and performance improvement.
- **Superseded by:** Financial Services Institutions Bureau (FSIB) in 2022.
- It was suggested by **P.J Nayak committee** set up for Public Sector Bank reforms.

Core Banking Solution (CBS)

- A software platform enabling **branch-less, centralized banking**.
- **Examples:**
  - **Finacle:** Used by ICICI Bank.
  - **E-Kuber:** Used by RBI.
- **Features:** Real-time transactions, account management across branches, 24/7 service.

National Financial Reporting Authority (NFRA)

- Independent regulator established under the **Companies Act, 2013**.
- **Composition:**
  - Chairperson + 15 members.
- **Powers:**
  - Investigates misconduct in auditing/accounting.
  - Covers listed companies and unlisted companies with:
    - Paid-up capital ≥ ₹500 crore.
    - Annual turnover ≥ ₹1,000 crore.

Serious Fraud Investigation Office (SFIO)

- Established on the recommendation of the **Naresh Chandra Committee on Corporate Governance**.
- **Purpose:** Investigates white-collar crimes.
- **Regulator:** Ministry of Corporate Affairs.

Insolvency and Bankruptcy Code (IBC)

- Framework for resolving **insolvency** and **bankruptcy** issues in a **time-bound** manner.
- **Trigger Threshold:** Minimum default of ₹1 crore.
- **Resolution Timeline:**
  - **180 days** (extendable to 270 days).
  - Assets are liquidated if no resolution is achieved.
- **Excludes: Willful Defaulters.**
- **Key Pillars**
  - **NCLT:** Adjudicating authority.
  - **Insolvency Professionals (IPs):** Manage cases.
  - **Information Utilities (IUs):** Mitigate information asymmetry.
  - **IBBI:** Insolvency and Bankruptcy Board of India (IBBI) is the regulatory body.
- **Key Definitions**
  - **Insolvency:** Inability to pay debts when due.
  - **Bankruptcy:** Legal declaration of insolvency.
  - **Bail-In:** Bank's deposits are used to stabilize itself.
  - **Bail-Out:** External rescue using public funds.

UNDERSTANDING CREDIT AND ITS TERMS

- **Formal Sector Loans**:
  - Loans provided by **banks and cooperatives**, regulated by the RBI.
- **Informal Sector Loans**:
  - Loans offered by **moneylenders, traders, and employers** without regulation.
- **Terms of Credit**:
  - **Include:**

- **Interest Rate**: Cost of borrowing.
- **Collateral**: Asset pledged as security (e.g., land, gold, deposits).
- **Documentation**: Papers required for loan approval.
- **Repayment Mode**: Structure and timing of repayment.

- **Collateral**:
  - **Definition**: A guarantee provided by the borrower to the lender until the loan is repaid. Examples include property, livestock, or bank deposits.
- **Teaser Loans**:
  - Loans offering lower initial interest rates as an incentive.
  - **Risk**: Linked to subprime lending. **[UPSC 2011]**
- **Credit Rating Agencies**:
  - **Indian Agencies** (regulated by SEBI):
    - CRISIL, ICRA, CARE, SMERA, Fitch India, Brickwork Ratings.
  - **Global Agencies**: Fitch Ratings, Moody's, S&P. **[UPSC 2022]**

NON-PERFORMING ASSETS (NPAs)

- **Definition:** A loan where the **principal/interest is overdue for >90 days**.
- **For Agriculture Loans:**
  - **Short-duration crops:** Overdue >2 crop seasons.
  - **Long-duration crops:** Overdue >1 crop season.

Special Mention Accounts (SMAs)

- Accounts showing **early stress symptoms** (before becoming NPAs).

SMA Category	Overdue Period
SMA-0	0–30 days
SMA-1	31–60 days
SMA-2	61–90 days

Loan Account Classifications

Category	Definition
Standard Account	Loan with timely payments.
Substandard Asset	NPA for <12 months.
Doubtful Asset	Substandard asset for ≥12 months.
Loss Asset	Identified as irrecoverable, but not fully written off.
Restructured Loan	Loan terms modified to assist the borrower.
Stressed Asset	Sum of NPAs, written-off loans, and restructured loans.

Non-Performing Assets (NPAs) Data

As per 29th Financial Stability Report (2024), **India's NPA ratio** stands at approximately 2.8%, while Net NPA at 0.6%. Public sector banks account for the largest share of NPAs, with **PSBs contributing over 80%** of the total NPAs. The **biggest contributors** to NPAs are sectors such as **Power**, **Telecom**, and **Steel** industries, which are highly overleveraged and have seen financial stress.

Difference Between Written-off Loans and NPAs

- **Non-Performing Assets (NPAs):**
  - **NPAs** are loans where the borrower has defaulted on interest payments or principal repayment for a specified period (usually 90 days or more). These loans continue to appear on the bank's balance sheet, and provisions are made for possible losses.
- **Written-off Loans:**
  - A **written-off loan** refers to a loan that the bank has recognized as a loss and removed from its balance sheet. This does not mean the loan is completely forgiven; the bank may still attempt to recover it, but it is no longer included in the bank's active NPAs. Written-off loans are typically those that have been non-performing for a long period, and recovery becomes unlikely.

Twin Balance Sheet Problem

The **Twin Balance Sheet (TBS) Problem** refers to the distress faced by both **public sector banks (PSBs)** and **corporate sectors** in India, where PSBs are burdened with **Non-Performing Assets (NPAs)** and corporate sectors are overleveraged with excessive debt.

- **Overleveraged Companies:** These companies have high levels of debt and struggle to meet interest payments. A key indicator for evaluating a company's financial health is the **Interest Coverage Ratio (ICR)**:

  $$ICR = \frac{EBIT}{\text{Interese Expenses}}$$

  where, Interest Expenses = Total interest payable on the company's debt.

  EBIT = Earnings Before → Interest and Taxes.
  - A **higher ICR** indicates better ability to service debt. A low ICR signals higher risk for lenders. **[UPSC 2020]**
- **Rising NPAs in PSBs**: Public sector banks are struggling with rising NPAs, impacting their financial health and reducing their ability to lend. NPAs are loans that are in default or close to default.

Measures for NPA Resolution

- 3R Framework for Revitalizing Stressed Assets
  - **Rectification: Asset Quality Review (AQR)** is conducted to evaluate and classify stressed assets.
  - **Restructuring:**

- **Strategic Debt Restructuring (SDR):** Allows lenders to convert debt into equity, taking control of a company's assets.
- **Scheme for Sustainable Structuring of Stressed Assets (S4A):** Evaluates the portion of debt that is sustainable and restructures the unsustainable portion by converting it into equity, without changing ownership.
- **Joint Lenders Forum (JLF):** A platform for collaborative decision-making on the resolution of stressed assets.

- **Recovery:** Use of the **SARFAESI Act, 2002** and **Insolvency and Bankruptcy Code (IBC), 2016** to recover dues.

> **K.V. Kamath Committee:** The committee was established to recommend measures for restructuring loans affected by the **COVID-19 pandemic**. **[UPSC 2020]**

- **Inter-Creditor Agreement (ICA):**
  - Part of **Project Sashakt**, the ICA facilitates faster resolution of stressed assets for loan amounts of ₹50 crore or more, managed by a group of lenders.
- **Bad Banks:** A **Bad Bank** is a financial institution established to buy bad loans from other banks or financial institutions, restructure them, and absorb the losses. It aims to help the banking sector clean up its balance sheets and recover from distressed assets.
  - **Components of a Bad Bank:**
    - **Asset Management:** Purchase NPAs from PSBs at a discounted value.
    - **Loan Restructuring:** Restructure and recover distressed loans.
    - **Debt Recovery:** Sell assets or businesses to recover the debt.
  - The **Public Sector Asset Rehabilitation Agency (PARA)**, proposed in the **Economic Survey 2016-17**, was suggested as a bad bank to resolve stressed assets. The government has also explored the concept of bad banks to handle NPAs in India.
- **National Asset Reconstruction Company Ltd (NARCL):**
  - **Purpose:** NARCL is a **bad bank** set up by the government to acquire **stressed assets** from banks, particularly public sector banks. It buys **NPAs** at a discounted price and focuses on resolving them through **restructuring**, **reorganization**, or **sale of assets**.
  - **Ownership:** It is a joint venture between **public sector banks** and the government, designed to clean up the balance sheets of banks.
  - **Asset Acquisition and Funding:** NARCL buys distressed assets worth over ₹500 crore. It is capitalized by a combination of **equity** from PSBs, the government, and funding from the **National Investment and Infrastructure Fund (NIIF)**. A **government guarantee** covers the loss portion of the acquired assets.
  - **Operational Model:** After acquiring the stressed assets, NARCL works on resolving them, either through liquidation or restructuring, with support from **IDRCL** (discussed below).
- **India Debt Resolution Company Ltd (IDRCL):**
  - **Purpose:** IDRCL is the **operational arm** of NARCL. It handles the day-to-day management and resolution of distressed assets acquired by NARCL from banks. IDRCL works to improve the value of these assets by restructuring them, finding buyers, or managing asset sales.
  - **Operational Framework:** IDRCL focuses on **large stressed assets** that NARCL purchases, using a professional team to work on the resolution. It operates with other resolution agencies like **asset reconstruction companies (ARCs)** to recover funds efficiently.
- **Prompt Corrective Action (PCA):**
  - Banks that fall below certain thresholds in **capital ratios**, **asset quality**, and **profitability** are placed under the PCA framework, which restricts certain activities like branch expansion and dividend payments. **[UPSC 2018]**
  - PCA will replace the **Supervisory Action Framework** for Urban Cooperative banks from April 1,2025.
- **Debt Recovery Tribunal (DRT):**
  - A legal forum where lenders can recover dues by auctioning mortgaged assets, with appeals available to the **Debt Recovery Appellate Tribunal (DRAT)**.
- **e-Bay Portal:**
  - A platform launched for online auctions of attached assets, ensuring transparency and improved realization of value from asset sales.

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4 Monetary Policy and Inflation

MONETARY POLICY

Monetary policy refers to the strategy adopted by the central banks (in case of India, RBI under RBI Act,1934), to manage the supply of money and credit in the economy. This policy uses various monetary instruments, such as interest rates and liquidity measures, to achieve specific **macroeconomic goals.**

Objectives of Monetary Policy

- **Accelerating Economic Growth:** Ensures sufficient liquidity in the economy to stimulate investment and economic development.
- **Price Stability and Inflation Control:** Aims to keep inflation within a target range while preventing deflation.
- **Exchange Rate Stabilization:** Helps maintain a stable and competitive exchange rate for external trade and investment.
- **Balancing Savings and Investment:** Aligns the interest rate environment to encourage savings and channelize them into productive investments.
- **Employment Generation:** Creates an economic environment conducive to job creation.

Classification of Monetary Policy

- **Expansionary Monetary Policy** **[UPSC 2019, 2020]**
  - **Objective:** Increase money supply to fuel economic growth.
  - **Also Known As: Dovish Policy**
  - **Key Features:**
    - Reduction in interest rates (Repo Rate, Bank Rate, SLR, Marginal Standing Facility).
    - Injects liquidity into the banking system, enabling banks to lend more.
    - Increases aggregate demand and stimulates investment.
  - **Context:** Adopted during economic slowdowns or recessions to boost growth.
  - **Example: Global Financial Crisis of 2008**.
- **Contractionary Monetary Policy**
  - **Objective:** Decrease money supply to control inflation.
  - **Also Known As: Hawkish Policy**
  - **Key Features:**
    - Increase in interest rates (Repo Rate, Bank Rate, SLR, MSF).
    - Absorbs excess liquidity, reducing the credit available for spending and investment.
    - Curbs aggregate demand, thereby stabilizing inflation.
  - **Context:** Adopted during periods of overheating economies with high inflation.
  - **Example: RBI's rate hikes during the post-COVID-19 inflationary phase**.

MONETARY POLICY COMMITTEE (MPC)

Aspect	Details
Establishment	Formed under Section 45ZB of the Reserve Bank of India Act, 1934, amended in 2016.
Purpose	To set the policy repo rate and guide monetary policy to achieve price stability while fostering growth.
Composition	Comprises six members**:** • **RBI Representatives (3):** Governor (Chairperson), Deputy Governor (Monetary Policy), and one officer. • **Government Nominees (3):** Experts in economics or related fields, nominated by the Central Government.
Decision-Making	• Decisions are made by a majority vote. • Each member has one vote; the RBI Governor has a casting vote in case of a tie.
Frequency of Meetings	At least four times a year (quarterly) or as required.
Tenure of Members	Nominated members serve for four years or until further notice.
Target	Maintain the inflation target (CPI-Combined) as per the agreement between the Government of India and RBI.
Inflation Target	• Fixed by the Government in consultation with RBI. • Current target**: 4%** (+/- 2%) as per the agreement (2021-2026).
Legal Framework	Decisions and actions are based on the provisions of the RBI Act, 1934.
Public Communication	• The RBI publishes the MPC resolution, detailing the rationale for decisions. • Minutes of MPC meetings are released with a 14-day lag.

Key Features of the MPC [UPSC 2017]

- **Accountability:** The RBI must explain any failure to meet inflation targets to the government and suggest corrective measures.
- **Inflation-Targeting Framework:** The MPC focuses on price stability as a primary goal, ensuring economic growth is not compromised.
- **Transparency:** Detailed records of discussions and decisions are publicly accessible to enhance transparency.
- **Inflation Target Setting and MPC's Role**
  - The **Government of India**, in consultation with the Reserve Bank of India (RBI), fixes the **inflation target** under the flexible inflation-targeting framework.
  - The current inflation target is **4%**, with a tolerance band of **+/- 2%** (i.e., a range of 2% to 6%), applicable for the period **2021-2026**.
- **Conditions Leading to MPC Failure**
  - As per the **RBI Act, 1934** (amended in 2016), the Monetary Policy Committee (MPC) is deemed to have **failed** if inflation remains outside the target range of **2%-6%** for **three consecutive quarters** (i.e., three cycles of failure).
- **Consequences of Failure**
  - **Accountability:** If the MPC fails, the RBI is required to submit a **report to the Government of India** detailing**:**
    - Reasons for the failure.
    - Proposed corrective actions.
    - A timeline to restore inflation within the target band.

Urjit Patel Committee (2014) and Inflation Targeting

The **Urjit Patel Committee** introduced the framework for **inflation targeting**, where a clear inflation target range was set in collaboration with the government. This framework was designed to enhance the credibility of monetary policy and anchor inflation expectations.

- **Inflation Target: 4% +/- 2%**
  This means inflation can vary between **2% and 6%**, but the central bank aims for an average inflation of 4% over the medium term.
- **Monetary Policy Committee (MPC):** A committee was set up to oversee inflation targeting and ensure that inflation remains within the target range. The committee's decisions are based on economic data, and it is responsible for taking appropriate actions when inflation deviates from the target. [UPSC 2022]

If inflation is above the target, the RBI may reduce the money supply by selling government securities, thereby sucking out excess liquidity.

INSTRUMENTS OF MONETARY POLICY

There are several direct and indirect instruments that are used for implementing monetary policy. **[UPSC-2015]**

- **Liquidity Adjustment Facility (LAF):** The LAF refers to the Reserve Bank's operations through which it injects/absorbs liquidity into/from the banking system. It consists of overnight as well as term repo/reverse repos (fixed as well as variable rates), **SDF and MSF**. Apart from LAF, instruments of liquidity management include outright open market operations (OMOs), forex swaps and market stabilisation scheme (MSS).
- **Repo Rate:** The interest rate at which the Reserve Bank provides liquidity under the liquidity adjustment facility (LAF) to all LAF participants against the collateral of government and other approved securities.
- **Reverse Repo Rate:** The interest rate at which the Reserve Bank absorbs liquidity from banks against the collateral of eligible government securities under the LAF.
- **Marginal Standing Facility (MSF) Rate:** The penal rate at which banks can borrow, on an overnight basis, from the Reserve Bank by dipping into their Statutory Liquidity Ratio (SLR) portfolio up to a predefined limit (1% of bank's Net Demand and Time Liabilities). This provides a safety valve against unanticipated liquidity shocks to the banking system. The MSF rate is placed at 25 basis points above the policy repo rate. **[UPSC-2014]**
- **Standing Deposit Facility (SDF) Rate:** The rate at which the Reserve Bank accepts uncollateralised deposits, on an overnight basis, from all LAF participants. The SDF is also a financial stability tool in addition to its role in liquidity management. The **SDF rate is placed at 25 basis points below the policy repo rate**. With introduction of SDF in April 2022, the SDF rate replaced the fixed reverse repo rate as the floor of the LAF corridor.
- **LAF Corridor:** The LAF corridor has the Marginal standing facility (MSF) rate as its upper bound (ceiling) and the Standing deposit facility (SDF) rate as the lower bound (floor), with the policy repo rate in the middle of the corridor.
- **Fine Tuning Operations:** The main liquidity operation is supported by fine-tuning operations, overnight and/or longer tenor, to tide over any unanticipated liquidity changes during the reserve maintenance period. In addition, the Reserve Bank conducts, if needed, longer-term variable rate repo/reverse repo auctions of more than 14 days.
- **Bank Rate:** The minimum rate of interest, which a central bank charges (in India's case - Reserve Bank of India), while lending loans to domestic banks is called "Bank Rate". The rate at which the Reserve Bank is ready to buy or rediscount bills of exchange or other commercial papers. The **Bank Rate acts as the penal rate c**harged on banks for shortfalls in meeting their reserve requirements (cash reserve ratio and statutory liquidity ratio). The Bank Rate is published under Section 49 of the RBI Act, 1934. This rate has been **aligned with the MSF rate** and, changes automatically as and when the MSF rate changes alongside policy repo rate changes.

- **Main Liquidity Management Tool:** A 14-day term repo/reverse repo auction operation at a variable rate conducted to coincide with the cash reserve ratio (CRR) maintenance cycle is the main liquidity management tool for managing frictional liquidity requirements.
- **Cash Reserve Ratio (CRR):** The average daily balance that a bank is required to maintain with the Reserve Bank as a per cent of its net demand and time liabilities (NDTL) as on the last Friday of the second preceding fortnight that the Reserve Bank may notify from time to time in the Official Gazette. CRR tool enable the Central Bank to control the amount of advances the banks can create. **[UPSC-2014]**
- **Statutory Liquidity Ratio (SLR):** Every bank shall maintain in India assets, the value of which shall not be less than such percentage of the total of its demand and time liabilities in India as on the last Friday of the second preceding fortnight, as the Reserve Bank may, by notification in the Official Gazette, specify from time to time and such assets shall be maintained as may be specified in such notification (typically in unencumbered government securities, cash and gold). **[UPSC- 2015]**

Government Securities (G-Sec)

- It is a **tradable instrument issued by** the **central government or state governments**.
- **Short-term G-secs** (with original maturities of less than one year) are called **Treasury Bills.**
- **Long-term G-secs** (with original maturities of more than one year) or long term are called **Government Bonds or Dated Securities.**
- **Treasury Bills** are **not issued by State Governments,** while **Government Bonds or Dated securities** are **issued both by State and Central Governments.**

MARKET OPERATIONS

Open Market Operations (OMOs)

Open Market Operations refer to the buying and selling of Government bonds in the open market by the Reserve Bank of India (RBI) to regulate the money supply in the economy. When the RBI buys government bonds, money supply in the economy increases, and when it sells government bonds, the money supply decreases. **[UPSC 2013]**

There are two types of Open Market Operations**:**

- **Outright Open Market Operations**
  - Permanent in nature, with no commitment from the central bank to repurchase or sell back the bonds.
- **Repo Open Market Operations**
  - **Repurchase Agreement (Repo):** The RBI buys bonds and agrees to sell them back at a specified price on a future date.
  - **Reverse Repurchase Agreement (Reverse Repo):** The RBI sells bonds with an agreement to repurchase them at a future date at an agreed price.

These operations help in regulating liquidity in the banking system by either injecting or absorbing money as needed.

Market Stabilization Scheme (MSS)

The Market Stabilization Scheme (MSS) aims to absorb excess liquidity in the market by issuing government securities such as treasury bills or dated securities. The funds raised from the sale of these securities are held with the RBI, effectively reducing the money supply in the economy. This mechanism is used during periods of surplus liquidity to stabilize the financial system.

Operation Twist

Operation Twist is a special type of Open Market Operation carried out by the RBI.

In **Operation Twist**, the central bank does the following**:**

- **Sell short-term government securities** (such as Treasury bills) to raise funds.
- **Use those funds to buy long-term government securities** (such as 10-year Treasury bonds).

This action is designed to flatten the yield curve, which refers to the difference in interest rates between short-term and long-term bonds. Specifically**:**

- By **buying long-term securities**, the central bank pushes up their prices and drives down their yields (interest rates).
- By **selling short-term securities**, the central bank increases their supply, which lowers their prices and pushes up their yields.

Influence on Long-Term Bond Yields and Interest Rates

The **primary aim of Operation Twist** is to reduce long-term interest rates, especially bond yields, without affecting short-term interest rates. By purchasing long-term bonds, the central bank increases their demand, which causes bond prices to rise. As bond prices rise, the yields (interest rates) on those bonds fall, since bond yields move inversely to their prices.

- **Long-Term Bond Yields:** The reduction in long-term yields is beneficial for the economy in several ways**:**
  - **Lower Borrowing Costs:** As long-term yields fall, it becomes cheaper for businesses and households to borrow for long-term projects like infrastructure, mortgages, and investments.
  - **Encouragement of Investment:** With reduced borrowing costs, investment activities tend to rise, stimulating economic growth.
  - **Weakened Currency:** Lower long-term rates often lead to a depreciation o f the currency, as foreign investors seek higher returns elsewhere. This can boost exports.

Sterilization

Sterilization refers to the process employed by central banks, including the RBI, to manage the impact of foreign exchange interventions on the domestic money supply. The RBI may engage in sterilization to prevent excessive volatility in the exchange rate and to control inflation.

To offset this impact, the RBI undertakes sterilization operations, primarily through:

- **Open Market Operations (OMO):** Buying or selling government securities to absorb or inject liquidity.
- **MSS Bonds:** Issuing Market Stabilization Scheme bonds to absorb surplus liquidity.
- **When the rupee depreciates**, the RBI may sell dollars in the market to increase the supply of rupees and stabilize the currency.
- **When the rupee appreciates**, the RBI may buy dollars, thereby increasing its deficit and stimulating demand. This action is meant to curb excessive appreciation of the domestic currency.

Sterilization operations are often conducted through open market operations. **[UPSC 2023, 2022]**

QUALITATIVE TOOLS OF MONETARY POLICY

- **Marginal Requirements**
    - Commercial banks are required to maintain a margin between the market value of the collateral and the amount of loan they offer. This margin is set by the central bank. When the RBI wants to restrict the flow of money, it increases the margin requirement, making it harder for banks to lend. Conversely, it decreases the margin requirement during an expansionary policy to encourage more credit flow.
- **Selective Credit Control (SCC)**
    - Selective Credit Control refers to the central bank's ability to influence the flow of credit to specific sectors. This tool can either**:**
        - **Encourage credit flow** to priority sectors like agriculture or infrastructure.
        - **Restrict credit** to specific sectors, such as luxury goods or speculative activities.

By controlling credit access to targeted sectors, the RBI can influence economic growth in a controlled manner.

- **Moral Suasion**
    - Moral suasion is a non-coercive method used by the central bank to influence the behavior of commercial banks.
    - The RBI Governor may use this tool to encourage banks to**:**
        - Transmit repo rate cuts to their lending rates.
        - Open new branches in rural areas to promote financial inclusion.
        - Lend to priority sectors such as agriculture or small-scale industries beyond the prescribed limits (Priority Sector Lending).
        - Spread financial literacy to improve awareness and access to financial services.

Moral suasion relies on persuasion rather than binding regulations, leveraging the authority and credibility of the RBI to influence commercial banks' actions.

Summary Table: Instruments of Monetary Policy

[UPSC 2022, 2023]

Instrument	Purpose	Type
Open Market Operations (OMOs)	Buying and selling government securities to control liquidity.	**Quantitative Tool**
Repo Rate	Injects liquidity into the economy by lending to commercial banks.	**Quantitative Tool**
Reverse Repo Rate	Absorbs liquidity from the economy by borrowing from banks.	**Quantitative Tool**
Marginal Standing Facility (MSF)	Provides a safety valve for unanticipated liquidity shocks.	**Quantitative Tool**
Market Stabilization Scheme (MSS)	Absorbs excess liquidity via issuance of government securities.	**Quantitative Tool**
Operation Twist	Adjusts the maturity structure of government securities to stabilize interest rates.	**Quantitative Tool**
Sterilization	Controls currency volatility through open market operations.	**Quantitative Tool**
Marginal Requirements	Controls credit flow by adjusting the margin required for loans.	**Qualitative Tool**
Selective Credit Control (SCC)	Directs credit to priority sectors or restricts credit to non-priority sectors.	**Qualitative Tool**
Moral Suasion	Influences commercial banks' lending behavior without legal enforcement.	**Qualitative Tool**

MONETARY POLICY IN PRESENT-DAY INDIA

Monetary policy in India has evolved to address the changing economic dynamics, both domestically and globally. The **Reserve Bank of India (RBI)** uses various strategies to regulate money supply and achieve macroeconomic stability. The key strategies are as follows**:**

Three Approaches to Monetary Policy

- **Exchange Rate Stability:** This approach is often employed by export-oriented economies like **Singapore**, where the central bank stabilizes the currency to boost exports. The aim is to keep the local currency at a certain value against major currencies like the **US dollar**.

- **Multiple Indicators:** Under this strategy, central banks focus on a range of indicators such as **economic growth**, **employment**, **inflation control**, and **exchange rate stability**. **India's RBI** followed this model until **2016**.
- **Flexible Inflation Targeting (FIT) / Price Stability:** Since **2016**, **India** has adopted a **Flexible Inflation Targeting (FIT)** framework, under which the central bank primarily aims to control inflation. The goal is to anchor inflation expectations, with secondary benefits for economic growth and employment. The **Urjit Patel Committee Report (2013-14)** proposed this model, which was subsequently implemented by amending **RBI Act, Section 45**.

Monetary Policy Stances

- **Accommodative Stance**
  - **Objective:** RBI reduces policy rates to increase the money supply, typically in situations where the economy is slowing down.
  - **Result:** Lower interest rates promote borrowing and spending, stimulating economic activity.
- **Neutral Stance**
  - **Objective:** The RBI maintains flexibility in adjusting policy rates, depending on the economic conditions.
  - **Result:** The RBI may either raise or lower rates, aiming to stabilize inflation and economic growth.
- **Hawkish stance**
  - **Objective:** RBI increases policy rates or keeps them unchanged to address concerns about rising inflation.
  - **Result:** This helps contain inflation but can reduce economic activity in the short term.

TRANSMISSION OF MONETARY POLICY

Monetary policy transmission refers to how the central bank's policy actions influence the economy. The key channels through which monetary policy affects the economy include**:**

- **Interest Rate Channel**
  - **Monetary easing** (lowering interest rates) reduces the cost of capital, boosting business investment and consumption. Conversely, tightening policy raises rates, reducing demand and inflation.
- **Exchange Rate Channel**
  - Lower interest rates can cause the currency to depreciate, improving export competitiveness. However, it can raise the cost of imports, especially key items like crude oil.
- **Credit Channel**
  - Expansionary policy increases bank lending, raising investment and output in the economy.
- **Asset Price Channel**
  - Lower interest rates can boost asset prices, which enhances household and business wealth, encouraging further consumption and investment in housing.
- **Expectation Channel**
  - By setting clear inflation targets, the central bank anchors inflation expectations, improving confidence in economic decision-making.

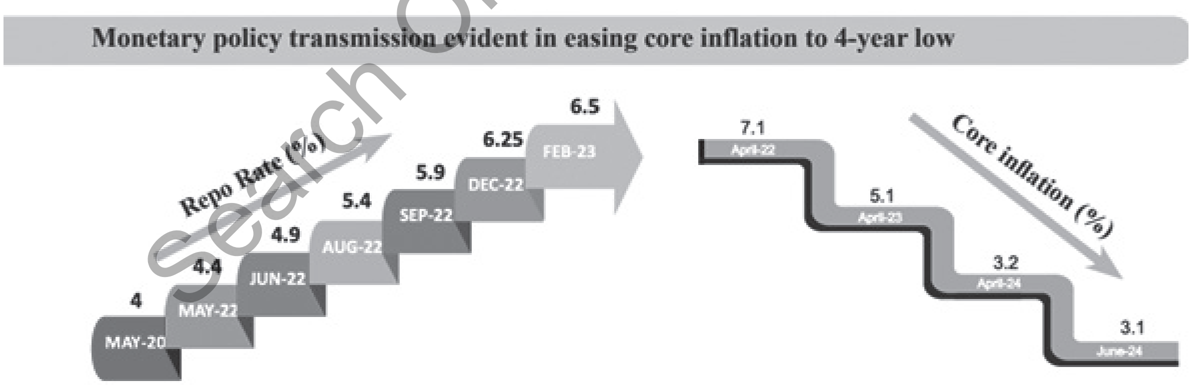


Fig.: Monetary Policy Transmission

Unconventional Monetary Policy Tools

- **Zero Interest Rate Policy (ZIRP):** In a ZIRP, the central bank sets short-term interest rates close to zero to encourage borrowing and investment. However, it can lead to a **liquidity trap**, where businesses and individuals are unwilling to spend despite the availability of cheap credit.
- **Negative Interest Rate Policy (NIRP):** Under NIRP, nominal interest rates are set below zero to incentivize spending and investment instead of hoarding cash. Countries like **Japan** and **Sweden** have used this policy to stimulate economic activity.
- **Helicopter Money:** This unconventional tool involves directly increasing the money supply by the government, typically through higher spending or tax cuts, to boost economic demand.

Banks' Lending Rates

- Internal Benchmark Lending Rate (IBLR): are calculated after considering factors like the bank's current financial overview, deposits and non performing assets (NPAs) etc. **E.g.** BPLR, Base rate, MCLR
  - **Till 2010:** Benchmark Prime Lending rate
  - **2016-2016:** Base rate
  - **2016 onwards:** Marginal cost of funds based Lending rate (MCLR) for floating rate loans.
- The opacity in interest rate setting processes under internal benchmark regime hinders monetary policy transmission to lending rates
- Thus RBI introduced external benchmarking in 2019
- External benchmarking in mandatory for retail floating rate loans and MSME loans.
- Unlike MCLR which was internal system for each bank, under External Benchmarking, RBI has offered banks the options to choose from 4 external benchmarking mechanisms:
  - The RBI repo rate
  - The 91-day T-bill yield
  - The 182-day T-bill yield
  - Any other benchmark market interest rate as developed by the Financial Benchmarks India Pvt. Ltd.

INFLATION

Inflation refers to the general rise in the price of goods and services in an economy over time, which reduces the purchasing power of money. As inflation rises, each unit of currency buys fewer goods and services, leading to a decline in the real value of cash holdings.

In India, the **Ministry of Statistics and Programme Implementation (MoSPI)** is responsible for measuring inflation, and it tracks changes in the prices of a basket of goods and services over time. Inflation is generally viewed as a negative indicator because it can harm consumers' purchasing power and overall economic stability.

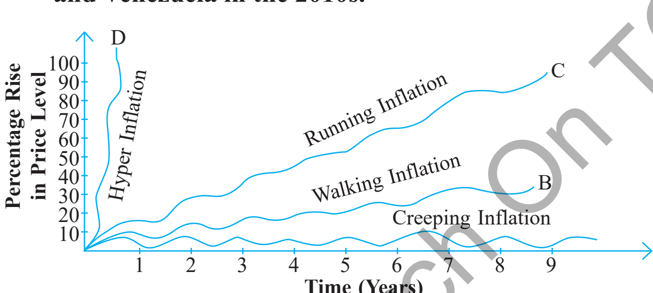
Types of Inflation

Based on Causes of Inflation

- **Demand-Pull Inflation**
  - This type of inflation occurs when demand for goods and services exceeds the available supply in the market. The increased demand pushes prices upward.
  - **Causes:** **[UPSC-2021]**
    - **Expansionary policies:** Government spending increases or tax cuts that boost aggregate demand.
    - **Fiscal stimulus:** Efforts by the government to boost economic activity through spending.
    - **Depreciation of the rupee:** A weaker currency makes imported goods more expensive, raising costs and potentially causing demand-pull inflation.
    - **Lower interest rates:** When the central bank reduces interest rates, consumer spending rises, and businesses increase investments, causing inflationary pressures.
- **Cost-Push Inflation**
  - This inflation is driven by an increase in the cost of production, which is passed on to consumers in the form of higher prices.
  - **Causes:**
    - **Increase in wages:** Higher wages for workers lead to increased production costs for businesses.
    - **Rising raw material prices:** For instance, a spike in oil prices can increase the costs for transportation and production, driving up the prices of goods.
    - **Supply chain disruptions:** Events like natural disasters or pandemics (such as COVID-19) can reduce the availability of goods, leading to higher prices.
- **Monetary Inflation**
  - This type of inflation happens when there is an excessive increase in the money supply by the central bank. If more money is introduced into the economy without a corresponding increase in goods and services, it leads to higher demand and prices. Therefore, decreased money circulation helps in controlling the inflation. **[UPSC-2015]**
  - **Causes:**
    - Central banks print more money or lower interest rates excessively, which increases liquidity and fuels inflationary pressures.
    - **Creation of New Money** to finance budget deficit is **most inflationary** as it directly increases the money supply, leading to higher aggregate demand. **[UPSC-2013, 2021]**
- **Supply Chain Disruptions**
  - Events like natural disasters or global crises (like the COVID-19 pandemic) can disrupt the supply of goods. When the supply of goods is reduced and demand stays the same or rises, prices increase. India has experienced persistent and high food inflation in the recent past beacuse the food supply chain has structural constraints. **[UPSC-2011]**
  - **Example:** During the COVID-19 pandemic, supply chains were disrupted globally, leading to shortages and price hikes for various goods.
- **Imported Inflation**
  - Imported inflation occurs when a country's currency depreciates, making foreign goods more expensive. If a country relies on imports for raw materials or finished products, the cost of these goods rises when the domestic currency weakens.
  - **Example:** A depreciation of the Indian rupee against the US dollar makes imports like crude oil more expensive, contributing to inflation in the country.

Based on Speed

- **Creeping Inflation (1-4%):** This is slow and gradual inflation that does not significantly impact economic stability. A 1-4% annual inflation rate is often seen as manageable and is typically not a concern for policymakers.
- **Walking Inflation (2-10%):** Inflation in this range is still manageable, but it does start to worry central banks as it could signal an overheating economy. This is the level at which central banks often start to raise interest rates to curb inflation.
- **Running Inflation (10-20%):** At this stage, inflation is more pronounced and can start to hurt economic growth. Businesses may raise prices to cover costs, and consumers may find their real incomes shrinking. Policymakers need to take urgent steps to curb it.
- **Galloping Inflation (20%-1000%):** This type of inflation occurs at a rapid pace, typically between 20% and 1000%, and can severely disrupt the economy. It often leads to a loss of confidence in the currency, which can lead to a vicious cycle of rising prices.
- **Hyperinflation:** Hyperinflation is extreme and uncontrolled inflation, usually at rates exceeding 1000% per year. It often leads to the collapse of the currency and can cause severe economic crises. Historical examples include **Germany in the 1920s, Zimbabwe in the 2000s, and Venezuela in the 2010s.**



Key Terms and Terminologies

- **Skewflation:**
  - This occurs when there is a skewed rise in prices for certain items, while the prices of others remain unchanged.
  - **Example:** A seasonal rise in onion prices due to a poor harvest, while other food prices remain stable.
- **Stagflation:**
  - A situation where inflation occurs alongside a stagnant economy, typically with high unemployment and slow economic growth. This combination of rising prices and falling growth creates a challenging environment for policymakers.
  - **Example:** Inflation rises, but job growth and GDP growth stall, as seen in some economies during recessions.
- **Disinflation:**
  - Disinflation refers to a reduction in the rate of inflation. It doesn't mean that prices are falling, but the rate at which they rise slows down.
  - **Example:** If the inflation rate decreases from 8% to 6%, it's disinflation.
- **Deflation:**
  - Deflation is the opposite of inflation, referring to a decline in the general level of prices of goods and services. It is often associated with a reduction in the supply of money or credit.
  - **Example:** A significant fall in consumer prices, leading to lower wages and reduced spending.
- **Depression:**
  - Economic depression is a prolonged downturn in economic activity that lasts for several years. It is characterized by high unemployment, low consumer demand, and reduced industrial production.
- **Reflation:**
  - Reflation is the process of stimulating the economy after a period of contraction, often by increasing government spending or reducing taxes to boost demand.
- **Inflationary Gap:**
  - An inflationary gap occurs when the demand for goods and services exceeds the economy's production capacity. This leads to upward pressure on prices.
  - **Formula:** Inflationary Gap = Actual GDP − Potential GDP.
- **Deflationary Gap:**
  - A deflationary gap is the opposite of an inflationary gap, where demand falls short of the economy's potential output, leading to reduced prices and economic stagnation.
- **Bottleneck Inflation:**
  - This occurs when there is a sharp fall in the supply of goods while demand remains unchanged, leading to higher prices.
  - **Example:** A shortage of essential goods due to a disrupted supply chain.
- **Inflation Tax:**
  - Inflation can act as a hidden tax. As inflation raises prices, consumers' wages might also increase, but the increased tax revenue from higher wages contributes to the government's budget.
- **Inflation Premium:**
  - Borrowers benefit from inflation because the real interest rate (nominal interest rate minus inflation) is lower. This creates a "bonus" for those taking loans.
- **Inflation Spiral:**
  - The wage-price spiral is a phenomenon where rising wages lead to higher prices, which in turn lead to demands for even higher wages, creating a cycle of inflation.

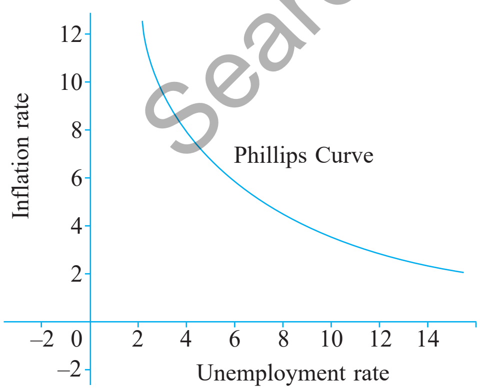
- **Full Employment:** Full employment is a situation in which all available resources in the economy are being used efficiently, and the unemployment rate is at its natural rate, which includes frictional and structural unemployment.
- **Cobweb Phenomenon:** This phenomenon explains price fluctuations for agricultural products, like pulses, where an increase in prices leads to overproduction in the next season, followed by a drop in prices and underproduction in the subsequent season, continuing the cycle.

Core vs. Headline Inflation

- **Headline Inflation:** This is the overall inflation in the economy, including all goods and services, such as food and energy, which tend to be volatile. While it provides a snapshot of price trends, it may not always reflect the long-term inflation trends.
- **Core Inflation:** Core inflation excludes volatile items like food and energy. It focuses on more stable components of the inflation index to give a clearer picture of underlying price trends.
- **Refined Core Inflation:** Introduced in the Economic Survey 2022, this metric excludes volatile items such as fuel, food, and some other essential products. It aims to provide a better understanding of underlying inflation trends that are not driven by short-term price spikes.
- **Core-Core Inflation:** This measure excludes not just food and energy, but also items like transport and communication. It is often used for more refined policy analysis, as it focuses on long-term trends and removes temporary fluctuations.

Phillips Curve

The Phillips Curve depicts the **inverse relationship** between **unemployment** and **inflation**. As **unemployment decreases**, **inflation increases**, and vice versa. This suggests that low unemployment leads to upward pressure on wages, which results in higher inflation due to increased demand for goods and services.



Inflation Indices and Indicators

- **GDP Deflator (Implicit Price Deflator)**

The **GDP Deflator** is a comprehensive measure of inflation, reflecting the change in the price of all goods and services produced in an economy.

Formula: GDP Deflator = (Nominal GDP/Real GDP) × 100

Interpretation:

- **= 1:** No change in prices.
- **> 1:** Inflation has occurred.
- **< 1:** Deflation is occurring.

- **Wholesale Price Index (WPI)**

Base Year	2011-12
Purpose	Measures price changes at the wholesale level (before retail).
Coverage	Goods only (not services).
Major Components	• **Manufactured Products:** ~64% • **Primary Articles:** 23% • **Fuel and Power:** 13%
Published By	Office of Economic Adviser (OEA), Ministry of Commerce and Industry

- **Consumer Price Index (CPI):** The **CPI** tracks changes in retail prices of goods and services.

Base Year	2011-12
Purpose	Measures the change in the price of consumer goods and services.
Major Components	• **Food and Beverages:** 45.86% • **Miscellaneous:** 28.32% • **Housing:** 10.07% • **Fuel and Light:** 6.84% • **Clothing and Footwear:** 6.53% • **Pan, Tobacco, and Intoxicants:** 2.38%
Versions	• **CPI Combined** (Rural + Urban) • **CPI for Industrial Workers (CPI-IW)** • **CPI for Agricultural Workers (CPI-AL)**

- **Producer Price Index (PPI)**

PPI vs WPI	PPI	WPI
Measurement Focus	Prices producers receive for their goods and services.	Prices at the wholesale level.
Coverage	Includes services.	Goods only.
Exclusions	Excludes indirect taxes.	May include taxes and distribution costs.
Multiple Counting Bias	No bias.	Includes some multiple counting.

- **Base Effect and Inflation:** The **base effect** refers to how the price levels of the previous year influence the calculation of inflation. If inflation was low in the base year, a smaller increase in prices can show a higher inflation rate for the current year.

Example	2010 Price	2011 Price	2012 Price	Inflation (2011)	Inflation (2012)
Onion	₹100	₹110	₹120	10%	9.09%

Measures to Combat Inflation

Monetary Policy Measures

Action	Impact
Increase in **Bank Rate**	Makes borrowing costly, reduces credit creation.
Increase in Interest Rates	Reduces spending , reduce demand for money and increases saving. **[UPSC-2013]**
Open Market Operations	Controls liquidity in the economy.
Increase in **Repo Rate**, **CRR**, **SLR**	Reduces inflationary pressures by tightening money supply.

Fiscal Policy Measures

Action	Impact
Increase in Taxes	Reduces consumer demand, slowing inflation.
Reduce Government Spending	Controls inflation by reducing aggregate demand.
Broaden Tax Coverage	Helps manage inflation by increasing government revenue.

Other Measures

Action	Impact
Price Controls	Short-term relief, but may distort markets.
Import Controls	Reduces inflationary pressure from imports.
Wage Restrictions	Prevents wage-price spirals.

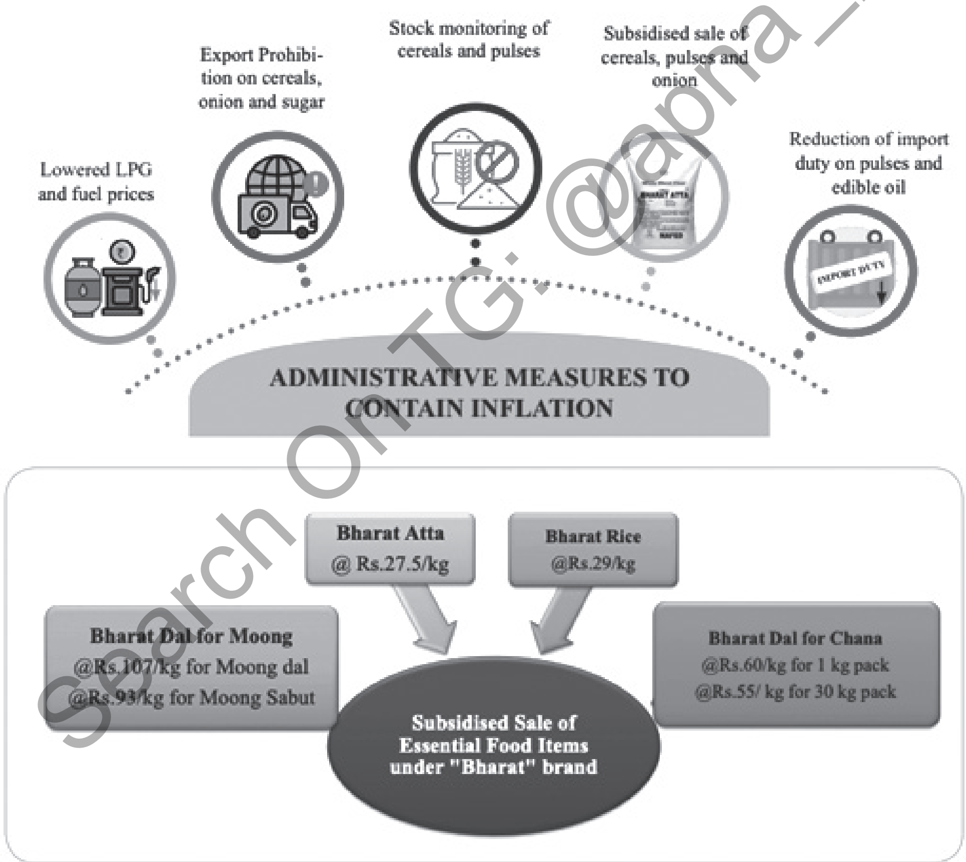
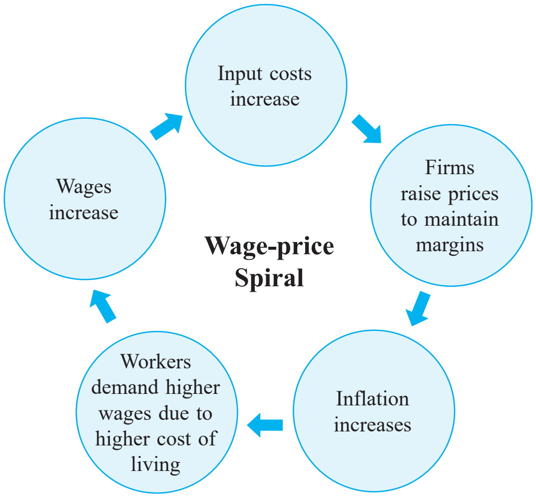


Fig.: Measures to Control Inflation

Price-Wage Spiral

The **Price-Wage Spiral** is a phenomenon where rising wages and rising prices create a feedback loop, each one driving the other. It occurs when**:**

- **Workers demand higher wages** to keep up with the **increased cost of living** due to rising prices.
- **Employers increase prices** to cover the higher wage costs.
- This, in turn, leads to further **higher wages** as workers demand more to offset the cost of the now-higher prices, continuing the cycle.



Inflation, Fiscal Policy, and Monetary Policy

Policy	Description	Objective
Monetary Policy	Managed by the RBI, it regulates money supply and interest rates.	Control inflation and stabilize the economy.
Inflation Targeting	RBI aims for a specific inflation rate, set at 4% ± 2% currently.	Maintain price stability.
Fiscal Policy	Government uses tax policies and spending to influence the economy.	Control inflation and foster economic growth.

Impacts of Inflation

Group	Impact	Outcome
Consumers	Reduced purchasing power, higher cost of living.	Negative
Creditors/Lenders	Loss of purchasing power on lent money.	Negative
Debtors [UPSC-2013]	Reduced real burden of debt due to inflation.	Positive
Investors	Short-term gain due to price increases; long-term effects uncertain.	Mixed
Wage Earners	Particularly in the unorganized sector, wages don't keep up with inflation.	Negative
Savers	Reduced value of savings due to inflation.	Negative
Taxpayers	Higher tax burden due to bracket creep and rising indirect taxes.	Negative
Exchange Rate	Depreciation of the domestic currency.	Mixed
Trade Balance	Short-term improvement, but may worsen long-term due to import dependency.	Mixed
Employment	Short-term boost, long-term effects depend on economic policies.	Mixed
Public Morale	Decreased morale due to inequality and economic uncertainty.	Negative

5 Government Budgeting and Fiscal Policy

GOVERNMENT BUDGET

- It is an Annual Financial Statement as mandated by **Article 112** of the Indian Constitution.
- It is presented before the Parliament, an estimated receipts and expenditures of the government for a particular financial year, running from 1 April to 31 March.
- The Department of Economic affairs is responsible for the preparation of the Union Budget that is presented to the Parliament. **[UPSC 2015]**

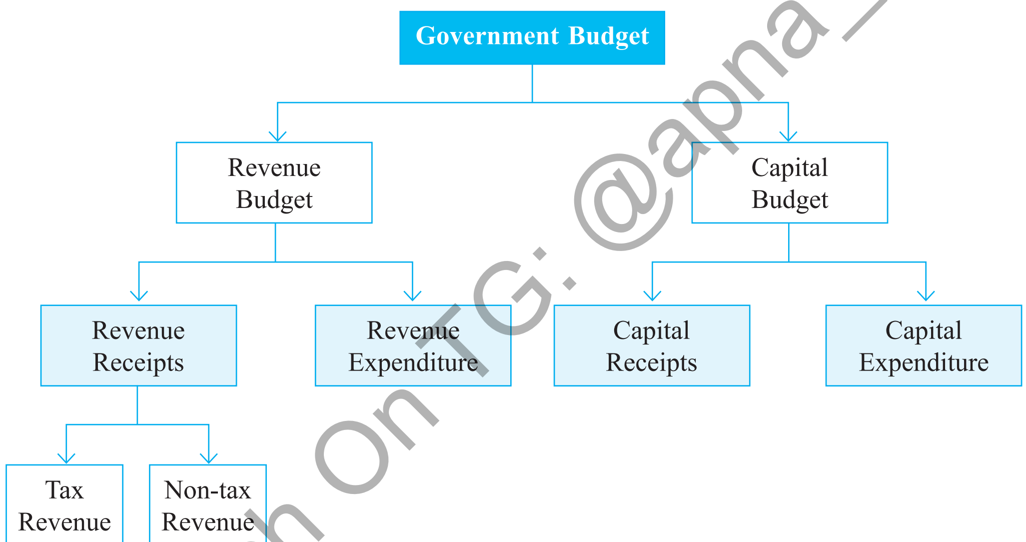


Fig.: The Components of the Government Budget

CLASSIFICATION OF BUDGET ACCOUNTS

The budget is bifurcated into two main accounts:

- **Revenue Account (or Revenue Budget):** It includes items related only to the **current financial year.**
- **Capital Account (or Capital Budget):** It encompasses concerns regarding the **assets and liabilities** of the government.

Feature	Revenue Budget	Capital Budget [UPSC 2016]
Focus	Day-to-day expenses and receipts	Long-term investments and asset creation
Income	Taxes, fees, fines, etc.	Borrowing, surplus, specific levies
Expenditure	Salaries, administration, subsidies, social programs	Infrastructure, capital projects
Objective	Fiscal stability	Economic growth
Impact	Short-term economic activity	Long-term economic development

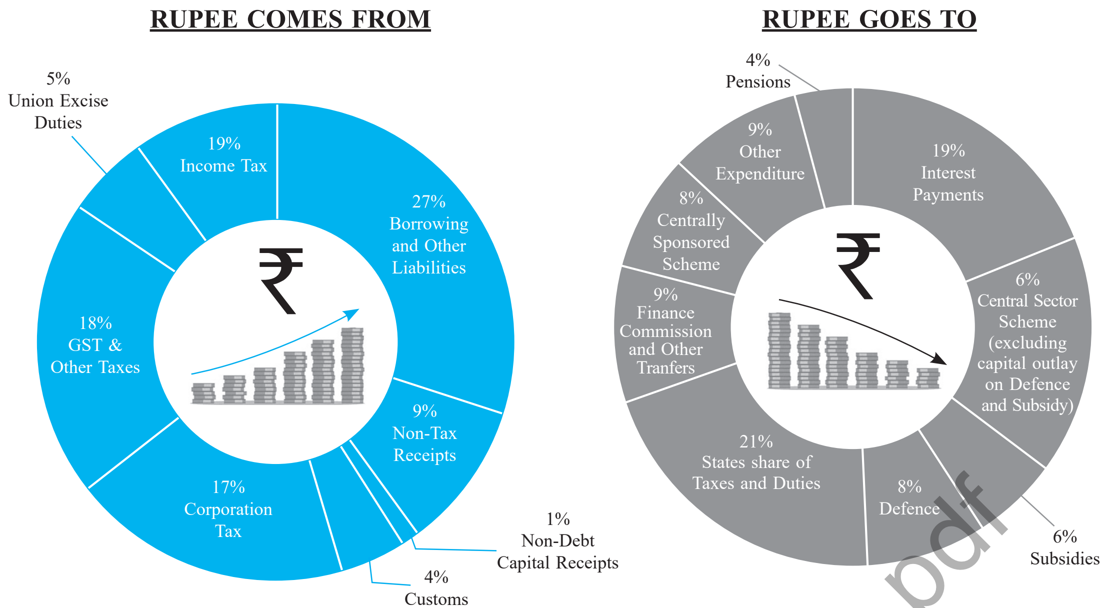


Fig.: Receipts and Expenditure Overview (as per Budget 2024-25)

OBJECTIVES OF GOVERNMENT BUDGET

- **Allocation Function:**
  - **Public Goods:** The government provides non-excludable, non-rival goods like defence and roads, which private markets cannot efficiently supply due to issues like free-riding.
  - **Public Provision vs. Production:** Public provision is budget-financed, with no direct user fees. Public production involves direct government production, whereas public goods can also be provided by the private sector under public funding.
- **Redistribution Function:**
  - The government redistributes income through taxes and transfers, impacting disposable income and promoting a fair income distribution.
- **Stabilisation Function:**
  - The government stabilises the economy by influencing aggregate demand:
    - **During Low Demand:** Interventions to increase demand and reduce unemployment.
    - **During Excess Demand:** Restrictive policies to curb inflation.

This structured approach helps manage resources, ensure economic stability, and achieve fair distribution, forming the core of fiscal policy in India's mixed economy.

Other than **"estimated receipts and expenditure of the Government"** the Budget also contains the following pieces of information:
- Estimates of revenue and capital receipts,
- Ways and means to raise the revenue,
- Estimates of expenditure,
- Details of the actual receipts and expenditure of the closing financial year and the reasons for any deficit or surplus in that year, and
- The economic and financial policy of the coming year, i.e., taxation proposals, prospects of revenue, spending program and introduction of new schemes/projects

REVENUE RECEIPTS

Revenue Receipts are non-redeemable government receipts that do not create any liability and primarily fund current expenses. Revenue receipts are influenced by tax proposals in the Finance Bill.

Components: These include Tax Revenues and Non-Tax Revenues.

Tax Revenues

Tax revenue is the main income source for the government, derived from taxation.

Category	Direct Taxes	Indirect Taxes
Definition	Taxes paid directly to the government by individuals or organisations.	Taxes levied on the consumption of goods and services.
Examples	• Personal Income Tax: Levied on individuals' income. • Corporation Tax: Levied on firms' profits. • Other Direct Taxes: Wealth tax, gift tax, and estate duty (now abolished, minimal revenue contribution).	• Excise Taxes: Duties on domestically produced goods. • Customs Duties: Taxes on imported and exported goods. • Goods and Services Tax

Non-Tax Revenues

This includes recurring income earned by the government from sources other than taxes.

- **Examples:**
    - **Interest Receipts**: From loans provided by the central government.
    - **Dividends and Profits**: Income from government investments in companies.
    - **Fees and Charges**: Revenue from government services (e.g., licences, passports).
    - **Fines and Penalties**: Collected from legal violations (e.g., traffic fines).
    - **Profits from Public Enterprises**: Earnings from state-owned companies.
    - **Royalties and Licences**: Payments for resource use (e.g., minerals, broadcasting).
    - **Grants and Donations**: Funds from foreign countries, international organisations.
    - **Sales of Goods and Services**: Income from government-provided goods/services.
    - **Property Income**: Revenue from the rent, lease, or sale of government assets.

CAPITAL RECEIPTS

Capital Receipts involve monetary gains from loans or asset sales that either increase liabilities or reduce financial assets.

Components

- **Loans**: Borrowed funds from banks or financial institutions.
- **Sale of Government Assets**: Sales such as disinvestment of Public Sector Undertakings (PSUs), resulting in reduced government financial assets.

Disinvestment refers to the sale of government shares in PSUs. **Department of Investment and Public Asset Management (DIPAM), Ministry of Finance** deals with all matters relating to management of Central Government investments in equity including disinvestment of equity in Central Public Sector Undertakings.

Debt-Creating and Non-Debt Creating Receipts

- **Debt Receipts**: Receipts that create financial liabilities for the government, e.g., loans.
- **Non-Debt Receipts**: Receipts that do not create any financial liability, e.g., sale of government assets.

Implications of Capital Receipts

- Loans increase liabilities due to repayment and interest obligations.
- Asset sales reduce the government's financial asset base and may diminish future earnings potential from those assets.

GOVERNMENT EXPENDITURE

Revenue Expenditure

- It refers to the spending incurred for purposes other than the creation of physical or financial assets of the central government.
- It comprises expenses necessary for the normal functioning of government departments and services such as **salaries, pensions etc., interest payments on government debt, and grants distributed to state governments and other parties.**
- The main items of revenue expenditures are as follows:
    - **Interest Payments:** On-market loans, external loans, and various reserve funds, represent the largest component of revenue expenditure.
    - **Defence Services:** Regarded as committed expenditure due to national security concerns, there is little scope for a significant reduction.
    - **Subsidies:** These are an important policy tool aimed at enhancing welfare. These can be implicit, through under-pricing of public goods and services like education and health, or explicit, on items such as exports, interest on loans, food, and fertilisers.
    - **Salaries and Pensions:** For government employees.
    - Grants to states and local bodies

Capital Expenditure

- It refers to government spending that results in the **creation of physical or financial assets or a reduction in financial liabilities**. It includes:
    - Acquisition of land, buildings, machinery, and equipment, Investment in shares, Loans and advances by the central government to state and union territory governments, Public Sector Undertakings (PSUs), and other parties.

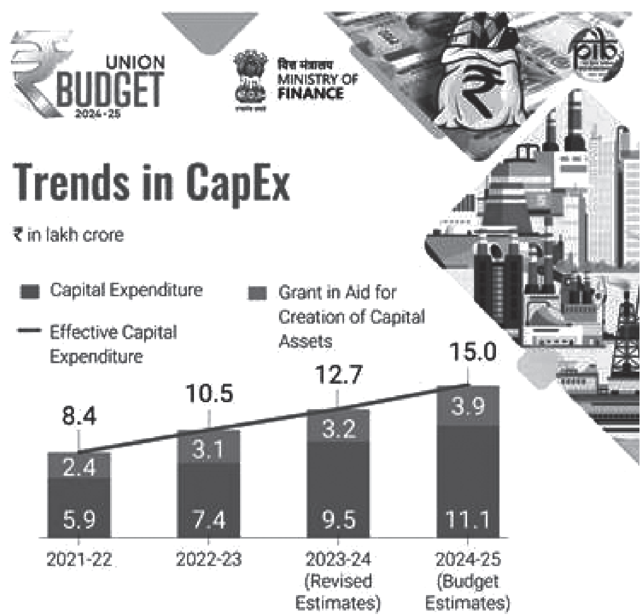


Fig.: Trends in Capital Expenditure

Government Receipts and Expenditures Summary Table

Category	Definition	Components
Revenue Receipts	Income received by the government that does not create any liability or reduce assets.	• **Tax Revenue** ○ Direct Taxes (Income Tax, Corporate Tax) ○ Indirect Taxes (GST, Customs, Excise) • **Non-Tax Revenue** ○ Interest receipts ○ Dividends from PSUs ○ Fees and fines
Capital Receipts	Income received by the government that either creates liability or reduces assets.	• **Loans and Borrowings** ○ Internal Borrowings (market loans, treasury bills) ○ External Borrowings (loans from foreign governments) • **Non-Debt Receipts** ○ Disinvestment proceeds ○ Recovery of loans given earlier
Revenue Expenditure	Expenditure incurred by the government for the normal functioning of departments and to provide services, which does not create any asset.	• Salaries and Pensions • Interest Payments • Subsidies • Grants to State Governments/UTs
Capital Expenditure	Expenditure incurred by the government to create or acquire assets and reduce liabilities, having a long-term impact.	• Infrastructure development • Acquisition of land, buildings, machinery • Loans to states/UTs • Repayment of loans

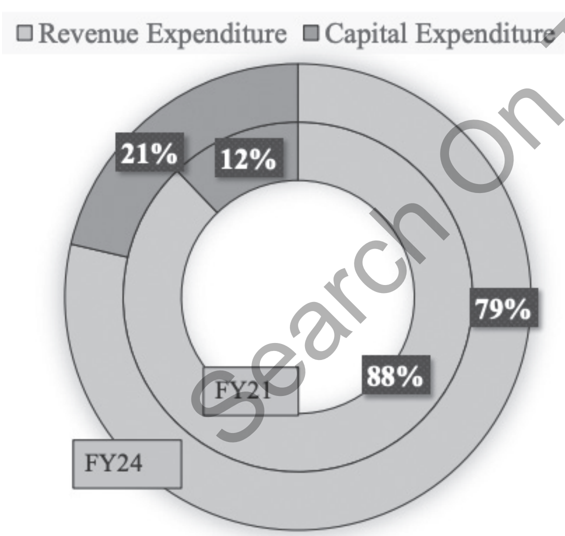


Fig.: Revenue and Capital Expenditure share

TYPES OF BUDGETS

- The types of budgets are defined based on the relationship between the government's revenue collections and expenditures:
- **Balanced Budget:** Revenue = Expenditure.
  - A balanced budget indicates a neutral fiscal stance.
- **Surplus Budget:** Revenue > Expenditure.
  - A surplus budget suggests a contractionary fiscal stance.
- **Deficit Budget:** Revenue < Expenditure.
  - A deficit budget indicates an expansionary fiscal stance, which might be a response to stimulate economic growth during downturns, though it leads to an accumulation of government debt. Reducing revenue expenditure and Rationalising subsidies by the Government can reduce the deficit. **[UPSC-2016]**

Measures of Government Deficit

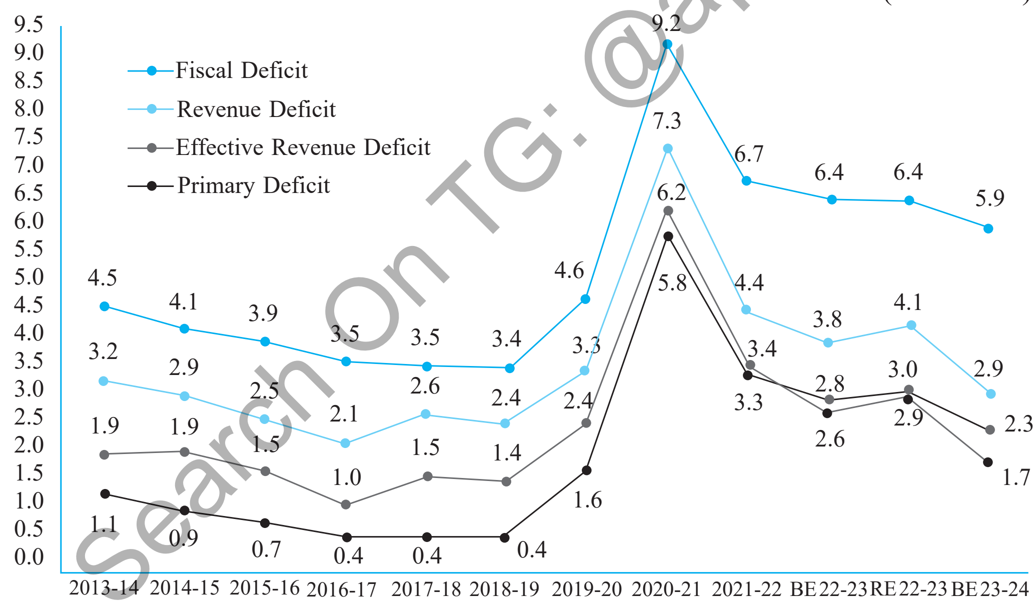
Measure	Formula	Description	Implications
Revenue Deficit	Revenue Deficit = Revenue Expenditure − Revenue Receipts	Reflects the shortfall in the government's current income compared to its current expenditures.	Indicates the government's dis-saving, as it uses savings from other sectors to fund consumption. This requires borrowing to meet both investment and consumption needs.

Fiscal Deficit	Gross Fiscal Deficit = Total Expenditure − (Revenue Receipts + Non-debt-creating capital receipts)	Represents the total borrowing requirements of the government, accounting for expenditures minus non-borrowed receipts.	Fiscal deficit in 2024-25 was 4.9% of GDP, highlighting borrowing needs. A higher share of revenue deficit within fiscal deficit suggests borrowing for consumption, impacting economic stability. India's fiscal deficit has not shown a consistent increase in last decade. **[UPSC-2017]**
Primary Deficit	Gross Primary Deficit = Gross Fiscal Deficit − Net Interest Liabilities	Excludes interest payments from the fiscal deficit to show the borrowing needed for current expenditures only, not debt servicing.	Focuses on the borrowing required purely for running the government, not for paying past debt interest. A lower primary deficit indicates better fiscal health.
Effective Revenue Deficit	Effective Revenue Deficit = Revenue Deficit − Net Grants for Capital Creation	Adjusts revenue deficit by excluding revenue expenditures on capital formation, identifying only non-productive revenue deficit.	Helps in analysing the developmental aspect of revenue spending, indicating whether the revenue deficit is contributing to asset creation.

Implications and Consequences

- These deficit measures are crucial for evaluating the government's fiscal discipline, borrowing requirements, and the impact on economic stability and growth.
- Persistent deficits, especially revenue deficits, may lead to unsustainable borrowing, accumulation of debt, and eventual expenditure cuts, which could adversely affect growth and welfare. **[UPSC 2016]**

DEFICIT TRENDS (% of GDP)



FISCAL POLICY

Fiscal policy involves government adjustments in expenditure and taxation to stabilise economic output and employment. It aims to manage economic cycles, influencing demand through surplus (revenue exceeds expenditure), deficit (expenditure exceeds revenue), or balanced budgets.

Components of Fiscal Policy

- **Taxation policy:** This involves setting the rates and types of taxes that the government collects from individuals and businesses.
- **Expenditure policy:** This involves deciding how much and in what areas the government spends its revenue.
- **Investment and disinvestment policy:** This involves managing the government's assets and liabilities, such as public sector enterprises, financial institutions, and sovereign wealth funds.
- **Debt or surplus management:** This involves borrowing or saving money to finance the gap between the government's revenue and expenditure.

Types of Fiscal Policy

Fiscal Policy Type	Expansionary Fiscal Policy	Contractionary Fiscal Policy
Purpose	Stimulating Economic Growth	Controlling Inflation
Tools	• **Increase in Government Spending:** More funds for public projects, infrastructure, and social programs. • **Tax Cuts:** Reductions in taxes to boost disposable income for consumers and businesses.	• **Decrease in Government Spending:** Reduced funding for public projects and programs. • **Tax Increases:** Increased taxes to lower disposable income and reduce spending.
Impact	• **Boost Aggregate Demand:** Increased consumer spending and business investment. • **Job Creation:** More employment opportunities, reducing unemployment. • **Preventing or Ending Recessions:** Counters economic contractions.	• **Reduce Aggregate Demand:** Slows down overall demand for goods and services. • **Control Inflation:** Prevents the economy from overheating and experiencing high inflation. • **Stabilise the Economy:** Maintains economic balance.
Examples	• Used during the 2008 financial crisis to stimulate economic growth.	• Applied in the late 1970s and early 1980s by countries like the U.S. to combat high inflation.

Pro-cyclical Policy Vs Counter-cyclical Policy

Aspect	Pro-cyclical Policy	Counter-cyclical Policy
Definition	Fiscal policy that aligns with the economic cycle, expanding during booms and contracting during recessions.	Fiscal policy that counters the cycle, expanding during recessions and contracting during booms to stabilise the economy.
Purpose	To match the current economic trend, which can amplify economic fluctuations.	To reduce extremes in the economic cycle, stabilising growth and demand.
Action During Booms	**Expansionary Measures:** More spending and tax cuts, risking inflation.	**Contractionary Measures:** Cuts in spending and tax hikes to control excessive growth.
Action During Recessions	**Contractionary Measures:** Spending cuts and tax hikes, which may worsen the downturn.	**Expansionary Measures:** Boosts spending and cuts taxes to stimulate demand and growth. Increase in expenditure on public projects. **[UPSC-2021]**
Economic Impact	Can cause overheating and inflation in booms; deepens recessions through reduced spending and higher taxes.	Balances demand across cycles; helps limit inflation in booms and promotes recovery in recessions.
Example	Increasing public spending and tax cuts in a boom, risking inflation and asset bubbles.	Stimulus packages with more spending and tax cuts during a recession to boost the economy.

TAXATION SYSTEM

Tax is a financial charge or levy imposed by a government on individuals, businesses, or other entities to fund public expenditures and government functions. It is a compulsory contribution that citizens and businesses are required to pay, and it is a crucial source of revenue for the government.

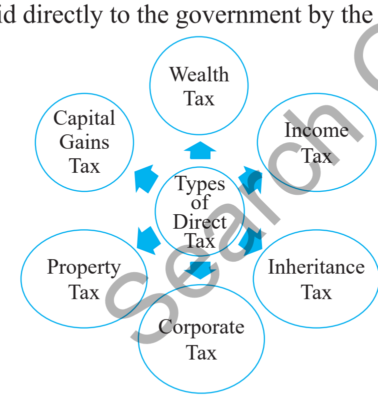
- **Basis Classification of Taxes**
  - Based on Nature
    - Direct Taxes
    - Indirect Taxes
  - Based on Entities Taxed
    - Personal Taxes
    - Corporate Taxes
  - Based on Purpose
    - Revenue Taxes
    - Regulatory Taxes
  - Based on Duration
    - Permanent Taxes
    - Temporary Taxes
  - Based on Progressivity
    - Progressive Taxes
    - Proportional Taxes
    - Regressive Taxes
  - Based on Administration
    - Central Taxes
    - States Taxes

The taxation system can be categorised into:

- **Progressive Taxation System**: Higher income attracts a higher tax rate.
- **Proportional Taxation System**: The tax rate is a fixed proportion of profits, regardless of income level.

Direct Taxes

A direct tax is a type of tax that is levied directly on the income, wealth, or property of individuals or organisations. Unlike indirect taxes, which are levied on goods and services and are paid indirectly by consumers (such as sales tax or VAT), direct taxes are paid directly to the government by the taxpayer.



The administrative structure for direct taxation in India

Central Board of Direct Taxes (CBDT), which operates under the **Ministry of Finance.** The CBDT is responsible for the administration of direct tax laws through the Income Tax Department. Here's an overview of the structure:

Central Board of Direct Taxes (CBDT)

- The CBDT is a statutory authority functioning under the Central Board of Revenue Act, 1963.
- It provides essential inputs for policy and planning of direct taxes in India and is also responsible for the administration of direct tax laws.

Income Tax Department

- The Income Tax Department is a government agency undertaking direct tax collection.
- It is headed by the CBDT and is part of the Department of Revenue in the Ministry of Finance.

Tax Type	Description	Key Points
Minimum Alternate Tax (MAT)	Introduced by Finance Act 1987 to address "zero tax companies."	Ensures companies pay a minimum tax even if their normal tax liability is reduced to zero.
Capital Gain Tax [UPSC-2012]	Tax on profits from selling assets at a price higher than their purchase cost.	Applies to assets like stocks, bonds, real estate, etc.
Dividend Distribution Tax (DDT)	Tax imposed on dividends distributed by a company to its shareholders.	DDT was eliminated in the 2019-20 budget; now dividends are taxable in the hands of shareholders.
Securities Transaction Tax (STT)	Tax imposed on buying and selling securities on Indian stock exchanges.	Applies to transactions in stocks, bonds, mutual funds, etc.

Global Tax on Digital Giants Vs Equalisation Levy

Aspect	GAFA Tax (Global Tax on Digital Giants)	Equalisation Levy (India)
Definition	Tax on major digital companies like Google, Apple, Facebook, Amazon	Tax on non-resident e-commerce operators
Objective	Ensure fair tax contribution by tech giants in countries with significant user bases	Level tax field for foreign and domestic digital firms
Focus	Large tech companies with high digital revenues	Broader digital services and e-commerce transactions
Tax Base	Revenue from digital services in specific countries	Gross revenue from digital services by non-resident firms
Tax Rate	Varies by country (e.g., 3% in France)	Earlier 2% in India.The latest budget abolished the 2% levy while leaving the 6% equalisation levy imposed on online advertising revenues untouched.

Rate of Growth of Taxes (%) vs Growth in Nominal GDP				
	Nominal GDP	Corporate Tax Growth	Growth in Income Tax	Tax Buoyancy
2021-22	19.5	55.6	43	2.52
2022-23	15.4	16	20	1.1
2023-24 (Apr-Aug)	8	15	35.7	1.4

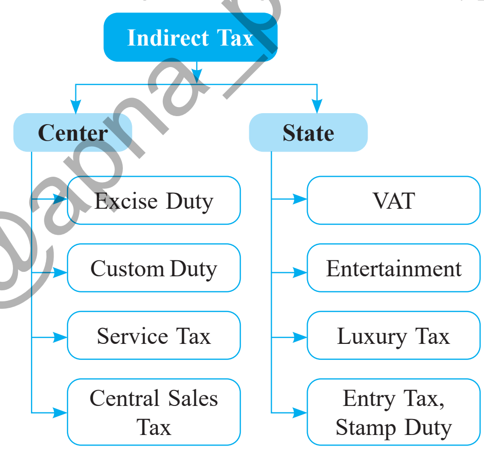
Direct Tax to GDP ratio has increased from 5.62% in F.Y. 2013-14 to 6.11% in F.Y. 2022-23.Also It reached a 24-year high of 6.64% in the 2023-24 financial year (FY24)

- Tax buoyancy is defined as the ratio of the percentage change in tax revenue to the percentage change in GDP. It indicates how tax revenues increase or decrease in response to changes in economic activity.
- **Formula**: **Tax Buoyancy = (Percentage change in tax revenue) / (Percentage change in GDP)**
- According to a survey, the tax buoyancy in India for the financial year 2024-25 is estimated to be **1.4. This is due to a 13.4% growth in gross tax revenue (GTR) in FY24**, which was led by a **15.8% increase in direct taxes and a 10.6% increase in indirect taxes.**

Interpretation	
Buoyancy > 1	Tax revenues are growing at a faster rate than the economy. This usually occurs when the tax base expands due to either economic growth or effective tax administration and compliance.
Buoyancy < 1	Tax revenues are growing at a slower rate than the economy. This could be due to tax evasion, reductions in tax rates, or a shrinking tax base.
Buoyancy = 1	Tax revenues are growing at the same rate as the economy.

Indirect Taxes

- **Excise duty** used to be applied to manufactured goods, with taxation occurring when the goods left the factory premises



- **Customs duty** is imposed on the import and export of commodities.
- **Service Tax** was levied on the provision of services.
- **Central Sales Tax (CST)** was imposed by the Central government on the sale of products between different states. However, the tax revenue was collected and retained by the state where the transaction originated, which is why it was referred to as an origin-based tax.
- **Value Added Tax (VAT)** was applied to the sale of goods within a state. The Central government did not have the authority to tax intrastate sales, and VAT was only imposed on the value added at each stage of production. Under the VAT system, every entity in the value chain was required to remit taxes to the government based on their respective value additions. **[UPSC 2011]**
- **Entry Tax**, previously enforced by Indian state governments, applied to the inter-state movement of goods. It was imposed by the receiving state to safeguard its tax revenue base
- **Stamp Duty** is a tax that pertains to all legal property transactions. It required the affixing or imprinting of a physical stamp on the document to signify payment of the stamp duty. As it is imposed by individual states, the tax rate varies from one state to another.

Goods and Services Tax (GST) **[UPSC 2017]**

Aspect	Details
GST Introduction	1st July 2017, subsumed multiple indirect taxes into a unified tax system.
Tax Slabs	5%, 12%, 18%, 28%, plus zero rate for essentials.
Type	Destination-based tax, collected where goods/services are consumed.
Input Tax Credit	Credit for taxes paid on purchases to avoid cascading effect, applied on value added at each supply stage.
Compliance	Businesses must file regular returns online via GSTN portal.
Categorization	Goods/services are categorised into tax slabs by the GST Council, which updates them periodically.
Anti-Profiteering authority	Ensures businesses pass on benefits of reduced tax rates/input credits to consumers.
Dual GST Model	Both Central and State governments levy GST on the same tax base.
GST Council	Formed for making recommendations on GST-related issues (rates, exemptions, etc.).
Integrated GST (IGST)	Levied on interstate transactions and shared between Centre and States.
Compensation to States	States compensated for revenue loss due to GST for 5 years.
Electronic Way Bill (E-Way Bill)	Required for goods worth over ₹50,000 for both interstate and intrastate movement.
GSTN	Digital backbone facilitating GST administration, ensuring efficiency and transparency.
GST Growth	The GST receipts for FY 2023-24 are estimated to register a growth of 11.0% over the Revised Estimates (RE) and Provisional Estimates (PE) for FY 2023-24, amounting to ₹10.62 lakh crore in the Budget Estimates (BE) for FY 2024-25.

Indirect Taxes Subsumed Under GST

Central Taxes Subsumed	State Taxes Subsumed
Central Excise Duty (CENVAT)	State VAT (Value Added Tax)
Additional Excise Duties	Central Sales Tax
Duties of Excise (Medicinal and Toilet Preparations)	Luxury Tax
Additional Duties of Excise (Goods of Special Importance)	Entry Tax (All Forms)
Additional Duties of Excise (Textiles and Textile Products)	Entertainment and Amusement Tax
Additional Duties of Customs (Countervailing Duty, CVD)	Taxes on Advertisements
Service Tax	State Surcharge and Cess

Taxex Outside GST

- Basic Customs Duty
- Tax on Petrol and Diesel
- Tax on Tobacco and Alcohol
- Stamp Duty on Property
- Electricity Duty
- Vehicle Tax
- Property Tax

TAX EVASION AND TAX AVOIDANCE

Point of Difference	Tax Evasion [UPSC-2021]	Tax Avoidance
Definition	Illegal practice of not paying due taxes by misreporting or concealing income.	Legal use of loopholes and exemptions in tax law to reduce tax liability.
Legality	Illegal and punishable under law.	Legal but considered unethical; uses tax law provisions strategically.
Methods Used	Underreporting income, inflating expenses, concealing assets, black money.	Exploiting deductions, exemptions, tax credits, and loopholes.
Purpose	To evade or reduce tax payments by violating laws.	To reduce tax liability within legal limits.
Consequences	Legal penalties, fines, and possible imprisonment because Loss of revenue to the State Exchequer due to tax evasion.	No penalties, but may lead to future legal reforms.
Examples	Falsifying income records, hiding foreign assets.	Using offshore accounts, investing in tax-saving schemes.

Base Erosion and Profit Shifting (BEPS)

- BEPS refers to strategies used by multinational corporations to shift profits from high-tax jurisdictions to low-tax ones, minimising their overall tax burden.
- **Impact**: These tactics erode the tax base of higher-tax countries, reducing government revenues.
- **OECD Framework**:
  - The OECD's BEPS project provides guidelines for countries to address tax avoidance.
  - Key measures include transparency requirements, country-by-country reporting, and tightening of transfer pricing regulations.
  - India is an active participant, implementing BEPS norms to safeguard its tax base.

Transfer Pricing & Authority for Advance Rulings

- **Transfer Pricing**
  - Involves pricing of transactions between related entities, like subsidiaries of an MNE.
  - **Aim:** To ensure transactions are conducted at an "arm's length" basis (prices as if between unrelated parties).
  - India's tax authorities scrutinise transfer pricing to prevent profit shifting and tax base erosion.
- **Authority for Advance Rulings (AAR)**:
  - AAR provides binding advice to taxpayers on complex tax matters, including transfer pricing.
  - It helps MNEs in planning by reducing tax-related uncertainties.

General Anti-Avoidance Rules (GAAR)

- GAAR comprises legal provisions to counteract aggressive tax avoidance that technically complies with the law but undermines its intent.
- **Purpose**: Targets arrangements primarily designed for tax benefits rather than genuine economic activity.
- **Implementation in India**: GAAR was introduced to ensure fair taxation by discouraging tax arrangements that exploit loopholes.

Double Taxation Avoidance Agreement (DTAA)

- **Definition**: Treaties between two or more countries to prevent double taxation of the same income.
- **Objective**: DTAA promotes investment by offering relief through tax exemptions or credits for taxes paid abroad.
- **Recent Developments**: India has revised DTAAs with various countries to prevent treaty abuse and align with anti-BEPS principles, strengthening provisions for fair tax allocation based on economic presence.

Global Minimum Corporate Tax (GMCT)

- **Objective**: To prevent multinational corporations (MNCs) from shifting profits to low-tax jurisdictions without significant economic activity there.
- **Key Framework**:
  - **Pillar 1**: Allocates tax rights to countries where MNCs' customers are located, regardless of physical presence.
  - **Pillar 2**: Sets a minimum corporate tax rate of 15% globally.
- **Impact on India**:
  - **Equalization Levy**: India's digital tax on MNCs like Google may be reassessed under GMCT, aligning with global tax standards.
- **Place of Effective Management (PoEM) Rules:** A place where key management and commercial decisions that are necessary for the conduct of the business of an entity as a whole are, in substance, made; Helps to assess if companies are setting up shell subsidiaries abroad to evade taxes
- **Tax Haven:** Countries that have lower tax rates, provide secrecy and anonymity to the account holders and do not share tax information with other countries.

TAX REFORMS: COMMITTEES AND RECOMMENDATIONS

Direct Tax Reforms

Committee/Task Force	Key Recommendations
Kelkar Committee (2002)	Simplify tax laws, rationalize tax rates, broaden the tax base, phase out exemptions, and reduce corporate tax.
Parthasarathi Shome Committee (2012)	Safeguards against GAAR misuse, clear tax avoidance criteria, expert panel reviews, align with global standards.
Direct Tax Code Task Force (2017-19) under Akhilesh Ranjan	The Akhilesh Ranjan Committee on Direct Tax Code recommended simplifying and modernizing India's tax laws with measures like reducing corporate tax rates, rationalizing individual tax slabs, simplifying capital gains taxation, and limiting tax exemptions. It emphasized ease of compliance, enhanced dispute resolution, anti-avoidance measures, and aligning international tax norms to address digital economies. The committee also suggested improving taxpayer services and introducing a taxpayer rights charter to promote transparency and voluntary compliance.

Indirect Tax Reforms

Committee/Task Force	Key Recommendations
Raja J. Chelliah Committee (1991)	Introduce VAT, harmonize state and central taxes, provide input tax credit, and exempt essential goods.
Kalyani Menon Sen Committee (2002)	Simplify customs and excise, enable electronic filing, introduce single-window clearance, and reduce tariffs.
T. R. Rustagi Committee (2011)	Simplify service tax structure, rationalize services, enable ITC, and improve electronic compliance systems.
Arvind Subramanian Committee (2015)	Recommend GST revenue-neutral rate, propose lower rates for metals, and ensure state compensation.

India's Tax-to-GDP Ratio Trend Over the Last Decade [UPSC -2017]

India's tax-to-GDP ratio has experienced fluctuations rather than a steady increase. In FY2008, the ratio peaked at 12.1%. In FY2024, it was projected to be 11.8%, indicating variability over the years.

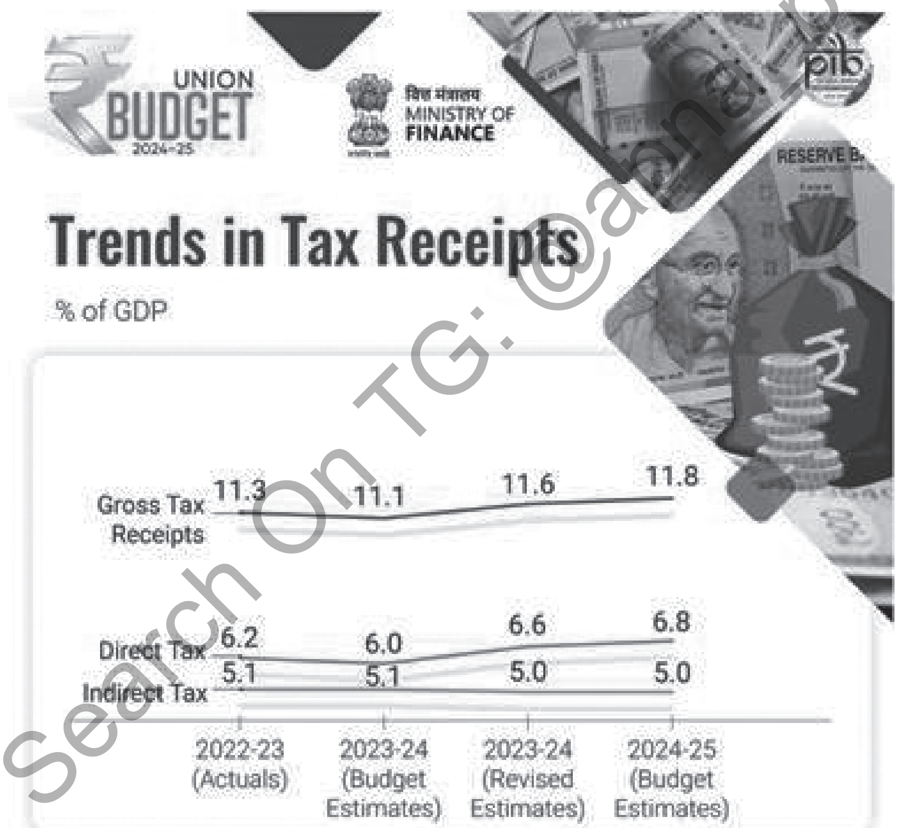


Fig.: Direct and Indirect Tax

Implications of a Decrease in Tax-to-GDP Ratio [UPSC -2015]

- **Slowing Economic Growth Rate**: A declining tax-to-GDP ratio may indicate a slowdown in economic growth, as tax revenues often correlate with economic activity.
- **Less Equitable Distribution of National Income**: A decreasing ratio can also suggest issues in income distribution, where a significant portion of income may be concentrated in sectors or individuals that are under-taxed or evade taxation

FRBM ACT AND WAYS AND MEANS ADVANCES (WMA)

The **FRBM Act** aims to ensure fiscal discipline in India by limiting fiscal deficits, controlling government debt, and promoting macroeconomic stability. The Act lays down clear targets for reducing deficits and maintaining transparency in fiscal management.

Objectives of FRBM Act

1. **Reduce Fiscal Deficits**: Limit government spending and bridge revenue gaps.
2. **Control Government Debt**: Ensure debt sustainability.
3. **Promote Economic Stability**: Prevent excessive borrowing and inflation.
4. **Intergenerational Equity**: Ensure fair distribution of fiscal burdens.
5. **Enhance Transparency**: Provide clear information on fiscal performance.
6. **Medium-term Fiscal Policy Planning**: Present a statement for 3-5 years of fiscal policies.

Key Targets

- **Fiscal Deficit**: Limited to 3% of GDP by March 2021, with a 0.5% deviation clause for emergencies.
- **Debt-to-GDP Ratio**: Total government debt capped at 60%, with union government debt at 40% by FY2024-25.
- **Fiscal Consolidation**: Annual fiscal targets adjusted for GDP growth and extraordinary situations like national security or disasters.

Statements Mandated by FRBM

- **Medium-term Fiscal Policy Statement**: Rolling 3-year targets for fiscal indicators.
- **Fiscal Policy Strategy Statement**: Outlines fiscal priorities and justifications for deviations.
- **Macroeconomic Framework Statement**: Provides outlook on GDP, fiscal balance, and external conditions.

Relaxation of Targets

The **Escape Clause** allows temporary deviations from fiscal targets during emergencies such as national disasters or economic crises. During COVID-19, states were allowed to borrow beyond the fiscal deficit target.

Key FRBM Targets and Relaxations for States

Indicator	FRBM Target	Relaxation Clause
Fiscal Deficit	3% of GSDP	Up to **0.5%** deviation in case of emergencies (e.g., national disasters, economic crises).
Debt-to-GDP Ratio	25% of GSDP	Relaxation during economic disruptions, with a plan for gradual reduction.
Revenue Deficit	Zero by FY20	Flexible if fiscal pressures are high due to unexpected events.

Ways and Means Advances (WMA) for States

WMA is a short-term liquidity facility provided by the **Reserve Bank of India (RBI)** to state governments to bridge their temporary revenue-expenditure gaps. It helps manage cash flow mismatches until regular revenues are received.

- **Limits**: Set by RBI based on states' fiscal conditions.
- **Short-Term Loans**: Typically for a few days to a couple of months.
- **Interest Rates**: Usually lower than market rates.

GOVERNMENT DEBT AND DEFICITS

Government debt arises from budgetary deficits (where expenditures exceed revenues), typically financed by:

1. **Taxation**
2. **Borrowing**: The government often issues bonds, transferring the repayment burden to future generations who may face higher taxes.
3. **Printing Money** (less common due to inflation risks).

Debt as a Potential Burden

- **Intergenerational Impact**: Debt may reduce future consumption as repayment burdens future generations, potentially lowering national savings and private sector capital formation.
- **Crowding Out**: Government borrowing can reduce funds available for private investment, especially if it competes with corporate bonds. However, an increase in national income from productive government spending may offset this effect.

Non-Financial Debt [UPSC-2020]

In the context of the Indian economy, non-financial debt includes:

1. Housing loans owed by households.
2. Outstanding amounts on credit cards.
3. Treasury Bills, a form of short-term public debt.

> **Ricardian Equivalence**: This theory argues that when the government borrows, forward-looking consumers anticipate higher future taxes and increase their savings. This view posits that taxation and borrowing are equivalent methods of financing government expenditure without affecting national savings.

PUBLIC DEBT IN INDIA

Public debt refers to borrowings by the government to finance its expenditures and manage fiscal deficits. A portion of household financial savings is channeled into government borrowings, contributing to internal debt. This is achieved through instruments like government securities, small savings schemes, and provident funds. **[UPSC-2022]**

Objectives of Public Debt in India

1. **Finance Government Expenditure:** Funds long-term infrastructure and welfare projects to boost economic growth.
2. **Bridge Fiscal Deficit:** Addresses revenue-expenditure gaps without raising immediate taxes.
3. **Support Monetary Policy:** Provides tools for the RBI to manage liquidity and control inflation.
4. **Stabilise Economy:** Used as a counter-cyclical tool to support spending during economic downturns.

Types of Public Debt [UPSC-2022]

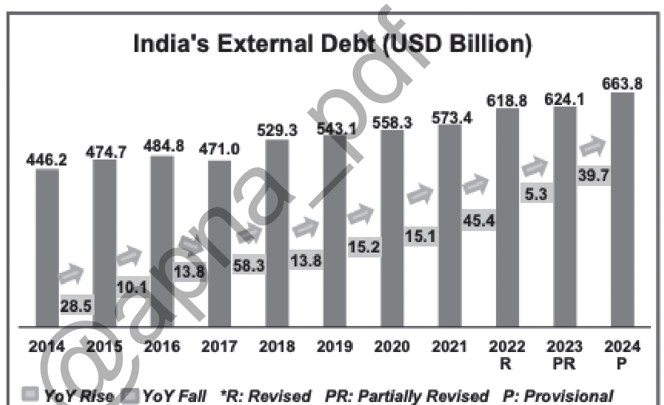
- **Internal Debt**
  - **Government Securities (G-Secs):** Long-term bonds issued domestically for financing budget deficits.
  - **Treasury Bills (T-Bills):** Short-term borrowings with maturities of 91, 182, and 364 days.
  - **Ways and Means Advances (WMA):** Temporary loans from the RBI to manage short-term cash flow mismatches.
  - **Market Borrowings:** Includes debt raised through dated securities, which form a significant component of internal debt and are issued at market-determined rates in auctions.
- **External Debt**
  - **Multilateral Debt:** Loans from global institutions like the World Bank, IMF, and Asian Development Bank.
  - **Bilateral Debt:** Borrowings from foreign governments.
  - **Commercial Borrowings:** Loans from international banks and financial institutions.
  - **Export Credits:** Financing provided by foreign exporters or banks for imports.

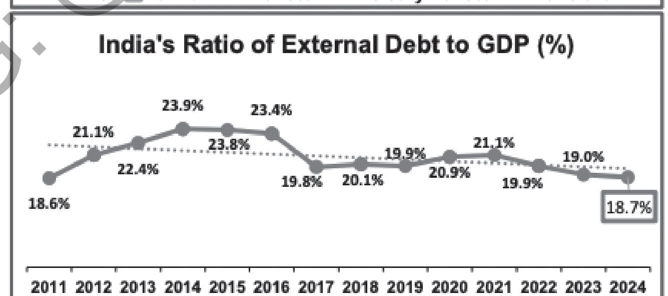
Components of Government's Debt and Liabilities

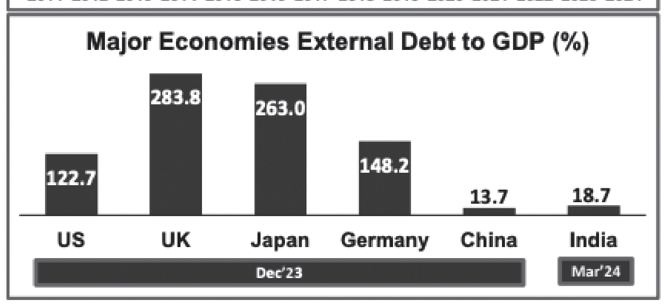
Debt Category	Description
Market Borrowings	The largest portion; includes government securities like Treasury Bills and dated securities.
Loans from Banks/ Institutions	Loans from domestic banks for specific projects or short-term funding needs.
External Debt	Foreign loans from entities like the World Bank, ADB, and through sovereign bonds.
Small Savings & Provident Funds	Funds from schemes like PPF, NSC; used to finance government spending.
State Development Loans (SDLs)	Issued by states for projects; sometimes supported by the central government.
Securities Against Small Savings	Instruments issued based on small savings collections.
Treasury Bills	Short-term debt (<1 year maturity) for immediate government financing.
Special Securities to RBI	Bonds issued to the RBI under specific circumstances.
Other Liabilities	Includes bonds like oil and fertiliser bonds, issued for targeted purposes.

INDIA'S EXTERNAL AND GENERAL GOVERNMENT DEBT OVERVIEW (FY24)

- **External Debt to GDP Ratio**:
  - Declined to **18.7%** in FY24 (from **19%** in FY23), marking a **13-year low** since **18.6% in 2011**.
  - Total external debt stood at **$663.8 billion** as of March 2024, reflecting an addition of **$39.7 billion** YoY (third highest since 2014).
  - Excluding valuation effects from the USD appreciation, external debt would have risen by another **$8.7 billion**.







- **Debt Composition**:
  - **Long-term Debt** (maturity >1 year): Up by **9.2% YoY**.
  - **Short-term Debt**: Declined by **4.6% YoY**.
  - **Deposit-taking Corporations (excluding Central Bank)**: Account for **28.1%** of external debt, with a robust **14.3% YoY growth** in FY24.
  - **General Government Debt**: Constitutes **22.4%** of external debt, amounting to **$148.7 billion** (up by **11.5% YoY**).

- **Global Comparison**:
  - Among the top six global economies, India has the **second-lowest external debt to GDP ratio**, with the **UK highest at 283.8%** (as of Dec 2023).
  - India's **general government debt to GDP ratio** (82.5% in FY24) is also the **second lowest** after Germany (63.7%).
- **Trends and Projections**:
  - **Germany** has seen a steady decline in general government debt to GDP ratio since 2015.
  - **China** recorded the highest rise, nearly doubling its ratio since 2015.
  - **India's Future Outlook** (RBI): General government debt to GDP ratio expected to decrease from **82.5% in FY24 to 73.4% in FY31** due to strategic fiscal policies and favorable interest rates.**Central Government Debt to GDP is** 56.8% out of total 82.5%, rest is the combined share of states.
  - In contrast, other major advanced and emerging economies are projected to witness an increase in their debt-to-GDP ratios.

Public Debt Management and Associated Agencies in India

Agency	Role in Public Debt Management
Reserve Bank of India (RBI)	Manages India's internal debt, issues government securities, and oversees monetary policy affecting interest rates.
Ministry of Finance	Sets fiscal policy and debt strategy; oversees external borrowing and maintains relations with international institutions.
Securities and Exchange Board of India (SEBI)	Regulates securities markets, including government securities, ensuring market transparency and investor confidence.
Public Debt Office (PDO)	Under RBI, handles issuance and servicing of government securities, including interest and principal payments.
FRBM Review Committee	Monitors adherence to fiscal discipline and budget targets, indirectly influencing debt management policies.
Banks and Financial Institutions	Major buyers of government securities; their participation supports government borrowing and debt auctions.

Public Debt Management Cell (PDMC)

- Set up in 2016 as a step towards forming an independent Public Debt Management Agency (PDMA).
- Aims to transfer government debt management from the RBI to an autonomous agency.

Structure:
- Led by Joint Secretary (Budget), Department of Economic Affairs.
- Supported by a transition committee and supervised by the Monitoring Group on Cash and Debt Management.

Responsibilities:
- Develop debt strategies and manage cash balances.
- Ensure market liquidity for government securities.
- Advise on capital markets and create a centralised debt database.

Monetization of Deficit and Deficit Financing [UPSC 2022]

Particular	Monetization of Deficit	Deficit Financing
Definition	Financing by creating new money (central bank buys government securities).	Funding a budget deficit through borrowing or issuing securities.
Primary Actor	Central Bank (collaborates with treasury).	Government (Treasury/Finance Ministry).
Mechanisms	Open Market Operations, direct lending via new money.	Borrowing via bonds, treasury bills, or printing money.
Source of Funds	Newly created money by the central bank.	Borrowed funds from public, institutions, or other governments.
Inflationary Impact	**Creation of New Money** to finance the budget deficit is **most inflationary** as it directly increases the money supply. **[UPSC- 2013, 2021]**	It can lead to rise in inflation due to increased money supply.
Exchange Rate Impact	May contribute to currency depreciation.	Affected by market perception, inflation, and economy.

Monetisation of deficit was in practice in India till 1997. Back then, the central bank automatically monetised the government deficit. It does it through the issuance of ad-hoc treasury bills.

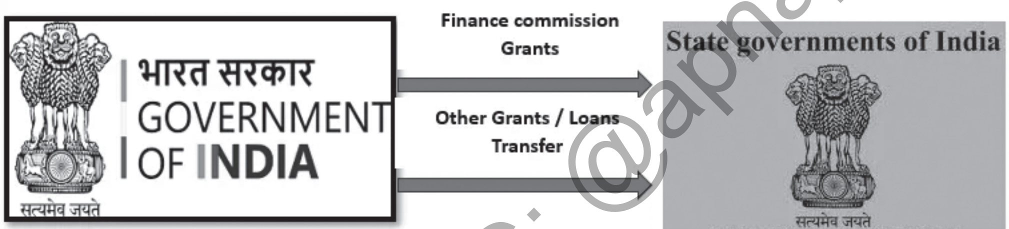
Financial Stability and Development Council (FSDC) [UPSC-2016]

The FSDC was set up in December 2010 by an Executive Order of the Union Government as a **non-statutory measure in response** to the global financial crisis of 2007-08, with the objective of addressing systemic risks to the financial stability of the country. The **Raghuram Rajan Committee (2008)** on financial sector reforms first proposed the creation of FSDC.

Composition

- **Chairman:** The **Finance Minister**
- **Members of FSDC include Heads of the Financial Sector Regulators listed below:**
  - Reserve Bank of India (RBI)
  - Insurance Regulatory and Development Authority of India (IRDAI)
  - Securities and Exchange Board of India (SEBI)
  - Pension Fund Regulatory and Development Authority (PFRDA)
- Other members are **Finance Secretary, Chief Economics Advisor and Secretary of the Department of Financial Services.**
- **New members added to the FSDC include:**
  - Minister of State responsible for the Department of Economic Affairs (DEA).
  - Secretary of the Department of Electronics and Information Technology.
  - Revenue Secretary.
  - Chairman of the Insolvency and Bankruptcy Board of India (IBBI).

FUND TRANSFER FROM UNION TO STATE GOVERNMENTS



15th Finance Commission Recommendations (2021-26)

- **Vertical Devolution**
  - **Share of Central Taxes for States**: States are recommended to receive **41%** of the divisible pool of Central taxes.
  - **Exclusions from Divisible Pool**: The pool excludes costs such as tax collection expenses, cess and surcharge, revenue from Union Territories, and National Calamity Contingent Duty.
- **Horizontal Distribution Parameters**

Parameter	Weightage (%)
Income Distance	45
Population (2011 Census)	15
Demographic Performance	12.5
State Area	15
Forest and Ecology	10
Tax and Fiscal Effort	2.5

Grants-in-Aid (Article 275)

This article ensures financial support for states, especially for tribal and underdeveloped areas, to promote equitable administration and welfare. (these are charged on Consolidated Fund of India and tied grants)

- **Grants-in-Aid to States in Need**:
  - Parliament may allocate funds from the **Consolidated Fund of India** to assist states requiring financial aid.
  - The amounts may vary for different states as determined by Parliament.
- **Special Provisions for Scheduled Tribes and Scheduled Areas**:
  - Grants are provided for development schemes aimed at **welfare of Scheduled Tribes** and improving **administration in Scheduled Areas** to match the rest of the state.
- **Special Assistance to Assam**:
  - Grants are allocated to Assam for:
    - Covering past administrative expenditure in tribal areas (as per the Sixth Schedule).
    - Development schemes for tribal areas to improve administration standards.
- **Provisions for an Autonomous State (Article 244A)**:
  - If an **autonomous state** is formed:
    - Funds meant for tribal areas (under Assam) will be shared between Assam and the autonomous state as specified by the President.

- The autonomous state will receive grants for development schemes to align its administrative standards with those of Assam.

- **Role of President and Parliament**:
  - Until Parliament enacts laws, the President can determine grants via orders.
  - After the formation of a **Finance Commission**, the President can do the same but after considering recommendations of the Finance Commission.

Revenue Deficit Grants

- After allocating 41% of funds, certain states face revenue deficits.
- The Finance Commission suggests grants to offset these post-devolution revenue gaps.
- The recommendations are designed to correct fiscal capacity issues, avoiding incentives for insufficient revenue collection or overspending.
- For the fiscal year 2021-22, the 15th Finance Commission recommended such grants for 17 states.
- By the fiscal year 2025-26, the number of states eligible for these grants is projected to reduce to six.

Local Body Grants

- **Total Allocation:** An aggregate of Rs. 4,36,361 crores has been recommended for local governments over a five-year period (2021-22 to 2025-26).
- **Utilisation**: 60% of these funds are earmarked for priorities like drinking water and sanitation, while 40% is untied for use at the discretion of local bodies.
- **Shift in Urban-Rural Distribution**: The distribution ratio between urban and rural bodies is set to change from **67.5 : 32.5 to 65 : 35** over the period.
- **State-Level Distribution Criteria**: The funds are allocated based on 90% population and 10% area of the states.

Disaster Management Grants

- **Centre-State Contribution Ratio**: The recommended contribution ratio is 75% by the Centre and 25% by the States. For Northeastern states, this ratio is 90:10.
- **Fund Allocation**: The total allocation to states is divided into the State Disaster Response Fund (SDRF) with 80% and the State Disaster Mitigation Fund (SDMF) receiving 20%.

Sector-Specific Grants [UPSC-2015]

- These grants are primarily performance-based incentives linked to specific benchmarks.
  - **Health Sector Grants**: Allocated for improvements in the health sector.
  - **School Education Grants**: Focused on enhancing school education systems.
  - **Higher Education Grants**: Aimed at advancing the quality and infrastructure
  - **Agricultural Reforms Implementation**: These incentives cover four key areas: Land lease reforms, Sustainable and efficient water use in agriculture, Export promotion, Contributions to the **Atma Nirbhar Bharat initiative**, specifically in oilseeds, pulses, and wood-based products.

State-Specific Grants

- Designed to meet specific needs and financial shortcomings of states, beyond what is covered by the formula-based 41% allocation and other sector-specific grants.
- Intended for all 28 states.
- Focus areas include:
  - Addressing various social welfare needs.
  - Improving administrative governance and related infrastructure.
  - Promoting conservation and sustainable use of water resources
  - Protecting and preserving cultural heritage and historical monuments.
  - Developing and maintaining high-cost physical infrastructure projects.
  - Enhancing the tourism industry within the states.

Additional Transfers from Central to State Governments

- Beyond the regular transfers, states receive various other forms of financial support from the Central Government. This includes **Special Assistance Grants, Additional Central Assistance in both grants and loans, and financial aid from the National Disaster Response Fund (NDRF).**

6 Balance of Payments, Foreign Exchange and International Financial Institutions

OPEN ECONOMY

One that interacts with other nations through various channels like trade in goods, services, and financial assets, unlike a closed economy, which has no linkages with the rest of the world.

Linkages of an Open Economy with Rest of World

- **Output Market:** It is a trade in goods and services with other countries; provides a wider choice for consumers and producers between domestic and foreign goods.
- **Financial Market:** It is the ability to buy financial assets from other countries; offers investors a choice between domestic and foreign assets.
- **Labour Market:** Firms can choose production locations, and workers can choose where to work.

Trade and Aggregate Demand

Foreign trade influences aggregate demand in two ways:

- **Leakage:** When Indians buy foreign goods, this spending escapes as a leakage from the circular flow of income decreasing aggregate demand.
- **Injection:** Our exports to foreigners enter as an injection into the circular flow, increasing aggregate demand for goods produced within the domestic economy.

Need for an International Monetary System (IMS)

1. **Stability in Transactions:** International trade requires reliable currency exchange without major fluctuations. IMS provides this stability, supporting global trade and investment.
2. **Convertibility and Trust:** A stable IMS ensures that currencies are freely convertible, giving confidence that a currency will hold value in foreign transactions.
3. **Preventing Imbalances:** By managing exchange rates and monetary policies, IMS helps prevent global economic imbalances, reducing the risk of currency crises.

Functions of the IMS

1. **Currency Exchange and Rate Stability:** Facilitates stable currency exchange and helps regulate exchange rates to protect against extreme volatility.
2. **Crisis Prevention and Management:** Assists in resolving balance-of-payment issues through frameworks, often supported by institutions like the IMF.
3. **Liquidity Support:** Provides credit facilities and reserves to ensure global liquidity and manage currency shortfalls.
4. **Economic Integration:** Fosters cooperation and economic integration, promoting overall stability and growth in international markets

BALANCE OF PAYMENTS (BOP)

A systematic record of all economic transactions between the residents of one country with the residents of the rest of the world during a financial year. It reflects the financial health and external economic relations of a nation.

Components of BoP

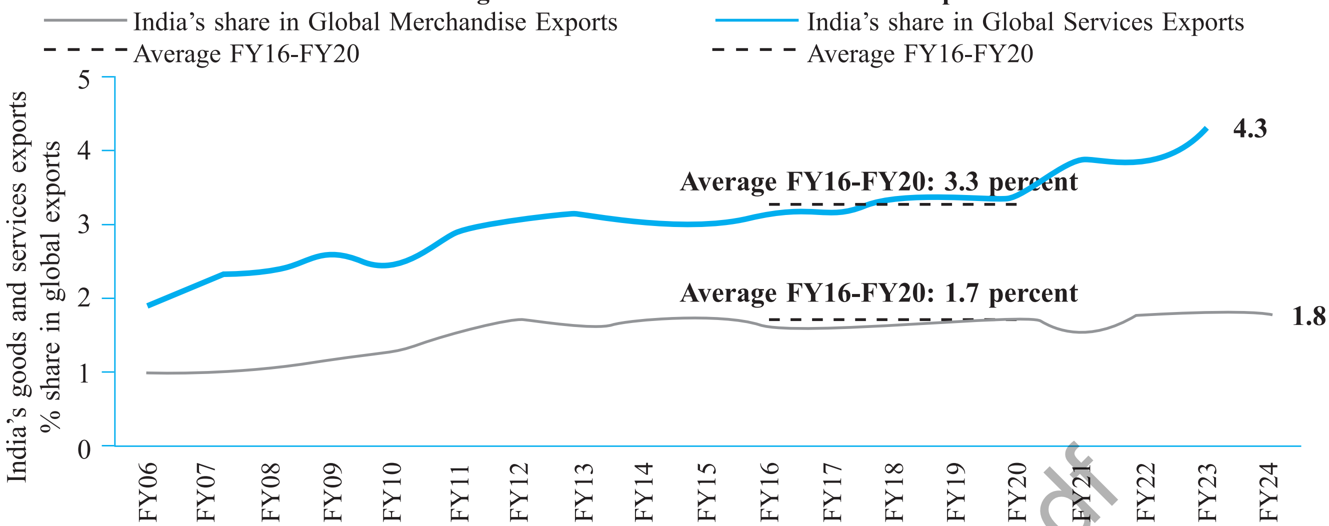
- **Current Account**
- **Capital Account**
- **Financial Account** (introduced under new accounting standards to track financial assets like bonds and equity shares). Notably, India includes the Financial Account as part of the Capital Account.

Current Account

Records the flow of goods, services, and income, excluding capital and financial account transactions over a period of time. It's components are listed below. **[UPSC 2014]**

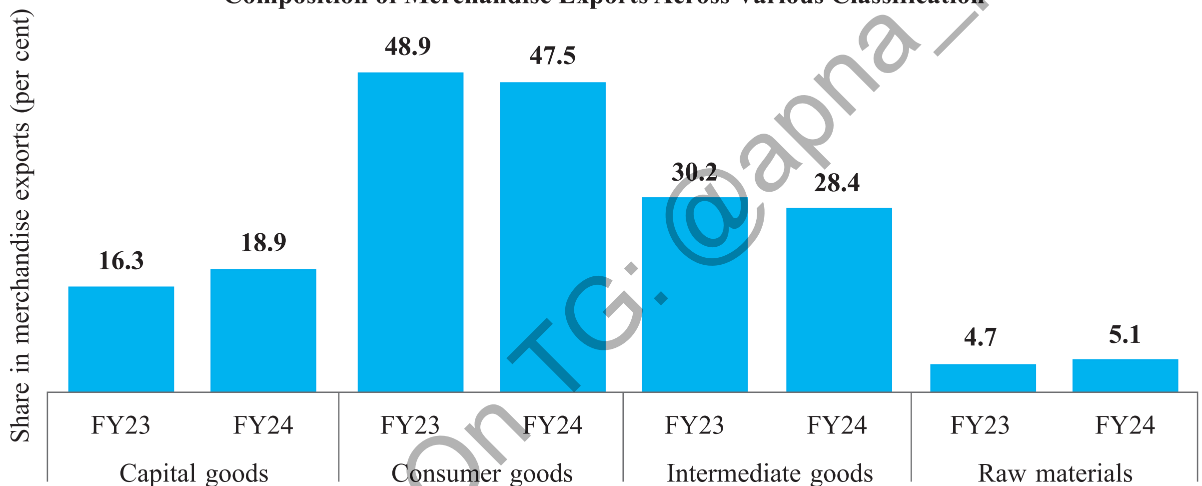
- **Visible Trade:**
  - **Exports:** Goods sent to other countries.
    - India's share in global merchandise exports stands at **1.8%**, while its share in global services exports is around **4.3%**. **[UPSC 2023]**
    - India's top export destinations**:** USA > UAE > **Netherlands** > U.K > China (Aug, 24)

India's Rising Share in Global Goods and Services Exports



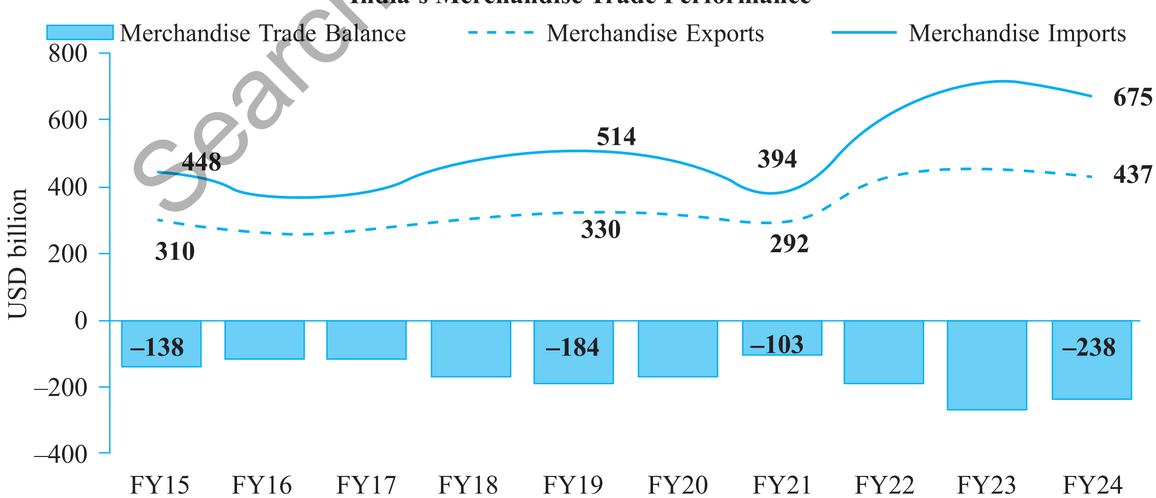
Source: UNCTAD

Composition of Merchandise Exports Across Various Classification



Source: DGCI&S

India's Merchandise Trade Performance



Source: Export Import Data Bank (Annual), Trade Statistics, Minstry of Commerce and Industry

- **Imports:** Goods brought from other countries.
  - India's top imports include crude oil, gold, and electronic goods.
  - Top import destinations**: China, USA, UAE, Saudi Arabia**.

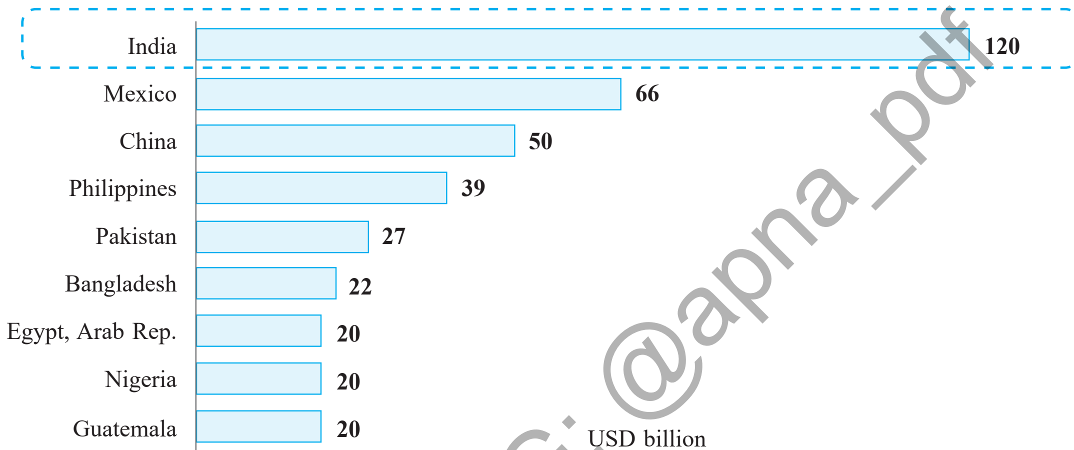
- **Invisible Trade:**
  - **Factor Income:** Earnings from factors of production like wages, rent, interest, and dividends.
  - **Non-Factor Income:** Services like tourism, transportation, and IT services. **Example:** The visit by foreign nationals to witness the XIX Commonwealth Games in India amounted to exports. **[UPSC 2011]**

    Example: India's IT exports contribute significantly to net service earnings.
  - **Transfers:** One-way flows such as remittances, grants, and foreign aid.

REMITTANCES INTO INDIA

- India remains the largest global recipient of remittances, receiving about **$120 billion in 2023**, accounting for nearly **14% of total global remittance flows**. U.S.A, U.A.E being the top two countries; Saudi Arabia, Kuwait, Oman, U.K are other important source of remittance to India.
- **Source:** The **United States followed by Saudi Arabia, Switzerland and Germany** contribute highest of all remittances globally.

India Emerged as the Top Remittance Recipient in the World in 2023



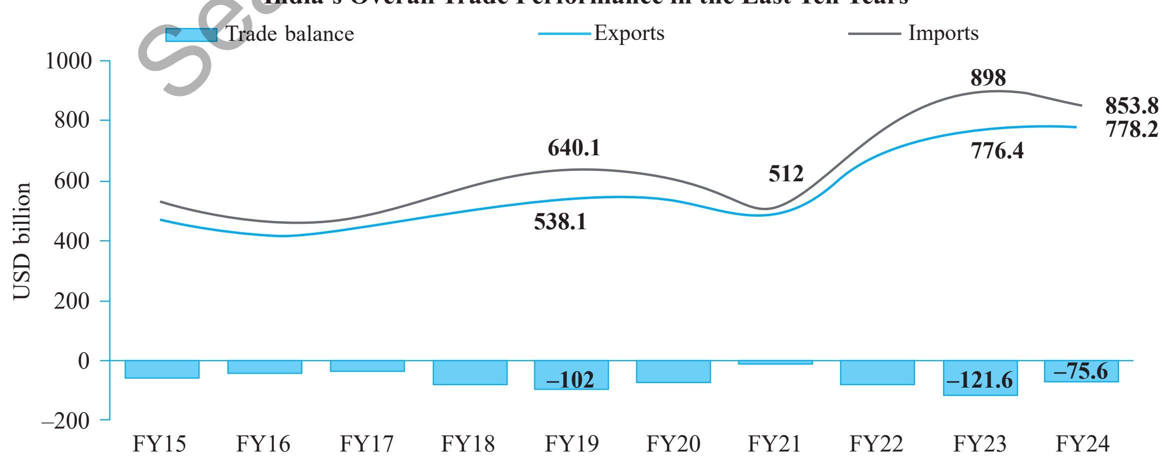
Source: World bank

CURRENT ACCOUNT BALANCE

- **Deficit:** Occurs when imports exceed exports. Formula**:**
  - Current Account Deficit (CAD) = Trade Gap (Exports – Imports) + Net Current Transfers + Net Factor Income.

    India's CAD narrowed to USD 23.2 billion (0.7 per cent of GDP) in FY24 from USD 67 billion (2 per cent of GDP) during the previous year. The improvement in CAD in FY24 is supported by the surplus in CAD recorded in Q4 of FY24 on the grounds of a decline in merchandise trade deficit, rising net services exports and increasing remittances.
- **Surplus:** Occurs when exports exceed imports. Surplus implies the nation is a lender to other countries, whereas a deficit indicates borrowing.

India's Overall Trade Performance in the Last Ten Years



Source: Export Import Data Bank (Annual), Trade Statistics, Ministry of Commerce and Industry, India's International Trade in Service, RBI

Table: Key Aspects of India's Trade (Calendar Year-wise)

	2020	2021	2022
Export Performance (in per cent)			
Share in World Merchandise Exports	1.6	1.8	1.8
Share in World Commercial Services Exports	4.1	4.0	4.4
Share in World Merchandise Plus Services Exports	2.1	2.2	2.4
Import Performance (in per cent)			
Share in World Merchandise Imports	2.1	2.5	2.8
Share in World Commercial Services Imports	3.3	3.5	4.0
Share in World Merchandise Plus Services Imports	2.3	2.7	3.0
India's Rank in World Trade			
Merchandise Exports	21.0	18.0	18.0
Merchandise Imports	14.0	10.0	9.0
Services Exports	7.0	8.0	7.0
Services Imports	10.0	10.0	8.0

Source: DGFT, Monthly Bulletin on Foreign Trade Statistics, April 2024

Factors Influencing CAD

1. Exchange Rate Movements.
2. Domestic Consumption and Import Dependency.
3. Capital Inflows and Savings Rates.
4. Relative Inflation Rates.
5. Policy Interventions (e.g., incentivizing exports).

Policy Interventions to Reduce CAD

[UPSC 2011]

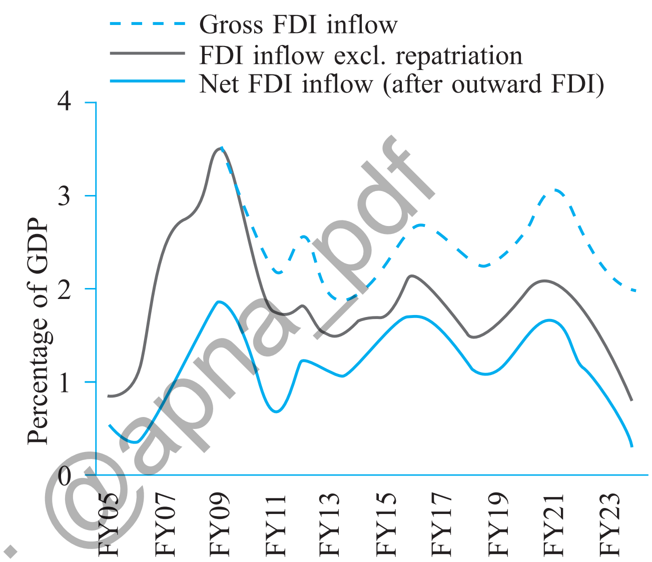
- Promoting exports through production-linked incentive (PLI) schemes.
- Devaluing domestic currency to boost export competitiveness.
- Attracting FDI and FPI.
- Expanding renewable energy initiatives to reduce crude oil imports.

CAPITAL ACCOUNT

Tracks the flow of capital into and out of the country, primarily through investments and loans. It's components are listed below. **[UPSC 2013]**

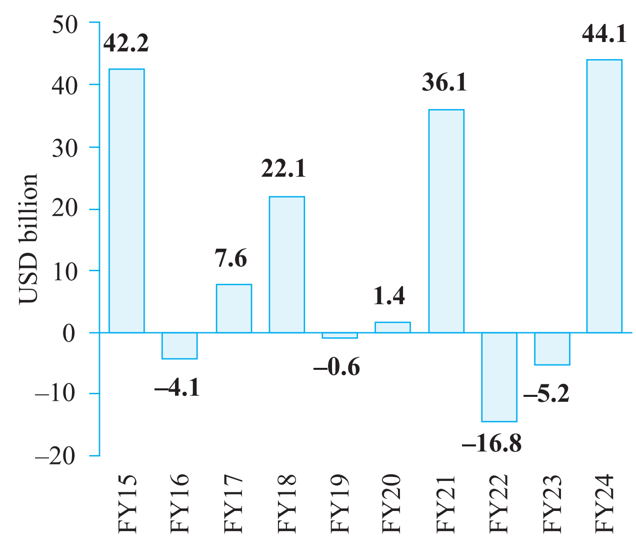
- **Foreign Direct Investment (FDI):**
  - Long-term investments in businesses abroad. Includes management control and ownership of assets. Investment upto 10% is classified as FPI by RBI and SEBI, beyond that is FDI.
  - Net FDI inflows to India declined from USD 42.0 billion during FY23 to USD 26.5 billion in FY24 but have rebounded in first half of FY 2025 to 42 billion from 33 billion in the corresponding first half in FY 2024.
  - The decline in FDI inflows in recent years is also attributable to higher interest rates in developed countries and attractive exits out of India due to the buoyant stock market.

Decline in Net FDI Inflows as Percent of GDP



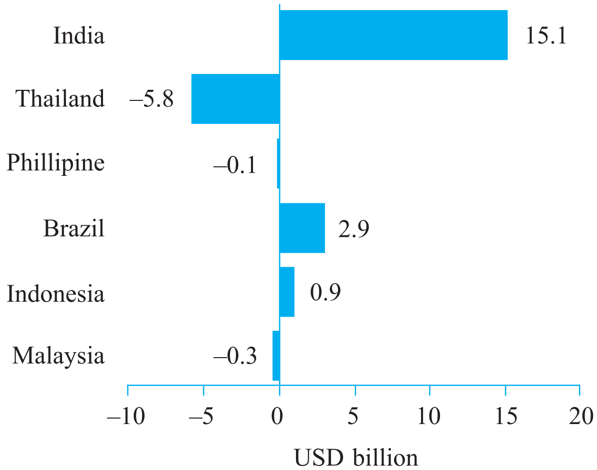
- **Foreign Portfolio Investment (FPI):**
  - Short-term investments in financial assets like stocks and bonds.
  - India witnessed positive **net foreign portfolio investment (FPI) inflows in FY24 of USD 44.1 billion**, supported by strong economic growth, a stable business environment, and increased investor confidence.

Net FPI Inflows into India



Source: Balance of Payments statistics, RBI

Net Equity Inflows Among Emerging Market Peers during FY24



Source: Bloomberg

- **External Assistance:**
  - Bilateral and multilateral loans. Trade Credit: Short-term credit for trade-related transactions.
- **External Commercial Borrowings (ECBs):**
  - Loans raised from foreign entities.
  - **Key Insight:** India's low dependence on short-term ECBs provides immunity against global financial crises [**UPSC 2020**].
- **Foreign Currency Convertible Bonds (FCCBs):**
  - Debt instruments convertible into equity.
- **NRI Deposits:**
  - Deposits from Non-Resident Indians in Indian banks.

Capital Account Balance

- **Deficit:** Indicates higher outflows for acquiring foreign assets.
- **Surplus:** Reflects inflows due to sale or borrowing against domestic assets.
  - Stable capital inflows continue to finance the Current Account Deficit. **During FY24, net capital flows stood at USD 86.3 billion against USD 58.9 billion during the previous year,** primarily driven by **FPI, FDI flows and net inflows of banking capital (including NRI deposits)**.

SUMMARY OF CURRENT AND CAPITAL ACCOUNTS

Account Type	Components	Examples
Current Account	**Visible Trade:** Exports and Imports of goods.	Export of steel, import of crude oil.
	Invisible Trade: Services, income, and transfers.	Software exports, tourism income, foreign remittances.
	Income: Interest, dividends from abroad.	Earnings on investments in foreign bonds.
	Transfers: Grants, remittances, gifts.	NRI remittances, foreign aid.
Capital Account	**Foreign Direct Investment (FDI):** Long-term investment in businesses.	Establishing a factory or acquiring a company abroad.
	Foreign Portfolio Investment (FPI): Short-term investment in securities.	Purchase of stocks and bonds.
	Loans and Borrowings: External Commercial Borrowings (ECBs), multilateral loans.	Loan from World Bank or IMF.
	NRI Deposits: Non-resident investments in Indian banks.	Fixed deposits by NRIs in Indian banks.
	Reserves and Liabilities: Transactions affecting the reserve assets of the central bank.	Changes in foreign exchange reserves.

Classification of Transactions

- **Loans and Interest**
  - **Loans:** Recorded in the **capital account** as they represent the inflow or outflow of long-term capital.
    Example: A foreign institution providing a loan to an Indian company is a capital inflow.
  - **Interest:** Recorded in the **current account** under **income** as it reflects the earnings from investments or borrowing.
    Example: Interest payments on external debt.
- **Gifts and Grants**
  - Recorded in the **current account** under **transfers**. These are unilateral transactions with no corresponding obligation.
    Example: Foreign aid or personal remittances.
- **Remittance**
  - Classified under the **current account** as part of **transfers**. These involve the transfer of funds without a direct exchange of goods or services.
    Example: An NRI sending money to family in India.

- **Reasoning for Classification**
  - **Loans** involve capital movements and are directly tied to financial stability and investment.
  - **Interest**, **gifts**, and **remittances** are income or transfer flows and are therefore recorded in the current account.

CURRENT AND CAPITAL ACCOUNT CONVERTIBILITY

- Currency convertibility is the degree to which a country's domestic money can be converted into another currency or gold. India allows **partial convertibility** on the capital account while Current account is fully convertible since 1994. Fully liberalizing capital flows remains a debated issue due to risks like capital flight and speculative attacks.

Current Account Convertibility

Current account convertibility allows the free exchange of domestic currency into foreign currency for transactions involving trade in goods, services, and income.

- **Introduced:** In 1994 under the framework of the **IMF's Article VIII obligations.**
- **Committee Recommendations:**
  - **Sukhamoy Chakravarty Committee (1985):** Advocated a phased introduction of current account convertibility.
  - **Narasimham Committee on Financial Sector Reforms (1991):** Proposed reforms leading to a more open exchange rate system and eventual convertibility on the current account.

Capital Account Convertibility

India maintains **partial capital account convertibility**, with specific relaxations for foreign investments and borrowing.

- **Tarapore Committee I (1997)**
  - Proposed a phased approach to full convertibility over three years.
  - Recommended achieving macroeconomic stability benchmarks**:**
    - Fiscal deficit < 3.5% of GDP.
    - Inflation < 5%.
    - Gross NPAs < 5%.
    - Adequate foreign exchange reserves. **[UPSC 2011]**
- **Tarapore Committee II (2006)**
  - Emphasized strengthening institutions and risk management.
  - Suggested cautious liberalization of ECBs and further reforms in banking.

ERRORS AND OMISSIONS

It is difficult to record all international transactions accurately. Thus, we have a third element of BoP (apart from the current and capital accounts) called errors and omissions, which reflects this.

CURRENCY AND EXTERNAL SECTOR

Foreign Exchange Reserves

Forex reserves are assets held by the Reserve Bank of India (RBI) to manage currency stability and external obligations.

Current Status (Economic Survey 2023-24)

- India's forex reserves stood at **$652.87 billion** (March 2024), marking a $68 billion increase during FY24. **[UPSC 2013]**
- Provides an **import cover** of approximately **12 months**, a robust indicator of economic stability. **[UPSC 2016]**
- $\text{Import Cover (Months)} = \dfrac{\text{Forex Reserves}}{\text{Monthly Import Expenditure}}$

  Example: For forex reserves of $652 billion and imports worth $54 billion/month, the import cover = 12 months.

Composition of Forex Reserves

Component	Details
Foreign Currency Assets (FCA)	Largest share; held in USD, Euro, Yen, etc. **[UPSC 2019]**
Gold Reserves	Held for diversification and financial security.
Special Drawing Rights (SDRs)	IMF-created reserve asset; valuation based on a basket of currencies. **[UPSC 2020]**
Reserve Tranche Position	Portion of India's IMF quota available for immediate withdrawal. **[UPSC 2020]**

EXTERNAL DEBT

External debt refers to borrowings from foreign creditors, including banks, international institutions, and sovereign nations.

Current Status (Economic Survey 2023-24)

- External debt stood at **18.7% of GDP**, reflecting sustainable debt levels. **[UPSC 2019]**
- The **debt service ratio** remained manageable at **5.5%**.

Types of External Debt

Type	Description
Short-term Debt	Maturity of 1 year or less. **[UPSC 2019]**
Long-term Debt	Maturity exceeding 1 year.
Sovereign Debt	Government bonds issued in foreign currency.

India's External Borrowings

- **Largest Component:** Commercial Borrowings.
- **Dominant Currencies:** USD > Indian Rupee > SDR > Yen > Euro. **[UPSC 2019]**

CURRENCY CRISIS

A currency crisis occurs when a country's currency significantly depreciates, leading to economic instability. This is often linked to low foreign exchange reserves, high external debt, and adverse economic conditions.

Balance of Payments (BoP) and Currency

BoP records all economic transactions between a country and the rest of the world.

Components

Type	Details
Autonomous Transactions	Include exports, imports, and FDI inflows; independent of BoP balancing. **[UPSC 2013]**
Accommodating Transactions	Address gaps in BoP, such as RBI's reserve transactions. **[UPSC 2020]**

FOREIGN EXCHANGE RATE

The exchange rate reflects the value of one currency in terms of another, vital for international trade and investment.

Types of Exchange Rate Mechanisms

Mechanism	Description
Fixed Rate	Government sets the currency value; devaluation boosts exports. **[UPSC 2021]**
Flexible Rate	Market-driven by demand-supply dynamics. **[UPSC 2012]**
Managed Floating Rate	Central banks intervene to stabilize volatility. **[UPSC 2012]**
Pegged Float	Pegged to a currency or basket with limited fluctuations. **[UPSC 2019]**

Determinants of Exchange Rates

Factor	Effect on Currency
Demand & Supply	High demand appreciates currency; oversupply causes depreciation. **[UPSC 2012]**
Interest Rates	Higher rates attract foreign investments, strengthening currency. **[UPSC 2022]**
Inflation	Low inflation stabilizes currency; high inflation weakens it. **[UPSC 2022]**

NEER AND REER

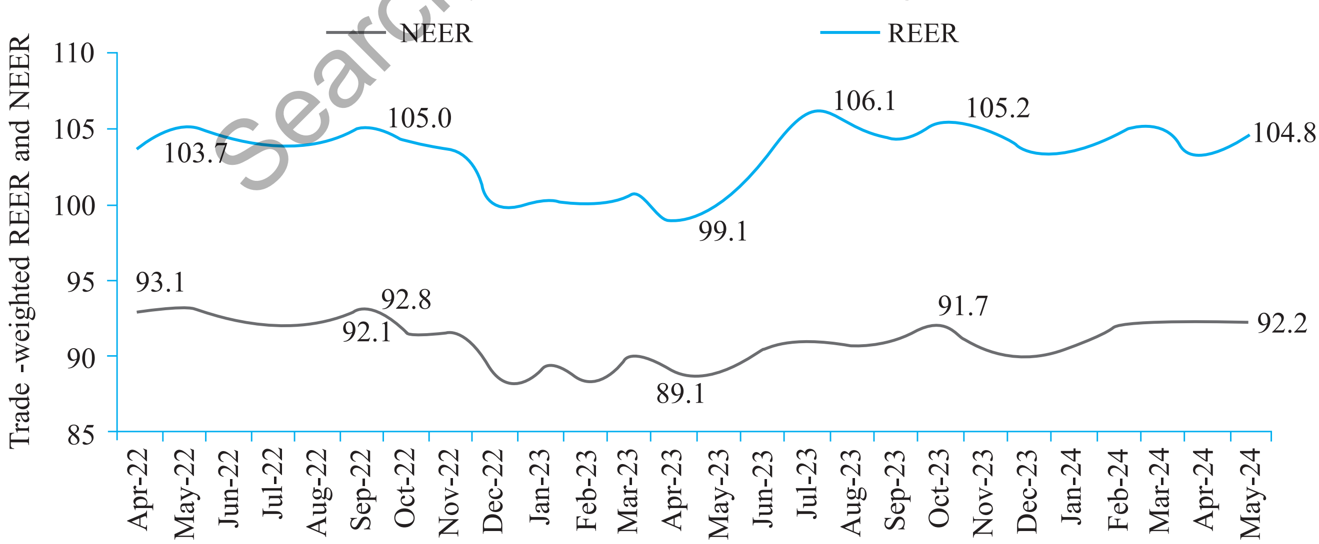
- **NEER (Nominal Effective Exchange Rate):** Weighted average of a currency relative to others. **[UPSC 2022]**

$$\text{NEER} = \Sigma\left(\frac{\text{Exchange Rate of Domestic Currency}}{\text{Exchange Rate of Foreign Currency}} \times \text{Trade Weight}\right)$$

- **REER (Real Effective Exchange Rate):** Adjusted NEER for inflation differences with trading partners. **[UPSC 2022]**

$$\text{REET} = \text{NEER} \times \frac{\text{Domestic Price Index}}{\text{Foreign Price Index}}$$

Movement of Index of 40-Currency NEER and REER (Trade-based Weight) (Base Year 2015-16 = 100)



Source: 'Indices of Real Effective Exchange Rate (REER) and Nominal Effective Exchange Rate (NEER) of the Indian Rupee (40-currency bilateral weights, monthly average). External Sector. Handbook of Statistics on the Indian Economy. RBI

- **Illustrative Example:**
  - **Base Year NEER = 100 inr/dollar ; Current NEER = 105 inr/dollar :** Indicates nominal appreciation of the rupee against a trade-weighted basket of currencies.
  - **Domestic Inflation = 6%, Foreign Inflation = 2%:** Causes REER to rise, calculated as**: REER = NEER × (Domestic Price Index/ Foreign Price Index)**
  - **Implication:** A rising REER (from 100 inr/dollar to 109.17 inr/dollar) **enhances the relative competitiveness of Indian exports** as rupee becomes cheaper w.r.t dollar and a consumer buying in dollar can buy more goods in same dollar.
- **Purchasing Power Parity (PPP)**
  - Compares currencies based on the cost of a basket of goods.
  - **India's Rank:** 3rd largest economy in PPP terms. **[UPSC 2019]**

FOREX SWAP, CURRENCY SWAP AND INTEREST RATE SWAP

Feature	Currency Swap	Forex Swap	Interest Rate Swap
Duration	Medium-to-long	Short-term	Medium-to-long
Principal Exchange	Yes	Yes	No
Interest Payments	Different Currencies	Single Currency	Single Currency

Currency Swap Example

- The **Reserve Bank of India (RBI)** enters into a currency swap agreement with the **Central Bank of Japan**.
- Amount**:** ₹10,000 crore (INR) and ¥100 billion (JPY).
- Exchange Rate**:** ₹1 = ¥1.

Process

1. **Initial Exchange:** RBI gives ₹10,000 crore to the Japanese Central Bank and receives ¥100 billion at the start.
2. **Interest Payments:**
   - RBI pays interest on ¥100 billion to Japan at an agreed interest rate (e.g., 1%).
   - Japan pays interest on ₹10,000 crore to RBI at an agreed rate (e.g., 3%).
3. **Final Exchange:** At maturity, the principal amounts are swapped back at the same exchange rate (₹1 = ¥1).

Use Case

- Allows India to hedge against exchange rate volatility and use JPY to fund imports from Japan.
- Japan benefits from INR to fund operations in India.

Forex Swap Example

Scenario

- An Indian exporter receives $10 million in revenue but needs INR for operations.
- The exporter enters into a forex swap with a bank.

Process

- The exporter exchanges $10 million for ₹800 crore (at ₹80/USD).
- The swap agreement ensures the bank will return the $10 million after 3 months, while the exporter will return ₹800 crore.
- Both parties agree on an interest or fee for the duration.

Use Case

- The exporter gets immediate INR liquidity for short-term operational needs.
- The bank earns a fee while managing its forex liquidity.

Interest Rate Swap Example

Scenario

- A large Indian company has a **₹1,000 crore loan** at a floating interest rate linked to the **MCLR (Marginal Cost of Lending Rate)**, currently at 8%.
- The company anticipates rising interest rates and prefers to switch to a fixed rate of 8.5%.

Process

- The company enters into an interest rate swap with an Indian bank.
- Under the swap**:**
  - The company continues paying 8.5% floating interest to the bank.
  - The bank agrees to pay the floating interest while receiving 8.5% fixed from the company.
- If the MCLR rises to 9%, the company still benefits by paying the agreed fixed rate of 8.5%.

Use Case

- The company mitigates the risk of rising interest rates while managing its financial stability.

FOREIGN INVESTMENT METHODS

- **American Depository Receipts (ADRs) and Global Depository Receipts (GDRs):**
  - **American Depository Receipts (ADRs):** ADRs are negotiable certificates issued by U.S. banks representing shares in foreign companies. They are traded on U.S. stock exchanges like the NYSE or NASDAQ. For example, Infosys has ADRs listed on the NYSE, enabling U.S. investors to invest in the company without dealing with cross-border transactions.
  - **Global Depository Receipts (GDRs):** GDRs are certificates issued by international banks representing shares in foreign companies. These are traded on international stock exchanges outside the U.S., such as the London Stock Exchange. For instance,

Reliance Industries issued GDRs to access European capital markets.

- **Participatory Notes (P-Notes):**
  - Participatory Notes are financial instruments used by foreign investors to invest in Indian securities without registering directly with SEBI. Issued by registered Foreign Institutional Investors (FIIs), P-Notes are scrutinized for potential misuse in money laundering and tax evasion.
- **Masala Bonds:** **[UPSC 2016]**
  - Masala Bonds are rupee-denominated bonds issued outside India, allowing issuers to raise funds in the Indian currency. These bonds help reduce currency risk for Indian companies while promoting internationalization of the rupee. For example, HDFC and NTPC have successfully issued Masala Bonds in global markets.
- **External Commercial Borrowings (ECBs):**
  - ECBs are loans raised by Indian entities from non-resident lenders. Regulated by the RBI, ECBs are used to fund projects, infrastructure development, or overseas acquisitions.

TRADE AGREEMENTS

India has entered into various trade agreements to enhance economic cooperation and trade with other countries. These agreements are classified based on the level of integration and scope.

- **Preferential Trade Agreement (PTA):**
  - PTA involves two or more countries agreeing to reduce tariffs on certain products, providing preferential access to each other's markets. For instance, the **India-MERCOSUR PTA**, operational since June 2009, offers tariff concessions on select goods between India and MERCOSUR member countries.
- **Free Trade Agreement (FTA):** FTAs eliminate or reduce tariffs and trade barriers on most goods and services between member countries. Examples include**:**
  - **India-Sri Lanka Free Trade Agreement (ISFTA):** Operational since 2000, allowing duty-free access to a range of products.
  - **South Asian Free Trade Area (SAFTA):** Aims to reduce tariffs for intraregional trade among SAARC countries.
  - **India-ASEAN FTA:** Enhances trade and economic ties between India and ASEAN member nations.
  - **India- Australia ECTA** in 2022.
- **Comprehensive Economic Cooperation Agreement (CECA) and Comprehensive Economic Partnership Agreement (CEPA):** These agreements cover trade in goods and services, investments, intellectual property, and other areas of economic cooperation. Examples include**:**
  - **India-Singapore CECA (2005):** Facilitates trade, investment, and services cooperation.
  - **India-UAE CEPA (2022)**
  - **India-Japan CEPA (2011):** Promotes trade and investment by eliminating tariffs on most goods.
- **Customs Union:**
  - A customs union involves removing trade barriers among member countries and adopting a common external tariff against non-members. India is not part of any customs union; however, the European Union exemplifies this concept.
- **Common Market:**
  - A common market extends a customs union by allowing free movement of factors of production, including labor and capital, among member countries. While India is not part of any common market, the European Economic Area (EEA) serves as an example.
- **Economic Union:**
  - An economic union combines a common market with harmonized economic policies and a common currency among member countries. The Eurozone is an example.

GOVERNMENT SCHEMES FOR FOREIGN TRADE

The Economic Survey 2023-24 emphasizes several initiatives aimed at fostering trade, investment, and economic growth.

- **Niryat Rin Vikas Yojana (NIRVIK):**
  - NIRVIK, introduced by the **Export Credit Guarantee Corporation of India (ECGC)**, enhances loan availability and simplifies lending for exporters. It provides high insurance cover, reduced premiums for small exporters, and simplified claim settlements.
- **Services Exports from India Scheme (SEIS):**
  - SEIS incentivizes service exports by providing duty credit scrips to service providers, which are transferable and can be used to pay central duties and taxes.
- **Special Economic Zones (SEZs):**
  - Established under the SEZ Act 2005, SEZs aim to create export hubs. As of 2024, India's SEZs contribute significantly to renewable energy capacity and manufacturing exports.
- **Trade Infrastructure for Export Scheme (TIES):**
  - TIES offers financial assistance to government agencies for setting up or upgrading export infrastructure to enhance trade competitiveness.
- **Agriculture Export Policy 2018:**
  - This policy aims to double agricultural exports to $60 billion by 2022 (extended timeline) and increase India's share in global agri-exports. It focuses on removing export restrictions and promoting value-added products.
- **Remission of Duties and Taxes on Export Products (RoDTEP):**
  - RoDTEP replaces the Merchandise Exports from India Scheme (MEIS), reimbursing embedded taxes and duties not refunded under other schemes, thus enhancing export competitiveness.

INTERNATIONAL FINANCIAL INSTITUTIONS

International Financial Institutions, commonly referred to as IFIs, are financial establishments formed by the collaboration of multiple nations. These entities operate under the jurisdiction of international law.

Bretton Woods Conference (1944)

- **Date & Location:** July 1-22, 1944, at Mount Washington Hotel, New Hampshire, USA.
- **Key Participants:** 44 Allied nations, notably John Maynard Keynes (UK) and Harry Dexter White (USA).
- **Goals:** Establish a stable international monetary system post-WWII, prevent economic instability.
- **Major Outcomes:**
  - **International Monetary Fund (IMF):**
    - **Purpose:** Foster international monetary cooperation.
    - **Key Financial Mechanism:** Provides short-term financial aid for countries facing balance of payments issues.
  - **World Bank (IBRD):**
    - **Purpose:** Finance reconstruction and development, focusing on poverty reduction and economic stability.
    - **Key Financial Mechanism:** Long-term loans for development projects in low- and middle-income countries.
  - **Fixed Exchange Rate System:**
    - **Structure:** Pegged global currencies to the U.S. dollar, which was convertible to gold ($35 per ounce).
    - **Objective:** Prevent competitive devaluations and promote stability.

WORLD BANK GROUP

The World Bank Group (WBG) is a vital international financial institution that plays a key role in global economic development.

- **Establishment:** The World Bank Group was established in 1944 during the Bretton Woods Conference.
- **Purpose:** To reduce poverty and promote sustainable development in developing countries.
- **Member Countries:** The World Bank Group consists of 189 member countries.
- **Major Reports:**
  - Ease of Doing Business (Stopped publishing). **[UPSC 2016]**
  - Human Capital Index.
  - World Development Report.
- **Shareholding of WB:** The United States is the largest single shareholder, with 16.41% of the votes, followed by Japan (7.87%), Germany (4.49%), the United Kingdom (4.31%), and France (4.31%). The rest of the shares are divided among the other member countries.

Institutions within the World Bank Group

Criteria	IBRD	IDA	IFC	MIGA	ICSID
Year	1944	1960	1956	1988	1966
Purpose	Development loans for middle-income countries	Concessional loans for poorest countries	Private sector growth	Political risk insurance	Arbitration for investment disputes
Focus Area	Infrastructure, growth	Poverty reduction, social sectors	Private investment	FDI stability	Dispute resolution
Target Countries	Middle-income, low-income	Poorest nations	Developing nations	Developing nations	Developing nations
India's Membership	Yes	Yes	Yes	Yes	No

INTERNATIONAL MONETARY FUND (IMF)

- **Establishment:** 1944 at the Bretton Woods Conference
- **Primary Purpose:** Promote global monetary cooperation, stabilize exchange rates, and provide resources to member countries with balance of payments issues.
- **Headquarters:** Washington, D.C., USA

Objectives of the IMF

- Foster international monetary cooperation.
- Secure financial stability and facilitate global trade.
- Promote high employment and sustainable economic growth.
- Reduce global poverty and provide macroeconomic support.
- Provide policy advice, technical assistance, and financial support for developing countries.
- Ensure exchange rate stability and establish a reliable international payment system.

Key Functions

- **Financial Assistance:** Provides funds to member countries with balance of payments issues to stabilize currencies and support growth, using loans with specific conditions. **[UPSC 2011]**
- **Surveillance:** Monitors member economies, assessing risks and advising on policies for stability.
- **Capacity Development:** Offers technical help and training to enhance governance, financial systems, and economic frameworks in member countries.

Governance Structure

- **Board of Governors:** Main decision-making body, with one governor from each member nation. Approves key decisions, like quota reviews and new membership.
- **Ministerial Committees:**
  - **International Monetary and Financial Committee (IMFC):** Discusses global economic management and advises on IMF operations. The World Bank participates as an observer in IMFC's meetings. **[UPSC 2016]**
  - **Development Committee:** Focuses on economic development in emerging markets and developing countries.

IMF Membership & Quotas

- **Membership:** Open to any country that agrees to IMF Articles of Agreement. Membership in the IMF is necessary for joining the International Bank for Reconstruction and Development (IBRD).
- **Quota System:**
  - Each member contributes a quota based on GDP, openness, economic variability, and international reserves.
  - The **quota formula (GDP 50%, openness 30%, economic variability 15%, international reserves 5%)** determines voting power and access to IMF resources.
  - United states, Japan, China. Germany and France are the top five shareholders and voting rights holder. India is 8th.
  - Quotas are reviewed periodically, and members can request adjustments based on economic changes.

Special Drawing Rights (SDRs)

- **SDRs:** Not a currency but a reserve asset created in 1969 to supplement member countries' reserves.
- **Value Composition:** Basket of **five major currencies (USD, Euro, RMB, JPY, GBP)**. The SDR value is reviewed every five years.

IMF Bailouts

- **Purpose:** Financial support to countries with severe economic crises, addressing currency crises, debt management, and promoting structural reforms.
- **Conditionality:** Countries must implement economic reforms, such as fiscal discipline, transparency, structural changes in state enterprises, and regulatory reforms.

India and the IMF

- **Founding Member:** India joined the IMF in 1945 and has since received various forms of support.
- **Significant Assistance:**
  - Loans for post-partition financial adjustments and 1965/1971 crises.
  - Emergency loan in the 1990s to address foreign exchange shortages, conditional on structural reforms.
- **Current Status:** India holds SDR 13,114 million in quotas, ranking 8th (2.75%) in quota size and **8th (2.63%) by voting power**. Has not required IMF assistance since 1993.

Key IMF Lending Facilities **[UPSC 2022]**

Mechanism	Purpose	Conditions	Eligibility	Repayment Period
Stand-By Arrangement (SBA)	Short-term support for BoP crises.	Conditional on policy adjustments.	All member countries.	3¼ to 5 years.
Flexible Credit Line (FCL)	For countries with strong fundamentals; provides financial flexibility.	Pre-qualification; no ongoing conditions.	Select countries with sound policies.	3 to 5 years.
Precautionary and Liquidity Line (PLL)	Supports countries with moderate vulnerabilities.	Conditionality on policy adjustments.	Countries with sound fundamentals.	3 to 5 years.
Extended Fund Facility (EFF)	Medium to long-term support for structural issues in BoP crises.	Requires structural economic reforms.	All member countries.	4½ to 10 years.
Rapid Financing Instrument (RFI)	Rapid aid for urgent BoP needs and emergencies.	No ex-post conditionality.	All members facing urgent crises.	3¼ to 5 years.
Rapid Credit Facility (RCF)	Concessional, rapid aid for low-income countries' urgent BoP needs.	No ex-post conditionality.	Low-income countries.	5½ to 10 years.
Trade Integration Mechanism (TIM)	Addresses BoP impacts from multilateral trade liberalization.	Linked to IMF-supported programs.	Developing countries.	Aligns with underlying program terms.
Special Drawing Rights (SDRs)	Reserve asset allocation to supplement official reserves.	Based on IMF allocations, no conditions.	All member countries.	No repayment; based on IMF allocation.

Poverty Reduction and Growth Trust (PRGT)	Concessional framework supporting poverty reduction and growth policies in low-income countries.	Linked to poverty reduction programs.	Low-income countries.	5½ to 10 years.
Reserve Tranche Position (RTP)	Allows members to access part of their IMF quota immediately, without conditionality.	Immediate use without conditions.	All member countries.	No repayment as this is part of the quota.

WORLD TRADE ORGANIZATION (WTO)

The World Trade Organization (WTO) is the sole global organisation dedicated to establishing trade rules among nations. It operates as the backbone of international trade, ensuring that trade flows as smoothly, predictably, and freely as possible. At its core are WTO agreements, which are negotiated and adopted by the majority of the world's trading nations and ratified by their respective parliaments.

Membership

The WTO comprises **166 member countries**, including the European Union, and **22 observer governments** such as Iran, Iraq, Bhutan, and Libya. Membership in the WTO is considered a hallmark of integration into the global trade system.

Principles of the WTO

- **Non-discrimination:**
  - Members should not discriminate between their trading partners, a principle enshrined in the Most-Favoured-Nation (MFN) treatment.
  - Equal treatment is extended to all WTO members.
- **Reciprocity:**
  - Members agree to open their markets and grant trade concessions in exchange for similar actions by other members.
- **Market Access:**
  - Ensures that trade barriers are progressively reduced and trade flows are liberalised.
- **Rule-Based Trading System:**
  - Provides a predictable and transparent framework for trade relations among nations.
- **Economic Development:**
  - Promotes the economic growth of developing and least-developed countries by integrating them into the global trading system.
- **Trade Dispute Resolution:**
  - Offers a mechanism for resolving disputes between members, thereby reducing tensions and fostering cooperation.

Goals of the WTO

- Facilitate international trade by reducing trade barriers.
- Promote non-discriminatory trade practices.
- Establish a rule-based trading system.
- Enhance economic development globally.
- Resolve trade disputes efficiently and effectively.

History of the WTO

- **General Agreement on Tariffs and Trade (GATT):**
  - Established post-World War II in 1947 to phase out import quotas and reduce tariffs on merchandise trade.
  - Operated as a provisional framework for trade until the establishment of the WTO.
- **International Trade Organization (ITO):**
  - Proposed as the third pillar at Bretton Woods alongside the IMF and the World Bank.
  - Drafted in the **Havana Charter** in 1948 to govern trade, investment, services, and employment practices.
  - Failed to materialise due to the U.S. Senate's refusal to ratify the Havana Charter.
- **GATT Rounds:**
  - **Eight rounds between 1947 and 1994** of multilateral trade negotiations were conducted under GATT, progressively addressing various aspects of global trade.
  - GATT's institutional limitations and lack of a formal dispute resolution mechanism led to the establishment of the WTO in **1995**.

Establishment of the WTO

The WTO was established on **January 1, 1995**, as a successor to GATT with conclusion of **Uruguay Round(1986-94)**. It expanded the scope of global trade governance to include**:**

- Trade in services (General Agreement on Trade in Services - GATS).
- Intellectual property rights (Trade-Related Aspects of Intellectual Property Rights - TRIPS).
- A more robust dispute settlement mechanism.

Structure of Governance

Ministerial Conference

- **Role:** The highest decision-making body of the WTO.
- **Frequency:** Meets every two years.
- **Composition:** Includes all WTO members (countries or customs unions).
- **Authority:** Oversees all matters under multilateral trade agreements.

General Council

- **Location:** Geneva, Switzerland.
- **Role:** The highest-level decision-making body between Ministerial Conferences.
- **Composition:** Representatives (usually ambassadors) from all member governments.
- **Additional Functions:** Acts as the Trade Policy Review Body (TPRB) and the Dispute Settlement Body (DSB).

Councils Reporting to the General Council

- **Goods Council:** Manages trade in goods agreements.
- **Services Council:** Handles trade in services agreements.
- **TRIPS Council:** Oversees intellectual property rights-related trade issues.

Dispute Settlement Mechanism

- The **Dispute Settlement Body (DSB):** Resolves disputes between members under the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU).
- **Appellate Body:**
  - Established in 1995 under Article 17 of the **DSU(Dispute Settlement Unit)**.
  - Composed of seven members.
  - Handles appeals from panel reports.

Challenges to WTO Functioning

- **USA's Withdrawal from Consensus Mechanisms:** The United States' decision to block appointments to the Appellate Body in 2019 severely disrupted the WTO's dispute resolution system. This action highlighted broader dissatisfaction with the WTO's inability to address:
  - **Subsidy Practices:** U.S. claims of unfair Chinese subsidies.
  - **Industrial Policies:** Concerns over state-controlled economies.
  - **Consensus Mechanism:** The requirement for unanimous agreement among members often stalls decision-making.
- **Ineffectiveness in Addressing Emerging Issues:** The WTO has been criticised for its inability to address modern trade challenges such as digital trade, e-commerce, and climate change-related trade policies.
  - Developing countries argue that the WTO's rules often favour developed nations, perpetuating inequalities.
- **Doha Development Agenda Stalemate:**
  - Launched in 2001 to address the needs of developing countries.
  - Issues such as agricultural subsidies, market access, and special safeguards for developing nations remain unresolved.
- **Appellate Body Paralysis:**
  - The Appellate Body, crucial for resolving trade disputes, has been non-functional since 2019 due to the U.S. blocking appointments.
  - This has undermined the credibility of the WTO's dispute resolution mechanism.
- **Rise of Regional Trade Agreements (RTAs):**
  - The proliferation of RTAs, such as the Trans-Pacific Partnership (TPP) and Regional Comprehensive Economic Partnership (RCEP), has diverted attention from multilateral trade negotiations.
- **Pandemic-Induced Trade Disruptions:**
  - COVID-19 highlighted the WTO's limited role in managing global supply chains during crises, emphasising the need for reforms.
- **Special and Differential Treatment (S&DT):**
  - Developed nations have increasingly questioned the criteria for granting S&DT to developing countries like India and China.
  - Calls for reform in this area have sparked disagreements among members.

National Treatment in the WTO

- **National Treatment** is a fundamental principle within the World Trade Organization (WTO) that ensures equal treatment for foreign and domestic products once they enter a member country's market.
- **Principle Definition:** Imported and domestically produced goods and services should be treated on an equal footing.
- **Elimination of Discrimination:** WTO members are obligated to avoid discrimination between foreign and domestic products, providing a level playing field.
- **Market Access:** Ensures that foreign products enjoy the same access to a member's market as domestic products.
- **Fair Competition:** Aims to create fair competition by preventing discriminatory measures that could favour domestic producers over foreign competitors.
- **Non-Discrimination Commitment:** Integral to the Most-Favoured-Nation (MFN) treatment, emphasising that WTO members extend the best trade terms to all other members.

Most-Favoured-Nation (MFN) Treatment in the WTO

- **Principle Definition:** MFN treatment ensures that a country extends its best trade terms to one member, and these terms are applied to all other members.
- **Non-Discrimination:** Prevents discriminatory trade practices and fosters fair competition among WTO members.
- **Automatic Extension:** Trade advantages granted to one member are automatically extended to all other members.

WTO Agreements in Agriculture

The **Agreement on Agriculture (AoA)**, effective since 1995, aims to create a fair and market-oriented agricultural trading system. It is structured around three pillars**:**

1. **Market Access:**
   - Focuses on reducing tariffs and non-tariff barriers.
   - Developed countries committed to significant tariff reductions, while developing nations like India had more flexibility.

- Special Safeguard Mechanism (SSM) allows developing countries to impose additional duties to protect farmers from import surges or price drops.

2. **Domestic Support:**
   - Subsidies provided to farmers are categorized into different "boxes," reflecting their trade-distorting impact:
     - **Green Box:** Includes non-trade-distorting subsidies like research, pest control, and environmental protection. Examples: crop insurance and irrigation programs.
     - **Blue Box:** Production-limiting subsidies considered less trade-distorting. Common in the EU.
     - **Amber Box:** Trade-distorting subsidies subject to reduction commitments. India's **Minimum Support Price (MSP)** program, which guarantees fixed prices for crops, falls under this category.
     - **De Minimis:** Minimal trade-distorting support, capped at 10% of agricultural production value for developing countries and 5% for developed ones with 1986-1988 as base year. India uses this provision for limited input subsidies.

3. **Export Subsidies:**
   - Aim to reduce subsidies that make exports artificially competitive.
   - Developed nations eliminated these subsidies post-2015 (Nairobi Ministerial Conference), while developing nations have until 2030 to phase them out.

India's Role and Challenges under WTO

India, as an agrarian economy, has been proactive in shaping global trade rules to protect its farmers and ensure food security:

1. **Public Stockholding and Food Security:**
   - Programs under the **National Food Security Act (NFSA)** involve procuring food grains at MSP, exceeding Amber Box limits. India advocates exemptions for these programs.
   - The **Peace Clause** (Bali Ministerial Conference, 2013) allows developing nations like India to exceed subsidy limits for food security programs without facing disputes, provided transparency requirements are met.
2. **Minimum Support Price (MSP):**
   - MSP ensures farmers receive guaranteed prices for crops, stabilizing incomes and reducing distress.
   - It directly impacts market prices, categorizing it under the Amber Box. India's rising MSPs often breach permissible limits, necessitating diplomatic negotiations.
3. **Advocacy for Special and Differential Treatment (S&DT):**
   - India demands flexibility for developing countries to implement trade-distorting measures to address developmental challenges.
4. **Challenges in Transparency:**
   - WTO mandates regular notifications of subsidy data. India's delayed submissions have drawn criticism, impacting its credibility.
5. **Export Subsidies:**
   - India provides limited export subsidies for sectors like sugar but has committed to phasing them out by 2030.

WTO Trade Related Safeguards

Safeguard	Description	Prominent Global Example	India's Role	Outcome/Result
Anti-Dumping Measures	Measures to counteract the dumping of goods at unfairly low prices.	India vs. China (Steel Industry): India imposed anti-dumping duties on Chinese steel imports in 2015 to protect domestic steel manufacturers from unfair competition.	India has used anti-dumping measures extensively, particularly in sectors like steel, textiles, and chemicals, to counteract unfair pricing practices by trading partners.	India successfully imposed anti-dumping duties to protect its steel industry from unfair Chinese imports.
Countervailing Measures	Measures to counteract the impact of subsidies provided to foreign producers.	India vs. United States (Solar Cells): India challenged U.S. subsidies on solar cells, claiming they violated WTO rules by giving unfair advantages to U.S. producers.	India has also imposed countervailing duties on goods subsidized by countries like China to protect its domestic industries.	India lost the case. The WTO ruled that India could not impose trade barriers against U.S. subsidies in solar cells under WTO rules.

Safeguard Measures	Emergency measures to protect domestic industries from sudden surges in imports.	India's Safeguard Measures on Chinese Solar Panels (2018): India imposed safeguard duties on solar panel imports from China to protect its domestic solar manufacturing sector from sudden surges in imports.	India used this measure to shield its domestic industry from an unexpected influx of cheap imports that could harm local production.	The safeguard measure was implemented by India; the WTO upheld India's right to take temporary protective measures.
General Agreement on Tariffs and Trade (GATT) 1994)	Allows countries to implement tariffs, quotas, and other protective measures under certain conditions.	United States and India's Trade Relations (Steel Tariffs): In 2018, the U.S. imposed tariffs on steel imports, including from India, citing national security concerns.	India challenged these tariffs at the WTO, arguing they violated GATT provisions, and received support in trade disputes related to such tariffs.	The WTO sided with India, finding that the U.S. tariffs on steel violated WTO rules on trade practices and imposing sanctions.
Trade-Related Investment Measures (TRIMs)	Regulations related to investment restrictions that affect trade.	India's Foreign Direct Investment (FDI) Policies: India has implemented TRIMs, such as requiring foreign companies to source a certain percentage of components locally in sectors like retail and defense.	India has periodically adjusted its FDI policies to attract investment while aligning with WTO TRIMs guidelines to avoid restrictions that could distort trade.	India's FDI policy changes were in line with WTO TRIMs rules, and there have been no major disputes involving FDI policy.
Public Health & Safety Exceptions (GATT Article XX)	Allows measures that restrict trade for public health, safety, or environmental protection reasons.	India's Ban on Genetically Modified (GM) Foods: India banned the import of GM food products to protect its biodiversity and consumer health, invoking GATT Article XX.	India has used public health exceptions in the past, including restrictions on genetically modified organisms (GMOs) and pesticides, aligning with WTO rules on public health.	No major disputes; India's use of Article XX in relation to GM foods has been upheld by the WTO in some cases.
Sanitary and Phytosanitary Measures (SPS Agreement)	Rules for protecting human, animal, and plant life from risks related to food safety and animal/plant health.	India's Ban on Chinese Poultry Imports (2007): India banned the import of poultry products from China due to concerns over bird flu, justifying the move under SPS measures.	India has frequently used SPS measures to ensure food safety, especially in the context of agricultural imports, to protect consumers from health risks.	WTO upheld India's right to use SPS measures for health protection, ruling that the ban was scientifically justified.

Terms Related to WTO

Term	Description
Most Favoured Nation (MFN)	A clause in GATT ensuring non-discriminatory trade between countries, giving them the best trade terms among members.
Dumping	The practice of selling goods at a price lower than the home market price, often leading to anti-dumping duties.
Validity Period of Anti-Dumping Duty	Anti-dumping duties last for 5 years, unless revoked earlier or extended via a sunset review.
Sunset Review	Review process to determine if an anti-dumping duty should continue; can extend validity for an additional 5 years.
Directorate General of Trade Remedies	Responsible for administering anti-dumping, countervailing duties, and safeguard measures in India.
Peace Clause	Protects developing countries from WTO dispute actions if they breach subsidy ceilings on food procurement programs.

Debt Service Ratio	The ratio of debt service payments (principal + interest) to export earnings. A lower ratio indicates financial health.
De Minimis Clause	WTO rule limits amber box support to 5% for developed countries, 10% for developing countries, minimizing trade distortions.
Market Access	Refers to terms (tariffs & non-tariff measures) for goods entry into a country, promoting free and transparent trade.
G-33	It is a forum of developing countries formed during the Cancun ministerial conference of the WTO, to protect the interest of the developing countries in agricultural trade negotiations. **India, Pakistan etc. are a part of the G33**, which is a group of 47 developing and least developed countries

UNCTAD (UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT)

UNCTAD, established in 1964 by the United Nations General Assembly, focuses on promoting the integration of developing countries into the global economy. It aims to make globalization more inclusive and beneficial for all, with 195 member states. UNCTAD's key areas include trade, investment, technology, and sustainable development.

Structure and Mechanisms

- **Trade and Development Board (TDB):** The governing body that sets strategic direction.
- **Specialized Subcommittees:** Focused on areas like investment, trade policies, and technology.
- **Secretariat:** Provides data and research through reports like the **World Investment Report** and **Trade and Development Report**.

Recent Developments and Reports

1. **World Investment Report (2023):** India continues to attract substantial foreign direct investment (FDI), especially in technology, manufacturing, and renewable energy.
2. **Trade and Development Report (2023):** India's green initiatives, including renewable energy and electric vehicles, were recognized as part of its sustainable growth.
3. **Digital Economy Report (2023):** India's expanding digital economy, especially in fintech and e-commerce, was highlighted, though digital divides and privacy concerns remain.

India's Role in Global Trade

- **Exports and FDI:** India is recognized for its strong export growth, particularly in IT services and pharmaceuticals. The country is also one of the top recipients of FDI, especially in the tech sector.
- **Supply Chains and Manufacturing:** India is poised to play a greater role in global supply chains due to its competitive manufacturing sector and initiatives like **Make in India**.
- **Green Trade:** India's push towards renewable energy makes it a growing player in green trade, with significant potential in solar power and sustainable industries.

Predictions for India

1. **Service Exports:** Strong growth is expected in IT and other service sectors, contributing to India's trade surplus.
2. **Global Supply Chains:** India is set to become a more central hub for global manufacturing, bolstered by domestic reforms.
3. **Digital Economy Leadership:** India's digital economy is set to lead in global trade, though regulatory frameworks are needed for data privacy and security.

IPR, GLOBAL INSTITUTIONS AND MECHANISMS & INDIA'S IPR FRAMEWORK

Intellectual Property Rights (IPRs) grant exclusive rights to creators over their inventions, literary works, trademarks, and other intellectual assets. These rights allow creators to benefit from their innovations for a limited period, encouraging creativity and economic growth.

IPRs are grounded in **Article 27 of the Universal Declaration of Human Rights**, which grants everyone the right to benefit from the protection of their scientific, literary, and artistic works.

Categories of Intellectual Property Rights

Category	Description
Copyright	Protects original literary, artistic, and musical works for 50+ years after the creator's death.
Trademarks	Protects distinctive signs, logos, or expressions that identify products/services. Protection lasts indefinitely as long as it remains distinctive.
Geographical Indications (GIs)	Identifies goods with unique characteristics linked to their geographical origin (e.g., Darjeeling Tea).

Patents	Protects inventions, granting the inventor exclusive rights for 20 years from the date of filing, subject to conditions of novelty and industrial applicability.
Industrial Designs	Protects the visual design, shape, and color of products that have aesthetic value.
Trade Secrets	Protects confidential business information, such as manufacturing processes or business strategies, which provide a competitive edge.
Layout Designs (Topographies) of Integrated Circuits	Protection for the design of integrated circuit layouts, ensuring that the design is not copied or reproduced without permission.
Plant Varieties	TRIPS encourages members to protect new plant varieties, although the method of protection (via patents, sui generis systems, or a combination) is left to the discretion of the individual country.

Key Terminologies

- **Evergreening:**
  - **Evergreening** refers to obtaining new patents for minor modifications to existing inventions, effectively extending the patent beyond the typical 20 years. India addresses this through **Section 3(d)** of its **Patents Act, 1970**, which prevents the patenting of known substances unless they show significant enhancement in efficacy.
- **Compulsory Licensing:**
  - Under certain circumstances, **compulsory licensing** allows a country to use a patented product without the consent of the patent holder, especially in the case of national emergencies or for public health needs, as per TRIPS.

Global Conventions on Intellectual Property Rights

Several international conventions and treaties set the foundation for global intellectual property protection, including**:**

Paris Convention (1883)

- **Purpose:** The Paris Convention for the Protection of Industrial Property is one of the oldest international IP agreements, aimed at ensuring that inventions, trademarks, and industrial designs are protected in all member countries.
- **Significance:** It establishes the principle of national treatment, ensuring that foreign nationals receive the same IP rights as nationals of the host country.
- **India's Participation:** India became a member of the Paris Convention in 1998.

Berne Convention (1886)

- **Purpose:** The Berne Convention for the Protection of Literary and Artistic Works is a key international treaty aimed at providing automatic copyright protection for works created in any of its member countries, without the need for formal registration.
- **Significance:** It ensures that the works of authors are protected in all member countries, and it sets the minimum standards for copyright protection.
- **India's Participation:** India is a member of the Berne Convention, which it joined in 1928.

TRIPS Agreement (1995)

- **Purpose:** The **Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)**, administered by the **World Trade Organization (WTO)**, establishes minimum standards for the protection and enforcement of intellectual property rights across all WTO member states.
- **Significance:** TRIPS plays a crucial role in harmonizing global IP laws and ensuring that IPRs are respected in international trade.
- **India's Compliance:** India complies with TRIPS by enacting laws such as the **Patents Act (1970)** and the **Geographical Indications of Goods (Registration and Protection) Act (1999)**.
- **TRIPS Agreement and India's Compliance:**
  - India's **Geographical Indications of Goods (Registration and Protection) Act, 1999** was enacted to comply with the **TRIPS Agreement**, ensuring international recognition and protection of GI products. The **Controller General of Patents, Designs & Trademarks (CGPDT)**, under the Ministry of Commerce and Industry, is the responsible authority for GI registration in India.
  - India transitioned from a process patent regime to a product patent regime through amendments to the Patents Act, 1970, as part of its obligations under the TRIPS Agreement

WIPO (World Intellectual Property Organization)

WIPO, a specialized agency of the United Nations since 1967, is the primary global institution that administers international treaties and agreements related to intellectual property. It promotes the protection of IPR globally through mechanisms such as**:**

- **Patent Cooperation Treaty (PCT)** for international patents.
- **Madrid Protocol** for international trademark registration.
- **Hague Agreement** for the protection of industrial designs.

WIPO's Role

- **World Intellectual Property Day (April 26):** Celebrates the importance of IP in fostering creativity and innovation worldwide.
- Administers **26 international treaties** that govern IP standards and enforcement.

WIPO's Global Role and India's Engagement

India has been a member of WIPO since 1975 and has contributed significantly to the development of the global IP regime. India is also involved in various WIPO-administered treaties and agreements, including the **Patent Cooperation Treaty (PCT)**, which allows for international patent applications.

India's IPR Framework

India has established a robust intellectual property regime that aligns with global standards, especially the **TRIPS Agreement**. India's IPR framework promotes innovation while protecting public access to knowledge and essential goods.

Key Provisions in India's Patent Law

Provision	Description
Patentability	To be patented, an invention must be novel, involve an inventive step, and be capable of industrial application.
Amendments (2005)	Extended product patent protection to sectors like food and drugs, in line with TRIPS.
Compulsory Licensing	Allows use of patented inventions in public health emergencies or national interest without the patent holder's consent.
Section 3(d)	Prevents **evergreening** by disallowing patents on minor modifications unless they demonstrate significant efficacy.

Patents (Amendment) Rules, 2021

Provision	Description
Fee Reduction	Reduced fees for educational institutions to encourage research and development.
Expedited Examination	Available for SMEs, female applicants, and others to expedite the patent examination process.

Geographical Indications (GI) in India

Geographical Indications (GI) are tags used to identify products whose quality or characteristics are closely tied to their geographic origin. India has been active in protecting these through the **Geographical Indications of Goods (Registration and Protection) Act, 1999**.

GI-Tagged Product	Region
Basmati Rice	Punjab, Haryana, Uttar Pradesh
Darjeeling Tea	Darjeeling, West Bengal
Chanderi Fabric	Madhya Pradesh
Mysore Silk	Karnataka
Kullu Shawl	Himachal Pradesh
Kangra Tea	Himachal Pradesh

India's IPR Legislations

Legislation	Area of Protection	Description
The Patents Act, 1970 (Amended in 2005)	**Patents**	Governs the protection of inventions in India, providing exclusive rights for 20 years from filing. It was amended in 2005 to comply with **TRIPS** and includes provisions for product patents, compulsory licensing, and prevention of **evergreening**.

The Copyright Act, 1957	**Copyright**	Protects the rights of creators of original literary, dramatic, musical, and artistic works, as well as sound recordings, films, and computer programs. The copyright term is the lifetime of the author plus 60 years.
The Trade Marks Act, 1999	**Trademarks**	Regulates the registration, protection, and enforcement of trademarks, service marks, collective marks, and certification marks in India.
The Designs Act, 2000	**Industrial Designs**	Protects the visual design, shape, and configuration of products that have aesthetic value. Protection is granted for 10 years, extendable by 5 years.
The Geographical Indications of Goods (Registration and Protection) Act, 1999	**Geographical Indications (GIs)**	Governs the registration of **GIs** in India, which identifies goods originating from specific regions, with unique qualities or reputations due to their geographical origin.
The Semiconductor Integrated Circuits Layout-Design Act, 2000	**Layout Designs of Integrated Circuits**	Protects the unique design of the layouts of integrated circuits, promoting innovation in the semiconductor industry.
The Protection of Plant Varieties and Farmers' Rights Act, 2001	**Plant Varieties**	Provides protection for new plant varieties, farmers' rights, and ensures the protection of traditional knowledge related to agricultural biodiversity.
The Trade Secrets Law (Confidential Information)	**Trade Secrets**	India does not have a specific law for trade secrets but includes protection under **contract law** and other provisions related to **unfair competition** and **commercial secrecy**.

Key Features of Indian IPR Legislation

- **Patentability Criteria:** Patents are granted for inventions that are novel, non-obvious, and industrially applicable. **Section 3(d)** of the **Patents Act** prevents **evergreening** of patents.
- **Copyright Duration:** Copyrights are valid for the lifetime of the author plus 60 years.
- **TRIPS Compliance:** India's laws align with international standards set by the **TRIPS Agreement**, particularly regarding patents, copyrights, and geographical indications.

These laws are enforced by various bodies such as the **Office of the Controller General of Patents, Designs & Trade Marks (CGPDTM)**, which operates under the **Ministry of Commerce and Industry**.

IMPORTANT MULTILATERAL ORGANISATIONS

New Development Bank (NDB)

- **Established:** 2014 by **BRICS** nations (Brazil, Russia, India, China, South Africa).
- **Headquarters:** Shanghai, China.
- **Membership:**
  - Initially formed by BRICS nations.
  - New members include **Bangladesh, UAE, and Egypt** (as of 2024).
- **Voting Rights:**
  - **Egalitarian Structure:** Equal voting power for all founding members, unlike IMF or World Bank.
  - As a founding member, India holds a shareholding and voting power of 18.98%.
- **Objectives:**
  - Promote **infrastructure development** and **sustainable growth**.
  - Focus on funding in developing countries.
- **India's Role:**
  - Funded major projects like **Mumbai Metro**, **Delhi-Ghaziabad-Meerut Rail**, and **Bihar's rural roads**.
  - Approved a $1 billion loan pact in 2020 for **rural employment**.

Shanghai Cooperation Organisation (SCO)

- **Established:** 2001 as a political, economic, and military alliance.
- **Headquarters:** Beijing, China.
- **Members:** 10 countries including **India, China, Russia, Pakistan, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Iran and Belarus kardo.**
- **Economic Agenda:**
  - Focus on **regional connectivity**, trade promotion, and economic collaboration.
  - Advocates for **energy security**, particularly among Central Asian nations.
- **India's Role:**
  - Focus on projects like **International North-South Transport Corridor (INSTC)**.
  - Enhanced trade relations with Central Asia.

Indo-Pacific Economic Framework (IPEF)

- **Launched:** May 2022 by the US.
- **Members:** 14 countries, including **India, US, Australia, Japan, and ASEAN nations**.

- **Pillars:**
  - **Trade Facilitation**.
  - **Supply Chain Resilience**.
  - **Clean Energy and Decarbonization**.
  - **Fair Economy:** Tax and anti-corruption measures.
- **India's Position:**
  - Supports **supply chain resilience** but opted out of the trade pillar citing concerns over market access and commitments.

Build Back Better World (B3W)

- **Launched:** 2021 by the **G7 nations**.
- **Objective:**
  - A counter to China's **Belt and Road Initiative (BRI)**.
  - Focus on financing infrastructure in **low- and middle-income countries**.
  - Aims for **transparent** and **climate-resilient projects**.
- **India's Role:**
  - Partnered to ensure sustainable infrastructure development globally.

Blue Dot Network

- **Launched:** 2019 by **US, Japan, and Australia**.
- **Objective:**
  - Certifies infrastructure projects based on **transparency**, **sustainability**, and **financial soundness**.
  - Seen as a response to China's BRI.
- **India's Role:**
  - Supports the initiative for promoting infrastructure projects that adhere to global standards.

Organisation for Economic Cooperation and Development (OECD)

- **Established:** 1961.
- **Objective:** Promote policies to enhance economic growth and trade.
- **Membership:** 38 high-income countries. India is not a member but a key partner.
- **India's Contribution:**
  - Collaborates in areas of **taxation**, **economic policy**, and **data-sharing**.
- **Key Reports:**
  - Government at a Glance.
  - Better Life Index.
  - Economic Outlook.

Asian Infrastructure Investment Bank (AIIB)

- **Established:** 2015.
- **Headquarters:** Beijing, China.
- **Membership:** 105 countries, including **India** (second-largest shareholder with ~8% voting share).
- **Key Features:**
  - Provides **sustainable infrastructure financing**.
  - India has received funding for projects like **Chennai Metro** and **Mumbai Urban Transport**.
- **Egalitarian Voting:**
  - All members receive votes based on their financial contributions.

Bank for International Settlements (BIS)

- **Founded:** 1930.
- **Headquarters:** Basel, Switzerland.
- **Role:**
  - Acts as a bank for central banks.
  - Oversees monetary and financial stability globally.
- **Membership:** 60 central banks, including India.

Financial Stability Board (FSB)

- **Established:** 2009 under the G20 framework.
- **Objective:**
  - Monitor and make policy recommendations for the **global financial system**.
- **India's Role:**
  - Represented by the **RBI, Ministry of Finance, and SEBI**.

India's Role In Multilateral Organisations

- Proactively participates in initiatives promoting**:**
  - **Sustainable infrastructure** (e.g., AIIB, NDB).
  - **Regional connectivity** (e.g., SCO, INSTC).
  - **Economic resilience** (e.g., IMF, IPEF).
- Advocates for **egalitarian voting structures** in global financial institutions.

Table: Multilateral Organisations and Voting Shares

Organisation	Top 4 Members and Voting Shares (%)	India's Share (%)	Key Notes
IMF	USA (16.5), Japan (6.1), China (6.1), Germany (5.3)	**2.75**	Quota-based system; reflects economic size and influence.
World Bank	USA (15.5), Japan (7.1), China (5.8), Germany (4.4)	**3.2**	Voting based on capital subscriptions.

New Development Bank (NDB)	Equal for all BRICS nations (20% each).	**20.0**	Egalitarian; promotes equity among BRICS members.
Asian Development Bank (ADB)	Japan (15.6), USA (15.6), China (6.4), India (6.3)	**6.3**	Shared leadership between Japan and the USA.
Asian Infrastructure Investment Bank (AIIB)	China (26.6), India (7.6), Russia (5.9), Germany (4.2)	**7.6**	Second-largest shareholder after China.
European Investment Bank (EIB)	Based on EU member contributions.	Not a member	Largest multilateral lender in sustainable projects.

IMPORTANT ORGANISATIONS AND KEY PROJECTS FUNDED IN INDIA

Japan International Cooperation Agency (JICA)

- **Established:** 1974 (as part of Japan's Official Development Assistance program).
- **Objective:** Promote sustainable socio-economic development in developing countries through loans, grants, and technical cooperation.
- **Key Projects in India:**
  1. **Mumbai-Ahmedabad Bullet Train Project** (Mumbai-Ahmedabad High-Speed Rail - MAHSR)**:**
     - **Funding:** INR 1.1 lakh crore loan at 0.1% interest for 50 years.
     - **Objective:** India's first high-speed rail corridor.
  2. **Delhi Metro Project:**
     - Significant funding across phases, promoting sustainable urban transportation.
  3. **Mumbai Metro Line-3:**
     - Developing underground metro connectivity.
  4. **Dedicated Freight Corridors (DFC):**
     - **Eastern Corridor** from Punjab to West Bengal.
  5. **Ganga Rejuvenation Program:**
     - Comprehensive efforts to clean and preserve the Ganga River.

Asian Development Bank (ADB)

- **Established:** 1966.
- **Headquarters:** Manila, Philippines.
- **Objective:** Foster socio-economic development in Asia-Pacific.
- **Key Projects in India:**
  1. **East Coast Economic Corridor (ECEC):**
     - Vision to integrate coastal regions with global value chains.
     - Includes **Vizag-Chennai Industrial Corridor**.
  2. **Bangalore Metro:**
     - Funding for sustainable urban mobility solutions.
  3. **Rural Roads Development** under PMGSY (Pradhan Mantri Gram Sadak Yojana)**:**
     - Strengthening last-mile connectivity.
  4. **Chennai-Kanyakumari Industrial Corridor:**
     - Infrastructure to boost trade and industrial activity in Tamil Nadu.

Asian Infrastructure Investment Bank (AIIB)

- **Established:** 2015.
- **Headquarters:** Beijing, China.
- **Objective:** Financing infrastructure projects and fostering sustainable development.
- **Key Projects in India:**
  1. **Mumbai Urban Transport Project (MUTP):**
     - Funding for upgrading suburban railway services.
  2. **Bangalore Metro:**
     - Expansion to meet urban transit needs.
  3. **Chennai Metro Expansion:**
     - USD 356.67 million loan for improved connectivity.
  4. **Rajasthan Solar Power Project:**
     - Promoting renewable energy generation.
  5. **Health System Strengthening:**
     - Support during COVID-19 for India's public healthcare infrastructure.

World Bank Group

- **Established:** 1944.
- **Headquarters:** Washington, D.C., USA.
- **Objective:** Provide loans, grants, and technical expertise for developmental needs.
- **Key Projects in India:**
  1. **National Ganga River Basin Project:**
     - Support for clean Ganga initiatives.
  2. **Rural Electrification (Deen Dayal Upadhyaya Gram Jyoti Yojana):**
     - Electrification of rural areas.
  3. **Skill India Mission Operation (SIMO):**
     - Development of employable skills and training centers.
  4. **AMRUT (Atal Mission for Rejuvenation and Urban Transformation):**
     - Focus on urban renewal and sustainable city development.

International Monetary Fund (IMF)

- **Established:** 1944.
- **Headquarters:** Washington, D.C., USA.
- **Objective:** Financial stability, balance of payments support, and economic policy advice.
- **Key Support to India:**
  1. **Structural Reforms Post-1991 Economic Crisis:**
     - Assisted India with financial packages to address the balance of payments crisis.
  2. **Technical Assistance for GST Implementation**.

European Investment Bank (EIB)

- **Established:** 1958.
- **Headquarters:** Luxembourg.
- **Objective:** Provide long-term financing for sustainable projects.
- **Key Projects in India:**
  1. **Bangalore Metro Phase-II:**
     - Expansion of urban transit infrastructure.
  2. **Renewable Energy Projects:**
     - Support for India's solar and wind energy initiatives.

Green Climate Fund (GCF)

- **Established:** 2010 under the UNFCCC framework.
- **Objective:** Financing projects that mitigate climate change impacts.
- **Key Projects in India:**
  1. **Madhya Pradesh Solar Power Project:**
     - Promoting clean energy solutions.
  2. **Climate-Resilient Agriculture:**
     - Boosting adaptive capacity in Indian agriculture.

United Nations Industrial Development Organization (UNIDO)

- **Established:** 1966.
- **Headquarters:** Vienna, Austria.
- **Objective:** Promote industrial development and international trade.
- **Key Projects in India:**
  1. **Energy Efficiency in MSMEs:**
     - Focused on reducing emissions in the industrial sector.
  2. **Eco-Industrial Parks:**
     - Promoting green and sustainable industrial zones.

7 Financial Market

The financial market is a platform that brings buyers and sellers together to trade financial assets such as stocks, bonds, commodities, derivatives, and currencies. It comprises the **Money Market**, **Capital Market**, and **Forex Market** as its main components. Below is an in-depth explanation of the Money Market and its instruments.

MONEY MARKET

The Money Market deals with borrowing and lending of short-term credit/loans, generally with a **maturity period of less than or equal to one year.** It serves as a mechanism for the Reserve Bank of India (RBI) to implement monetary policy. The RBI acts as the regulator of money markets, regardless of whether the securities are government or corporate-issued.

INSTRUMENTS OF THE MONEY MARKET

Issued by the Government

- **Treasury Bills (T-Bills):**
  - Short-term securities that mature in one year or less.
  - Zero-coupon instruments issued at a discount and redeemed at face value upon maturity.
  - Presently issued in three tenors**: 91-day, 182-day, and 364-day.**
  - **Note:** Retail investors need a Demat account to invest in T-Bills or Government of India Debt Bonds in the primary market. **[UPSC 2018] [UPSC 2021]**
- **Cash Management Bills (CMBs):**
  - Issued by the Government of India (GOI) in consultation with the RBI to meet short-term cash needs.
  - **Maturity period:** Less than 91 days.
- **State Development Loans (SDLs):**
  - Issued by State Governments to raise funds from the market.
  - Dated securities; interest is paid semi-annually, and the principal is repaid upon maturity.
  - SDLs qualify for Statutory Liquidity Ratio (SLR) and are eligible as collateral for borrowing under market repo and RBI's Liquidity Adjustment Facility (LAF).
- **Ways and Means Advances (WMA):**
  - Short-term borrowing by the Government from the RBI to meet temporary cash flow mismatches.
  - Repayable within three months from the date of the advance. Repo rate is applicable on this, an overdraft penal rate of 2% is applicable if 90 days repayment period is breached. **[UPSC 2012]**

Issued by Corporates

- **Certificates of Deposit (CDs)** **[UPSC 2020]**
  - **Definition:** Negotiable time deposits issued by commercial banks (excluding RRBs and LABs) and financial institutions like IFCI.
  - **Purpose:** Used by banks to raise short-term funds when deposit growth is low but credit demand is high.
  - **Features:**
    - Minimum denomination**:** ₹1 lakh.
    - Cannot be used as collateral for loans.
    - Tradable in the secondary market.
  - **Illustration:** A bank needing funds issues CDs worth ₹10 crore for six months at a 6% interest rate. A corporate entity buys these CDs and earns interest upon maturity.
- **Commercial Paper (CP)** **[UPSC 2020]**
  - **Definition:** An unsecured, short-term debt instrument issued by corporates, NBFCs, and AIFIs.
  - **Purpose:** To finance accounts receivable, inventory, or short-term cash flow mismatches.
  - **Features:**
    - Maturity**:** 7 days to 1 year.
    - Issued at a discount to face value.
    - Minimum credit rating**:** A-3.
  - **Illustration:** A company issues CP worth ₹50 crore for 90 days at a 7% discount. Investors buy the CP at ₹46.5 crore and receive ₹50 crore upon maturity.
- **Commercial Bills**
  - **Definition:** Short-term negotiable instruments issued by sellers (drawers) to buyers (drawees) for goods delivered.
  - **Maturity:** 30, 60, or 90 days.

Borrowing Instruments

- **Call Money** **[UPSC 2020]**
  - **Definition:** Overnight borrowing and repayment within one day.
  - **Purpose:** Enables banks to meet short-term liquidity needs.

- Illustration: A bank facing a cash reserve shortfall borrows ₹100 crore as call money for one day and repays it the next day with nominal interest.

- **Notice Money**
  - **Definition:** Borrowing and lending of funds for 2 to 14 days.
  - **Purpose:** Helps banks manage short-term liquidity mismatches.
  - **Illustration:** A bank borrows ₹25 crore for seven days to meet immediate obligations and repays it upon surplus realization.
- **Term Money**
  - **Definition:** Borrowing or lending of funds beyond 14 days.
- **CBLO (Collateralized Borrowing and Lending Obligation) [UPSC 2024]**
  - **Definition:** An instrument introduced by CCIL to facilitate short-term borrowing and lending for entities that cannot access the call money market.
  - **Features:**
    - Collateral-based borrowing (e.g., government bonds).
    - Open to banks, financial institutions, mutual funds, and insurance companies.
    - Monitored by the RBI.
- **Inter-Corporate Deposit Market**
  - **Definition:** An unsecured loan extended by one corporation to another.

CAPITAL MARKET

It refers to the market for funds with a **maturity of 1 year or more**. It include the **equity (stock) market** and **debt (bond) market. RBI regulates** the **long-term government securities** while the **long-term corporate debt market** comes **under** the purview of the **Securities Exchange and Board of India (SEBI). [UPSC 2023]**

Primary Market vs Secondary Market

Primary Market	Secondary Market
Issuers raise capital by issuing securities to investors for the first time.	It facilitates trade in already-issued securities only.
Creates financial assets.	Makes the assets marketable
Promotes capital formation directly-as the flow of funds is directly from savers to investors.	Promotes capital formation indirectly by enhancing the liquidity of the shares
Only buying of securities takes place here, securities can't be sold here.	Both buying and selling takes place here.
Prices are decided and determined by the company/ issuing authority.	Prices are determined by the demand and supply of the security.

Ways to Raise Capital in the Primary Market

- **Public Issue: Open for all Indian citizens**, the most broad-based method of raising capital and the most prestigious.
- **Rights Issue:** Raising capital **from the existing shareholders** of a company - preferential kind of issue restricted to a certain category of the public only.
- **Private Placement:** When a company issues financial security such as shares and convertible securities **to a particular group of investors (not more than 49 in number)**.

Preferential Allotment: a listed company issues security **to a select group of entities,** which may be institutions or promoters, at a particular price.
Qualified Institutional Placement: A listed company can issue equity shares, fully and partly convertible debentures, or any security (other than warrants) that is convertible to equity shares to qualified institutional buyers.

Different Types of Capital

- **Authorised Capital:** It is the maximum amount of share capital a company is legally allowed to issue.
- **Issued Capital:** Part of authorised share capital actually issued by the company to the shareholders.
- **Subscribed Capital:** The portion of issued capital that investors or shareholders have agreed to subscribe.
- **Paid-up Capital:** Portion of the subscribed capital for which the company has received payment from the subscribers.

Instruments of Capital Market

Basis	Debt	Equity
Meaning	Invest in loans. E.g. - Bonds, debentures.	Invest in shares of the company.eg-shares.
Ownership	No, they are creditors of the company.	Yes, they have an ownership interest

Risk	Relatively low risk	High risk
Return Type	Pay Interest	Share Dividends
Nature of Return	Fixed and Regular	Irregular (based on company performance)
Claim During Liquidation (under Waterfall Mechanism)	First Claim	Last Claim
Tax Benefit	Interest is tax deductible	Dividends are not tax deductible.
Capital Gains Tax	Repayment of loans doesn't attract CGT	CGT is levied on the sale of equity
Convertibility	Debt can be converted into equity.	Equity can't be converted into debt
Attractive	In slowdown period	In boom period

DEBT MARKET INSTRUMENT

Bond

A loan that is secured by a specific physical asset; has lower interest rates compared to debentures.

Based on Interest Rate Structure

- **Fixed Rate Bonds:** These are bonds on which the coupon rate is fixed for the entire life (i.e. till maturity) of the bond.
- **Floating Rate Bonds:** it has a variable coupon rate which is reset at pre-announced intervals (say, every six months or one year.
- **Zero Coupon Bonds:** Sold on discount and repurchased at face value, rendering a profit at maturity. It pays no interest as such. **[UPSC 2020]**
- **Negative Yield Bonds:** Debt instruments that pay the investor a maturity amount lower than the purchase price of the bond; They attract investments during uncertain times as investors look to protect their capital from significant erosion.
- **Convertible Bonds:** **[UPSC 2022]**
  - **Definition:** Hybrid debt securities that allow bondholders to convert bonds into a predetermined number of equity shares. E.g**:** Foreign Currency Convertible Bonds
  - **Key Features:**
    - **Dual Benefit:** Fixed interest payments with potential equity appreciation.
    - **Conversion Option:** Can be converted into shares at a pre-determined price and time.
    - **Lower Interest Rates:** Typically offer lower coupon rates due to the equity conversion option.
    - **Investor Appeal:** Attractive for steady income and participation in equity growth, with some indexation to rising consumer prices.
  - **FCCBs (Foreign Currency Convertible Bonds)** are bonds issued by Indian companies in foreign currency, offering fixed interest payments and the option to convert into equity shares at a pre-determined price. These bonds provide investors with both steady income and the potential for capital gains through conversion into shares. The issuing company benefits from raising capital in foreign currency, while the investors gain exposure to equity growth if the company performs well.

Based on Maturity

- **Perpetual Bonds/Consol Bonds:** Issuers do not have to return the principal amount to the purchaser. This investment type does not have any maturity period, and customers benefit from steady interest payments for perpetuity.
- **Bearer Bonds:** A fixed-income security that is owned by the holder, or bearer, rather than by a registered owner.

Based on Inflation Protection

- **Capital Indexed Bonds:** These are bonds, the principal of which is linked to an accepted index of inflation with a view to protecting the Principal amount of the investors from inflation.
- **Inflation Indexed Bonds (IIBs):** Bonds wherein both coupon flows (Interest) and Principal amounts are protected against inflation. The government can reduce the coupon rates on its borrowing by way of IIBs; The existing tax provisions will be applicable on interest payment and capital gains on IIBs. **[UPSC 2022]**
- **Bonds with Call/ Put Options:** Bonds can also be issued with features of optionality wherein the issuer can have the option to buy-back (call option) or the investor can have the option to sell the bond (put option) to the issuer before the maturity of the bond.

Government Bond

- **Sovereign Gold Bonds:** Government securities denominated in grams of gold; Investors pay the issue price in cash and the bonds will be redeemed in cash on maturity; Eligibility**:** Only resident Indian entities, including individuals, HUFs, trusts, universities and charitable institutions.
- **Uday Bonds:** To reduce the debt burden of the DISCOMs wherein the states would take over some percentage of their Debt obligations of the DISCOMs. The government issues UDAY bonds to banks and other financial institutions to raise money to pay off the banks.

- **Muni Bonds:** Bonds issued by Urban Local Bodies (ULB) to raise money for the development of various capital-intensive infrastructure projects. E.g. Bengaluru Municipal Corporation issued municipal bonds for the first time.
- **Green Bonds:** Proceeds of such Bonds are exclusively used for financing green projects such as renewable energy projects, climate change, reducing fossil fuel emissions etc. World's first Green Bond launched by World Bank (2007). India's first Green Bond launched by Yes Bank (2015). BRICS-New Development Bank issued Yuan- green Bonds (2016). Indian Renewable Energy Development Agency (IREDA) launched India's first Masala Green Bond at London Stock Exchange (2018).

International Bond

- **Masala Bonds:**
  - **Definition:** These rupee denominated bonds issued outside India, to borrow money for
  - Indian companies. World Bank's sister agency International Financial Corporation (IFC) launched 'Masala Bonds' to help Indian public sector and pvt sector companies.
  - **Key Features:**
    - Issued by Indian entities in foreign markets, but denominated in Indian Rupees.
    - Provides a way for international investors to invest in India without exposure to currency risk.
    - Typically used for financing Indian infrastructure and development projects.
  - **Currency Risk:** Investors bears the currency risks in Masala bond, which can be costly if the exchange rate fluctuates unfavorably.
- **Panda Bonds:** Yuan-denominated bonds issued in the Chinese mainland market by an overseas entity. International Finance Corporation (IFC) and Asian Development Bank (ADB) issued Panda Bonds in 2005.
- **Uridashi Masala Bonds:** A special type of Masala Bonds issued in Japan bought by Japanese retail investors.
- **Maharaja Bonds:** Rupee-denominated bonds issued by International Finance Corporation (IFC) in India's domestic market.

ETF Bond (Exchange-Traded Fund Bond)

- **Definition:** An ETF Bond is a type of exchange-traded fund that primarily invests in bonds or fixed-income securities. It allows investors to buy a portfolio of bonds through a single trade, similar to buying a stock. **E.g: BHARAT-ETF** of AAA rated bonds from CPSEs.
- **Key Features:**
  - **Diversification:** Offers exposure to a diversified portfolio of bonds, reducing individual bond risk.
  - **Liquidity:** Traded on stock exchanges, making them more liquid than traditional bonds.
  - **Fixed Income:** Primarily invests in government, corporate, or municipal bonds, providing regular income through interest payments.
  - **Low Cost:** Typically has lower management fees compared to actively managed bond funds.
- **Investor Appeal:** ETFs offer a convenient and cost-effective way for investors to gain exposure to the bond market, with added flexibility to trade like stocks.

Gold Monetization Scheme **[UPSC 2016]**

The scheme was launched in November 2015. It facilitates the depositors of gold to earn interest on their metal accounts. Once the gold is deposited in a metal account, it starts earning interest on the same.

Objective:

- To bring the idle gold lying with Indian households into the economy.
- To reduce India's dependence on gold imports.
- All Scheduled Commercial Banks excluding RRBs are eligible to implement the Scheme. The scheme is not intended to promote FDI in the gold and jewellery sector.

Debentures

- A type of **debt instrument** that is **not secured by physical assets or collateral**, backed only by the general creditworthiness and reputation of the issuer.
  - **Convertible:** Bonds that can convert into equity shares of the issuing corporation after a specific period of time.
  - **Non-Convertible:** Regular debentures that cannot be converted into equity of the issuing corporation.

RELATION BETWEEN BOND PRICE, BOND YIELD AND INTEREST RATE

- **Bond Yields:** The yield of a bond is the effective rate of return that it earns.Put simply, a bond yield is the return on the capital invested by an investor. **This means that as the price of a bond goes up, its yield goes down.** Conversely, as the yield goes up, the price of the bond goes down.
- **Bond Yield** and **Interest Rates** have an **inverse relationship**. This means that as interest rates rise, bond prices fall, and vice versa.
  - Because existing bonds now pay a lower interest rate compared to market interest rate, they need to be **discounted** (reduced in price) to match the yield offered by new bonds. If a bond originally paid 5% and the current interest rate is 6%, the bond price must fall to offer a similar yield to new bonds.
  - This price adjustment ensures that the effective yield of the existing bond matches the prevailing market conditions.
  - Hence **Bond price is inversely proportional to interest rate and bond yield is directly proportional to bond interest rate**.

Some Key Concepts

- **Indian Government Bond Yields are influenced by [UPSC 2021]**
  - The actions of the US federal reserve can impact the investments flowing in India.Increasing interest rates in USA will lead to a decrease in demand for Government Securities (G-sec) in India and thus impacting its yield.
  - The actions of RBI directly impacts the bond yield because it is directly related to liquidity.
  - The purchasing capacity of an economy is directly related to inflation. So any change in short term rates will impact the demand and price of G-sec and thereby influencing the yield.
- **Yield Curve:** A graphical representation of yields for bonds (with an equal credit rating) over different time horizons.
- **Yield Inversion Curve/Negative Yield Curve:** An inverted yield curve represents a situation in which long-term debt instruments have lower yields than short-term debt instruments of the same credit quality.
  - A **negative yield curve** occurs when long-term bond yields are lower than short-term yields, often signaling an economic slowdown or recession.
  - Factors include expectations of weaker growth, central bank rate cuts, low inflation, or a flight to safety. Demand for long-term bonds during times of uncertainty or financial instability can drive their prices up, lowering yields.
  - This inversion typically indicates investor pessimism about the economy's future performance.

EQUITY MARKET INSTRUMENT

- **Shares/Equity:** Shares represent units of ownership in a corporation or financial asset owned by investors who exchange capital in return for these units.
- **Stock:** the capital raised by a corporation through the sale of shares.

Share Types: Preference Shares vs Ordinary Shares

Feature	Common Shares	Preferred Shares
Voting Rights	Yes	May or may not have voting rights
Dividend Rights	Variable dividends	Fixed dividend rate
Claim on Assets	Residual claim	Priority claim over common shareholders
Risk	Higher risk, higher potential return	Lower risk,lower potential return

Indian Capital Market Players

- **Stock Exchange:** A Stock Exchange is a regulated marketplace where various financial instruments, such as shares, bonds, debentures, derivatives, and other securities, are bought and sold.
- **Angel Investor:** It is an investor who provides financial backing to entrepreneurs for starting their business. In exchange they may like owning shares in the business or provide capital as loan. These investors provide technical advice. Focused on helping the business succeed, rather than reaping a huge profit from their investment
- **Venture Capitalist:** It is a private equity investor that provides capital to companies exhibiting high growth potential in exchange for an equity stake. They are interested in the profit of the company rather than in the person unlike angel investors. **[UPSC 2014]**

DERIVATIVES

A **derivative** is a financial contract whose value is derived from the performance of an underlying asset, index, or rate. The underlying asset can be anything from stocks, bonds, commodities, currencies, or interest rates. Derivatives are primarily used for **hedging** (to reduce risk) or **speculation** (to profit from market movements).

Types of Derivatives

- **Forward Contracts:**
  - A private agreement between two parties to buy or sell an asset at a future date for a price agreed upon today.
  - **Characteristics:**
    - **Customized** contracts, not standardized.
    - **Not traded on exchanges**; OTC (Over-The-Counter).
    - **Risk of default** due to counterparty risk.
- **Futures Contracts:**
  - A standardized agreement to buy or sell an asset at a predetermined price on a specified future date.
  - **Characteristics:**
    - **Traded on exchanges** (like NSE, MCX).
    - **No default risk** due to clearinghouse guarantee.
    - **High liquidity** and standardized terms.
    - Used for **hedging** or **speculation**.
  - **Example of Futures**
    - **Scenario:** Assume a trader believes that the price of **Stock X** (currently at ₹100) will increase in the next three months.
    - **Trader's Position:** The trader enters into a **futures contract** to **buy** 100 shares of Stock X at ₹100 per share with a contract expiry in 3 months.
    - **Outcome 1 (Price Increase):** If Stock X increases to ₹120 at expiry, the trader can buy at ₹100 (as per the contract) and sell at ₹120, making a profit of ₹20 per share.

- **Outcome 2 (Price Decrease):** If Stock X drops to ₹80 at expiry, the trader still has to buy at ₹100 (as per the contract) and suffers a loss of ₹20 per share.

In futures, **both parties are obligated** to settle the contract at expiry, whether or not the market price is favorable.

- **Options Contracts:**
  - A contract that gives the holder the right (but not the obligation) to buy (Call option) or sell (Put option) an underlying asset at a predetermined price, within a specific period.
  - **Characteristics:**
    - **Call Option:** Right to buy the asset.
    - **Put Option:** Right to sell the asset.
    - The **seller** of the option has the obligation to fulfill the contract if the buyer chooses to exercise the option.
    - **Traded on exchanges** or OTC.

Example of a Call Option

- **Scenario:** Assume a trader believes that the price of **Stock Y** (currently at ₹150) will increase in the next month.
- **Trader's Position:** The trader buys a **call option** to **buy** 100 shares of Stock Y at ₹160, paying a premium of ₹10 per share. The contract expires in one month.
- **Outcome 1 (Price Increase):** If Stock Y rises to ₹180, the trader can buy at ₹160 (strike price), making a profit of ₹20 per share. After subtracting the ₹10 premium, the net profit is ₹10 per share.
- **Outcome 2 (Price Decrease):** If Stock Y falls to ₹140, the trader **does not exercise** the option, as the market price is lower than the strike price. The loss is limited to the premium paid**:** ₹10 per share.

Example of a Put Option

- **Scenario:** Assume the trader believes Stock Z (currently ₹200) will fall in the next month.
- **Trader's Position:** The trader buys a **put option** to **sell** 100 shares of Stock Z at ₹190, paying a premium of ₹12 per share. The option expires in one month.
- **Outcome 1 (Price Decrease):** If Stock Z drops to ₹160, the trader can sell at ₹190 (strike price), making a profit of ₹30 per share. After subtracting the ₹12 premium, the net profit is ₹18 per share.
- **Outcome 2 (Price Increase):** If Stock Z rises to ₹210, the trader **does not exercise** the option. The loss is limited to the ₹12 premium paid.

- **Swaps:**
  - A derivative contract where two parties exchange cash flows or liabilities, typically related to interest rates, currencies, or commodities.
  - **Interest Rate Swap:** Exchange of fixed interest rate payments for floating rate payments.
  - **Currency Swap:** Exchange of cash flows in different currencies.
  - Swaps are primarily traded **OTC**.
- **Warrants:**
  - Long-term options (with expiration dates of more than 1 year) issued by companies that give the holder the right to purchase the company's stock at a specified price before the expiration date.
  - **Characteristics:**
    - Typically, **issued by the company**.
    - Often used to raise capital for the company.

Uses of Derivatives

- **Hedging:**
  - Hedging is used to protect against price fluctuations in the underlying asset.

    Example: A **farmer** may use **futures contracts** to lock in the price of his produce, ensuring he is protected from a price drop.
- **Speculation:**
  - Traders use derivatives to speculate on the price movements of the underlying asset to make a profit.

    Example: A trader may buy **call options** on a stock if they expect the stock price to rise.
- **Arbitrage:**
  - Derivatives can be used for arbitrage, where traders exploit price differences of the same asset in different markets.

Derivatives in India

In India, derivatives are traded on exchanges like the **National Stock Exchange (NSE)**, **Bombay Stock Exchange (BSE)**, **Multi Commodity Exchange (MCX)**, and **National Commodity & Derivatives Exchange (NCDEX)**.

- **Equity Derivatives:** Stock futures, stock options, and index futures (e.g., Nifty, Bank Nifty).
- **Commodity Derivatives:** Futures contracts on commodities like gold, silver, crude oil, and agricultural products.
- **Currency Derivatives:** Futures and options contracts on currencies like USD/INR.

Example of Derivative Trading in India

- **Futures Contract Example:**
  - A trader buys a **Nifty 50 futures contract** at a price of 18,000, expecting the index to rise. If the index rises to 18,500 at expiry, the trader makes a profit. If it falls, the trader incurs a loss.
- **Option Contract Example:**
  - A trader buys a **call option** on **Reliance Industries stock**, with a strike price of ₹2,000, expecting the stock to rise. If the stock price rises to ₹2,200, the trader can exercise the option and make a profit.

Regulatory Framework

In India, derivatives trading is regulated by the **Securities and Exchange Board of India (SEBI)**. For commodities, SEBI regulates the commodity derivatives market after the merger of the **Forward Markets Commission (FMC)** with SEBI.

Key Advantages of Derivatives

- **Leverage:** Derivatives allow investors to control a large position with a smaller amount of capital.
- **Risk Management:** Investors can use derivatives to hedge against price volatility.
- **Liquidity:** Exchange-traded derivatives offer high liquidity.

Key Risks of Derivatives

- **Counterparty Risk:** For OTC derivatives, the risk that the other party may default.
- **Leverage Risk:** While derivatives offer the ability to magnify gains, they can also magnify losses.
- **Market Risk:** Prices of derivatives can fluctuate rapidly based on underlying asset movements.

COMMODITY EXCHANGES (MCX, NCDEX, ETC.)

Commodity exchanges like **MCX (Multi Commodity Exchange)** and **NCDEX (National Commodity and Derivatives Exchange)** provide a platform for the trading of various commodities. These exchanges help farmers, traders, investors, and hedgers in managing their price risks, and also offer a mechanism for price discovery based on demand and supply in the market.

MCX (Multi Commodity Exchange)

MCX is the largest commodity exchange in India, focusing primarily on trading in commodities such as gold, silver, crude oil, agricultural products (e.g., wheat, soybeans), and metals (e.g., copper, zinc).

- **Traded Instruments:**
  - **Futures Contracts:** Standardized contracts to buy or sell commodities at a future date for a price determined today.
  - **Options Contracts:** Provides the right (not the obligation) to buy/sell a commodity at a predetermined price.
- **Market Participants:**
  - Farmers
  - Traders
  - Hedgers (industries exposed to price fluctuations)
  - Speculators

NCDEX (National Commodity & Derivatives Exchange)

NCDEX is another leading exchange in India, which focuses on agricultural commodities such as wheat, corn, pulses, and spices. It provides a platform for price discovery and risk management.

- **Traded Instruments:**
  - **Futures Contracts:** For various agricultural commodities like guar, soybean, and chana (chickpeas).
  - **Options Contracts:** For farmers and traders to hedge price risk.
- **Market Participants:**
  - Farmers, traders, processors, and exporters of agricultural products.
  - Hedge funds and other investors who are looking to profit from price fluctuations.

A Farmer on Commodity Exchange: An Illustration

Hedging Against Price Fluctuations

Farmers can use commodity exchanges to hedge against the volatility in prices of their produce. This helps them lock in a price before the harvest, protecting themselves against price drops due to factors like excess supply or low demand.

Example: A wheat farmer anticipates a good harvest, but is concerned that prices might fall at harvest time due to high supply. The farmer can enter into a **futures contract** on MCX or NCDEX to sell wheat at a certain price before the harvest season. This way, the farmer secures a price, ensuring profitability even if the market price falls.

Price Discovery

Commodity exchanges help farmers know the prevailing market prices of their crops, allowing them to plan better. These exchanges provide transparent, market-driven prices based on real-time supply and demand dynamics.

Example: A cotton farmer can check prices on NCDEX to see if the current price is favorable to sell their produce. If the price is good, they may choose to sell their crop immediately or contract for future delivery.

Access to a Broader Market

Commodity exchanges connect farmers to national or even international markets. This eliminates the dependence on local middlemen and helps farmers access better prices for their produce.

Example: A farmer in a remote area can trade on MCX or NCDEX without having to sell their goods to local traders, thus ensuring a higher profit margin.

Using Options for Flexible Hedging

Farmers can use **options contracts** to hedge with flexibility. For example, they can buy **put options** to ensure a minimum selling price, which provides insurance if prices fall below a certain threshold.

Example: A mustard seed farmer may buy a **put option** on NCDEX. If the market price of mustard falls below the strike price of the option, the farmer can exercise the option and sell their crop at the strike price, ensuring that they do not face a huge loss.

GOVERNMENT SECURITIES MARKET

Bond

A bond is a debt instrument where an investor lends money to an entity (typically corporate or government), which borrows the funds for a fixed period at a predetermined or floating interest rate. Bonds are used by various entities like corporations, municipalities, and governments to raise funds for projects and activities. Bondholders are creditors of the issuer. **Eg: US treasury bonds, G-secs issued in India etc. [UPSC 2024]**

Government Security (G-Sec)

A Government Security (G-Sec) is a tradable instrument issued by the Central or State Governments, representing a debt obligation. **G-Secs** can be short-term (Treasury Bills) or long-term (Government Bonds/Dated Securities). These securities are considered risk-free and are also known as "gilt-edged instruments."

Types of Government Securities

- **Treasury Bills (T-bills):**
  - Short-term securities issued by the Government of India with tenures of 91, 182, and 364 days.
  - T-bills are zero-coupon instruments issued at a discount and redeemed at face value at maturity.

    Example: A ₹100 T-bill may be issued at ₹98.20 and redeemed at ₹100, generating a return of ₹1.80.
- **Cash Management Bills (CMBs):**
  - Introduced in 2010, CMBs are short-term instruments with maturities of less than 91 days to manage temporary cash flow mismatches for the Government.
- **Dated G-Secs:**
  - Long-term securities with fixed or floating coupon rates, paid semi-annually on face value.
  - Maturities range from 5 years to 40 years.

    Example: 7.17% GS 2028 has a 7.17% coupon and matures on January 8, 2028.

Types of Dated Government Securities

- **Fixed Rate Bonds:**
  - Bonds with a fixed coupon rate for the entire term, such as the **8.24% GS 2018**, which was issued in 2008 with semi-annual coupon payments of **4.12%**.
- **Floating Rate Bonds (FRBs):**
  - Bonds with variable coupon rates reset at regular intervals based on an underlying index like Treasury Bill rates.

    Example: A **FRB 2024** with a variable rate tied to the last three 182-day T-bill auction yields.
- **Zero Coupon Bonds:**
  - Bonds with no periodic coupon payments, issued at a discount and redeemed at face value, last issued by the Government of India in 1996.
- **Capital Indexed Bonds:**
  - Bonds where the principal is adjusted for inflation to protect the investment from inflationary risks. The first such bond was issued in 1997.
- **Inflation Indexed Bonds (IIBs):**
  - Bonds where both coupon payments and principal amounts are linked to inflation indices such as WPI or CPI. The Government of India issued these in 2013.
- **Bonds with Call/Put Options:**
  - Bonds with options allowing the issuer (call option) or the investor (put option) to buy or sell the bond before maturity.

    Example: 6.72% GS 2012 was the first G-Sec with both call and put options.
- **Special Securities:**
  - Securities issued to entities like oil marketing or fertilizer companies as compensation for subsidies, typically long-term securities with a slightly higher coupon than comparable G-Secs.
- **STRIPS (Separate Trading of Registered Interest and Principal of Securities):**
  - A process that separates the coupon payments and the principal repayment from a regular bond, essentially creating zero-coupon bonds. These securities are used to form a zero-coupon yield curve.
- **Sovereign Gold Bonds (SGB):**
  - Gold-linked bonds with interest payments at 2.5% per annum, issued in units of one gram of gold. These bonds are redeemable in gold after 8 years, with a ceiling on subscription for individuals, HUFs, and trusts.
- **State Development Loans (SDLs):**
  - **State Governments** issue SDLs, which are similar to G-Secs but are specific to the state. SDLs also qualify for Statutory Liquidity Ratio (SLR) requirements and can be used as collateral for borrowing under the Liquidity Adjustment Facility (LAF) or repo transactions.

    Example: Special securities under the **Ujjwal Discom Assurance Yojna (UDAY)** for power distribution companies.

Issuance through Auctions **[UPSC 2021,2024]**

- G-Secs (Government Securities) are issued by the Reserve Bank of India (RBI) via auctions conducted on its electronic platform, **E-Kuber**. This platform includes **commercial banks, scheduled urban cooperative banks (UCBs), primary dealers (PDs), insurance companies, and provident funds** that maintain a funds account (current account) and securities accounts (Subsidiary General Ledger - SGL account) with the RBI.
- **Non-E-Kuber members**, such as non-scheduled UCBs, can also participate in these auctions indirectly through scheduled commercial banks or PDs. They must open a **"Gilt Account",** a dematerialized account with these financial entities.

- **Retail Direct Scheme, 2021:**
  - A significant milestone in the development of the Government securities (G-sec) market, the Reserve Bank of India-Retail Direct **(RBI-RD) Scheme will bring G-secs within easy reach of the common man** by simplifying the process of investment. Under the Scheme, retail individual investors will be able to open a Retail Direct Gilt (RDG) Account with the Reserve Bank of India,. Investments can be made using the following routes**:**
    - **Primary Issuance of Government Securities:** Investors can place bid as per the non-competitive scheme for participation in primary auction of government securities and procedural guidelines for SGB issuance.
    - **Secondary Market:** Investors can buy and sell government securities on NDS-OM
- **Secondary Market Trading Methods:** In the G-Sec market, transactions occur primarily through four channels**:**
  - **NDS-OM (Negotiated Dealing System- Order Matching):** NDS-OM is owned by the RBI and is **operated by CCIL(Clearing Corporation of India Ltd.)** on behalf of the RBI. NDS-OM is an electronic, screen based, anonymous, order driven trading system for dealing in Government securities which was introduced in 2005.
  - **Over-the-Counter (OTC) Market:** Transactions in G-Secs can be made by negotiating directly with banks, primary dealers (PDs), or financial institutions. The deal is typically confirmed through brokers and reported on the NDS-OM within 15 minutes.
  - **NDS-OM-Web:** Launched in 2012, this platform allows Gilt Account Holders (GAHs) to access NDS-OM directly for better control over trades and access to live quotes.
  - **Stock Exchanges:** Platforms like NSE, BSE, and MCX facilitate G-Sec trading in Demat form, offering retail investors access to these markets.
- **Major Players in the G-Sec Market:**
  - **Commercial Banks and Primary Dealers (PDs):** They play a central role in the market, providing liquidity and price stability.
  - **Institutional Investors:** Insurance companies, pension funds, mutual funds, and co-operative banks.
  - **Foreign Portfolio Investors (FPIs):** Allowed within prescribed limits.
  - **Corporates:** Participate in G-Secs for managing portfolios.

Clearing Corporation of India Limited (CCIL)

- CCIL acts as the **central counterparty** for all G-Sec transactions. It guarantees the settlement of trades by interposing itself between the buyer and the seller. CCIL works out participant-wise net obligations for securities and funds, and forwards the settlement files to RBI.
- If any participant fails to meet their obligations, CCIL provides the necessary funds or securities. CCIL collects margins and maintains a Settlement Guarantee Fund to ensure settlement.

FBIL AND FIMMDA

Financial Benchmark India Pvt. Ltd. (FBIL)

- **Establishment:** FBIL was incorporated on December 9, 2014, under the Companies Act, 2013, and recognized by the Reserve Bank of India (RBI) as an independent benchmark administrator on July 2, 2015.
  - Took over the administration of financial market benchmarks, including the valuation of G-Secs, from FIMMDA in 2018.
- **Promoting Bodies:** Jointly promoted by Fixed Income Money Market & Derivative Association of India (FIMMDA), Foreign Exchange Dealers' Association of India (FEDAI), and the Indian Banks' Association (IBA).
- **Functions:**
  - Administers key Indian interest rate and foreign exchange benchmarks.
  - Implements policies for benchmarks, including guidelines for their cessation and transition to new benchmarks.
  - Reviews benchmarks to ensure they reflect economic realities.
  - Continually assesses the need for new benchmarks as required by market conditions.

Fixed Income Money Market & Derivatives Association of India (FIMMDA)

- **Establishment:** FIMMDA was incorporated on June 3, 1998, under Section 25 of the Companies Act, 1956.
- **Membership:** Includes a range of institutional members such as nationalized banks, private sector banks, foreign banks, financial institutions, and insurance companies.
- **Role:**
  - Serves as an interface between market participants and regulators.
  - Develops market practices for bond, money, and derivatives markets.
  - Plays a key role in enhancing market transparency and efficiency.
  - Provides resources on market practices for fixed income securities, including Government Securities (G-Secs).

TYPES OF FUNDS

Hedge Funds

- **Meaning:** Hedge funds are private investment funds that pool capital from accredited investors or institutional investors to use various strategies, including leverage, derivatives, and short-selling, to achieve high returns.

Example: Tiger Global Management is a well-known hedge fund that invests in public and private companies. It uses strategies like growth investing and arbitrage to generate returns for its investors.

- **Risk and Return:** These funds tend to take higher risks and offer high potential returns but are generally less regulated compared to mutual funds.

Mutual Funds

- **Meaning:** Mutual funds pool money from multiple investors to buy a diversified portfolio of stocks, bonds, and other securities. The funds are managed by professional portfolio managers.
  Example: HDFC Mutual Fund and **SBI Mutual Fund** offer a variety of schemes like equity funds, debt funds, hybrid funds, etc.
- **Regulation:** Regulated by the **Securities and Exchange Board of India (SEBI)** to ensure transparency and protect investors' interests.
- **Types of Mutual Funds:**
  - **Open-Ended Funds:** These funds allow investors to buy or sell units at any time. The fund does not have a fixed number of shares, and the price is based on the net asset value (NAV).
    Example: HDFC Equity Fund is an open-ended equity fund, allowing investors to enter or exit at any time.
  - **Close-Ended Funds:** These funds issue units only during a New Fund Offer (NFO) and do not allow fresh purchases after the initial offering. Investors can only sell units on the stock exchange.
    Example: ICICI Prudential Fixed Maturity Plan is a close-ended fund.

Exchange-Traded Funds (ETFs)

- **Meaning:** ETFs are marketable securities that track the performance of an index, commodity, or a group of assets. These funds trade on stock exchanges just like stocks, providing liquidity and the ability to trade throughout the day.
  Example: Nifty BeES is an ETF that tracks the Nifty 50 index in India. **SPDR S&P 500 ETF** tracks the S&P 500 index in the U.S.
- **Benefit:** ETFs offer low expense ratios and provide an easy way for investors to gain exposure to various asset classes.

Collective Investment Schemes (CIS)

- **Meaning:** CIS refers to investment schemes that pool funds from multiple investors to invest in specific assets like real estate, infrastructure, etc. They are designed for those seeking collective investment opportunities.
  Example: Real Estate Investment Trusts (REITs) in India, such as **Embassy Office Parks REIT**, operate under this category. These schemes invest in real estate assets and provide returns through rental income and capital appreciation.
- **Regulation:** These schemes are regulated by **SEBI**.

Social Venture Fund

- **Meaning:** Social venture funds are designed to support projects or businesses that aim to solve social issues while generating a financial return. They focus on investments that create social impact.
  Example: India Inclusive Innovation Fund (IIIF), set up by the National Innovation Council and Ministry of MSME, invests in ventures that aim to uplift economically disadvantaged sections of society in India.
- **Purpose:** These funds aim to address social challenges while ensuring financial returns to investors.

Alternative Investment Funds (AIFs)

- **Meaning:** AIFs are privately pooled funds, either Indian or foreign, that raise capital to invest in a range of asset classes such as private equity, hedge funds, venture capital, etc. These are typically offered as trusts, companies, or LLPs.
  Example: The India Infrastructure Fund, which is a Category I AIF focusing on infrastructure investments.
- **Categories:**
  - **Category I:** Investments in economically and socially viable sectors like venture capital, social venture funds, infrastructure funds.
  - **Category II:** Private equity funds, debt funds.
  - **Category III:** Hedge funds, funds focusing on high-risk short-term returns.

Sovereign Wealth Fund

- **Meaning:** Sovereign Wealth Funds (SWFs) are government-owned investment funds that use surplus government savings to invest in assets such as stocks, bonds, real estate, and infrastructure projects globally.
  Example: National Infrastructure Investment Fund (NIIF), India's sovereign wealth fund, primarily focuses on funding infrastructure development in India.
- **Function:** These funds serve as a way for governments to invest their foreign exchange reserves and diversify the sources of national income.

Liquid Alternative Investment Funds (AIFs)

- **Meaning:** These funds operate similarly to hedge funds but are regulated under mutual fund norms. They aim to provide liquid alternatives to hedge funds while keeping the same investment strategies.
  Example: ICICI Prudential Liquid Fund, which operates similarly to an AIF but is regulated under SEBI's mutual fund norms.

ESG (Environmental, Social, and Governance) Funds

- **Meaning:** ESG funds focus on investing in companies that score high on environmental, social, and governance (ESG) criteria. These funds aim to invest in companies that are environmentally responsible, socially inclusive, and governed well.

Example: SBI Magnum Equity ESG Fund, launched by **State Bank of India**, focuses on companies excelling in ESG factors, thus ensuring sustainable and socially responsible investing.

- **Impact:** These funds cater to socially conscious investors who want their investments to align with their values, aiming for both financial return and societal benefit.

Investment Funds

Basis	Mutual Fund	Real Estate Investment Trust (REITS)/ Infrastructure Investment Trust (InvIT) [UPSC 2023]
Meaning	A mutual fund is an asset management company that brings together money from many people and invests it in stocks, bonds or other assets.	It is like a mutual fund, which enables direct investment of small amounts of money in infrastructure/real estate to earn a small portion of the income as return
Investment in	Securities of listed entities	Real estate property or infrastructure project.
Stock	Securities	Income generating projects
Period	Continuous buying and selling, relatively short period.	Investments for a long period of time say 10-15 years
Exit	Can be redeemed anytime, easy exit.	On closure of scheme can be sold at stock exchange at quoted value.

DEPOSITORY RECEIPTS

Negotiable financial instruments issued by a company in a foreign jurisdiction. It is a mechanism for raising funds by tapping foreign investors who otherwise may not be able to participate in the domestic market.

Parameters	Global Depository Receipt (GDR)	Indian Depository Receipt(IDR)	American Depository Receipt (ADR)
Negotiability	Negotiable all over the world.	Negotiable only within India.	Certificate issued by a U.S. bank that represents shares in foreign stock; Denominated in U.S. dollars
Issued in	European countries	India	America
Purpose	Helps companies to acquire resources all over the world.	To help the foreign companies to acquire the resources of India.	ADRs represent an easy, liquid way for U.S. investors to own foreign stocks.
Listed in	London Stock Exchange	NSE	American Stock Exchanges
Application	GDR will be applied by companies all over the world including India.	The Indian companies will not apply for Indian Depository Receipts.	The companies located in foreign countries can get registered on the American Stock Exchange.

TYPES OF FOREIGN INVESTMENT

Basis	Foreign Direct Investment (FDI) [UPSC 2012/2020]	Foreign Portfolio Investor(FPI)	Foreign Institutional Investors (FII) [UPSC 2011]
Meaning	FDI is when a company takes controlling ownership in a business entity in another country	FPI is an investment by non- residents in Indian securities like shares, government bonds, etc. FPI is more liquid and less risky than FDI	When a foreign company buys equity in a company through the stock market.
Where do they invest?	Invests in physical assets	Invests in financial assets	Invests in financial assets
Ownership	Active ownership is there in FDI, non debt creating [UPSC 2020]	FPI consists of passive ownership.	No control of the company.

Nature	Brings long term capital, knowledge, skills & technology	Brings short term capital	Brings short term capita
Aim	To increase enterprise capacity or productivity or change management control	To increase capital availability	To increase capital availability
Where do they flow?	In primary market	In secondary market	In secondary market
Scope of speculation	Does not tend to be speculative	Tends to be speculative	Tends to be speculative
Entry and Exit	Relatively difficult	Relatively easy	Easy
What are they eligible for?	Profits of the company	Capital gains	Capital gains
Reflected in	In the capital account of Balance of Payment (BOP)	In the capital account of BOP	In the capital account of BOP

FDI Routes in India

Foreign investment in India is governed by the **Foreign Exchange Management Act, 1999**. India has two main routes for **Foreign Direct Investment (FDI)**

- **Automatic Route:**
  - **FDI is allowed without prior approval** from the **Government or Reserve Bank of India (RBI)**.
  - Investors do not need to seek approval unless the investment falls under restricted sectors or specific conditions.
  - This route simplifies and speeds up the process for foreign investors in most sectors.
- **Government Route:**
  - **FDI requires approval from the Government** through a formal process.
  - This route applies to sectors and cases with certain restrictions.

Investment Restrictions under Government Route

- **Entities in countries sharing a land border with India:** Investments from entities situated in countries with which India shares a land border (e.g., China) require government approval.**Citizens from Bangladesh and Pakistan** are not allowed to invest in form of FDI.
- **Transfer of Ownership:** If a foreign investment results in a transfer of ownership that leads to beneficial ownership falling within the purview of the above restrictions, it must be approved by the government.

Foreign Investment Facilitation Portal (FIFP)

- **Administered by DPIIT:** The **Department for Promotion of Industry and Internal Trade (DPIIT)** under the **Ministry of Commerce** manages the portal.
- **Purpose:** The portal facilitates a **single window clearance** for applications that are under the **approval route** for FDI.
- This system ensures **smooth processing** of applications and ensures transparency in obtaining the necessary clearances for foreign investment that requires government approval.

FDI instruments [UPSC 2021]

Foreign Currency Convertible Bonds (FCCBs)

- **Definition:** FCCBs are hybrid instruments issued by Indian companies to raise funds from foreign markets. They are debt instruments that can be converted into equity shares of the issuing company after a certain period.
- **FDI Link:** FCCBs are considered FDI when converted into equity, as they involve foreign investment in the company's shares.

Foreign Institutional Investment (FII)

- **Definition:** Foreign Institutional Investors (FIIs) are entities like mutual funds, pension funds, insurance companies, etc., that invest in the financial markets of another country.
- **FDI Link:** While FIIs are primarily involved in portfolio investments, certain conditions, such as the percentage of equity stake, may make their investments fall under FDI if they acquire significant stakes(> 10%) in Indian companies.

Global Depository Receipts (GDRs)

- **Definition:** GDRs are financial instruments used by companies to raise capital from international markets, representing shares of the company in a foreign market (typically in the U.S. or Europe).
- **FDI Link:** GDRs allow foreign investors to purchase shares in an Indian company, and when converted, they contribute to FDI as they represent ownership in Indian companies.

Non-Resident External (NRE) Deposits

- **Definition:** NRE deposits are savings accounts held by Non-Resident Indians (NRIs) in Indian banks, where the deposits are denominated in Indian Rupees.
- **FDI Link:** While NRE deposits involve foreign funds, they do not directly count as FDI. However, the funds brought in by NRIs can indirectly contribute to investment in India.

Sectors where FDI is not Allowed

- Retail Trading (except single brand product retailing)
- Atomic Energy

- Lottery Gambling and Betting including casinos etc.
- Chit fund; Nidhi Company
- Agriculture **(excluding Floriculture, Horticulture, Development of seeds, Animal Husbandry, Pisciculture and Cultivation of vegetables, mushrooms etc. under controlled conditions and services related to agro and allied sectors)** and Plantations **(Other than Tea plantations)**
- Real estate/construction of farm houses. Real Estate Business does not include development of townships, construction of residential/commercial premises, roads or bridges.
- Manufacturing of Cigars/tobacco.

FDI IN RETAIL

India has restrictions on Foreign Direct Investment (FDI) in **retail trading** to protect domestic businesses and promote local entrepreneurship. However, there are specific conditions under which FDI in retail is allowed.

FDI in Single-Brand Retail Trading (SBRT)

- **Allowed** up to **100%** FDI.
- Involves **single-brand product retailing**, meaning that foreign companies can sell only their own brand's products in India.
- Foreign companies can own 100% of the operations, but they must source **30% of the products locally** from small and medium-sized enterprises (SMEs) and local suppliers (for investment above 51%).

  Example: Companies like **Apple**, **Nike**, and **Ikea** have benefited from this policy by entering the Indian market with their branded outlets.

FDI in Multi-Brand Retail Trading

- **Restricted** in India. **FDI is not allowed** for **multi-brand retail** (e.g., selling various brands under one roof), except under specific conditions.
- The government has allowed **up to 51%** FDI in multi-brand retail, but this policy is subject to the **approval of the State Government** and the fulfillment of conditions like**:**
  - Minimum investment threshold.
  - Investment in infrastructure (such as cold storage, warehouses).
  - The company must source 30% of products from Indian MSMEs.

Retail E-Commerce FDI in India [UPSC 2022]

Retail e-commerce refers to selling goods and services directly to consumers through online platforms.

- **100% FDI** is allowed under the **automatic route** in **e-commerce marketplaces**, provided they do not engage in **inventory-based retail trading** (i.e., e-commerce companies cannot hold inventory or directly sell products).
- **E-commerce marketplace:** Companies like **Amazon** and **Flipkart** are allowed to operate, where they facilitate transactions between third-party sellers and consumers, without directly controlling inventory.
- **Inventory-based e-commerce** (where a company owns and sells the goods) is not allowed for FDI in India.
- **The Walmart-Flipkart Deal (2018):**
  - **Walmart**, a global retail giant, acquired a **77% stake** in **Flipkart**, India's largest e-commerce company, for about **$16 billion. This was under the Marketplace model.**
  - This deal was significant because it was the largest **FDI in the e-commerce sector** in India, marking Walmart's direct entry into India's retail and e-commerce markets.

Key Financial Terminology and Concepts

- **Qualified Foreign Investor (QFI):**
  - **Definition:** An individual, group, or association from a foreign country making portfolio investments in India.
  - **Criteria:** Must comply with **Financial Action Task Force (FATF) standards** and be a signatory to the **International Organization of Securities Commissions (IOSCO)**.
- **Registered Foreign Portfolio Investor (FPI):**
  - **Definition:** A portfolio investor registered according to **SEBI** guidelines.
  - **Categories:** Includes **Foreign Institutional Investor (FII)** and **QFI**, now subsumed under **FPI**.
- **Credit Default Swap (CDS):**
  - **Definition:** A credit derivative to transfer credit risk between the protection buyer (investor) and the protection seller.
  - **Protection Buyers:** Hedge credit exposure by making periodic payments to the protection seller.
  - **Protection Sellers:** Transfer risk without transferring the underlying asset, helping diversify their portfolio.
- **IPO (Initial Public Offer):** The process where a company issues shares for the first time to raise capital.
- **OFS (Offer for Sale):** Promoters sell their shares; no new shares are issued.
- **Blue-Chip Companies:** Large, well-established companies with strong financial performance.
- **Bullish Market:** A market characterized by rising stock prices and investor profits.
- **Bearish Market:** A market where stock prices are falling, leading to losses for investors.
- **Circuit Breaker:** A mechanism to halt trading if the price of securities or the overall market index falls or rises too sharply.

- **Retail Investor:** An investor with a subscription value of less than **₹2 lakh** in securities.
- **Gilt-Edge Securities:** Low-risk bonds issued by the government.
- **Market Capitalization:** Total value of a company's shares, calculated as **Price per share × Number of shares outstanding**.
- **Brokers:** Registered members of a stock exchange who facilitate the buying and selling of securities on behalf of clients for a commission.
- **Jobber:** A broker specializing in specific securities, catering to other brokers' needs.
- **Scrip Share (Bonus Share):** Free shares issued to existing shareholders.
- **Penny Stocks:** Low-priced stocks that remain undervalued for extended periods.
- **Kerb Dealing:** Informal trading of stocks outside official stock exchanges, often after trading hours.
- **Beta:** A measure of a stock's volatility relative to the overall market. A low beta (<1) stock is less volatile, while a high beta (>1) stock is more volatile.

[UPSC 2023]

SHORT SELLING AND LONG SELLING IN INDIA

Short Selling in India

Short selling involves selling securities not owned by the seller, aiming to repurchase them later at a lower price. In India, short selling is regulated by **SEBI (Securities and Exchange Board of India)**. It is permitted for**:**

- **Retail Investors:** Can short sell in the **cash market** (intraday only; positions must be squared off the same day).
- **Institutional Investors:** Allowed for proprietary trades with disclosure.

Process in India

- **Borrowing Shares:** Through the **Securities Lending and Borrowing Mechanism (SLBM)**, where investors borrow shares to deliver for short selling.
- **Intraday Squaring Off:** For retail investors, short positions must be squared off by the end of the trading day.

Restrictions

- Naked short selling (without borrowing securities) is prohibited.
- All short selling is subject to SEBI and stock exchange rules.

Long Selling in India

Long selling involves buying securities with the intention of holding them for price appreciation and selling them later.

- **Process in India:**
  1. Buy securities via stock exchanges (like NSE or BSE) using a demat account.
  2. Hold the securities in the demat account for any desired period.
  3. Sell them through the exchange when prices rise to earn a profit.

  Example: A retail investor buys shares of a company at ₹100 per share and sells them later at ₹120 to gain ₹20 per share.

Key Points

- Long selling is straightforward and commonly used by retail and institutional investors.
- Investors can also hold shares indefinitely, benefiting from dividends and long-term capital appreciation.

Example of a Call Option

- **Scenario:** Assume a trader believes that the price of **Stock Y** (currently at ₹150) will increase in the next month.
- **Trader's Position:** The trader buys a **call option** to **buy** 100 shares of Stock Y at ₹160, paying a premium of ₹10 per share. The contract expires in one month.
- **Outcome 1 (Price Increase):** If Stock Y rises to ₹180, the trader can buy at ₹160 (strike price), making a profit of ₹20 per share. After subtracting the ₹10 premium, the net profit is ₹10 per share.
- **Outcome 2 (Price Decrease):** If Stock Y falls to ₹140, the trader **does not exercise** the option, as the market price is lower than the strike price. The loss is limited to the premium paid**:** ₹10 per share.

Example of a Put Option

- **Scenario:** Assume the trader believes Stock Z (currently ₹200) will fall in the next month.
- **Trader's Position:** The trader buys a **put option** to **sell** 100 shares of Stock Z at ₹190, paying a premium of ₹12 per share. The option expires in one month.
- **Outcome 1 (Price Decrease):** If Stock Z drops to ₹160, the trader can sell at ₹190 (strike price), making a profit of ₹30 per share. After subtracting the ₹12 premium, the net profit is ₹18 per share.
- **Outcome 2 (Price Increase):** If Stock Z rises to ₹210, the trader **does not exercise** the option. The loss is limited to the ₹12 premium paid.

SECURITIES AND EXCHANGE BOARD OF INDIA (SEBI)

History

- SEBI was established in **1988** as a non-statutory body to regulate the securities market in India.
- It became a statutory body under the **Securities and Exchange Board of India Act, 1992**.
- The strengthening of SEBI was in response to the need for a dedicated authority to regulate and supervise the capital markets after the 1992 securities scam.

Mandate of SEBI

SEBI's primary mandate is to regulate the securities market and protect the interests of investors. Its functions include**:**

Functions of SEBI

SEBI performs its duties under three broad categories**:**

Regulatory Functions

- **Registration and Regulation** of market intermediaries like stockbrokers, merchant bankers, mutual funds, etc.
- **Regulation of stock exchanges**, ensuring their proper functioning.
- **Monitoring of corporate takeovers**, mergers, and acquisitions to prevent manipulation and ensure fair practices.
- **Prevention of Insider Trading:** Ensuring that privileged information is not misused by insiders for personal gain.

Protective Functions

- **Investor Protection:** Ensuring fair practices for investors, preventing fraud, and promoting education.
- **Investor Grievance Redressal:** Addressing complaints from investors through mechanisms such as SCORES (SEBI Complaints Redress System).

Developmental Functions

- **Promoting innovation** in the financial markets, such as encouraging new financial products and market infrastructure.
- **Investor Awareness Programs:** Conducting awareness campaigns to educate investors about their rights and market functioning.
- **Guidelines for mutual funds** and promoting institutional investment.

Organizational Structure of SEBI

SEBI is headed by a **Chairman**, and its organizational structure includes the following**:**

- **Chairman:** The Chairman is appointed by the Government of India. The current Chairman of SEBI is **Madhabi Puri Buch** (appointed in 2022).
- **Board of SEBI:** The SEBI board consists of the Chairman and other members from various sectors, including**:**
  - **Government representatives** from Finance Ministry, Ministry of Law, Ministry of Corporate Affairs, and RBI.
  - **Public sector representatives**, including experts in capital markets, economics, law, and finance.
- **Regional Offices:** SEBI has regional offices in cities like Mumbai, Delhi, Kolkata, Chennai, and Ahmedabad for local implementation of its policies.
- **Divisions and Departments:** SEBI's operations are managed through several divisions, such as**:**
  - **Market Regulation:** Deals with the regulation of stock exchanges, market intermediaries, etc.
  - **Corporate Finance:** Handles corporate governance and disclosure rules.
  - **Legal Affairs:** Deals with legal matters and enforcement actions.
  - **Investor Protection:** Handles investor complaints and protections.
  - **Economic & Policy Analysis:** Researches and provides policy recommendations.

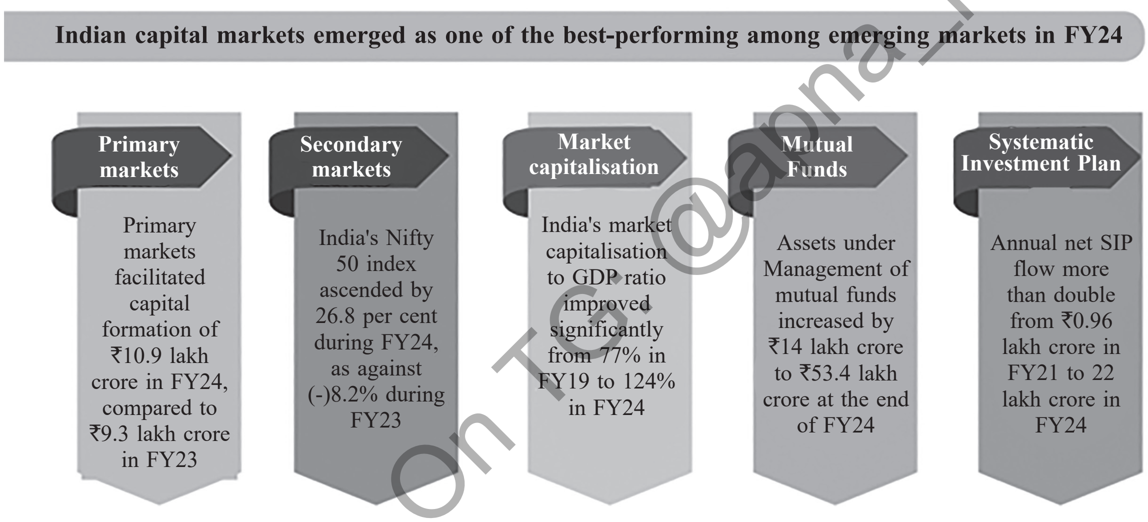
Key Mechanisms and Initiatives by SEBI

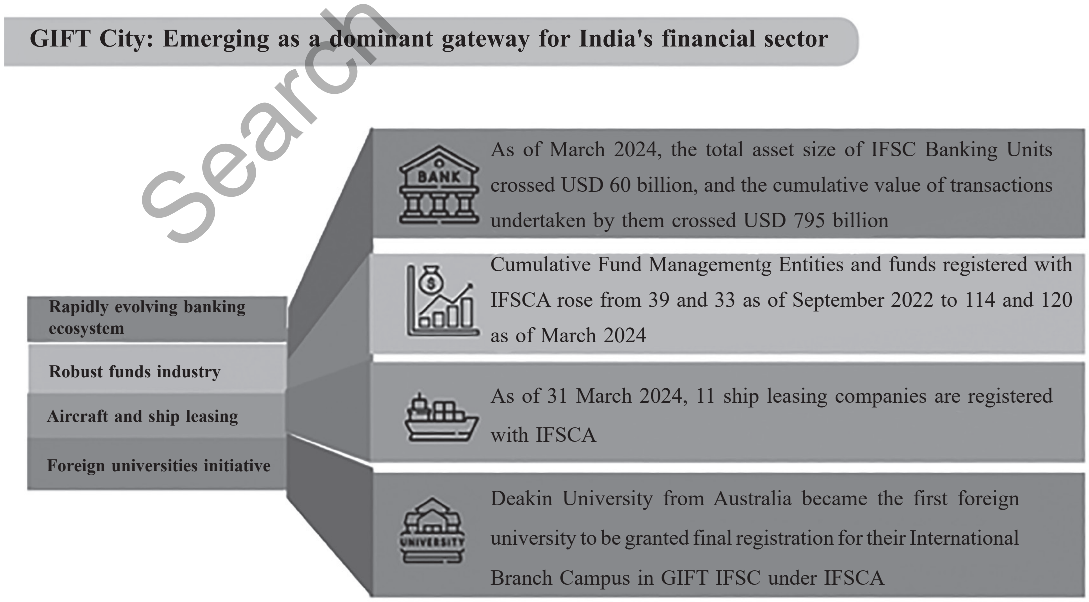
- **Primary and Secondary Market Regulation:**
  - **IPO and Listing Guidelines:** SEBI regulates Initial Public Offerings (IPOs) and their listing process to ensure transparency and fairness.
  - **Trading Practices:** It ensures fair trading practices in the secondary market by setting rules for brokers, analysts, and trading platforms.
- **Surveillance Mechanism:**
  - **Real-time monitoring:** SEBI uses technology to monitor the activities on stock exchanges and detect irregularities.
  - **Suspension and Penalties:** SEBI has the authority to suspend brokers or traders and impose penalties for market manipulation, insider trading, or other violations.
- **Investor Protection Fund (IPF):**
  - SEBI has set up an **Investor Protection Fund** to compensate investors who suffer losses due to broker defaults.
- **Securities Appellate Tribunal (SAT):**
  - The SAT is an independent body that hears appeals against SEBI's orders and decisions. It provides a forum for redressal of grievances for parties dissatisfied with SEBI's orders.
- **Code of Conduct for Market Intermediaries:**
  - SEBI mandates ethical guidelines for market intermediaries such as brokers, mutual funds, and analysts to ensure integrity and fairness in the market.
- **SCORES (SEBI Complaints Redress System):**
  - SEBI provides an online platform to investors for registering complaints against market intermediaries and listed companies.
- **Regulation of Mutual Funds:**
  - SEBI monitors the activities of mutual funds in India, ensuring compliance with regulations related to investment practices, transparency, and disclosures.
- **FPI (Foreign Portfolio Investment) Regulations:**
  - SEBI provides guidelines for foreign investors to participate in Indian capital markets, maintaining a balance between attracting foreign investment and protecting domestic interests.
- **Market Infrastructure Institutions (MIIs):**
  - SEBI regulates stock exchanges, clearing corporations, depositories, and other MIIs to ensure smooth functioning of the securities market.
- **Corporate Governance:**
  - SEBI enforces corporate governance norms for listed companies to ensure transparency and protect the interests of investors.

- **Investor Education and Awareness:**
    - SEBI actively promotes investor education through initiatives like **NISM (National Institute of Securities Markets)** and public awareness campaigns about safe investment practices.

Key Trends in Indian Capital Markets (Economic Survey 2023-24)

Trend	Details
Primary Market Mobilisation	₹10.9 lakh crore raised, 78.8% through debt issuances.
IPOs	272 IPOs, ₹67,995 crore raised, 66% increase in number.
Debt Issuances	₹8.6 lakh crore in corporate debt, ₹19,167 crore in public bond issues.
REITs & InvITs	₹39,024 crore raised, 5x increase from FY23.
Stock Market Performance	Nifty 50 up by 26.8%, India's MSCI-EM share up to 17.7%.
Market Capitalisation	₹415 lakh crore, 124% market cap to GDP ratio.
Retail Participation	9.2 crore investors, 35.9% share in equity cash segment turnover.
Mutual Funds	₹53.4 lakh crore AuM, 35% growth, SIPs up 100% in 3 years.
Technology	Adoption of T+1 settlement, ASBA, and improved investor protections.
Derivatives	Increased retail participation, speculative use rising.





8 Historical Background of Indian Economy and Agriculture and Allied Sector

HISTORICAL BACKGROUND

India's economy, shaped by nearly two centuries of British colonial rule ending in 1947, was restructured to serve British industrial needs as a raw material supplier.

Impact of Colonial Rule: Exploitation under colonial policies influenced India's post-independence economic strategies.

Low Economic Development Under Colonial Rule

1. **Pre-Colonial Economy:** India thrived with self-sustained agriculture and global handicraft markets.
2. **Colonial Policies:** Prioritized British interests, transforming India into a raw material supplier and harming local industries.
3. **Economic Stagnation:** Growth was minimal, with aggregate output below 2% annually.

Agricultural Sector

- **Dominance:** Agriculture involved 85% of the population but remained stagnant.
- **Revenue Systems:** The zamindari system caused social tension and neglected farmer welfare.
- **Commercialization:** Focused on cash crops for British industries, neglecting local needs.
- **Lack of Investment:** Irrigation and infrastructure were underdeveloped.

Industrial Sector

- **Handicrafts Decline:** Indigenous industries were replaced by British goods, increasing unemployment.
- **Modern Industry:**
  - Growth was limited to British-benefiting sectors like textiles and steel.
- **Capital Goods Absence:** Lack of industrial infrastructure hindered further development.

Foreign Trade

- **Trade Composition:** India exported raw materials and imported British goods, ensuring a British trade monopoly.
- **Export Surplus:** Drained wealth to Britain, causing domestic shortages.

Demographic Conditions

1. **Population Growth:** Census began in 1881, revealing uneven growth and high mortality.
2. **Social Indicators:** Literacy was below 16%, and life expectancy was 32 years.
3. **Living Conditions:** Widespread poverty worsened demographic challenges.

Occupational Structure

- **Workforce Distribution:** Agriculture employed 70-75%, manufacturing 10%, and services 15-20%.
- **Regional Variations:** Southern and eastern regions saw limited shifts towards non-agricultural sectors.

Infrastructure Development

- **Purpose:** Infrastructure like railways, ports, and telegraphs served colonial interests.
- **Roads:** Built for military and material transport but inadequate for public needs.
- **Railways:** Facilitated resource extraction, undermining village economies.
- **Communication:** Telegraphs prioritized colonial control; postal services were inadequate.

India's Path to Economic Independence

India gained independence on August 15, 1947, ending 200 years of colonial rule. Leaders, led by Jawaharlal Nehru, aimed for a hybrid economic model blending socialism and capitalism. This approach supported public sector strength, private property rights, and government planning, reflected in the Industrial Policy Resolution (1948), the Indian Constitution's Directive Principles, and the Planning Commission's Five-Year Plans (from 1950).

Types of Economic Systems

- **Market Economy (Capitalism):** Production driven by demand; wealth inequality often excludes basic needs for the poor.
- **Socialist Economy:** Government-driven decisions; public ownership prioritizing societal needs.
- **Mixed Economy:** Combines market efficiency with government-regulated essential services, balancing welfare and economic growth.

Economic Planning Framework

- **Plans:** Set strategies for resource use, outlining goals and objectives over specific periods.
- **Five-Year Plans:** Adopted Soviet-style planning with targeted objectives for each period.
- **Perspective Plans:** Long-term goals (20 years), supported by short-term plans.

SUMMARY OF INDIA'S FIVE-YEAR PLANS [UPSC 2019]

Plan	Duration	Focus Area	Key Achievements/Features
First Plan	1951–1956	Agriculture, irrigation and energy	Community development, dams like Bhakra and Hirakud
Second Plan	1956–1961	Industrialization (heavy industries)	Emphasis on public sector, establishment of steel plants
Third Plan	1961–1966	Agriculture, self-reliance, and economic stability	Green Revolution initiated, focus on fertilizers
Plan Holiday	1966–1969	Focus on issues arising due to wars and droughts	Special programs like HYV seeds, drought mitigation
Fourth Plan	1969–1974	Growth with stability, poverty eradication	Nationalization of banks, launch of family planning programs.
Fifth Plan	1974–1978	Poverty eradication, self-reliance	Introduction of Minimum Needs Program and focus on Garibi Hatao
Rolling Plans	1978–1980	Annual Plans due to political instability	Projects continued based on short-term objectives
Sixth Plan	1980–1985	Poverty reduction and technological self-reliance	Focus on IRDP, NABARD established
Seventh Plan	1985–1990	Employment generation, productivity	Growth in agriculture and industrial sectors
Annual Plans	1990–1992	Addressing crisis due to Gulf War and fiscal issues	Economic reforms initiated
Eighth Plan	1992–1997	Economic liberalization, human resource development	Introduction of LPG reforms, focus on health and education
Ninth Plan	1997–2002	Sustainable and equitable growth	Focus on agriculture and rural infrastructure
Tenth Plan	2002–2007	Reduction in poverty and regional imbalances	Doubling per capita income, social sector investment
Eleventh Plan	2007–2012	Inclusive growth	Improved education and health, focus on rural employment
Twelfth Plan	2012–2017 **[UPSC 2014]**	Faster, sustainable, and inclusive growth	Focus on energy, infrastructure, and skills development

AGRICULTURAL DEVELOPMENT IN INDIA

Overview and Significance

- The agriculture sector **provides livelihood to 42.3% of the population** and contributes 18.2% to India's GDP (at current prices). Over the past five years, it has maintained a **growth rate of 4.18% per annum**, though growth **slowed to 1.4% in 2023-24** due to poor monsoons and the El Niño effect.
- India is the **second-largest producer of rice, wheat, and cotton**, and the **largest producer of milk, pulses, and spices**. However, crop yields remain below global benchmarks due to challenges such as fragmented land holdings, low mechanization, and dependence on rainfed agriculture.

Crop Production and Diversification

- Record foodgrain production was achieved in 2023-24 at 332.3 million tonnes.
- Government initiatives like the National Food Security Mission (NFSM) and the Crop Diversification Programme encourage the shift from water-intensive crops to pulses, oilseeds, and nutri-cereals. The Minimum Support Price (MSP) regime has incentivized diversification, with significant MSP increases for pulses and oilseeds (e.g., lentils with 89% MSP over production costs).

Livestock and Fisheries

- Livestock has become a major contributor to agriculture, with its **share in Agriculture Gross Value Added (GVA) rising to 30.38%** in 2022-23. Major initiatives include:
  - Rashtriya Gokul Mission for indigenous breed improvement.
  - National Digital Livestock Mission (NDLM) to modernize livestock management.
  - Pradhan Mantri Matsya Sampada Yojana (PMMSY) for fisheries infrastructure, which has supported a 7.4% growth in fish production in 2022-23.

Sustainability and Modernization

- Schemes like **Per Drop More Crop (PDMC)** under the **National Mission on Sustainable Agriculture (NMSA)** promote efficient water use and organic farming practices.
- The Digital Agriculture Mission and **e-National Agriculture Market (e-NAM)** are transforming agriculture through better price discovery, input management, and decision-making tools for farmers.

Food Management and Distribution

- Under the **National Food Security Act (NFSA)**, the government distributed 40% of its foodgrain stock to two-thirds of the population for free.
- **Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY)** ensures food security during crises like the COVID-19 pandemic.

Challenges and Way Forward

- Addressing low productivity, fragmented holdings, and post-harvest losses are critical. Mechanization and access to quality inputs need to improve.
- Increasing investment in agriculture and allied sectors is necessary, with Gross Capital Formation (GCF) in agriculture growing at 19.04% in 2022-23.

Tax on Agriculture

- According to **Section 10 (1)** of the **Income Tax Act, 1961, income generated from any agricultural activities** are **exempted from being taxed** by the Government as it is not counted as a part of an individual's total income.
- Government imposes customs duty on edible oils to safeguard the interests of the domestic oil crushing industry **[UPSC 2018]**

INDIAN AGRICULTURE RECENT TRENDS

Aspect	Details
Agriculture Production	Contributes 18.3% of GDP (2022-23) at current prices. Growth in GVA was 3% (FY22) at constant prices. Total foodgrain production: 330.5 million MT (2022-23) (3rd Advance Estimate), and horticulture output: 350.87 million MT (2022-23).
Agricultural Exports	FY24 exports: Marine products (US$ 1.7 billion), Buffalo meat (US$ 0.83 billion), Sugar (US$ 0.71 billion). Agricultural exports saw a 19.92% growth in FY22, reaching US$ 50.21 billion. Major exports include rice, spices, and sugar.
Irrigation Coverage	Of the 141 million hectares gross sown area (2022-23), 52% (73 million hectares) has irrigation access. Rice and wheat are the most irrigated crops. Under PMKSY, 83.46 lakh hectares were covered under micro-irrigation.
Rising Income & Demand	Per capita GDP is projected at US$ 3,277 (2024), up from US$ 2,036 (2018). The processing sector is expected to achieve an output of US$ 535 billion by 2025-26, creating 9 million jobs by 2024.
Credit & Investment	Institutional credit to agriculture reached US$ 226 billion (2021-22). Post-harvest support and community farms received US$ 1.66 billion under the Agriculture Infrastructure Fund.
Landholdings	Total operational holdings: 146.45 million (2015-16), a 5.86% increase from 2010-11. Average holding size: 1.08 ha (2015-16), down from 1.15 ha (2010-11). Small and marginal holdings make up 86.08% of total holdings. Women's share of operational holdings rose to 13.96% (2015-16).

Small Farmers Large Field (SFLF) is a collective action model in which many marginal farmers in an area organize themselves into groups and synchronize and harmonize selected agricultural operations. **[UPSC 2023]**

MAJOR CROPS AND CROPPING PATTERNS

- **Cropping Intensity:** Number of crops cultivated in a piece of land per annum.
- **Cropping Pattern:** Different crops grown in an area at a particular point of time.

Cropping Pattern Types

Parameter	Definition	Key Features
Multiple Cropping	Growing more than two crops in a year in orderly succession on the same piece of land.	Sequential cultivation of crops like wheat-rice-maize.
Inter Cropping	Growing two or more crops simultaneously with distinct row arrangements.	**Example:** Maize with beans, mustard with wheat.
Mixed Cropping	Also known as polyculture; planting two or more crops simultaneously without specific row arrangement.	**Example:** Cotton + Groundnut or Wheat + Mustard.

Strip Cropping	Cultivating crops in alternate parallel strips on the same piece of land.	**Example:** Alternate strips of maize and soybean.
Contour Bunding	Ploughing/planting along elevation contour lines to create water breaks.	Often used in sloping areas with crops like tea, coffee.

Overview of Major Crop Production

Crop	Production (2023-24)	Trend	Acreage (2022-23)	Rain-fed vs. Irrigated
Rice	137.8 million tonnes	Consistent growth; record production in 2021-22 (135.54 million tonnes).	43.79 million hectares	50% irrigated; major reliance on rainfall in Eastern India
Wheat	113.3 million tonnes	Stable growth with slight fluctuations due to climatic changes; record high in 2020-21.	30.5 million hectares	Mostly irrigated (over 90%)
Cotton	325.2 lakh bales	Fluctuations with a peak of 365.19 lakh bales in 2019-20.	120.69 lakh hectares	67% rain-fed; 33% irrigated
Sugarcane	455.3 million tonnes	Consistent increase; major contributor to the global market.	5.56 million hectares	Predominantly irrigated (>90%)
Maize	37.6 million tonnes	Stable trend; widely used for feed and industrial purposes.	9.8 million hectares	85% rain-fed
Pulses	24.2 million tonnes	Steady growth supported by government policies like MSP.	29.17 million hectares	Mostly rain-fed (>80%)
Soybean	13.06 million tonnes	Seasonal variability; significant for edible oil production.	12.1 million hectares	100% rain-fed
Groundnut	10.18 million tonnes	Fluctuating trend; highest production recorded in Gujarat.	4.6 million hectares	70% rain-fed; 30% irrigated
Rapeseed & Mustard	13.25 million tonnes	Stable growth; Rajasthan contributes the largest share.	6.3 million hectares	Predominantly irrigated (60%)
Millets (Jowar, Bajra, Ragi)	17.5 million tonnes	Resurgence due to government promotion as climate-resilient crops.	12.5 million hectares	85% rain-fed
Fruits	112.73 million tonnes	Consistent growth; India leads in mango and banana production.	8.5 million hectares	Mostly irrigated (> 80%)
Vegetables	205.80 million tonnes	Steady growth with significant contributions from potato and tomato.	10 million hectares	Mostly irrigated (> 75%)
Tea	1,382.03 million kgs	Slight variations in production; Assam and West Bengal lead.	0.58 million hectares	Requires specific climatic zones.
Coffee	3.74 lakh tonnes	Stable trend; Karnataka, Kerala, and Tamil Nadu dominate.	0.44 million hectares	Mostly rain-fed but requires controlled irrigation.
Tobacco	800 million kgs	Slight decline in production due to global anti-tobacco policies.	0.35 million hectares	70% irrigated.

Farming System

Farming System	Description	Key Features (India, 2023)
Wetland Farming	Soils remain flooded or irrigated using water sources like lakes, ponds, or canals.	Covers 12% of India's total cultivated area.
Dryland Farming	Entirely relies on rainfall, with moisture conservation critical for crop production.	Covers 68% of cultivated area; produces 44% of food grains.
Rainfed Farming	Areas receiving rainfall above 750 mm, supporting diverse cropping systems.	52% of net sown area falls under rainfed agriculture
Mixed Farming	Combines crop production with livestock, poultry, fisheries, and beekeeping for diversified income.	Popular in rural households; accounts for a 20% contribution to agricultural GDP

GREEN REVOLUTION

Aspect	Details
Origins and Development	The Green Revolution in India began in the 1960s due to a steep decline in crop production, especially in 1957-58. Government programs like the Intensive Agricultural District Programme (IADP) and High Yielding Varieties Programme (HYVP) were introduced to increase agricultural productivity.
Key Characteristics	The Green Revolution focused on multiple cropping, high-yielding varieties (HYVs), and the use of chemical fertilizers and pesticides, alongside the mechanization of agriculture with machinery like water pumps, ploughs, and tractors.
Positive Impacts	Increased agricultural productivity, particularly in wheat and rice, leading to enhanced food security, rural economic development, improved infrastructure, and more job opportunities in agro-processing industries.
Negative Impacts	Environmental issues like soil erosion, water depletion, and biodiversity loss due to intensive farming. Overuse of chemicals contributed to soil and water pollution. It also increased inequality, with wealthier farmers benefitting more than smaller ones.
Challenges	Challenges include shrinking landholdings (0.10 ha per capita), water scarcity (India uses over 90% of its water resources for irrigation), and climate change impacts, such as reduced rice yields. Productivity gains were limited to staple grains, with less focus on pulses and commercial crops.
Green Revolution 2.0	This new phase focuses on biotechnology, genetic engineering for climate-resilient crops, and precision agriculture. Emphasizing sustainability, it promotes organic farming, agroecology, and integrated pest management, aiming to address both ecological and economic challenges.

HORTICULTURE

Horticulture is broadly categorized into the following sub-disciplines:

1. **Pomology:** The study and cultivation of fruit.
2. **Olericulture:** The study and cultivation of vegetables.
3. **Floriculture:** The study and cultivation of flowers.
4. **Landscape Horticulture:** The use of plants to design aesthetically pleasing and functional outdoor spaces.

Major Horticulture Crop Overview

Crop	Area under Cultivation	Production (2022-23)	Top Producing States	Exports
Fruits	25 million hectares	99 million tonnes (approx.)	Uttar Pradesh, Maharashtra, Andhra Pradesh, Tamil Nadu	**Major export items:** Mango, Banana, Grapes.
Vegetables	13 million hectares	185 million tonnes (approx.)	West Bengal, Uttar Pradesh, Madhya Pradesh, Odisha	Exported vegetables include onions, tomatoes.
Spices	4.8 million hectares	11 million tonnes (approx.)	Kerala, Andhra Pradesh, Karnataka	**Major exports:** Pepper, Cardamom, Turmeric.
Flowers	0.3 million hectares	1.9 million tonnes (approx.)	Tamil Nadu, Karnataka, West Bengal	Flowers and plant exports: Jasmine, Rose.
Coconut	2.2 million hectares	19 billion nuts (approx.)	Kerala, Tamil Nadu, Karnataka	**Exported products:** Copra, coconut oil.

Cashew	1.5 million hectares	8.1 lakh tonnes (approx.)	Kerala, Karnataka, Maharashtra	Major exports: Cashew nuts, cashew kernels.
Tea	0.4 million hectares	1,325 million kg (approx.)	Assam, West Bengal, Tamil Nadu	**Exports:** Tea to the UK, Russia, the US.
Coffee	0.4 million hectares	340 thousand tonnes (approx.)	Karnataka, Kerala, Tamil Nadu	**Exports:** Coffee to Italy, Germany, the US.

Government Initiatives in Horticulture

Mission for Integrated Development of Horticulture (MIDH)

Launched in 2014-15, aims to enhance the horticulture sector. Government funds 85% of costs (100% for North Eastern & Himalayan regions).

Objective of MIDH	• Form farmer groups (FIGs, FPOs, FPCs) to improve production and income. • Boost productivity via high-quality seeds and water usage. • Skill development and employment in horticulture.
Sub-Missions under MIDH	• **National Horticulture Mission (NHM):** Focuses on improving horticulture in 18 States & 6 Union Territories. • **Horticulture Mission for North East & Himalayan States (HMNEH):** Develops horticulture in the North East and Himalayan states. • **National Horticulture Board (NHB):** Implements various horticulture projects across India.
Strategies of MIDH	• End-to-End Approach (production to marketing). • Promoting research on cold chain infrastructure, better cultivation, harvesting, and processing technologies. • Supporting farmer organisations and promoting organic farming.
Key Activities of MIDH	• Establishing nurseries and tissue culture units for quality seeds. • Expanding orchard areas and promoting polyhouses/greenhouses. • Encouraging bee-keeping and organic farming. • Improving post-harvest management and marketing infrastructure.

SEEDS SECTOR IN INDIA

Importance of Quality Seeds

- **Critical Input:** Seed quality significantly influences the effectiveness of other agricultural inputs.
- **Contribution to Production:** Quality seeds contribute **15–20%** to total crop production, potentially rising to **45%** with efficient management of inputs.

Development of the Indian Seed Industry

- **Early Initiatives:**
  - Establishment of **National Seeds Corporation** in the 1960s laid the foundation for the organized seed sector.
  - **National Seed Project** (1977–1991) implemented in three phases, marked a pivotal shift in creating a structured seed industry.
- **New Seed Development Policy (1988-89):**
  - Opened avenues for high-quality global seeds.
  - Attracted private and multinational investments, bolstering research and development (R&D).
- **Technological Advancements:**
  - Introduction of **Bt Cotton** in 2002 revolutionized productivity.
  - Enhanced focus on high-value hybrid seeds and advanced technologies.

Seed Production System

The Indian seed programme adheres to a **limited generations system** with three stages:

- **Breeder Seed:**
  - Progeny of nucleus seed, produced by **ICAR** and supported by research institutions and agricultural universities.

- Ensures high genetic purity and serves as the source for foundation seed.
- **Foundation Seed:**
  - Progeny of breeder seed, produced by **NSC, SFCI**, and State Seed Corporations.
  - Must meet **Indian Minimum Seed Certification Standards**.
- **Certified Seed:**
  - Progeny of foundation seed, distributed to farmers.
  - Tested for physical purity, germination rates, and genetic identity.

Varietal Protection in India

- **Legal Framework:**
  - Governed by the **Protection of Plant Varieties and Farmers Rights Act, 2001**, aligning with **TRIPS Agreement** obligations under WTO.
- **PPV & FR Authority:**
  - Operational since 2005 to:
    - Register plant varieties.
    - Ensure benefit-sharing among stakeholders.
    - Conserve plant genetic resources.
  - **Compulsory Licensing:** Facilitates public access to seeds or propagating materials when needed.

Seed Certification System

- **Purpose:**
  - Ensure continuous availability of high-quality seeds with physical identity and genetic purity.
  - Legally sanctioned for quality control in seed production.
- **Standards and Process:**
  - Certification involves field inspections, seed testing, and adherence to Indian Minimum Seed Certification Standards (1988).
  - Conducted by autonomous **Seed Certification Agencies** operating on a no-profit-no-loss basis.

- **Seed Replacement Rate (SRR):** Measures how much of the **total cropped area** was **sown with certified seeds** in **comparison to farm saved seeds.** Higher the Seed Replacement Ratio, higher is production as well as productivity. **[UPSC 2015]**
- A village is referred to as a **"seed village"** if a trained group of farmers produces seeds for a variety of crops and provides for the requirements of themselves, their fellow villagers, and villagers in nearby villages at an affordable price.

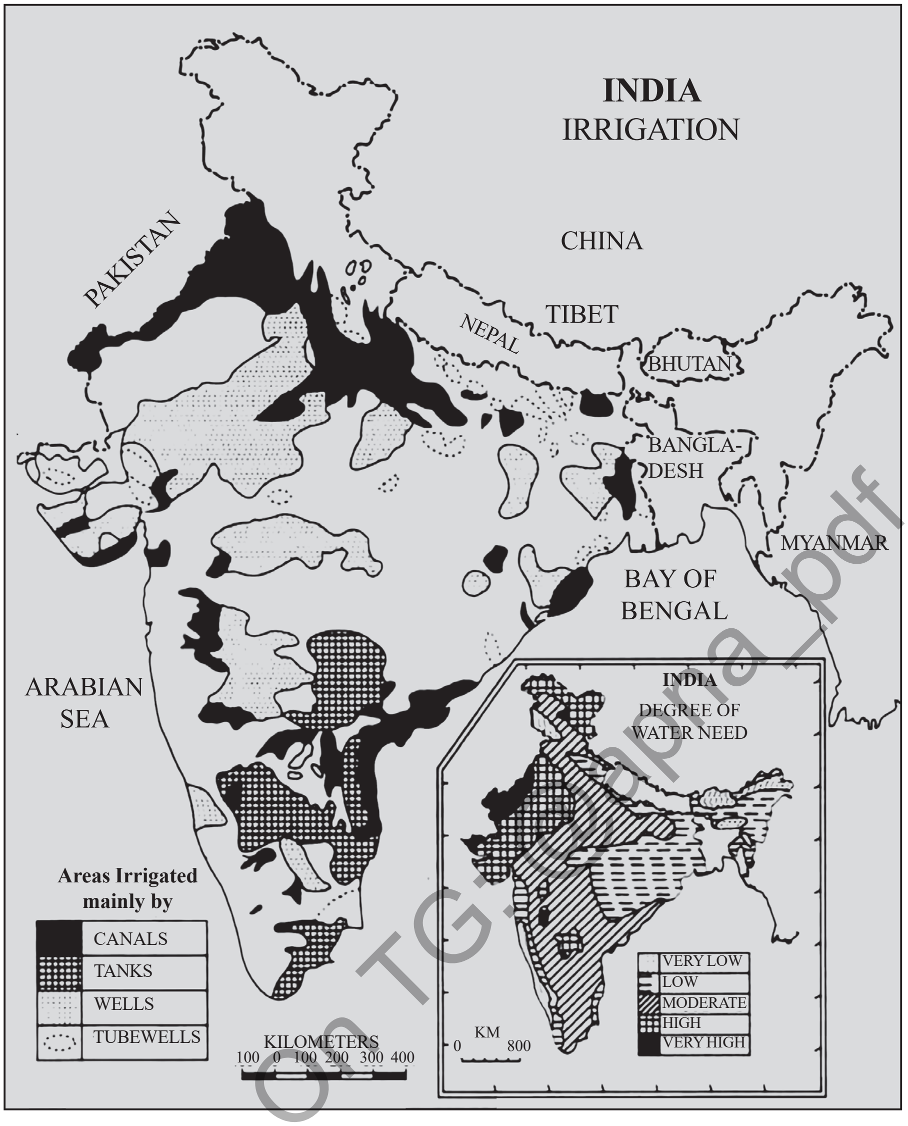
IRRIGATION

While India accounts for more than 18% of the world population, we have barely 4% of the world's water resources; **Irrigation water productivity: Ratio** of the **crop output** to the **irrigation water applied**.

Minor Irrigation Schemes	Up to 2000 hectares of Cultivable Command Areas
Medium Irrigation Schemes	2000 hectare < Cultivable Command Areas < 10,000 hectares
Major Irrigation Schemes	Cultivable command Areas > 10000 hectare

Types of Irrigation

Type of Irrigation	Description	Coverage in India	Key Areas/States
Canal Irrigation	Water diverted from rivers into canals and distributed to agricultural fields.	~22% of the total irrigated area	Punjab, Haryana, Uttar Pradesh, Tamil Nadu, Bihar
Tube Well/Bore Well	Uses underground water lifted by electric or diesel pumps.	~46% of the total irrigated area	Punjab, Haryana, Uttar Pradesh, Rajasthan
Tank Irrigation	Water stored in natural or man-made tanks.	~4% of the total irrigated area	Tamil Nadu, Karnataka, Andhra Pradesh, Odisha
Sprinkler Irrigation	Water is distributed through pipes and sprayed over crops.	~2% of the total irrigated area	Rajasthan, Gujarat, Madhya Pradesh
Drip Irrigation [UPSC 2016]	Provides water directly to plant roots through a system of tubes and emitters.	~4% of the total irrigated area	Maharashtra, Gujarat, Andhra Pradesh, Karnataka
Well and Other Sources	Includes open wells and other small water sources.	~22% of the total irrigated area	Rajasthan, Maharashtra, Tamil Nadu
Other Modern Methods	Advanced methods like fertigation and rain guns.	Growing adoption but <2% currently	Across states with horticulture and cash crops



Government Initiative for Irrigation

- **Pradhan Mantri Krishi Sinchai Yojana (PMKSY)**
  - **Accelerated Irrigation Benefit Programme (AIBP)-** Ministry of Water Resources.
  - **Integrated Watershed Management Programme (IWMP)** - Department of Land Resources (Ministry of Rural Development).
  - **On Farm Water Management (OFWM)** - Department of Agriculture and Cooperation
  - **Objectives**
    - **Convergence:** Consolidate investments in irrigation at the field level.
    - **Har Khet Ko Pani:** Expand assured irrigation coverage.
    - **More Crop Per Drop:** Enhance water use efficiency through precision irrigation and water-saving technologies. (Ministry of Agri and Farmers's Welfare)
    - **Sustainability:** Recharge aquifers, adopt sustainable water conservation, and explore reusing treated wastewater.
    - **Private Investments:** Encourage private investment in irrigation systems.
  - **Decentralized Planning:**
    - Preparation of **District Irrigation Plans (DIP)** and **State Irrigation Plans (SIP)** is mandatory to access PMKSY funds.
  - **Supervision:**
    - **National Steering Committee (NSC)** chaired by the PM oversees implementation.
    - **National Executive Committee (NEC)** under NITI Aayog monitors progress.
  - **Water Budgeting:** Applied across household, agriculture, and industries.
  - **Farm-Level Investment:** Ensures farmer participation and feedback.
  - **Funding:** A **Long-Term Irrigation Fund** under NABARD accelerates major irrigation projects.

- **National Watershed Project (Neeranchal)**
  - **Objective:** Support Integrated Watershed Management Program (IWMP) with technical assistance for sustainable natural resource conservation.
  - **World Bank-Assisted:** Focuses on improving soil, water, and forest conservation while boosting sustainable agricultural yields.
  - **Holistic Approach:** Conserves and regenerates resources within watershed areas, enhancing farming community outcomes.

Other Schemes/Programmes

Scheme/Program	Details
Accelerated Irrigation Benefits Programme [UPSC 2015]	• Launched in 1996-97 to assist states in completing advanced major irrigation projects. • Aims to accelerate benefits from irrigation projects.
Command Area Development Programme	• Started in 1974-75 for developing water-use efficiency in irrigation systems.
Water Credit [UPSC 2021]	• A loan program by Water.org to make financing affordable for safe water and sanitation. • Uses microfinance tools to address water needs.
National Water Mission [UPSC 2012]	• Part of the National Action Plan on Climate Change (NAPCC). • Focuses on water conservation, minimizing wastage, and equitable distribution. • Encourages recycling wastewater in urban areas and using ocean water in coastal cities.

FERTILIZERS

Fertilisers supply essential macro and micronutrients critical for plant growth. They contribute 15–20% to agricultural production, potentially rising to 45% with proper input management.

Nutrient Composition

- **Primary (Macro) Nutrients:** Nitrogen (N), Phosphorus (P), Potassium (K), Calcium (Ca), Magnesium (Mg), Sulphur (S).
- **Secondary (Micro) Nutrients:** Boron (B), Chlorine (Cl), Copper (Cu), Iron (Fe), Zinc (Zn), etc.
- According to the data from **Fertiliser Statistics, 2022,** the **NPK ratio** of India has deteriorated from **5.9:2.4:1 in 1991-92** to **7.7:3.1:1 in 2021-22, much worse than recommended 4:2:1 ratio**. This imbalance can lead to nutrient deficiencies, soil degradation, and reduced crop yields.

Types of Fertilisers

- **Nitrogenous:** Urea, Ammonium Nitrate.
- **Potassic:** Potassium Nitrate, Chile Saltpetre.
- **Phosphatic:** Super Phosphate, Triple Phosphate.
- **Neem Coated Urea:** Reduces nitrogen release and enhances efficiency.
  - One of the major transformational decisions taken by the Government in 2015 was to introduce **100% Neem Coating on all subsidized agricultural grade** urea in the country in order to increase the nutrient efficiency, crop yield, soil health and **check the diversion of agricultural grade urea for non-agricultural activities.**

Indian Fertiliser Sector

- **Global Rank:** 3rd in production, 2nd in consumption.
- **Deficiencies:** Soils lack Nitrogen (N), Phosphorus (P), and Potassium (K).
- **Key Players:** National Fertilisers Limited, IFFCO, KRIBHCO.

Policy and Regulations

- **Governance:** Regulated under the Industries (Development and Regulation) Act, 1951 by the Department of Fertilisers, Ministry of Chemicals & Fertilisers.
- **Dependency:** 80% of urea needs met domestically; phosphatic and potassic fertilisers rely on imports.

Government Interventions

- **Retention Pricing Scheme (RPS) (1977):** For nitrogenous, phosphatic, and potassic fertilisers.
- **New Pricing Scheme (NPS) (2003):** Subsidy based on feedstock prices and plant vintage.
- **Nutrient-Based Subsidy (NBS) (2010):** Links subsidy to nutrient content to ensure balanced use and reduce fiscal burden. Implemented by the **Department of Fertilizers** .Applicable to **22 fertilizers** (other than Urea).
- **Neem Coated Urea Policy (2015):** Initially it was Mandatory neem coating for 75% of urea production to enhance efficiency and reduce misuse. The Department of Fertilizers (DoF) has made it mandatory for all the domestic producers to **produce 100% urea as Neem Coated Urea (NCU).** Benefits of neem coated urea:
  - Slow release of nitrogen into the soil
  - Improved plant absorption of nitrogen.
  - Reduction in pesticide use.
  - Improved yield.
- **New Urea Policy (2015):** Aims to maximise indigenous production, promote energy efficiency, and rationalise subsidies.

Urea Subsidy Scheme

- Urea is presently provided to the farmers at a statutorily **notified Maximum Retail Price (MRP).** The MRP of 45 kg bag of urea is ₹242 per bag (exclusive of charges towards neem coating and taxes as applicable).
- The difference between the delivered cost of urea at farm gate and net market realization by the urea units is given as subsidy to the urea manufacturer/importer by the Government of India.
- The current Urea policies by which subsidy is being paid are New Pricing Scheme (NPS)-III, Modified NPS-III, New Investment Policy (NIP) – 2012 and New Urea Policy (NUP) – 2015. Accordingly, all farmers of the country are being supplied urea at the subsidized rates and thereby are beneficiaries of this scheme.

Nutrient Based Subsidy Scheme

- The government is making available **28 grades of P&K fertilizers** to farmers at subsidized prices through fertilizer manufacturers/importers. The subsidy on P&K fertilizers is governed by NBS Scheme w.e.f. 01 .04.2010.
- In accordance with its farmer friendly approach, the Government is committed to ensure the availability of P&K fertilizers to the farmers at affordable prices.
- In view of the recent trends in the international prices of fertilizers & inputs i.e. Urea, DAP,MOP and Sulphur, Government has decided to approve the NBS rates for Rabi 2024 effective from 01.10.24 to 31.03.25 on Phosphatic and Potassic (P&K) fertilizers.
- The **subsidy would be provided to the fertilizer companies as per approved and notified rates** so that fertilizers are made available to farmers at affordable prices.

Impact of Policies

- Increased production and consumption but fiscal deficits increased.
- Imbalance in fertiliser use after partial decontrol of phosphatic and potassic fertilisers (1992).
- Neem Coated Urea improved nitrogen use efficiency, reduced pest attacks, and lowered fertiliser wastage.

Miscellaneous Facts

- **Fertilizer price** in India is **administered by the government**; **Ammonia,** which is an input of urea, is produced **from natural gas**; **Sulphur**, which is a raw material for phosphoric acid fertilizer, is a **by-product of oil refineries** **[UPSC 2020].**
- **Fertigation:** Mixing water-soluble fertilizers in drip system, where fertilizer is delivered into the root system which reduces wastage of fertilizers. It offers the advantages of controlling soil alkalinity, weed control and increased nutrient use efficiency and thereby increasing crops yield by 25-30%. **[UPSC 2020]**
- **Market Development Assistance Policy:** To promote the use of alternative fertilizers like Green Manure, organic compost of rural areas, solid/liquid slurry.

Soil Health Card [UPSC 2017]

- Report cards are given to all farmers **at an interval of 2 years**; implemented by the **Ministry of Agriculture and Farmers welfare.**
- The cost of sampling; testing and reporting → by the **Central Government**.
- Village level soil testing labs will be set up by youth having education in agriculture, SHGs, FPOs etc.
- It provides two sets of fertilizer recommendations for six crops including recommendations of organic manures and recommendations for additional crops on demand. Soil samples are tested with respect to **12 parameters:**
  - **Macronutrients:** Nitrogen (N), Phosphorus (P), Potassium (K)
  - **Secondary nutrient:** Sulphur (S); Micronutrients: Zinc (Zn), Iron (Fe), Copper (Cu), Manganese (Mn), Boron (B).
  - **Physical parameters:** pH, EC (electrical conductivity), OC (organic carbon)

ORGANIC FARMING VS ZERO BUDGET NATURAL FARMING

Aspect	Organic Farming [UPSC 2018]	Zero Budget Natural Farming (ZBNF)
Definition	A holistic system designed to optimize productivity and biodiversity in agroecosystems.	A method of chemical-free farming drawing from traditional practices, focusing on natural processes.
Input Cost	Moderate to high due to requirements for organic manures, compost, and biofertilizers.	Extremely low-cost; almost zero expenditure using locally prepared inputs.
Chemical Use	Avoids synthetic fertilizers and pesticides; relies on biofertilizers and organic pest control.	Completely avoids synthetic inputs; uses preparations like Jeevamrutha and Bijamrutha.
Soil Management	Allows practices like plowing, tilling, and application of organic manures.	Avoids soil disturbance (e.g., no plowing, tilling, or bulk manure application). Focuses on natural soil health preservation.

Weeding	Encourages weeding as part of the cultivation process.	Avoids weeding to maintain the soil's natural ecosystem balance.
Pest Control	Uses non-chemical pest control methods like neem oil sprays and natural pest repellents.	Employs concoctions like Bijamrutha (neem, green chilies, tobacco) for pest management.
Mulching	Optional for soil protection.	Mulching (Acchadana) is a core practice to conserve moisture and prevent soil erosion.
Water Management	Relies on organic techniques to manage water efficiency.	Advocates for Whapasa, which maintains soil moisture by balancing water and air molecules in the soil.
Crop Yield	Typically lower than conventional farming but higher than natural farming in the short term.	Initially low but improves over time with restored soil health and natural processes.
Environmental Impact	Reduces chemical pollution and preserves biodiversity.	Focuses on complete harmony with nature and ecosystem preservation.

Government Intervention in Organic Farming

- Government has been promoting organic farming in the country since 2015-16 through the schemes of **Paramparagat Krishi Vikas Yojana (PKVY) and Mission Organic Value Chain Development for North Eastern Region (MOVCDNER)**.
- **PKVY is being implemented in all the States other-than North Eastern States**, across the country. MOVCDNER scheme is implemented exclusively in the NE States.
- Bhartiya Prakritik Krishi Padhati (BPKP) has been introduced as a sub scheme of Paramparagat Krishi Vikas Yojana (PKVY) since 2020-21 for the promotion of traditional indigenous practices including Natural Farming (NF).
- **Under BPKP, financial assistance of ₹ 12200/ha for 3 years** is provided for cluster formation, capacity building and continuous handholding by trained personnel, certification and residue analysis.
- Both the schemes stress on end to end support to farmers engaged in organic farming i.e. from production to processing, certification and marketing and post harvest management support including processing.
- **Certification:** Government has initiated a programme to provide financial assistance to individual farmers with 8.0 or more hectare land @ 2700/ha for 3 years for **Participatory Guarantee System (PGS) certification** through Regional Council or **National Programme for Organic Production (NPOP) certification.**
  - While NPOP certified products can be traded in export and in the domestic market, PGS-India certified products can be traded only in the domestic market.

AGRICULTURE FINANCE /CREDIT

Share in Agricultural Credit

Scheduled Commercial Banks (76%), Regional Rural Banks (11.9%), and Cooperatives (12.1%) provide agricultural credit; DCCBs mobilize rural deposits and finance Primary Agricultural Credit Societies (PACS). **[UPSC 2011, 2020]**

Various Government Initiatives

Aspect	Key Features/initiatives
Kisan Credit Card (KCC) [UPSC 2020]	Provides short-term formal credit to farmers for agricultural needs, including working capital, maintenance of farm assets, and consumption requirements.
Investment Loans	Available for irrigation, mechanization, land development, plantation, horticulture, and post-harvest management.
Interest Subvention Scheme	Offers subsidized interest rates on short-term credit to farmers.
Micro-Irrigation Fund (NABARD)	Supports the adoption of micro-irrigation techniques to enhance water use efficiency.
SHG Bank Linkage Programme	Encourages banks to lend to Self-Help Groups, particularly women-led ones, for rural and agricultural development.
Priority Sector Lending (PSL)	Mandates banks to allocate 40% (75% for RRBs, cooperative banks, SFBs) of their ANBC for sectors like agriculture, MSMEs, exports, education, and housing.
Agriculture Infrastructure Fund	Central sector scheme offering a ₹1 lakh crore loan facility for post-harvest and community farming infrastructure with a 3% interest subvention and credit guarantee. Operates from 2020-21 to 2029-30.

Role of NABARD	• Provides refinance for rural credit institutions like SCBs, RRBs, and cooperative banks. • Promotes SHG Bank Linkage and microcredit innovations. • Funds rural housing, infrastructure, and research projects through RIDF and MCIS.
Service Area Approach (SAA) [UPSC 2012, 2019]	Introduced under the Lead Bank Scheme in 1989; rural bank branches are assigned 15-25 villages to meet credit needs for planned development.
MSP Policy	Ensures guaranteed remunerative prices for 22+ crops annually; protects farmers against price fluctuations.
Institutions for Credit Flow	Includes Cooperatives, NABARD, Regional Rural Banks (RRBs), and Scheduled Commercial Banks (SCBs).
Service Area Credit Plans (SACP)	Annual credit plans prepared under the SAA for targeted financial inclusion and development.

CROP INSURANCE IN INDIA

Scheme	Period	Description	Coverage and Impact
First Individual Approach Scheme	1972-1978	Initiated by General Insurance Corporation of India. Focused on select crops in limited states.	Covered limited crops, pilot scheme for specific crops, restricted scope.
Pilot Crop Insurance Scheme (PCIS)	1979-1984	Based on 'Area Approach', targeted loanee farmers from institutional sources.	Confined to specific groups of farmers; limited geographic scope.
Comprehensive Crop Insurance Scheme (CCIS)	1985-1999	First nationwide scheme, linked to short-term credit, based on 'homogenous area approach'.	Nationwide implementation, provided insurance for various crops.
National Agricultural Insurance Scheme (NAIS)	1999-2000 onwards	Replaced CCIS, aimed to protect against crop losses from natural calamities.	Covered all farmers, implemented in multiple states and UTs, wide crop coverage.
Modified National Agricultural Insurance Scheme (MNAIS)	2010-11	Launched on pilot basis in 50 districts to make the scheme more farmer-friendly.	Covered millions of farmers, aimed at improving accessibility and efficiency.
Pilot Weather Based Crop Insurance Scheme (WBCIS)	2007	Provided insurance against adverse weather conditions impacting crop production.	Implemented in various states, covered large number of farmers and hectares.
Pilot Coconut Palm Insurance Scheme (CPIS)	2009-10 and 2010-11	Implemented in selected areas of various states to insure coconut palms.	Covered thousands of farmers, claims paid until 2013.
National Crop Insurance Programme (NCIP)	2013-14 onwards	Merged MNAIS, WBCIS, and CPIS, with improvements for national implementation.	Aimed for significant increase in farmer and area coverage, included in Twelfth Five Year Plan.

Pradhan Mantri Fasal Bima Yojana (PMFBY) [UPSC 2016]

Feature	Details
Launch Year	2016
Funding Allocation	₹14,600 crores in 2024-25
Purpose	Provides crop insurance cover against natural calamities, pests, and diseases to enhance farmers' crop safety.
Eligibility	Mandatory for loanee farmers, voluntary for others (since 2020). Premiums vary by crop type.
Premium Rates	Kharif: 2%, Rabi: 1.5%, Commercial/horticultural crops: 5%.
Key Highlights	Comprehensive coverage, simplified claims process, inclusion of localized disasters, and direct payments.

Beneficiaries	Initially for loanee farmers, now voluntary for all farmers.
Revamped Version (PMFBY 2.0)	Launched in 2020 to improve claim processing, efficiency, and adaptability for different states/UTs.
Risks Covered	Covers natural disasters, post-harvest losses, localised issues, sowing failure, etc.
Objectives	Stabilise farmers' income, promote modern farming, ensure credit flow, food security, and long-term yield.
Technology Integration	Uses apps, drones, AI, and satellite imagery for better management and monitoring.
Challenges in Northeast India	Faces logistical and administrative challenges for effective implementation.

KEY INSTITUTIONS AND FRAMEWORKS IN INDIAN AGRICULTURAL POLICY

Institution (Year of Establishment)	Objective	Key Roles/Features
Commission for Agricultural Costs and Prices (CACP) - 1965	To recommend Minimum Support Prices (MSPs) for various agricultural products.	• Statutory body under Ministry of Agriculture and Farmers Welfare. • Comprises a Chairman, Member Secretary, one official member, and two non-official members.
NABARD (National Bank for Agriculture and Rural Development) - 1981	To provide and regulate credit for agriculture and rural development.	• Refinances financial institutions (e.g., SCARDBs, SCBs, RRBs, CBs). • Promotes SHG-Bank linkage for microfinance. • Supports rural infrastructure through RIDF.
Small Farmer Agri-Business Consortium (SFAC 1994)	To promote agri-business and Farmer Producer Organizations (FPOs).	• Develops agri-business projects in states. • Implements the e-NAM platform for agricultural marketing. **[UPSC 2017]**
APEDA (Agriculture and Processed Food Products Export Development Authority) - 1985	To promote the export of agricultural and processed food products.	• Statutory body under Ministry of Commerce. • Monitors sugar imports and promotes export infrastructure development.
Farmer Producer Organizations (FPOs)	To empower farmers by forming cooperative-style organizations.	• Enables farmers to collectively market produce and negotiate better prices.
AGMARK - 1937	To certify agricultural products conforming to quality standards.	• Certification under Directorate of Marketing and Inspection, Ministry of Agriculture. • Covers 222 agricultural commodities.

FOOD DISTRIBUTION

- **Public Distribution System:** Nation-wide portability of ration card holders under the National Food Security Act, 2013 (NFSA), through the One Nation-One Ration Card system.
- **Negotiable Warehouse Receipts (NWR)**
    - **Launched:** 2011, by the **Ministry of Consumer Affairs, Food & Public Distribution.**
    - **Objective:** Farmers **can seek loans from banks against the warehouse receipts** issued to them against their storage.
    - **Regulated:** Warehousing Development and Regulatory Authority (WDRA).
    - **Receipts Issued:** Warehouses registered with the WDRA → fully negotiable instrument backed by a Central legislation.
    - **Electronic Negotiable Warehouse Receipt (e-NWR) System** → launched in 2017

Food Corporation of India (FCI)
- Nodal agency under **Ministry of Consumer Affairs, Food and Public Distribution.**
- It procures food grains: At minimum support price (MSP) and On an open-ended basis.

AGRICULTURE MARKET

- **Agricultural Produce Market Committees (APMC)**
    - Established **by the States**
    - **Aim:** to eliminate the incidence of exploitation of the farmers by the intermediaries; food produce must be brought to the market; sales are made through auction.

- **E-NAM [UPSC 2017]:** Launched in 2016.It is pan-India electronic trading portal for farm produce. It provides the farmers access to nationwide markets, with prices commensurate with the quality of their produce.
- **Markets in agricultural products** are **regulated** under the **Agricultural Produce Market Committee Act** enacted by States. **[UPSC 2015]**

Different Types of Procurement Systems

Procurement System Type	Definition	Example	Objective
Price Support System	Government announces fixed prices for select crops; buys at MSP if market price falls below it.	MSP for 23 crops in India (e.g., wheat, rice).	Ensures fair income for farmers, protecting them from market price fluctuations.
Deficiency Price Payment	Farmers compensated for the difference between MSP and market price.	PDPS under PM-AASHA	Reduces direct government procurement while ensuring farmer income security.
Market Assurance Program	Government guarantees buyers support if prices fall below a certain level.	State-level programs supporting private buyers.	Encourages private participation while ensuring farmers get fair prices.
State-Specific MSP Systems	States declare MSPs higher than centrally fixed rates.	Punjab and Haryana bonus over central MSP.	Aligns MSP policies with state-specific crop priorities.
Price Stabilization Funds	Funds to stabilize prices by intervening during price crashes.	Used for onions and potatoes under India's scheme.	Maintains price stability for farmers and consumers.
Commodity-Specific Support	MSP-like interventions targeting volatile crops.	Sugarcane FRP, cotton price interventions.	Ensures fair returns for farmers of specific commodities.
Income Support Schemes	Direct income transfers to farmers instead of MSP-based systems.	PM-KISAN: ₹6,000 annually to small farmers.	Provides financial aid directly to reduce farmer distress.

MINIMUM SUPPORT PRICE [UPSC 2015, 2018, 2019]

The **Minimum Support Price (MSP)** is calculated by the **Commission for Agricultural Costs and Prices (CACP)** using a detailed costing methodology. The CACP calculates three types of production costs to determine MSP:

- **A2 Cost:** This includes all **paid-out costs** directly incurred by the farmer, such as expenses on **seeds**, **fertilizers**, **pesticides**, **hired labor**, **leased-in land**, **fuel**, and **irrigation**.
- **FL (Family Labor):** The imputed value of **unpaid family labor** used in farming. This represents the contribution of family members to the farming process.
- **A2 + FL:** This is the total production cost, which is the sum of **A2** and **FL**. The MSP is typically set at **1.5 times the A2 + FL cost** to ensure farmers receive fair compensation and a reasonable profit margin.

The **Swaminathan Commission (2006)** recommended a revised approach by proposing the inclusion of **C2** costs for a more comprehensive assessment. Along with **A2** and **FL**, **C2** includes:

- **Interest on the value of owned capital assets** (machinery, etc.)
- **Rent paid for leased-in land** or the **rental value of owned land**.

The MSP based on **C2** costs aims to cover all production-related costs and ensure farmers receive remunerative prices. The Swaminathan formula recommended setting MSP at **1.5 times the C2 cost**, which accounts for both paid and imputed costs, including the value of owned land and capital assets.

Aspect	Details
Recommended by	Commission for Agricultural Costs and Prices (CACP)
Approved by	Cabinet Committee on Economic Affairs (Headed by Prime Minister)
Nodal Agency	Food Corporation of India (FCI)
Types of Production Costs (CACP)	1. A2: Actual paid-out cost. 2. A2 + FL: Actual paid-out cost + imputed value of family labor. 3. C2: Comprehensive cost (includes imputed rent and interest on owned land and capital).

Cost Consideration by CACP	CACP considers both A2 + FL and C2 costs while recommending MSPs.
Economic Cost of Food Grains (FCI)	MSP + Bonus (if any) + Procurement incidentals + Distribution cost. **[UPSC 2019]**

MSP Declared For		
	Cereals(7)	Paddy, Wheat, Barley, Jowar, Bajra, Maize, Ragi
	Pulses (5)	Gram, Arhar/Tur, Moong, Urad, Lentil
	Oilseeds (8)	Groundnut, Rapeseed/Mustard, Toria, Soyabean, Sunflower seed, Sesamum, Safflower seed, Niger seed
	Others	Copra, De-husked coconut, Raw cotton, Raw jute
	Sugarcane	FRP (Fair & Remunerative Price) by the centre. Governed by the Sugarcane (Control) Order, 1966. In addition states can declare SAP (State Assured Price) to accommodate regional differences. **[2015]**

Procurement Process from Farmers to Fair Price Shops

The procurement of food grains, primarily **wheat** and **rice**, involves multiple steps that ensure **food security** for the public while providing **fair prices** to farmers. The process involves **FCI**, **state governments**, and various logistical arrangements to ensure that the grains reach **Fair Price Shops (FPS)** for distribution to consumers.

- **Procurement from Farmers**
  - **Harvesting Period:** The procurement begins after the harvest season, typically for **wheat** in the **rabi season** (April-May) and **rice** in the **kharif season** (October-November).
  - **FCI Procurement Centers:** FCI sets up **procurement centers** in various states to purchase grains from farmers at the **Minimum Support Price (MSP)**.
  - **Payment to Farmers:** Farmers are paid the MSP for their produce, which includes **A2+FL** production costs, ensuring they get a remunerative price.
  - **Quality Check:** The grains are checked for quality (through the **Food Grains Inspection Agency**) before procurement.
  - **Storage:** Once procured, the grains are stored in **FCI's godowns** or **storage facilities** for further distribution.
- **Role of State Governments in Procurement**

  State governments play a critical role in assisting with procurement:
  - **Establishing Mandis and Procurement Centers:** State governments provide the necessary infrastructure, such as **mandis** and procurement centers, where farmers can sell their produce.
  - **Transportation:** States facilitate **transportation** of grains from local mandis to **FCI depots** and **storage warehouses**.
  - **Storage:** States are responsible for **secondary storage** if FCI's storage facilities are insufficient.
  - **Quality and Quantity Verification:** The state agencies monitor the **quality and quantity** of the grains being procured.
- **FCI's Role in Storage and Distribution**
  - **Central Pool:** Grains procured by FCI are stored in the **Central Pool**, from where they will be allocated for **distribution** under **PDS** or other welfare schemes.
  - **Logistics and Transport:** FCI manages the **transportation** of grains from storage centers to **depot** and **warehouses** located across the country, particularly those serving the **Public Distribution System**.
- **Distribution to Fair Price Shops**
  - **Allocation to States:** FCI allocates grains to states based on their **food grain requirements**, considering factors like population and poverty levels.
  - **Central Issue Price (CIP):** Grains are sold to state governments at subsidized rates known as the **Central Issue Price (CIP)**. For example, rice is sold at **₹ 3/kg** under the **Antyodaya Anna Yojana (AAY)**, and wheat at **₹ 2/kg** under **NFSA**.
  - **State Governments' Distribution:** States are responsible for **transporting the grains** from FCI depots to **Fair Price Shops (FPS)**.
  - **Fair Price Shops:** Grains are sold at subsidized rates to the public, particularly to Below Poverty Line (BPL) families, **Antyodaya Anna Yojana (AAY)** beneficiaries, and other eligible individuals.
- **Costs Involved and Shared Between FCI and State Governments**

  The entire procurement and distribution process involves significant **cost-sharing** between **FCI** and **state governments**.

  FCI's Role
  - **Procurement Costs:** FCI incurs the **costs of procuring** grains from farmers at the MSP.
  - **Storage and Warehousing Costs:** FCI bears the cost of **storing grains** in its warehouses and godowns.
  - **Transportation Costs:** FCI is responsible for **transporting grains** from procurement centers to warehouses and from warehouses to state depots.
  - **Distribution Costs:** FCI incurs the cost of transporting grains from its depots to various states.

- **Administrative Expenses:** FCI bears costs related to the **administration** of the entire process, including inspections, quality checks, and packaging.

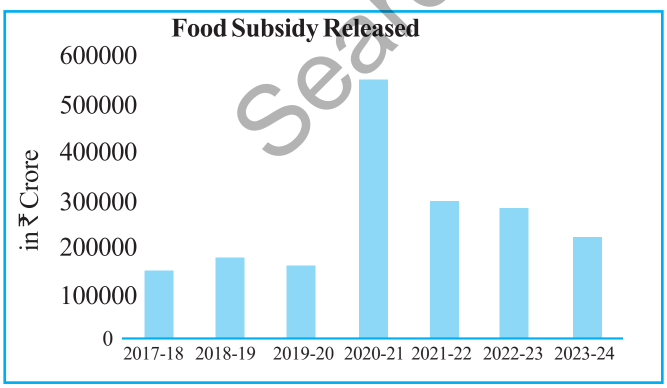
State Governments' Role

- **Distribution Costs:** State governments are primarily responsible for transporting grains from FCI depots to **Fair Price Shops (FPS)** and for managing the last-mile delivery.
- **Subsidy Payments:** The state governments pay a part of the **subsidy** on the grains sold under PDS, especially when the **CIP** is lower than the procurement cost.
- **Cost of Transport:** States bear the costs of transporting grains from **FCI depots to FPS** and managing the **distribution network**.
- **Administrative Costs:** States cover some of the administrative expenses associated with **managing PDS** and ensuring that grains reach FPS without leakage.

- **Challenges and Reforms Suggested**

The procurement process, while ensuring food security, faces several challenges such as **inefficient storage** systems, **high wastage**, **delayed payment** to farmers, and **leakages** in the PDS system. Some reforms suggested in the **Economic Survey 2022** include:

- **Direct Transfer of MSP:** To reduce costs and inefficiencies, the survey suggests **cash transfers** to farmers at MSP.
- **Private Sector Participation:** Encouraging private sector involvement in procurement could help improve efficiency.
- **Infrastructure Development:** Investments in **post-harvest storage** and **cold storage** facilities to reduce grain wastage.
- **E-NAM:** Strengthening **e-NAM** (National Agriculture Market) for better price discovery and **market access** for farmers.



Swaminathan Commission Recommendations

The **National Commission on Farmers**, led by M.S. Swaminathan recommended a set of strategies to ensure agricultural sustainability and farmers' welfare. Key points include:

- **Minimum Support Price (MSP):** Set MSP **50% above C2** cost (Actual paid-out cost + Family labor cost + other costs as rent of land etc.) to ensure farmers' profitability.
- **Debt Relief:** Offer **one-time debt waivers** and low-interest loans to alleviate the debt burden on farmers.
- **Agricultural Investment:** Increase public investment in **irrigation**, **post-harvest infrastructure**, and **storage facilities** to enhance productivity and reduce waste.
- **Diversification:** Encourage farmers to shift to high-value crops like **horticulture** and **animal husbandry** to increase income.
- **Land Reforms:** Implement land reforms to reduce **land fragmentation**, secure **land tenure**, and improve land distribution.

Shanta Kumar Committee Recommendations

The **Shanta Kumar Committee** (2014) aimed at restructuring the **Food Corporation of India (FCI)** and reforming the **Public Distribution System (PDS)**. Key recommendations include:

- **Decentralized Procurement:** Transfer procurement responsibilities to states, improving efficiency in grain distribution.
- **Strategic Reserves:** Maintain a **5 MMT** food grain reserve for emergencies.
- **Cash Transfers:** Implement **cash transfer systems** in PDS, especially in urban areas and grain-surplus states.
- **Storage Infrastructure:** Develop modern storage and cold chain facilities to reduce food wastage.
- **Targeting:** Improve beneficiary targeting in PDS to ensure benefits reach the truly needy, reducing leakage.
- **Reduction of NFSA Coverage:** The committee recommended reducing the coverage of the **National Food Security Act (NFSA)** from **66%** of the population to **50%**, emphasizing better targeting to serve the poorest and most vulnerable sections, thereby reducing inefficiencies and government expenditure.

MSP for MFP

- The **MSP for MFP Scheme**, under the **Ministry of Tribal Affairs**, ensures fair prices for tribal communities for minor forest produce, safeguarding them from market exploitation.
- **Initially covering 12 items, it now includes over 70 products** like tamarind, amla, mahua seeds, neem seeds, honey, gums, and medicinal plants.
- Implemented through TRIFED, the scheme provides price assurance, promotes sustainable harvesting, and boosts tribal livelihoods.

Niger Seed Use: The tribal population uses Niger seed oil for cooking, the press cake post oil-extraction as livestock feed, and also consume the seeds as a condiment. Niger seed oil has medicinal properties, which is the reason for its commercial demand by the cosmetics, perfumeries and other allied industries. **[UPSC 2023]**

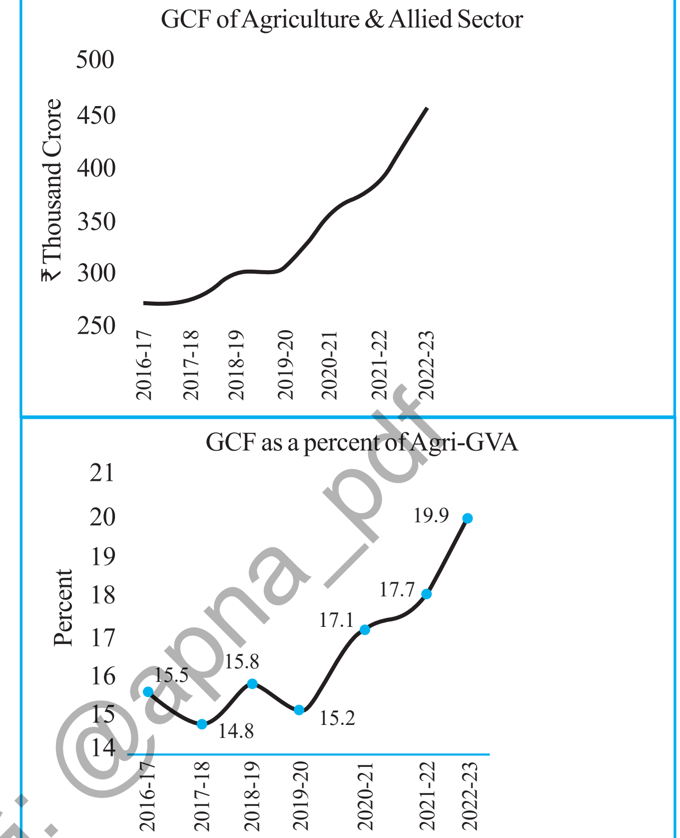
FACTORS AFFECTING THE PRICE: CASE OF RICE IN INDIA [UPSC 2020]

- **Minimum Support Price (MSP):** Acts as a price floor, encouraging higher production but potentially leading to price increases in the open market if production is insufficient to meet demand.
- **Government's Trading Policies:** Direct government trading can influence market prices depending on procurement and distribution levels.
- **Government's Stockpiling:** Buffer stock management to prevent shortages can tighten market supply, contributing to price rises during crises.
- **Consumer Subsidies:** While ensuring affordability, heavy subsidies can distort market demand-supply balance, indirectly affecting prices.
- **Cold Storage Infrastructure:** Lack of adequate storage facilities leads to post-harvest losses, reducing supply and raising prices in the market.

PUBLIC INVESTMENT IN AGRICULTURE [UPSC 2020]

- **Infrastructure Development:** Investments in irrigation, rural roads, and electricity supply directly enhance productivity and reduce input costs, benefiting rice cultivation.
- **Research and Development:** Development of high-yielding and climate-resilient rice varieties increases output and mitigates supply shocks.
- **Technology Adoption:** Public spending on mechanization and precision farming reduces cultivation costs and improves efficiency.
- **Primary Agricultural Credit Societies (PACS) Computerization:** Facilitates timely credit access to farmers, improving their ability to invest in better inputs and infrastructure.
- **Social Capital Development:** Promotes cooperative farming, shared resources, and better market access, indirectly boosting agricultural growth.
- **Cold Storage Facilities:** Reduces wastage and ensures price stability, contributing to overall agricultural efficiency.
- **Gross Capital Formation (GCF) in agriculture:** represents investments in physical assets like machinery, buildings, and land improvements, grew by 19.04% in 2022-23, with its share in GVA rising from 17.7% (2021-22) to 19.9% (2022-23).
  - Despite an average annual growth of 9.7% (2016-17 to 2022-23), further investment is needed to meet the Doubling Farmers' Income (DFI) goal, which requires a 12.5% annual growth in agriculture investment.
  - Challenges include land fragmentation and low private sector participation (below 2%), emphasizing the need for enhanced public and private investment.

GCF of agriculture & allied sector and GCF as a per cent of Agri GVA



LAND REFORMS IN INDIA

- **Definition and Objectives**
  - Land reforms involve policy and legal measures to redistribute land to landless or marginal farmers, improve land tenure security, and ensure equitable access.
  - Goals: Enhance agricultural productivity, reduce inequality, and uplift disadvantaged rural populations.
- **Key Components**
  - **Abolition of Zamindari System:** Removed intermediaries between the state and cultivators.
  - **Tenancy Reforms:** Provided ownership rights, tenure security, and rent control to tenants.
  - **Ceiling on Landholdings:** Limited maximum land ownership to prevent concentration of resources. Applied to family and individual holdings with exemptions for trusts and institutions **[UPSC 2019]**.
  - **Land Consolidation:** Reorganized fragmented holdings into larger units for better management.
- **Major Land Reform Initiatives**
  - **1950-1972:**
    - **Bhoodan-Gramdan Movements:** Voluntary land donations for landless farmers.

- 1972-1985:
  - **DPAP (1973):** Targeted drought-prone areas with barren land management.
  - **IRDP (1978):** Focused on rural development with components for land and watershed management.
  - **NREP (1980):** Created rural jobs and addressed wasteland development, soil conservation, and afforestation.
- 1985-2001:
  - **Revision of Ceiling on Landholdings (1985)**.
  - **NWDB (1985):** Reclaimed wasteland for agriculture.
  - **Panchayati Raj Act (1988):** Empowered local governance for land management.
  - **National Land Use Policy (1988):** Promoted strategic, sustainable land management.
- **Post-2001 Reforms:**
  - **Urban Land Policy (2007):** Ensured equitable, efficient land use in urban areas.
  - **Land Pooling Policy:** Encouraged voluntary pooling for planned development.
  - **Right to Fair Compensation Act (2013):** Provided fair compensation, reduced consent requirements for private projects (80% to 51%), and exempted certain projects **[UPSC 2024]**.
  - **Agricultural Land Leasing Act (2016):** Legalized leasing with institutional support for farmers.

- **Modernization Efforts**
  - **NLRMP (2008):** Digitized and modernized land records.
  - **DILRMP (2008):** Centralized records with integration of cadastral maps and Record of Rights.**[UPSC 2024]**
  - **SVAMITVA Scheme (2021):** Used drones for mapping rural lands under the Ministry of Panchayati Raj.
  - **ULPIN/Bhu Aadhaar:** Assigned unique IDs to land parcels for standardization.
  - **National Land Monetization Corporation:** Monetized surplus government and PSU land holdings.

AGRICULTURE ALLIED SECTOR IN INDIA

Fisheries Sector

- The fisheries sector has experienced an average annual growth rate of **8.61%** from FY 2014-15 to FY 2021-22.
- The Gross Value Added (GVA) of the fisheries sector rose from **₹76,487 crore** in FY 2013-14 to **₹1,47,518.87 crore** in FY 2021-22 (at constant prices).
- The sector contributes **1.069%** to the National GVA and **6.86%** to the Agriculture GVA. Notably, the contribution to the Agriculture GVA has increased by **44.42%**, from **4.75%** in FY 2013-14 to **6.86%** in FY 2021-22.

Government Initiatives

- **Pradhan Mantri Matsya Sampada Yojana (PMMSY):** Aims to enhance the growth of the fisheries sector by improving infrastructure, increasing fish production, and boosting exports.
  - The scheme also focuses on the empowerment of fishermen and women, ensuring sustainable and inclusive growth in the sector.
  - The **PMMSY** aims to improve the overall fisheries value chain, enhance infrastructure, and increase production and exports of fish and seafood.

Animal Husbandry

Growth and Contribution

- The animal husbandry sector grew at a **Compound Annual Growth Rate (CAGR)** of **12.99%** from 2014-15 to 2022-23.
- The contribution of livestock to total agriculture and allied sector GVA increased from **24.38%** in 2014-15 to **30.23%** in 2022-23 (at current prices).
- India ranks second in egg production and fifth in meat production globally.

Livestock Census

- Conducted periodically since 1919-20; **Covers all domesticated animals** and its headcounts.
- The **Department of Animal Husbandry & Dairying,** Ministry of Fisheries, Animal Husbandry and Dairying conducted the **20th Livestock Census in 2019.**
  - **Total Livestock population:** 536.76 million, showing an increase of 4.8% over Livestock Census-2012
  - **Total Bovine population (Cattle, Buffalo, Mithun and Yak):** 303.7 Million in 2019; **Increase of** about **1%** over the previous census.
  - The **total number of Cattle** in the country is 193.46 million in 2019 showing an **increase of 1.3 %** over previous Census.
  - A **6% decrease** from the previous census in the **overall population of Indigenous cattle.**
  - The total Sheep in the country is 74.26 million in 2019, increased by 14.1% over previous Census.
  - The total Poultry in the country is 851.81 million in 2019, increased by 16.8% over previous Census.

Andhra Pradesh, West Bengal, Gujarat, Tamil Nadu and Kerala are the major fish producing states in India

- **Milk Producing states in India:** Uttar Pradesh, highest with a share of 15.72 % of total milk production followed by Rajasthan (14.44 %), Madhya Pradesh (8.73 %), Gujarat (7.49 %), and Andhra Pradesh (6.70 %).
- **Egg production** comes from Andhra Pradesh with a share of 20.13 % of total Egg production followed by Tamil Nadu (15.58 %), Telangana (12.77 %), West Bengal (9.94%) and Karnataka (6.51 %).

- Major contribution in the total **Meat production** comes from Uttar Pradesh with 12.20 % share and followed by West Bengal (11.93 %), Maharashtra (11.50 %), Andhra Pradesh (11.20 %) and Telangana (11.06 %)
- Major contribution in the total **Wool production** comes from Rajasthan with a share of 47.98% followed by Jammu & Kashmir (22.55%), Gujarat (6.01%), Maharashtra (4.73%) and Himachal Pradesh (4.27%).

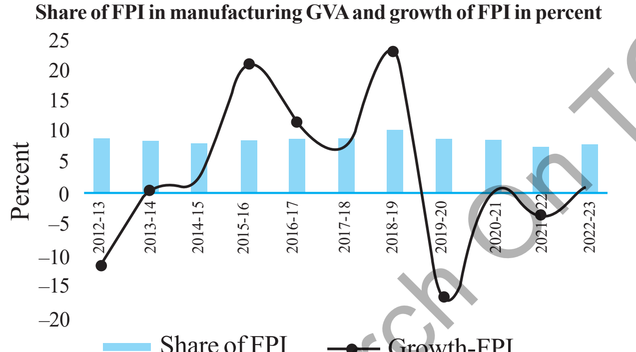
Government Schemes and Achievements

- **Pradhan Mantri Kisan Sampada Yojana (PMKSY):** Provides financial support for infrastructure development, including the setting up of animal husbandry units.
- The government has provided credit support through the **Kisan Credit Card (KCC)** scheme, with more than **47 lakh** KCCs sanctioned for Animal Husbandry and Dairy Farmers by September 2024.

Food Processing Sector

- The food processing sector plays a critical role in adding value to agricultural produce, ensuring food security, and promoting exports.
- Under the **Pradhan Mantri Matsya Sampada Yojana (PMMSY)**, the government has provided financial support for establishing food processing units and creating storage infrastructure.

Share of FPI in manufacturing GVA and growth of FPI in percent



Key Schemes

- **Pradhan Mantri Kisan Sampada Yojana (PMKSY)** and the **Scheme for Integrated Cold Chain and Value Addition Infrastructure:** Support the establishment of food processing clusters and infrastructure.
- The **PMKSY** aims to enhance the competitiveness of existing micro food processing enterprises and promote the formalization of the sector.
- **Impact of Initiatives**
  - The government has focused on providing infrastructure support, including cold storage facilities, food processing units, and value chains, to enhance the capacity of the food processing industry.
  - Over **13,000 DPIIT-recognized start-ups** are now actively working in sectors like artificial intelligence, robotics, and nanotechnology, contributing to the modernization of the food processing industry.

Credit Support for Allied Sectors

- The **Kisan Credit Card (KCC)** scheme has been instrumental in providing financial support to farmers and those in the fisheries and animal husbandry sectors.
- By June 2024, **4.26 Lakh KCCs** were sanctioned for the fisheries sector, and **~47 lakh** for the animal husbandry sector, ensuring easy access to credit for growth.

Infrastructure Development

- The government is focusing on improving infrastructure for these sectors through initiatives like the **PMMSY**, which includes developing storage facilities, processing units, and increasing fish production.
- Significant investments have been made in creating and upgrading infrastructure to support sustainable growth in the fisheries, animal husbandry, and food processing sectors.

9 Industry, Manufacturing and Infrastructure

BEGINNING OF INDUSTRIALISATION

Industrial growth is key to **economic progress**, providing **employment** and fostering **modernization**. **Five-Year Plans** focused on **industrial development** to diversify beyond limited industries like **cotton textiles** and **iron and steel**.

- **Public and Private Sector Roles:**
  - **Economic Control:** At independence, the **private sector** lacked capital, so the **government** intervened to develop key industries.
  - **Socialist Model:** The **Second Five-Year Plan** emphasized **government control** over critical industries, with the private sector in complementary roles.

Industrial Policy Resolution of 1956

- **Classification of Industries:**
  - **Government-Owned:** Reserved for public ownership.
  - **Mixed Industries:** Private sector participation supported the public sector.
  - **Private Sector:** Left to private enterprise with government control.
- **Licensing System:** Required for establishing industries, expanding output, or diversifying products to ensure **regional equality** and control production.
- **Small-Scale Industry:**
  - **Karve Committee (1955):** Suggested small industries for rural development, with an initial ₹5 lakh investment limit, later raised to ₹1 crore.
  - **Labor-Intensive:** Generated employment, protected by tax benefits, low-interest loans, and reserved product categories.

Import Substitution in India

- **Objective:** Replace imports with domestic production, promoting **self-reliance** in industry.
- **Protection Mechanisms:**
  - **Tariffs:** Increased costs of imports.
  - **Quotas:** Limited imported goods to protect local industries.
- **Rationale:**
  - **Economic Development:** Safeguarded nascent industries.
  - **Foreign Exchange Conservation:** Preserved foreign currency.
  - **Self-Sufficiency:** Focused on the domestic market, with export focus in the mid-1980s.
- **Impact (1951-1991):**
  - **GDP Growth:** Industrial share of GDP grew from **13%** in 1950-51 to **24.6%** in 1990-91.
  - **Sector Diversification:** Expanded from textiles to electronics and automobiles.
  - **Small-Scale Industry:** Boosted opportunities for small businesses.
- **Criticisms:**
  - **Public Sector Inefficiencies:** Overreach into areas better suited for the private sector.
  - **Permit-License Raj:** Stifled innovation, favoring large firms.
  - **Quality and Efficiency Issues:** Lack of foreign competition led to low-quality products.
- **Shift to Economic Liberalization (1991):**
  - **Policy Reevaluation:** Advocated for promoting competition.
  - **New Economic Policy:** Initiated reforms toward **liberalization**, **deregulation**, and global trade integration.

INDUSTRIAL GROWTH AND MANUFACTURING SECTOR PERFORMANCE IN FY24

Overview of Industrial Growth in FY24

- **Economic and Industrial Growth:**
  - India's economy grew by **8.2%** in FY24, supported by an **industrial growth of 9.5%** (provisional GDP estimates, May 2024).
  - Manufacturing and construction achieved **double-digit growth**, while mining, quarrying, electricity, and water supply also recorded positive growth.
- **Key Indicators of Stability:**
  - **India Manufacturing PMI** consistently stayed above **50**, signaling sustained expansion.

Manufacturing Sector Insights

- **Contribution to Economy:**
  - Manufacturing accounted for **14.3%** of India's gross value added (GVA) in FY23.
  - Its output share was **35.2%**, highlighting extensive **backward and forward linkages** within the economy.

- **Inter-industry Consumption:**
  - About **47.5% of total output** is used as inputs for productive activities.
  - Manufacturing contributes **50%** of inter-industry consumption and supplies **50%** of inputs for agriculture, industry, and services.

Sectoral Growth Trends

- **Average Growth (Last Decade):**
  - Manufacturing grew at an average annual rate of **5.2%**, overcoming pandemic-induced challenges.
  - Growth was driven by chemicals, pharmaceuticals, transport equipment, machinery, and wood products.
- **Sub-sector Highlights:**
  - Capital formation in steel, machinery, and transport equipment reflects public sector investment thrust.
- **GVA Composition (FY14–FY23):**
  - Chemicals**: 9.6% growth**
  - Pharmaceuticals**: 6.7% growth**
  - Machinery and equipment**: 8.3% growth**

Challenges in Manufacturing Growth

- **Legacy Issues:**
  - Historical constraints included poor physical infrastructure, logistical inefficiencies, and restrictive licensing.
  - Certain items were reserved for small-scale industries, limiting scalability.
- **Current Concerns:**
  - Despite infrastructure improvements, India faces challenges in **competitiveness**.
  - R&D investment remains low, with limited emphasis on quality and innovation.
- **Policy Recommendations:**
  - Enhance **deregulation** and reduce bureaucratic hurdles.
  - Encourage **long-term private sector investment** in R&D.
  - Promote low- and semi-skilled job creation through manufacturing expansion.

Government Initiatives and Policies

- **Infrastructure and Connectivity:**
  - Rapid development of physical infrastructure.
  - Implementation of **Goods and Services Tax (GST)**, creating a unified market for manufacturing.
- **Production-Linked Incentive (PLI) Scheme:**
  - Targeted incentives to boost manufacturing competitiveness across various sectors.
- **Support for MSMEs:**
  - Strengthened focus on micro, small, and medium enterprises for job creation and economic decentralization.

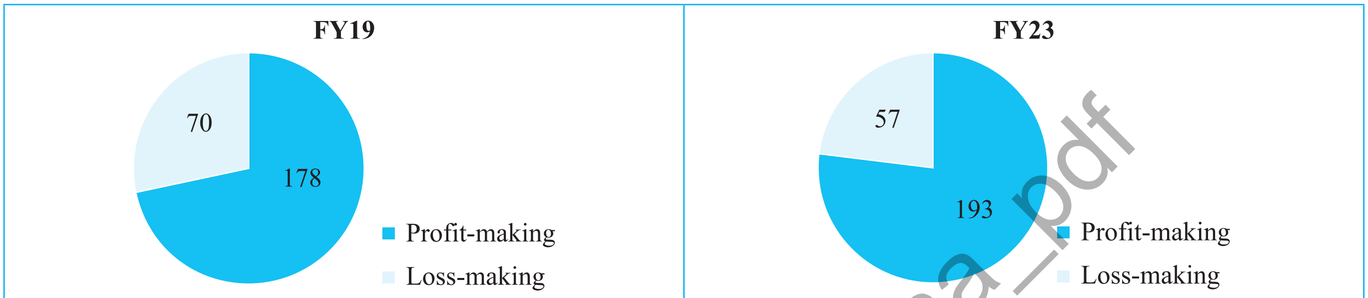
TYPES OF PUBLIC SECTOR ENTERPRISES

Public Sector Undertakings (PSUs) are government-owned companies where the government, at the Union or the state level, or both own a majority stake of 51% or more of the company equity.

Category	Criteria	Autonomy Granted	Examples
Miniratna Category I	• Profit for the last 3 years continuously. • Net profit of ₹30 crore or more in one of the 3 years.	• Capital expenditure up to ₹500 crore or net worth (whichever is lower) without government approval.	Examples vary (updated dynamically).
Miniratna Category II	• Profit for the last 3 years continuously. • Positive net worth.	• Capital expenditure up to ₹300 crore or 50% of net worth (whichever is lower) without government approval.	Examples vary (updated dynamically).
Navratna	• PSUs that have a Miniratna-I status and have obtained an "Excellent" or "Very Good" Memorandum of Understanding (MoU) rating in three out of the last five years and have a composite score of 60 or more in six selected performance indicators, namely, • Net Profit to Net Worth (25) • Manpower Cost to Total Cost of Production (15) • Profit before depreciation, Interest and taxes (PBDIT) to capital employed (15) • Profit before Interest and taxes to turnover (15) • Earnings Per Share (10) • Inter-Sectoral Performance (20)	• Invest up to ₹1,000 crore without government approval. • Enter joint ventures or mergers without prior clearance.	Bharat Heavy Electricals Ltd, BPCL, Power Grid Corporation

Maharatna	• Net worth > ₹15,000 crore for the last 3 years. • Average turnover > ₹25,000 crore for the last 3 years. • Operating profit > ₹5,000 crore for the last 3 years. (*i*) Having Navratna status. (*ii*) Listed on Indian stock exchange with minimum prescribed public shareholding under SEBI regulations. (*iii*) Should have significant global presence/ international operations	• Invest up to ₹5,000 crore without government approval. • Form joint ventures abroad without prior clearance. • Raise project resources independently.	Coal India Ltd, Indian Oil Corporation, ONGC

Number of profit-making CPSEs has improved



Source: PE Survey Report, Department of Public Enterprises

MICRO, SMALL, AND MEDIUM ENTERPRISES (MSMES)

The **Micro, Small, and Medium Enterprises Development (MSMED) Act of 2006** classifies enterprises into two categories:

1. **Manufacturing Enterprises:** Engaged in the manufacturing or production of goods.
2. **Service Enterprises:** Engaged in providing or rendering services.

Classification of Enterprises [UPSC 2023]

- **Micro-enterprises:**
  - Investment Limit**:** ₹1 crore
  - Turnover Limit**:** ₹5 crores
- **Small Enterprises:**
  - Investment Limit**:** ₹10 crores
  - Turnover Limit**:** ₹50 crores
- **Medium Enterprises:**
  - Investment Limit**:** ₹50 crores
  - Turnover Limit**:** ₹250 crores

Share of MSME in GDP

As per the Ministry of Statistics & Programme Implementation, the contribution of MSMEs to India's **Gross Value Added (GVA)** in GDP for the years 2019-20, 2020-21, and 2021-22 is as follows**:**

- **2019-20:** 30.5%
- **2020-21:** 27.2%
- **2021-22:** 29.2%
- **2022-23:** 30.1%

Bank Loans to MSMEs [UPSC 2023]

- Bank loans extended to MSMEs, subject to meeting certain conditions, qualify as part of the **Priority Sector** lending.
- Initiatives like the Credit Guarantee Scheme have supported 91.76 lakh enterprises, facilitating credit access and business growth.

Economic Contribution

- **Manufacturing Output (FY22):** MSMEs contributed **35.4%** to India's manufacturing output.
- **Exports (2023-24):** MSME-specific products accounted for **45.7%** of all-India exports.
- **Productivity Gains:**
  - The **Annual Survey of Unincorporated Sector Enterprises** (2021-23) reported a **5.9% growth** in the number of enterprises.
  - **Gross Value Added (GVA)** per worker increased from ₹1,38,207 to ₹1,41,769.
  - **Gross Value of Output (GVO)** per establishment rose from ₹3,98,304 to ₹4,63,389

Formalisation and Registration

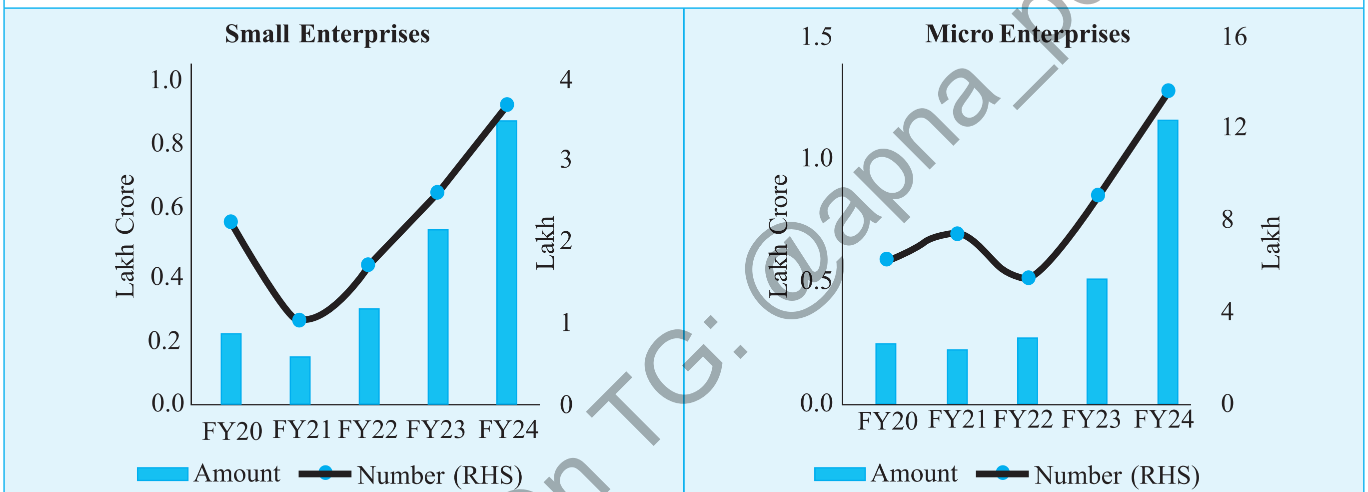
- **Udyam Registration Portal**
  - Launched in July 2020 for free, online self-declaration-based registration.

- **Registered MSMEs (July 2024):** 4.69 crore, including informal micro-enterprises via Udyam Assist Platform.
- Benefits include eligibility for **priority sector lending** and streamlined access to government schemes.
- Linked with **37 other portals** via APIs for data sharing, enhancing sector growth.

Credit Support

- **Union Budget 2023-24:** Allocated **₹9,000 crore** to the **Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)**, enabling additional credit of **₹2 lakh crore** with reduced costs.
- **Prime Minister's Employment Generation Programme (PMEGP):**
  - FY23**:** Supported **85,167 micro-units** with a margin money subsidy of ₹2,722.17 crore, generating **6.81 lakh jobs**.
  - FY24**:** Assisted **89,118 micro-units**, with ₹3,093.87 crore in subsidies, creating **7.13 lakh jobs**.
- **Credit Guarantee Scheme (CGS):**
  - Provides collateral-free loans up to ₹5 crore with guaranteed coverage of **85%**.
  - Since inception, **91.76 lakh guarantees** worth ₹6.78 lakh crore have been approved. In FY24 alone, **17.24 lakh guarantees** worth ₹2.03 lakh crore were sanctioned.

Guarantees approved under CGTMSE increasd considerably



Source: Mibnistry of MSME

Challenges

- **Key Issues:**
  - Formalisation and inclusion gaps.
  - Limited access to finance, technology, and markets.
  - Infrastructural bottlenecks and lack of skilled labor.
- **Government Initiatives:**
  - **Samadhaan Portal:** Addresses delayed payments.
  - **Sambandh Portal:** Monitors procurement.
  - **Champions Portal:** Facilitates grievance resolution and provides business support.

Opportunities

- **Digital Economy:**
  - Nearly **70% of e-commerce sales** in 2020-21 were from MSMEs, showing a **60-70% year-on-year growth**.
- **Global Value Chains:** MSMEs have the potential to integrate further into global supply chains through digital platforms and policy reforms.
- **Regulatory Reforms:** Enhancing usage flexibility of factory spaces can augment manufacturing capacity, particularly for micro and small enterprises.

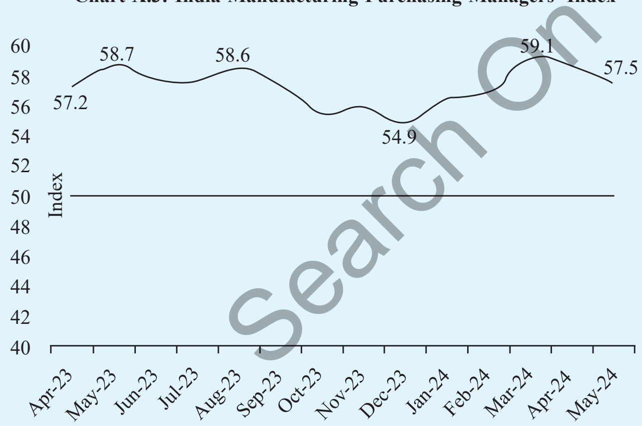
Industries Require Compulsory Licensing

- Drugs and pharmaceuticals
- Hazardous chemicals, Gun powder, industrial explosives etc.
- Aerospace and defense related electronics.
- Alcohol drinks; Tobacco, cigarettes and related products.

PMI ,IIP AND ASI

Purchasing Managers Index (PMI)	Index of Industrial Production (IIP)
Published by Nikkei	Published by National Statistical Office (NSO)
Does not track the actual Production	Tracks the actual Production
Covers only 500 private sector companies	Covers both Private Sector as well as PSUs
Covers both Manufacturing and Services	Covers only the Manufacturing Sector
Less Comprehensive since it covers only private sector companies	More Comprehensive
Not used for GDP calculation	Used for GDP Calculation to account for the unorganized sector

Chart X.3: India Manufacturing Purchasing Managers' Index



Headline PMI (Purchasing Managers' Index)

The PMI is a numerical representation of overall business activity, ranging from 0 to 100.

- **PMI Above 50:** Indicates expansion compared to the previous month. A higher PMI above 50 signals a more significant expansion.
- **PMI Under 50:** Represents contraction. The further below 50, the more significant the contraction.
- **PMI at 50:** Reflects no change in business activity.

Index of Industrial Production (IIP)

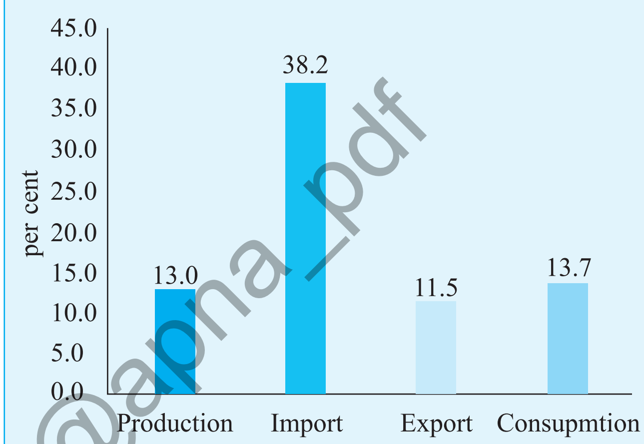
The IIP index is currently calculated using 2011-2012 as the base year. The weightage of different sectors in the IIP is as follows:

- **Manufacturing:** 77.633%
- **Mining:** 14.373%
- **Electricity:** 7.94%

Eight Core Sectors [UPSC 2012, 2015]

The eight core sectors, which constitute 40.27% of the IIP, include industries ranked in the following order of weightage:

Chart X.8: Annual growth of finished Steel in FY24 (in per cent)



1. Refinery Products
2. Electricity
3. Steel
4. Coal
5. Crude Oil
6. Natural Gas
7. Cement
8. Fertilizers

Annual Survey of Industries (ASI)

- Released by the **Ministry of Statistics and Programme Implementation**, the ASI provides detailed information on factories with 10 or more workers using power, or 20 or more workers without using power.
- It offers insights into the composition and structure of the organized manufacturing sector, including manufacturing processes, repair services, gas and water supply, and cold storage.

REIMAGINING BUILDING REGULATIONS TO BOOST MANUFACTURING [ECONOMIC SURVEY 2023-24]

Key Challenges in Existing Regulations

- **Ground Coverage:**
  - Regulations permit only 40–60% land coverage for factories to control density and enhance groundwater recharge.

- **International Comparison:** In Hong Kong, there's no such restriction; in the Philippines, factories lose only 30% of land.

- **Setbacks:**
  - Designed to minimize fire risks and improve ventilation, but these rules fail to account for advancements like fire-resistant materials and automated firefighting systems.
  - **Impact:**
    - Micro and small factories in some Indian states lose up to 90% of their land.
    - Mega factories lose ~2X more land than those in the Philippines and ~5X more than in Singapore.
- **Parking Regulations:**
  - Mandated off-street parking reduces usable factory land by 12–70%.
  - Mismatch between parking requirements and actual demand exacerbates congestion.
- **Floor Area Ratio (FAR):**
  - States cap FAR at 1.3 times the plot size, limiting vertical expansion.
  - **Comparison:** A 1000 sqm plot in Mumbai allows only 1300 sqm of usable space, whereas similar plots allow up to 15,000 sqm in Singapore or Hong Kong.

Suggested Reforms

- Rationalize regulations to align with technological advancements and international best practices.
- Promote inter-state comparisons to adopt effective policies.
- Improved land utilization can reduce production costs, boosting employment.

ONE DISTRICT ONE PRODUCT (ODOP) INITIATIVE [ECONOMIC SURVEY 2023-24]

Launched: 2018

Objective: Promote unique products of each district to bridge regional economic gaps and nurture self-reliance.

Key Features

- **Product Categories:** Agriculture, manufacturing, handloom, textiles, food processing, marine, and services.
- **Achievements:**
  - 1102 products identified across 761 districts.
  - Union Budget FY24 encouraged establishing "Unity Malls" for ODOPs and GI-tagged products.
  - Artisans gained global visibility through G20 events during India's Presidency.

Success Stories

Region	Product/ Impact	Achievements
Shopian, Kashmir	Apples	20% surge in production.
Uttarkashi, Uttarakhand	Red rice	Enhanced organic farming skills.
Araku Valley, Andhra Pradesh	Coffee	20% output boost.
Kandhamal, Odisha	Turmeric	70% increase in govt procurement.
Bhatinda, Punjab	Honey	30% rise in production.

CHINA PLUS ONE STRATEGY: OPPORTUNITIES AND CHALLENGES FOR INDIA [ECONOMIC SURVEY 2023-24]

The "China Plus One" strategy has emerged as a global shift in supply chain dynamics, where multinational companies aim to diversify their manufacturing bases to reduce reliance on China. This approach stems from disruptions caused by the COVID-19 pandemic, geopolitical tensions, and the rising cost of business operations in China.

Global Shift in Manufacturing: Key Trends

- **Diversification from China:** Over **90% of North American manufacturers** surveyed by the Boston Consulting Group in 2023 reported shifting production to countries like Mexico, Thailand, and Vietnam.
- **Drivers:** The strategy is fueled by concerns over supply chain risks, political tensions, and rising costs in China.

India's Position in the China Plus One Strategy

India presents a compelling case for global companies, particularly in sectors such as electronics, renewable energy, and advanced technologies.

Key Factors Favoring India

- **Large Domestic Market:** India's vast consumer base attracts global players, especially in the electronics sector.
- **Government Initiatives:** Programs like the **Production-Linked Incentive (PLI) Scheme** provide tax breaks and subsidies to promote manufacturing.
- **Increasing Exports:**
  - India's electronic exports to the US have shown remarkable growth, transitioning from a trade deficit of **USD 0.6 billion in FY17** to a trade surplus of **USD 8.7 billion in FY24**.
  - Mobile phone exports to the US rose from **USD 2.2 billion in FY23** to **USD 5.7 billion in FY24**.

- **Success Stories:** Apple assembled **USD 14 billion** worth of iPhones in India in FY24, constituting **14%** of its global iPhone production. Companies like Foxconn have started manufacturing in Karnataka and Tamil Nadu.

India's Integration into Global Value Chains (GVCs)

India's strategy to enhance its role in GVCs focuses on two main pillars**:**

- **Reducing Trade Costs**
  - India's improved logistical efficiency is reflected in a rising score on the World Bank's **Logistics Performance Index (LPI)**.
  - Development of **industrial corridors** and dedicated freight corridors further reduces trade costs.
- **Facilitating Foreign Investment**
  - The **PLI scheme** attracts high-quality foreign investment by linking incentives to market performance.
  - India is pursuing agreements like the **Australia-India Free Trade Agreement** and the **US-India Clean Energy Initiative** to deepen integration in renewable energy and advanced technology.

Key Areas of Growth and Export Potential

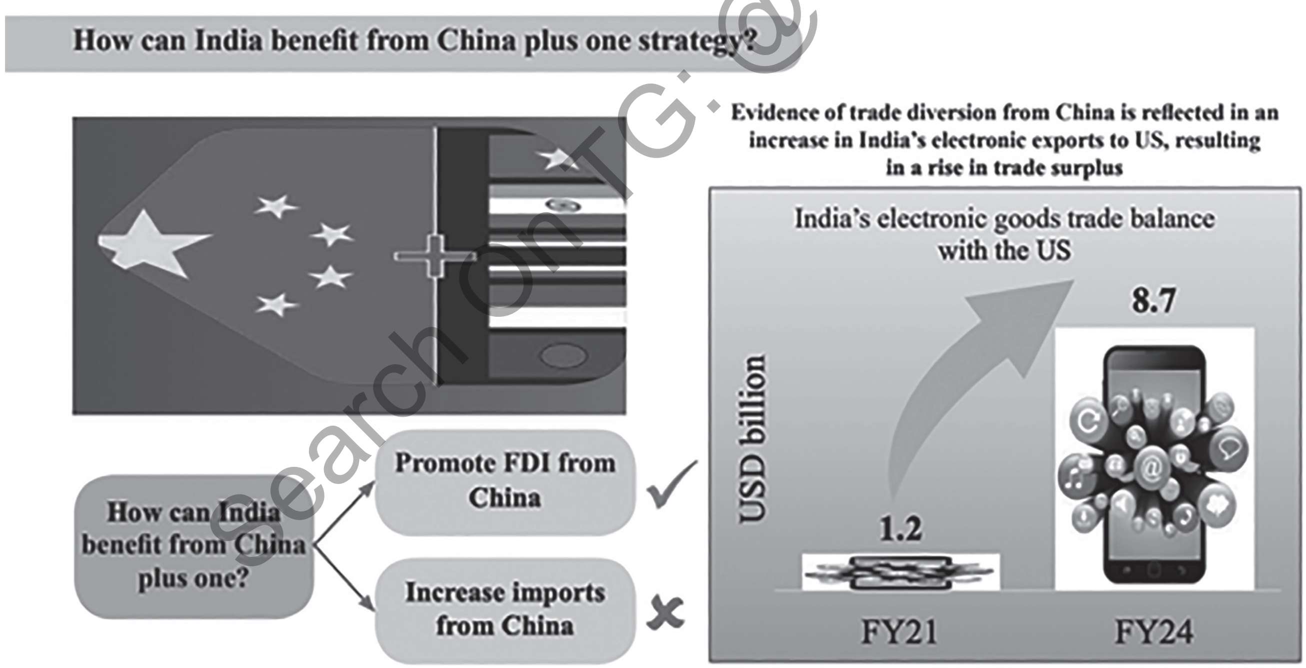
India's focus areas include renewable energy, semiconductors, and next-generation telecommunications.

- **Renewable Energy Exports:**
  - Environmentally friendly technology exports to the US grew from **USD 199.2 million in FY20** to **USD 326.9 million in FY24**.
  - Companies like **First Solar, Vesta, and Scatec** have established operations in India.

Balancing Relations with China

India's approach to the China Plus One strategy involves balancing imports from China with Foreign Direct Investment (FDI) from Chinese firms**:**

- **Challenges:**
  - China remains India's top import partner, with a growing trade deficit.
  - Heavy reliance on Chinese imports for high-tech components risks economic coercion.

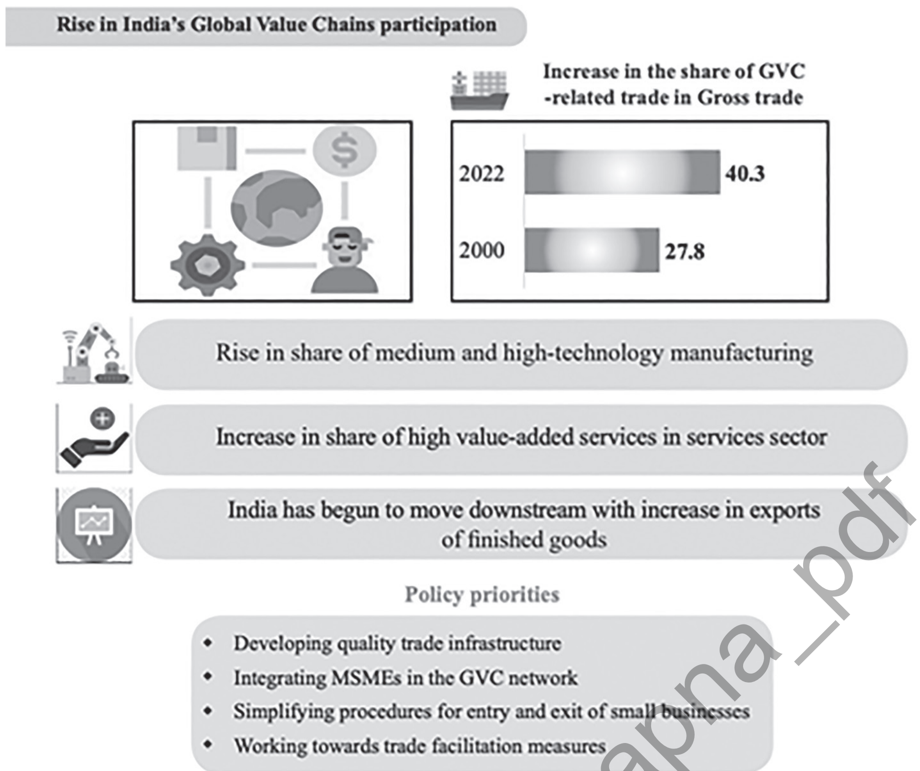


- **Opportunities:**
  - Attracting Chinese FDI for local manufacturing and exports could prove more beneficial than relying solely on trade.
  - Lessons from countries like **Brazil, Turkey**, and **European nations** indicate the importance of promoting Chinese FDI while reducing dependency on imports.

Long-term Strategic Focus

India aims to deepen its value chain integration with Western economies in critical sectors such as**:**

- Renewable energy (solar, wind, and recycling technologies).
- Advanced technologies like artificial intelligence, semiconductors, and telecommunications.



COAL SECTOR [UPSC 2012, 2019]

The **Coal Sector** was nationalized by the Government of India under **Indira Gandhi** between 1971-73. The **Coal Mines (Special Provisions) Act, 2015** enabled the allocation of coal mines through auction and allotment for coal sale to private sector.

Coal's Role in India's Energy Sector

- **Significance:** Coal provides over **55%** of India's primary commercial energy and contributes to **70%** of total power generation.
- **Production and Consumption in FY24:**
  - **Production:** 997.2 million tonnes (MT).
  - **Consumption:** 1233.86 MT.
  - **Imports:** 261 MT.
- The **ratio of domestic production to consumption** has improved over the last decade due to accelerated coal production and reduced import dependence.

Trends in Coal Metrics

Year	Production (%) CAGR	Consumption (%) CAGR	Import (%) CAGR
FY14–FY19	5.2	5.6	7.1
FY19–FY24	6.5	5.0	2.1
FY24 (YoY)	11.7	10.7	9.8

Key Recent Initiatives

- **Coal Gasification:**
  - Target**:** Gasify **100 MT** of coal by 2030 to reduce imports.
  - **₹8,500 Crore Scheme** launched in 2023-24 for viability gap funding of gasification projects.
- **Integrated Coal Logistics Policy (2024):**
  - Develops cost-effective and technologically advanced coal evacuation logistics.
- **Amended Coal Blocks Allocation Rules (2023):** Streamlines allocation procedures for better efficiency.
- **Renewable Energy Initiatives by CIL:**
  - Plans for **3,000 MW renewable capacity** for mining operations by FY26.
  - Generated **8.60 million solar energy units** in 2023-24.
- **First Mile Connectivity Projects:**
  - Enhanced coal evacuation through high-capacity handling plants and silos.
- **Critical Minerals Acquisition:**
  - Focus on securing **lithium** and **cobalt** assets, domestically and internationally.

Challenges and Opportunities

- **Challenges:**
  - **Technological Gaps:** Limited indigenous modern mining equipment.
  - **Regulatory Delays:** Forestry and environmental clearances, land acquisition, and procedural bottlenecks.

- **Coking Coal Imports: Coking Coal Imports:** Currently, 85% of India's coking coal requirement for the domestic steel industry is met through imports Rising demand requires improved beneficiation and blending under the **Coking Coal Mission**.

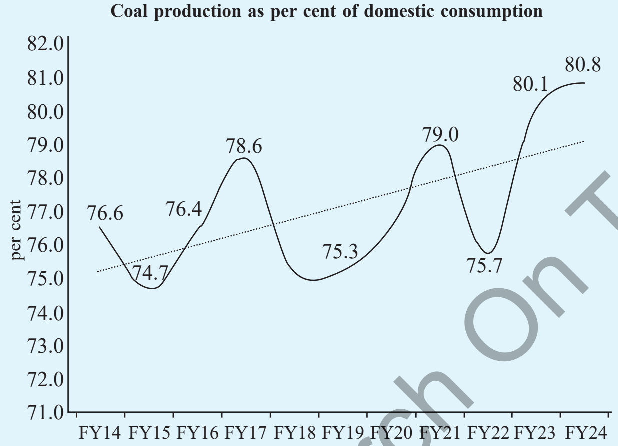
- **Opportunities:**
  - Adoption of **cleaner coal technologies** to reduce emissions.
  - Expansion of coal as a green energy source through **Coal Mine Methane (CMM)**, **Coal Bed Methane (CBM)**, coal-to-liquid, and coal-to-methanol technologies.

Production as a Percentage of Domestic Consumption

The production-to-consumption ratio has consistently improved over time, as shown below**:**

Fiscal Year	Production as % of Consumption
FY14	76.6%
FY19	78.6%
FY24	80.8%

Coal production as per cent of domestic consumption



Source: Survey calculation based on data from the Ministry of Coal

National Coal Index

The **National Coal Index** was unveiled by the Ministry of Coal to calculate the government's revenue share from the auction of coal mines. It was developed by the **Indian Statistical Institute, Kolkata**.

INDUSTRIAL POLICIES OF INDIA

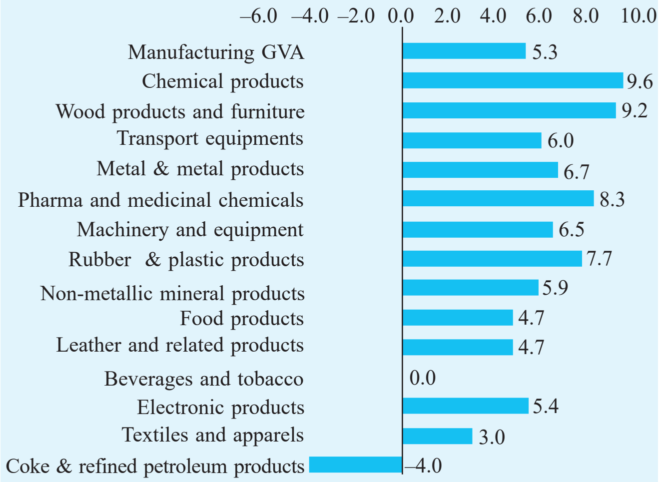
- **1948: First Industrial Policy**
  - **Role of the State:** The state played a dual role as both an entrepreneur and authority.
  - **Economic Model:** Mixed Economic Model.
  - **Classification of Industries:**
    - **Strategic Industries (Public Sector):** Central Government monopoly (e.g., arms, atomic energy, rail transport).
    - **Basic/Key Industries (Public-cum-Private Sector):** Central government-led industries like coal, iron & steel, ship-building.
    - **Important Industries (Controlled Private Sector):** Private sector-led but under central government control.
    - **Other Industries (Private & Cooperative Sector):** Open to the private sector.
  - **Industries (Development and Regulation) Act, 1951:** Implemented the 1948 Industrial Policy.
- **1956: Industrial Policy Resolution**
  - **Reservation of Industries:**
    - **Schedule A:** 17 sectors reserved for central government monopoly.
    - **Schedule B:** 12 sectors for state government initiatives and private sector follow-up.
    - **Schedule C:** All other sectors open to private enterprise.
  - **Licensing Regime:** Introduction of the Licence-Quota-Permit regime, emphasizing heavy industries and addressing regional disparity, small industries, and agriculture.
- **1991: New Industrial Policy (Economic Reforms)**
  - **De-reservation of Public Sector:** Only atomic energy and railways reserved for the public sector.
  - **De-licensing:** Industrial licensing abolished except for certain sectors (e.g., aerospace, defense, hazardous chemicals).
  - **Disinvestment of Public Sector:**
    - **Liberalization of Foreign Investment:** Encouraged foreign investment in various sectors.
- **Disinvestment** **[UPSC 2011]**
  - **Meaning:** Sale or liquidation of assets, primarily in public sector enterprises (PSUs).
  - **Department of Investment and Public Asset Management (DIPAM):** Nodal body for strategic stake sales in PSUs.
  - **Types of Disinvestment:**
    - **Token Disinvestment:** Sale of up to 49% of PSU shares, retaining government control.
    - **Strategic Disinvestment:** Sale of 51% or more of PSU shares, transferring control.

National Manufacturing Policy, 2011

- Boost the **manufacturing sector's growth to 12-14%** over the medium term. The target is for the manufacturing sector to contribute at least **25% to the national GDP by 2022.**
- Create **100 million additional jobs by 2022**; Emphasizes the development of suitable skill sets among rural migrants and the urban poor to ensure inclusive growth.
- Increase domestic value addition and technological depth in manufacturing.
- Enhancing the **global competitiveness** of Indian manufacturing.

- **Sustainability** is emphasized.

Average annual growth in components of manufacturing GVA in constant prices (FY14 to FY23) in per cent



CRITICAL MINERALS IN INDIA AND DMF

- **Import Dependence:** India is import-dependent for seven out of 12 critical minerals and lacks domestic resources for most, except light rare Earths and beryllium.
- **Critical Minerals:** Beryllium, Rhenium, Rare Earths, Germanium, Lithium, Cobalt, Tantalum, Chromium, Strontium, etc.
- **Applications:** Used in electric vehicles, aerospace, defense, laptops, medical imaging, nuclear energy, smartphones, etc.
- **Global Supply:** China is the leading global supplier of six out of the 12 minerals critical for India by 2030.

District Mineral Foundation [UPSC 2016]

- **Purpose:** Works for the welfare of people and areas affected by mining, not just for promoting mineral exploration.
- **Contributions by Miners:**
  - 10% of royalty for mining leases granted after January 12, 2015.
  - 30% of royalty for leases granted before January 12, 2015.
- **Usage of Funds:**
  - 60% for high-priority areas like education and health.
  - 40% for physical infrastructure.
  - **Gram Sabha Approval:** Required in Schedule V and VI areas for fund usage and beneficiary identification.
- **Note:** States are not authorized to issue licenses for mineral exploration.

LABOUR LAWS IN INDIA

- **Constitutional Context:** Labour is a concurrent subject under the Indian Constitution.
- **New Labour Codes:** Consolidated 29 existing laws into four main codes.
- **Code on Wages, 2019**
  - Sets a nationwide minimum wage with flexibility for states to set higher rates.
  - Defines wage components (basic pay, dearness allowance, etc.).
  - Requires employers to pay wages within two working days of the end of the wage period.
- **Occupational Safety, Health and Working Conditions Code, 2020**
  - Unifies 13 central labour laws.
  - Sets standards for health, safety, and welfare at workplaces.
  - Empowers inspectors to enforce regulations and penalize violations.
  - Mandates the formation of safety committees with worker representation.
- **Social Security Code, 2020**
  - Merges nine existing laws to simplify access to benefits.
  - Includes workers from both organized and unorganized sectors.
  - Easier transfer of social security benefits when changing jobs or locations.
  - Enhances efficiency and transparency of social security through centralized systems.
- **Industrial Relations Code, 2020**
  - Unifies laws related to trade unions, industrial disputes, and standing orders.
  - Introduces provisions for fixed-term employment and easier retrenchment.
  - Expedites industrial dispute settlement via conciliation and arbitration.
  - Mandates the formation of worker committees in establishments with 100+ workers.

NATIONAL INVESTMENT AND MANUFACTURING ZONES (NIMZS) AND SPECIAL ECONOMIC ZONES (SEZS)

National Investment and Manufacturing Zones (NIMZs) and Special Economic Zones (SEZs) are pivotal to India's strategy for industrial growth and export promotion, fostering economic development through enhanced manufacturing capacity and investments. While both initiatives focus on economic growth, they differ significantly in terms of structure, scope, and the regulatory framework.

National Investment and Manufacturing Zones (NIMZs)

Envisioned under the **National Manufacturing Policy, 2011**, NIMZs are large, integrated industrial townships designed to provide world-class infrastructure and a business-friendly environment. The primary objective of NIMZs is to accelerate industrialization, create jobs, and boost the manufacturing sector's contribution to India's GDP. The **first three NIMZs—Prakasam (Andhra Pradesh), Sangareddy (Telangana), and Kalinganagar (Odisha)**—have been approved, with several others in the pipeline.

- **Area Requirements:** NIMZs must cover a minimum area of 5,000 hectares, with no specific upper limit.
- **Integrated Infrastructure:** NIMZs are designed to be self-sustained townships with comprehensive infrastructure, including schools, hospitals, and utilities.
- **Focus on Manufacturing:** These zones emphasize the development of a wide range of industries, with a focus on high-value manufacturing and industrial ecosystems.
- **Environmental Impact Assessment (EIA):** The State Government is responsible for conducting the EIA for NIMZs.
- **Incentives:** NIMZs offer incentives similar to those available in SEZs but focus more on broad-based industrial development.

Export Processing Zones (EPZs)

Before SEZs, Export Processing Zones (EPZs) were established to promote exports by providing incentives and creating a favorable business environment for export-oriented units. The first EPZ was set up in **Kandla** in 1965, and this concept evolved into the SEZ framework. EPZs offered similar benefits, including tax exemptions and simplified procedures, but were later subsumed under the more comprehensive SEZ system.

Special Economic Zones (SEZs)

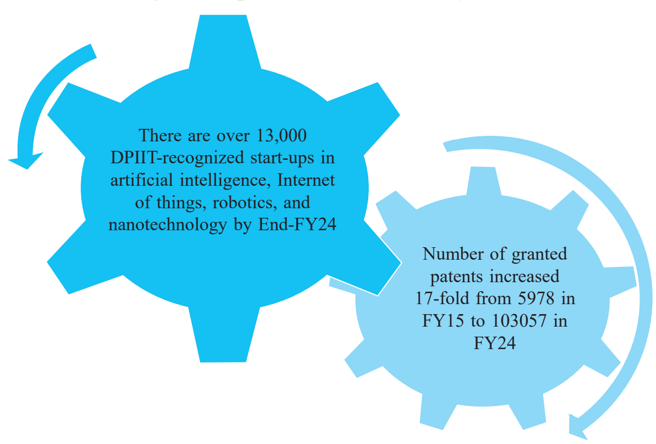
SEZs in India are governed by the **SEZ Act, 2005** and aim primarily at boosting exports and attracting foreign investment. These zones are considered "Deemed Foreign Territories" and provide several incentives to encourage export-oriented industries. SEZs offer an integrated approach, providing infrastructure, tax exemptions, and a regulatory environment that facilitates business operations focused on exports.

- **Area Requirements:** SEZs typically range from 10 to 1,000 hectares, with a maximum area limit of 5,000 hectares.
- **Export Orientation:** SEZs are exclusively for export-oriented industries, encouraging foreign trade.
- **Incentives and Benefits:**
  - **Tax Exemptions:** Units in SEZs benefit from exemptions on customs and excise duties on imports and domestic procurement.
  - **Income Tax Benefits:** Income tax exemptions are granted for a specified period, typically for up to 15 years.
  - **Single-window Clearance:** Simplified administrative processes to enhance ease of doing business.
- **Environmental Impact Assessment (EIA):** The project developer is responsible for conducting the EIA for SEZs.

MAKE IN INDIA AND STARTUPS

- **Make in India (2014)**
  - Launched by the Prime Minister to boost the manufacturing sector and create job opportunities. The objectives were to elevate the growth rate of manufacturing, create 100 million jobs by 2022, and increase the manufacturing sector's contribution to GDP to 25% by 2025.
  - **Make in India 2.0** focuses on 27 sectors, including 15 manufacturing and 12 service sectors.
- **Startup India (2016)**
  - Aimed at fostering entrepreneurship and innovation, particularly in technology and service sectors. Under this initiative, startups are eligible for tax exemptions and easier regulatory procedures, helping them grow and contribute to the economy.
- **Stand Up India** **[UPSC 2016]**
  - **Objectives:**
    - Facilitate bank **loans between 10 lakh and 1 crore** to **at least one SC/ST borrower and one woman** borrower per bank branch for setting up greenfield enterprises.
    - **Encourage entrepreneurship and job creation** across diverse sectors like **manufacturing, services, agri-allied activities, and trading.**

Flourishing start-up and innovation ecosystem



Efforts to Promote Startups and Innovation Culture in India

India has made significant strides in fostering an ecosystem conducive to innovation and entrepreneurship, aiming to become a global hub for startups. The government has rolled out several initiatives and reforms to bolster the growth of startups, encourage innovation, and promote research and development.

- **Patent and Research:**
  - The Indian patent landscape has seen remarkable growth, with efforts to streamline processes and encourage innovation across industries:
  - **Patent Rules, 2024:** The rules were simplified to ease the process of acquiring and managing patents, making it more accessible for innovators.
  - **Increase in Patents and Designs:**
    - The number of **granted patents** surged from 5,978 in 2014-15 to **103,057** in 2023-24, reflecting a significant rise in innovation.
    - **Registered designs** increased from 7,147 in 2014-15 to **30,672** in 2023-24, showcasing a growing trend in product design and intellectual property creation.
- **Startup Growth and Innovation:**
  - India's startup ecosystem has seen exponential growth, driven by government policies, funding, and a growing culture of innovation:
  - **DPIIT-Recognized Start-ups:**
    - From approximately **300 startups in 2016**, the number of **DPIIT-recognized startups** crossed **1.25 lakh** by March 2024, indicating a thriving entrepreneurial landscape.
  - **Diverse Geographies:** Over **45% of startups** are emerging from **Tier 2 and Tier 3 cities**, showing the spread of innovation beyond major metros.
  - **Gender Diversity:** More than **47% of recognized startups** have at least one **woman director**, reflecting a growing emphasis on inclusivity in entrepreneurship.
  - **Patent Applications by Startups:** Startups filed **more than 12,000 patent applications** between 2016 and March 2024, underscoring their contribution to India's patenting activity.
- **Industry and Research Initiatives:**
  - The Indian government has introduced several initiatives to encourage research and collaboration between industry, academia, and research bodies:
  - **Anusandhan National Research Foundation (ANRF) Bill 2023:**
    - The **ANRF Bill 2023** was passed, with an estimated budget of **₹50,000 crore** allocated for the period 2023-28.
    - **Role of ANRF:** It will provide high-level strategic direction for scientific research, fostering collaboration between industry, academia, and research bodies to drive innovation.
- **Investment and Funding in Startups:**
  - Financial backing is critical to the growth of startups, and the government has made substantial efforts to secure funding for innovation:
    - **Fund of Funds for Start-ups:** Over **₹10,500 crore** has been committed to more than **135 Alternative Investment Funds (AIFs)**, which in turn invested over **₹18,000 crore** in startups by the end of FY24. This funding supports startups across various sectors, including technology, healthcare, and manufacturing.
- **Innovation Index and Global Recognition:**
  - India's position in global innovation rankings has improved steadily:
    - **Global Innovation Index (GII):** India has consistently improved its rank, and it now ranks **first among lower middle-income countries** and **central and southern Asian economies**.
  - **Domestic Market Scale:** India holds the top rank globally in the **domestic market scale indicator**, showcasing its vast consumer market, which is an attractive factor for innovation and business growth.
- **Bharat Startup Knowledge Access Registry**
  - The **Bharat Startup Knowledge Access Registry** was launched to create a unified platform for diverse stakeholders in the startup ecosystem. It serves as a resource for entrepreneurs, investors, researchers, and policymakers, enabling them to collaborate and drive innovation forward.

PRODUCTION LINKED INCENTIVE (PLI) SCHEME

The **Production Linked Incentive (PLI) Scheme** is a flagship initiative by the Indian government aimed at boosting domestic manufacturing, reducing import dependency, and promoting exports as part of India's **'Aatmanirbhar Bharat'** (Self-Reliant India) vision. Introduced for 14 key sectors with an outlay of ₹1.97 lakh crore, the scheme provides financial incentives linked to incremental production and sales.

Key Achievements (As of May 2024)

- **Investment:** Over ₹1.28 lakh crore reported.
- **Production/Sales:** ₹10.8 lakh crore generated.
- **Employment:** 8.5 lakh direct and indirect jobs created.
- **Exports:** Boosted by ₹4 lakh crore, with significant contributions from sectors like:
  - Electronics Manufacturing
  - Pharmaceuticals
  - Food Processing
  - Telecom & Networking Products

Incentives and Benefits

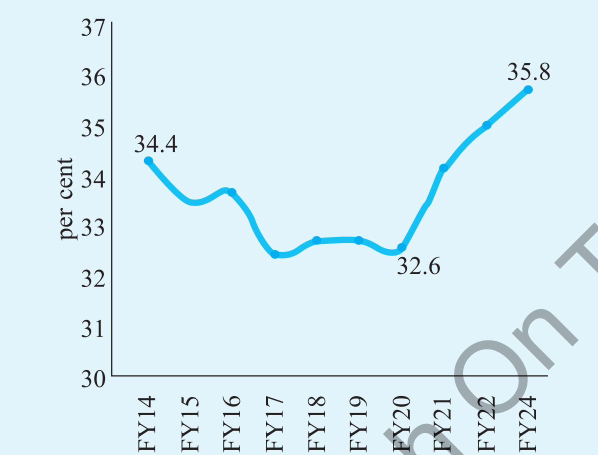
The scheme provides **financial incentives** to manufacturers based on their performance, encouraging large-scale production, technological advancements, and global competitiveness. It also focuses on employment generation and export promotion to position India as a manufacturing hub.

- Both domestic and international manufacturers can take advantage of this scheme. **[UPSC 2023]**
- The government's PLI schemes have attracted investments in electronics, textiles, and speciality steel. For example, the PLI scheme for speciality steel attracted ₹15,519 crore in investments with a capacity addition of 24,780 thousand tonnes.

PLI Scheme for White Goods (ACs and LED Lights)

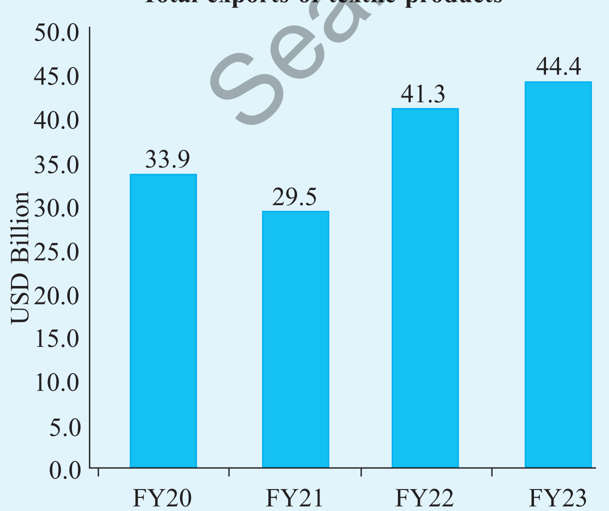
A dedicated PLI Scheme for **White Goods** (air conditioners and LED lights) was introduced with an outlay of ₹6,238 crore. As of May 2024**:**

Share of non-corporate GVA in the total textile (including apparel) GVA in current prices



Source: National Account Statistics 2024, MoSPI

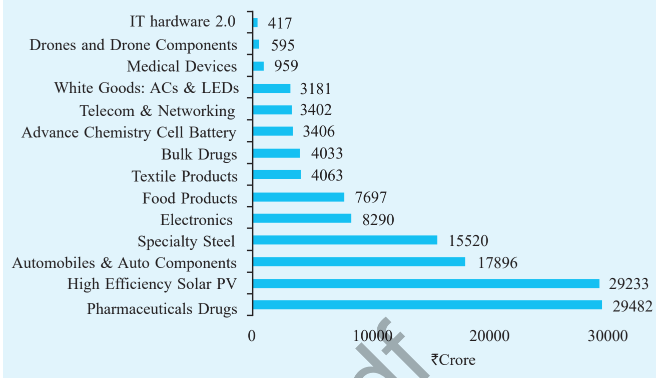
Total exports of textile products



Source: Ministry of Textiles

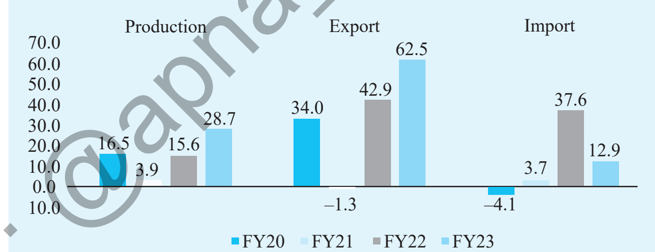
- **Cumulative Investment:** ₹3,181 crore in the white goods sector.
- **Sales:** ₹13,320 crore in cumulative sales generated.

Actual sector-wise investment under the PLI scheme



Source: DPIIT

Growth (YoY) in production and trade of electronics items



Source: Ministry of Electronics and Information Technology (MEITY)

Domestic turnover growth in the pharma sector

INFRASTRUCTURE

- Infrastructure is understood as an **important input for industrial and overall economic development**. While this is certainly true, there is no clear definition of infrastructure according to the current usage of the term in India.

- Infrastructure activities, such as power, transport, telecommunications, provision of water, and sanitation and safe disposal of waste, are central to the activities of the household and to economic production. Without any of these either economic production will suffer or the quality of life will deteriorate. One could thus view these activities as essential inputs to the economic system.
- Many infrastructure activities have the characteristics that they are not use-specific or user-specific**:** the same telephone system may be used in numerous productive activities, either (a) simultaneously if sufficient capacity is available, or (b) sequentially if there is crowding or congestion.
- Infrastructure generally consists of long-lived engineered structures and may be one of the following**:**
  - **Public utility:** power, piped gas, telecommunications, water supply, etc.;
  - **Public works:** major dam and canal works for irrigation, roads;
  - Other transport sectors such as **railways, ports, waterways, airways.**

Infrastructure Financing

Capital Expenditure

- Union Government's **capital expenditure rose 2.2 times and State Governments' 2.1 times** from FY21 to FY24.
- Union Government's capital expenditure includes spending by **departments** and **gross budgetary support** (GBS) to CPSEs.
- **State Government Support:** Union Government support for State capital expenditure increased by 31.6% between FY21 and FY24.

Non-Government Funding:

- **Public expenditure** primarily drives recent infrastructure projects, especially connectivity.
- **Bank credit to infrastructure** sectors between March 2023 and March 2024 was around ₹79,000 crore.
- **External commercial borrowings** rose to USD 9.05 billion in FY24.
- **Capital Market Resource Mobilisation:** raised over ₹1,00,000 crore through debt and equity in FY24.
- **REITs** raised ₹18,840 crore and InvITs ₹1,11,294 crore from 2019 to 2024.

Major Mechanisms for Fostering Public-Private Partnership (PPP)

Mechanism	Description
Public Private Partnership Appraisal Committee (PPPAC)	Reviews central sector PPP projects. Recommended 77 projects totaling ₹2.4 lakh crore from FY15 to FY24.
Viability Gap Funding (VGF)	Supports financially unviable but socially/economically beneficial PPP projects. Approved 57 projects (₹64,926.1 crore) in principle and 27 projects (₹25,263.8 crore) finally from FY15 to FY24.
India Infrastructure Project Development Fund Scheme	Provides financial support for PPP project development. Launched in November 2022 with a ₹150 crore budget for FY23 to FY25.
Other Supportive Instruments	Created reference guides, web-based toolkits, and contract management tools to aid in PPP structuring and implementation.

SECTORAL HIGHLIGHTS

Roads

- **CapEx:** From 0.4% GDP (FY15) to 1% (FY24).
- National highways grew 1.6x; logistics efficiency improved (rank 54 to 38 globally).

Railways

- **CapEx:** ₹2.62 lakh crore in FY24 (77% rise over 5 years).
- Electrification**:** 96.4% network electrified.
- **Key projects:** Vande Bharat trains, **MAHSR** (Mumbai-Ahmedabad High Speed Rail), and **Amrit Bharat Station Scheme (**station upgrades).

Water Transport

- Major port capacity nearly doubled since 2014.
- Improved global maritime competitiveness through **PM Gati-Shakti National Master Plan** and public-private partnerships.
- India's rank in the **World Bank Logistics Performance Index** (International Shipments) improved to 22nd in 2023 from 44th in 2014.

Civil Aviation

- Among the fastest-growing aviation markets globally.
- Government capital expenditure plan of over ₹26,000 crore for airport development from FY20 to FY25.

Power Sector

- **Unified Grid**
  - India operates one of the largest unified electricity grids globally.
  - **Inter-regional transfer capacity:** 118,740 MW.
- **Electrification**
  - **Saubhagya Scheme:** Electrified 2.86 crore households since October 2017.

- **Revamped Distribution Sector Scheme (RDSS)**
  - **Objective:** Improve operational efficiency and financial health of DISCOMs through result-based financial aid.
  - **Funding:** ₹3.04 lakh crore for FY22–FY26, including ₹0.98 lakh crore from the government.
  - **Goals:** Reduce technical and commercial losses to 12–15% by FY25.
- **Key Initiatives**

Initiative	Details
SAMARTH Mission	Launched in 2021 to promote biomass co-firing in thermal plants (target**:** increase to 5%).
One Sun, One World, One Grid	Interconnecting regional grids globally for renewable energy sharing.
UJALA	Introduced in 2015 to replace inefficient lighting with LEDs.
Street Lighting Programme	Installed over 1.31 crore LED streetlights, saving 8.80 billion kWh/year.

Renewable Energy Sector

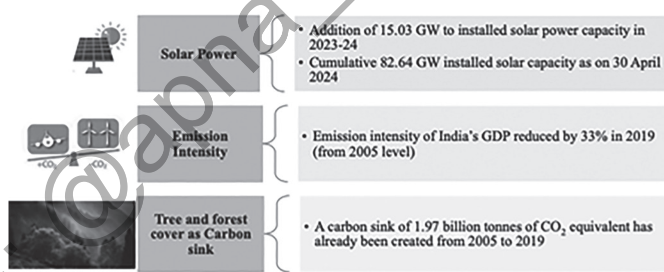
- **2030 Target:** 50% of cumulative electric power capacity from non-fossil fuels.
- **Installed Capacity:** 190.57 GW of renewable energy (43.12% of total) as of March 31, 2024.
- **Investment:** ₹8.5 lakh crore (USD 102.4 billion) in clean energy (2014–2023).

Major Programmes and Initiatives

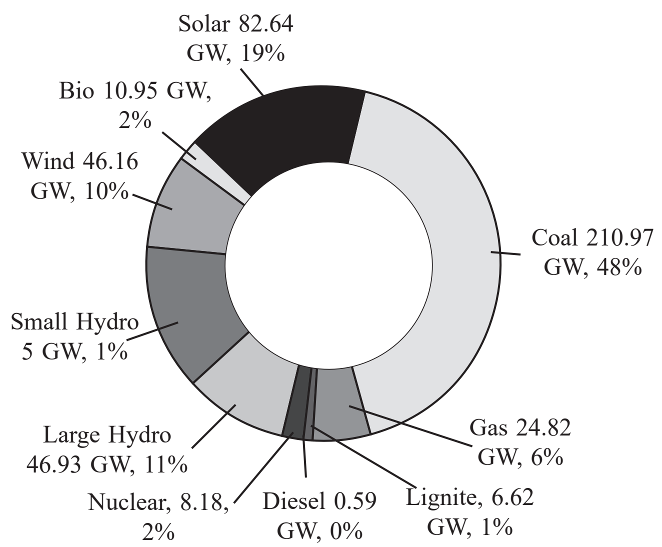
Programme/Project	Details
PM-KUSUM	166 MW decentralized solar capacity; 3.26 lakh agricultural pumps solarized.
PLI Scheme	₹24,000 crore for high-efficiency solar PV module manufacturing.
Solar Parks Scheme	56 parks sanctioned for 39.7 GW capacity.
PM-Surya Ghar	Aims for 30 GW rooftop solar in 1 crore households by FY27.
CPSU Scheme Phase-II	Focuses on grid-connected solar PV projects with VGF support.
Wind Power	45.89 GW installed; India ranks 4th globally in wind power.
New Solar Power Scheme for PVTGs	Launched January 2024 for off-grid electrification in 18 states and 1 UT.

Green Energy Corridor	Supports renewable power evacuation.
Bio Energy Programme	Includes biomass power (9.4 GW), waste-to-energy (249.74 MW), and 51.04 lakh biogas plants.
National Green Hydrogen Mission	Targets 5 MMT green hydrogen annually with 125 GW renewable capacity.
Energy Storage Systems (ESS)	Addresses renewable generation variability, grid stability, and peak shifting.
Pumped Storage Projects (PSP)	Guidelines issued in 2023 to develop PSPs for clean energy storage.

Present Status of India's Climate Action



Installed Power Capacity 30 April 2024: 442.8 GW



Water & Sanitation Sector

- **Swachh Bharat Mission – Grameen (SBM-G):** Phase II targets sustainable ODF status, solid and liquid waste management by 2024-25.
- **Jal Jeevan Mission (JJM):** Increased tap water access from 17% to 76.12%, with 14.89 crore households now connected.

Water Resource Management Sector

- **Namami Gange Programme:** Uses Hybrid Annuity Model (HAM) for sewage treatment, integrating existing and new projects under one operator.
  - This model involves 40% of capital expenditure paid during construction and the remaining 60% paid over 15 years with interest, alongside separate payments for operation and maintenance
- **Management:** The 'One City-One Operator' approach integrates new projects with existing sewage treatment plants under the HAM-based PPP model.

Major Programmes in the Water Resource Sector

Dam Rehabilitation and Improvement Project (DRIP):	**Objective:** Enhance safety and performance of existing dams and strengthen dam safety institutions.
Atal Bhujal Yojana:	**Objective:** Central Sector Scheme aimed at groundwater demand management with an outlay of ₹6,000 crore. Progress**:** Water budgets and security plans prepared for all targeted Gram Panchayats, showing improvements in groundwater decline in 47 blocks and 813 GPs
Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)	**Objective:** Enhance farm water access and irrigation efficiency, and promote water conservation. **Components:** Includes Accelerated Irrigation Benefit Programme (AIBP) and Har Khet Ko Pani (HKKP).
Interlinking of Rivers Project:	**Scope:** Identifies 30 river links under the National Perspective Plan (NPP). **Priority Projects:** Includes Ken-Betwa, Modified Parbati-Kalisindh-Chambal, and Godavari-Cauvery link projects.

Urban Sector

- **Housing for All (PMAY-U):** Aims to provide pucca houses with basic amenities in urban areas since 2015.
  - Over 1.18 crore houses sanctioned, 84 lakh completed, with a total investment of ₹8.07 lakh crore.
- **Affordable Rental Housing Complexes (ARHCs):** First-time initiative to improve living conditions for urban migrants/poor.

Atal Mission for Rejuvenation and Urban Transformation (AMRUT)

- **AMRUT 2.0:** Launched in October 2021 for five years, aims to make cities self-reliant and water-secure, providing universal sewerage and septage management in 500 cities. Includes rejuvenation of water bodies and wells.
- **Major Reforms:** Encompass property tax and user charge notifications, enhanced financial sustainability, 20% recycled/reused treated water, double-entry accounting, and efficient town planning.

Metro Rail/RRTS: 945 km operational, 939 km under construction across 27 cities. 86 km operationalized in FY24 with daily ridership reaching 1.01 crore.

Smart Cities Mission (SCM)

- Launched in June 2015**:** Aims to develop cities with core infrastructure, clean environments, and a high quality of life using smart solutions.
- Progress**:** 100 cities selected, with 100 SPVs managing 8,011 projects worth ₹1.64 lakh crore.

- **Swachh Bharat Mission Urban (SBM-U):** Ensures access to sanitation facilities, aims for open defecation free (ODF) and garbage-free status.

Space Sector

- India has 55 active space assets**:** 18 communication, 9 navigation, 5 scientific, 3 meteorological, and 20 Earth observation satellites.
- New launch vehicles added**:** Launch Vehicle Mark-3 (LVM3) and Small Satellite Launch Vehicle (SSLV).

Space Missions

- **Key missions:** Mars Orbiter Mission (2014), ASTROSAT (2015), Chandrayaan-2 Orbiter (2019), Chandrayaan-3 landing (2023), Aditya-L1 mission (2023).
- Completed and operationalized NavIC satellite navigation constellation in 2016.
- New Space India Limited (NSIL) launched 72 OneWeb satellites to Low Earth Orbit, establishing LVM3's reliability in global commercial launch services.

Private Participation in the Space Sector

- **IN-SPACe:** Inaugurated in June 2022, this single-window agency supports and authorizes space activities, receiving 440 applications from over 300 entities as of January 2024.
- **MoUs and Joint Projects:** 51 MoUs and 34 joint project plans signed with non-governmental entities by January 2024 to support space activities.

- **Private Satellite Development:** Companies like PixxelSpace, Digantara, Dhruva Space, and Tata Advanced Systems have developed satellites and payloads for space operations.
- **Vikram-S Launch:** Skyroot Aerospace's Vikram-S, a suborbital launch vehicle, was launched on November 18, 2022.
- **Private Launchpad and Control Centre:** Agnikul Cosmos established India's first private launchpad and mission control center on November 25, 2022, at the ISRO campus.
- **PSLV Production Partnership:** HAL and L&T consortia selected to produce five PSLVs.
- **Small Satellite Launch Vehicle Tech Transfer:** The process for transferring small satellite launch vehicle technology has begun.

Construction Sector

- The construction sector, contributing around 9% of India's annual GVA, is among the least digitalized.
- Recent technology integrations include PM GatiShakti, Bhuvan, BharatMaps, Single Window Systems, PARIVESH portal, National Data Analytics Platform, Unified Logistics Interface Platform, PRAGATI, India Investment Grid, and various ministry dashboards.

Telecommunication Sector

- The Telecommunications Act 2023 consolidated laws on telecommunication services and spectrum assignment.
  - The total number of mobile towers in the country is 8.02 lakh as of June 2024.

BharatNet Project

- **Objective:** To provide broadband connectivity to all 250,000 Gram Panchayats (GPs) in India, with a focus on service utilization, professional construction, and network maintenance.
- **Progress:** As of April 30, 2024, 685,501 km of optical fiber cable has been laid. 211,021 GPs are connected by optical fiber, and 212,229 GPs are service-ready with OFC and satellite.

- **Spectrum Regulatory Sandbox** (Wireless Test (WiTe) Zones) guidelines under the **Millennium SRS initiative** to foster innovation, enhance ease of business, and promote **"Make in India"** in the telecommunications sector.

Electronics & Information Technology Sector

- **AI Initiatives:**
  - Founding member of the **Global Partnership on Artificial Intelligence (GPAI)**
  - AI supercomputer **AIRAWAT** at C-DAC, Pune, ranked 75th in 61st edition of Top 500 Global Supercomputing list May, 2023.
- **Digital India Programme:**
  - **MeriPehchaan** (NSSO) integrates over 9,600 services for user authentication.
  - **DigiLocker** has over 26.28 crore users and 674 crore documents.
  - **UMANG platform** offers 2,019 services from 207 Central and State Government departments.

INFRASTRUCTURE AND LOGISTICS POLICIES AND INITIATIVES IN INDIA

India's infrastructure and logistics development is guided by several strategic policies and initiatives that aim to improve connectivity, reduce costs, and stimulate economic growth. Below is an overview of key infrastructure and logistics-related policies, acts, and schemes.

National Logistics Policy (NLP)

The **National Logistics Policy (NLP)**, announced in 2022, aims to make India a global logistics hub by reducing logistics costs from the current **14% of GDP** to **less than 10%**. The key objectives of the policy are**:**

- **Improving efficiency** and reducing logistics costs.
- **Strengthening infrastructure** across sectors like transportation, warehousing, and information technology.
- Enhancing **multi-modal transport** and integrating the sector with global supply chains.
- Streamlining **regulations** to make logistics processes more predictable and transparent.
- Introducing **digital platforms** to improve coordination and minimize delays.

National Monetisation Pipeline (NMP)

The **National Monetisation Pipeline (NMP)** is a framework launched in 2021 for the asset monetization of **public sector infrastructure assets**. The policy aims to leverage India's vast infrastructure assets to generate capital for further investments in infrastructure development. Key points include**:**

- Monetizing assets like **roads, railways, airports, power grids, and ports**.
- Focusing on **public-private partnerships (PPP)** to bring in private investment.
- The goal is to unlock **₹6 lakh crore** worth of infrastructure assets over the next 4 years.

Inland Waterways

The **Inland Waterways Authority of India (IWAI)** has been tasked with the development of **inland waterways** to promote cost-effective and environment-friendly cargo transport. The **National Waterways** are identified for increasing connectivity across the country. Notable aspects include**:**

- **National Waterway-1** (Ganga-Bhagirathi-Hooghly river system) from **Haldia to Allahabad**.
- **National Waterway-2** (Brahmaputra River) from **Sadiya to Dhubri**.

- **National Waterway-3** (West Coast Canal) in Kerala.
- **National Waterway-4** (Kakinada to Pondicherry) along the East Coast.

The development of inland waterways enhances **eco-friendly transport**, reduces **congestion on roads and railways**, and increases the country's **supply chain efficiency**.

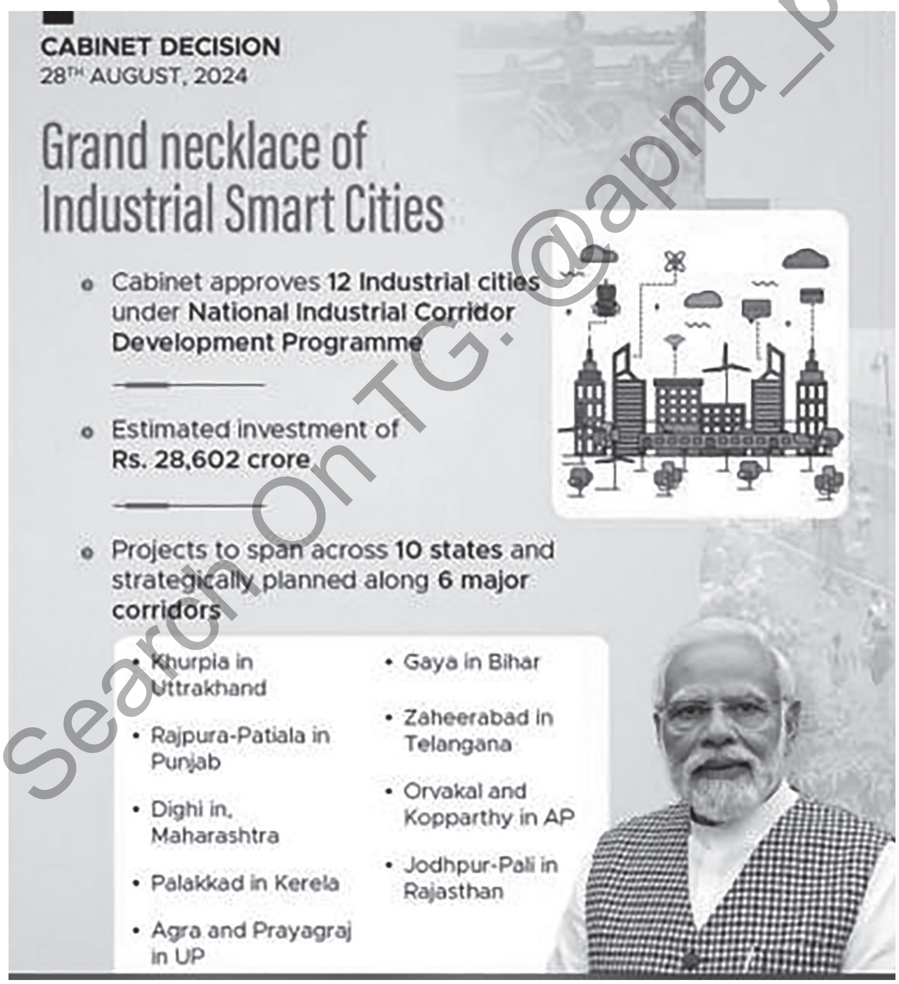
UDAN (Ude Desh ka Aam Naagrik) Regional Connectivity Scheme

UDAN is an initiative aimed at enhancing regional connectivity and making air travel affordable for common people. Key features of the scheme include**:**

- **Subsidized airfares** for regional routes connecting smaller cities with larger urban centers.
- **Targeting underserved and unserved airports**, especially in remote and rural regions.
- **Development of smaller airports** with improved infrastructure to make air travel more accessible.
- More than **100 airports** have been connected under UDAN, increasing regional economic integration and boosting tourism.

Industrial Corridors

- Government of India is developing eleven (11) Industrial Corridor Projects as part of the National Industrial Corridor Programme across the country in a phased manner.
- **Delhi-Mumbai Industrial Corridor (DMIC):** Aimed at reducing logistic costs and creating smart cities along the corridor from **Delhi** to **Mumbai** with assistance from Japan.



- **Chennai-Bengaluru Industrial Corridor (CBIC):** Connecting **Tamil Nadu, Andhra Pradesh, Karnataka**, focusing on industrial growth with Japanese assistance.
- **Bengaluru-Mumbai Industrial Corridor (BMIC):** Spanning **Maharashtra** and **Karnataka**, supported by the UK.
- **Amritsar-Kolkata Industrial Corridor (AKIC):** Connecting **Punjab, Haryana, Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, West Bengal**.
- **East Coast Economic Corridor (ECEC):** Linking **West Bengal, Odisha, Andhra Pradesh, Tamil Nadu**, with assistance from the Asian Development Bank.

Sagarmala Program

The **Sagarmala Program** focuses on **port-led development** along India's 7,500 km coastline, aiming to increase port capacity, improve transportation networks, and boost trade. The key components of Sagarmala include**:**

- **Development of new ports** and modernization of existing ports.
- Enhancing **port connectivity** through multi-modal transport.
- Promoting **coastal shipping** and improving inland waterways.

The **Sagarmala Development Company (SDC)** provides equity support for projects, while **state governments** play a crucial role in setting up state-level committees for implementation.

Bharatmala Pariyojana

The **Bharatmala Pariyojana** is an umbrella program aimed at improving India's road infrastructure. Key aspects include**:**

- **Economic corridors** to improve national and international trade links.
- Focus on **Greenfield projects** (new projects) and **Brownfield projects** (upgrades to existing roads).
- Development of **border and coastal roads** for strategic economic and defense purposes.

Bharatmala is integral in addressing road infrastructure challenges and reducing the logistics cost.

Dedicated Freight Corridors (DFC)

Dedicated Freight Corridors (DFCs) are specialized railway tracks that exclusively cater to freight transportation, improving speed and capacity.

- **Eastern Dedicated Freight Corridor (EDFC):** Connecting **Punjab, Haryana, Uttar Pradesh, Bihar, Jharkhand, West Bengal**, funded by the **World Bank**.
- **Western Dedicated Freight Corridor (WDFC):** Spanning **Haryana, Rajasthan, Gujarat, Maharashtra, Uttar Pradesh**, funded by the **Japan International Cooperation Agency (JICA)**.

These corridors aim to streamline the freight movement, enhancing the overall logistics efficiency.

National Infrastructure Pipeline (NIP)

The **National Infrastructure Pipeline (NIP)** is an ambitious initiative that outlines **₹102 lakh crore** worth of infrastructure projects to be implemented by 2024-25. Key features include**:**

- Investments across both **economic** and **social infrastructure**.
- Funding shared between the **Centre, States, and Private Sector** in a **39:39:22** ratio.
- The **Atanu Chakraborty Committee** report provides a roadmap for ensuring the effective implementation of the NIP.

10 LPG Reforms and Service Sector

BACKGROUND OF THE FINANCIAL CRISIS

Since independence, India has adopted a **mixed economy**, blending **capitalist** and **socialist** principles to drive economic development.

The 1991 Economic Crisis: In 1991, India faced a severe **economic crisis** due to**:**

- **External debt** crisis, making international borrowings unsustainable
- **Low foreign exchange reserves**, insufficient for even two weeks of imports
- **Rising prices** of essential goods

Policy Shift: To stabilize the economy, the government introduced **economic reforms** aimed at **sustainable growth** and addressing sectoral imbalances.

Inefficient Economic Management (1980s)

- **Revenue sources** (taxes, public enterprises, borrowings) were insufficient to cover rising costs.
- **Increased spending** on development, unemployment, poverty, and population growth led to **revenue deficits**.

Economic Crisis

- **Unsustainable borrowing** caused inflation and price hikes.
- **Foreign exchange reserves** fell drastically, barely covering two weeks of imports.
- With no willing lenders, India sought a **$7 billion loan** from the **World Bank** and **IMF**, agreeing to **liberalize** its economy in return..

Response: The New Economic Policy (NEP)

Policy Goals

- **Liberalization:** Reducing government control to foster **competition**.
- **Privatization:** Reducing state involvement to increase **private sector participation**.
- **Globalization:** Removing **trade barriers** to integrate with the global economy.

Policy Components

- **Stabilization Measures:** Short-term actions to address **balance of payments** and control **inflation**.
- **Structural Reforms:** Long-term strategies to improve **economic efficiency** and **global competitiveness**.

LIBERALIZATION IN INDIA

- **Objective:** Remove **restrictive regulations** to boost economic growth, with reforms starting in the 1980s and a comprehensive package in 1991.

Key Areas of Reform

- **Industrial Sector Deregulation:**
  - **Pre-1991:** Heavy **regulation** and restricted private sector participation.
  - **Post-1991:** Abolished most industrial licensing; introduced **market-driven pricing**.
- **Financial Sector Reforms:**
  - **RBI's Role:** Shifted from **regulator** to **facilitator**.
  - **Reforms:** Increased **foreign investment limits** and allowed **FIIs** in Indian markets.
- **Tax Reforms Post 1991:**
  - **Direct Taxes:** Reduced rates to **curb tax evasion** and encourage savings.
  - **Indirect Taxes and GST:** Gradual introduction of CENVAT, VAT and finally GST to simplify tax system and create a unified market.
- **Foreign Exchange Reforms:**
  - **Exchange Rate:** Rupee **devaluation** in 1991, shifting to **market-determined exchange rates**.
  - Current account made fully convertible by removing forex conditions on companies .Transition from FERA to FEMA regime.
- **Trade and Investment Policy Reforms:**
  - **Pre-1991:** High tariffs and **import restrictions**.
  - **Reforms:** Reduced tariffs, removed import licensing, and abolished **export duties** to improve global competitiveness.

PRIVATIZATION OF PUBLIC SECTOR ENTERPRISES

- **Definition: Privatization** is the transfer of **ownership** or **management** from government to the **private sector**, either through **withdrawal** or **sale** of public enterprises.
- **Methods:**
  - **Disinvestment** involves selling part of the government's equity in **Public Sector Enterprises**

(PSEs) to improve **financial discipline** and **modernization**.

- **Purpose and Objectives:**
  - **Enhance operational efficiency** by bringing in **private capital** and **management expertise**.
  - **Attract Foreign Direct Investment (FDI)** to drive **economic growth**.
- **Autonomy and Classification of PSEs:**
  - **Autonomy** is granted to improve efficiency.
  - Classified as **Maharatnas**, **Navratnas**, and **Miniratnas** based on performance and importance.
- **Purpose of Classification:** Provides greater **operational, financial, and managerial autonomy** to improve **efficiency, profitability**, and **global competitiveness**.
- **Historical Context and Recent Developments:**
  - PSEs were established in the **1950s-60s** to promote **self-reliance** and provide **infrastructure**.
  - They were **accountable** to the public for **affordable services**.
  - **Current Strategy:** The government aims to retain PSEs in the strategic public sector to expand globally and raise funds independently.

Policy of Strategic Disinvestment

- Existing CPSEs, Public Sector Banks and Public Sector Insurance Companies to be covered under it.
- Two fold classification of Sectors to be disinvested:
  - **Strategic Sector:** Bare minimum presence of the public sector enterprises and remaining to be privatised or merged or subsidiarized with other CPSEs or closed.
- Following 4 sectors to come under it :
  - Atomic energy, Space and Defence
  - Transport and Telecommunications
  - Power, Petroleum, Coal and other minerals
  - Banking, Insurance and financial services

  b. **Non- Strategic Sector:** In this sector, CPSEs will be privatised, otherwise shall be closed.

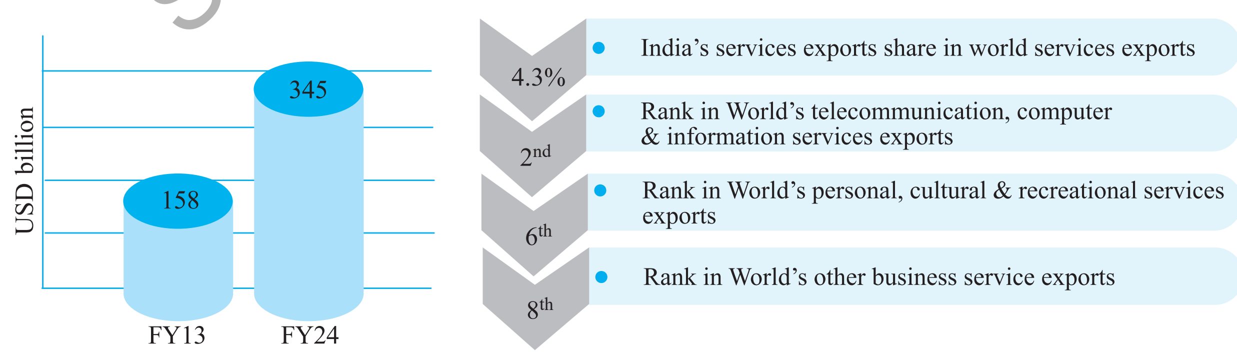
GLOBALISATION

Globalisation refers to the **integration of a country's economy** with the global economy. It involves policies fostering **interdependence** and **integration** across economic, social, and geographical boundaries. The goal is to create a **borderless world** where events in one country can influence others globally.

Outcomes of Globalisation

- **Outsourcing**
  - Outsourcing is a major result of globalisation, where companies obtain **services from external sources**, often in different countries, rather than producing them internally.
  - This trend has grown due to advances in **communication technology**, especially **Information Technology (IT)**.
  - Examples include **BPO (Business Process Outsourcing)** centers for customer service, **record keeping**, **accountancy**, and **telemedicine**.
  - **India** is a key outsourcing destination due to **low wages** and **skilled labor**.
- **World Trade Organisation (WTO)**
  - **WTO** was established in **1995** as a successor to **GATT (General Agreement on Trade and Tariffs)**, which started in **1948** with 23 countries.

India's services exports more than doubled in nine years



  - The WTO aims to create a **rule-based trading system** ensuring **equal opportunities** in international trade by **removing tariff and non-tariff barriers**.

- India, a WTO member, supports **fair global trade rules** and has liberalized its trade by removing **quantitative import restrictions** and reducing **tariff rates**.

- **Globalisation and Indian Companies**
  - **Expansion of Indian Companies:** With globalisation, several Indian companies have expanded internationally**:**
    - **ONGC Videsh** operates in 16 countries.
    - **Tata Steel** is active in 26 countries.
    - **HCL Technologies** has offices in 31 countries.
    - **Dr. Reddy's Laboratories** has global manufacturing and research centers.

SECTORAL GROWTH IN INDIA (GDP IN %) [UPSC 2015]

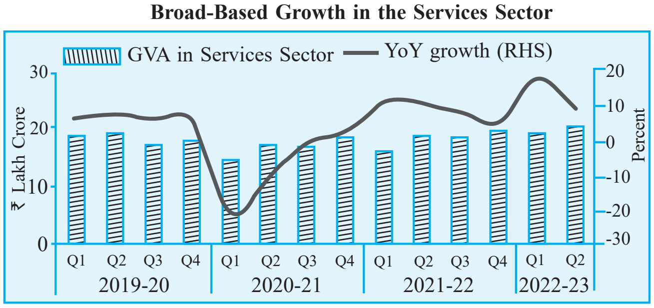
Sector	1980-91	1992-2001	2002-07	2007-12	2012-13	2013-14	2014-15
Agriculture	3.6	3.3	2.3	3.2	1.5	4.2	-0.2
Industry	7.1	6.5	9.4	7.4	3.6	5	7
Services	6.7	8.2	7.8	10	8.1	7.8	9.8
Total	5.6	6.4	7.8	8.2	5.6	6.6	7.4

Sector	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Agriculture	5	3.9	2.9	4	3.6	3	3.5	3.7
Industry	7.4	6.5	5.3	1.2	-8.4	11.5	7.6	6.5
Services	8.4	7.9	6.9	6.3	-7.8	8.8	9.1	8.2
Total	7	6.8	6	4.2	-6.6	9.1	7.2	6.5-7.0

Flourishing of Service Sector in India

- **Definition:** The service sector includes activities that do not produce physical goods but provide value through services. Eg: finance, healthcare, education, hospitality, information technology, and more.
- Accounts for 54% of India's Gross Value Added (GVA); **Contributes over 50% to India's Gross Domestic Product** (GDP).
- Comprises **44% of total exports** and attracts **two-thirds of foreign direct investment (FDI)** into India.
- The service sector **Employment Generation:** Major source of employment, providing jobs to **30.7% of the Indian population.**
- **Remarkable Recovery:** In the fiscal year 2022-23, the services sector witnessed a significant recovery.

Broad-Based Growth in the Services Sector



Source: NSO, MOSPI

Classification of Services Across Union, State, and Concurrent Lists

- **Union List:** Telecommunications, postal, broadcasting, financial services (including insurance and banking), national highways, mining services.
- **State List:** Healthcare and related services, real estate services, retail, services incidental to agriculture, hunting, and forestry.
- **Concurrent List:** Professional services, education, printing and publishing, electricity.

SERVICE SECTOR IN RECENT YEARS

Over the past three decades, India's services sector has been a key driver of economic growth, contributing **approximately 55% to the economy in FY24**. The sector has evolved, particularly post-pandemic, with a surge in digital services like online payments, e-commerce, and entertainment. Reforms and infrastructure improvements have boosted traditional services, and India's youth, highly tech-savvy, offers a significant opportunity for further development of vocational and educational systems to meet digital and high-tech demands.

India's Services Sector is Divided into

- **Contact-Intensive Services:** Includes trade, hospitality, transport, real estate, social, community, and personal services.

- **Non-contact-intensive Services:** Includes financial, IT, professional services, broadcasting, public administration, and defense.

Growth Drivers

- A large, young population is increasing demand across education, healthcare, finance, tourism, hospitality, and entertainment.
- Rapid urbanization is spurring growth in transportation, housing, and utilities.
- E-commerce growth has boosted logistics, digital payments, and related services.
- IT and business services maintain a strong international presence.

Challenges

- Artificial Intelligence may limit growth opportunities in business services.
- There is an increasing need for human capital to capitalize on agglomeration effects in cities.

Government Support

- The **Digital India** campaign is boosting digital services.
- Export promotion schemes support service exports.
- Infrastructure development is improving logistics and tourism.
- Skill development initiatives are generating workforce opportunities.

OVERVIEW OF SERVICES SECTOR PERFORMANCE

Gross Value Added (GVA) in the Services Sector

- **Growth Overview:** The sector saw over 6% annual growth (except FY21). In 2022, India accounted for 4.3% of global commercial services exports.
- **Sector Contribution:** The services sector's contribution to overall GVA grew significantly in the last decade. After a sharp contraction of 8.4% in FY21, it rebounded strongly.
- **Pre and Post-COVID Performance:** Prior to COVID, services growth outpaced overall economic growth. Post-COVID, services growth has continued to outpace overall GVA, with FY23 and FY24 showing strong performance.

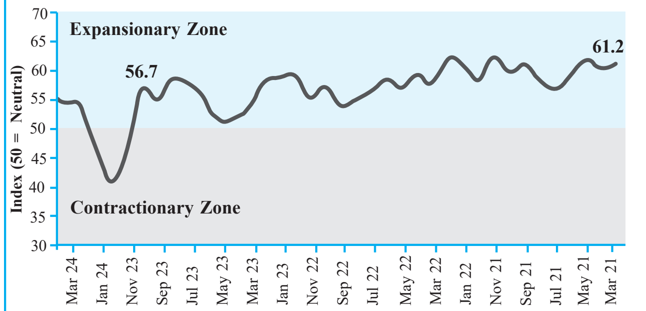
Recent Growth Indicators

- Estimated 7.6% growth in FY24 for the services sector.
- **GST collections** grew by 11.7%, reaching ₹20.18 lakh crore in FY24.
- **Transportation services** saw growth in toll collections (18.9%), air passengers (15%), and rail freight (5.3%).

Purchasing Managers' Index (PMI)

- PMI remained above 50 since August 2021, signaling continuous expansion in the sector.

PMI Services touched new heights in FY24 amidst global flux



Source: Compiled from various monthly HSBC India Services PMI reports

Note: The index varies betgween O and 100, with a reading above 50 indicating an overall increase compared to the previous month and below 50, an overall decrease.

Trade in the Services Sector

Export Growth

- Services exports constituted **44% of India's total exports in FY24**, with a significant share from IT and business services (73% of total services exports).
- **Travel services** saw a 24.6% YoY growth due to post-pandemic tourism recovery.
- **Transportation receipts** decreased by 19.1% YoY, due to lower global freight rates.

Sector Drivers

- **Other business services** (consultancy, PR, advertising) have seen rapid growth.
- India's growing role in Global Capability Centres (GCCs) has boosted software and business service exports.
- **Digital services exports** increased significantly, contributing to India's share in global digitally delivered services growing to 6.0% in 2023.

Imports and Net Receipts

- Services imports dropped by 2.1% YoY in FY24.
- Increased exports and lower imports helped reduce the current account deficit.

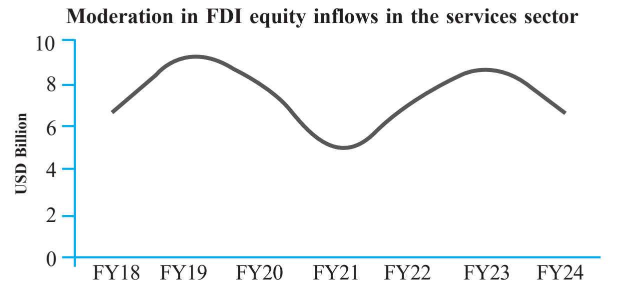
Financing Sources For Services Sector Activity

Bank Credit

- Services sector credit grew by 22.9% YoY, reaching ₹45.9 lakh crore in March 2024.
- Sectors like **aviation** (56% growth), **tourism**, and **real estate** saw significant credit inflows.

External Financing

- India ranked 15th in FDI inflows and 2nd in international project finance deals in 2023.
- **FY24 witnessed a decline in the FDI equity inflows** to the services sector as in the case of the overall FDI equity inflows to India.
  - Higher interest rates, geopolitical conflicts, heightened global uncertainties and rising protectionism that favour domestic sourcing have all contributed to lower FDI inflows into the sector.



Source: Department for Promotion of Industry and Internal Trade (DPIIT) Publication-Quarterly FDI Statistics

Note: (i) The services sector includes Financial, Banking, Insurance, Non-Financial/Business, Outsourcing, R & D, Courier, Tech. Testing and Analysis, Others.

(ii) Values for FY23 and FY 24 are provisional.

- **External Commercial Borrowing (ECB):** The services sector accounted for 53% of total ECB inflows, receiving USD 14.9 billion in FY24, reflecting a 58.3% YoY growth.

SECTOR-WISE OVERVIEW

Roadways

- **Cargo Transport:**
  - **Average waiting time** at toll booths has been significantly reduced from **734 seconds** in 2014 to **47 seconds** in 2024. This has been achieved by the introduction of advanced technologies and efficient processes.
  - The introduction of **ANPR (Automatic Number Plate Recognition)** technology for automatic vehicle identification and **GNSS (Global Navigation Satellite System)** to track and manage vehicles has streamlined tolling and monitoring systems.
- **Safety & Efficiency:**
  - A focus on **road safety** through the implementation of the **4E strategy** — which includes **engineering**, **enforcement**, **emergency care**, and **education** — aims to reduce accidents and fatalities on roads.
  - The **PM Gati Shakti National Master Plan** is a key initiative to improve logistics and transportation networks across the country. By integrating various infrastructural elements using big data and advanced technologies, it aims to reduce delays and improve overall efficiency.
  - The development of **access-controlled highways** to improve the efficiency of freight and passenger transport, along with the introduction of **single-window clearance systems** for faster project approvals, helps speed up infrastructure projects.
- **Challenges:**
  - Ribbon development along highways, where urban areas develop on either side of highways, continues to be a challenge, affecting free movement of goods and services.
  - Slow adoption of digital land records and cumbersome clearance cycles in some regions continue to slow down the development of road projects.

Indian Railways

- **Passenger & Freight Services:**
  - In FY24, passenger traffic reached **673 crore**, a **5.2%** increase from the previous year, highlighting the growth in the number of people using the rail network.
  - **Freight revenue-earning** grew by **5.3%**, totaling **158.8 crore tonnes** in freight transported, which marks the growing importance of railways in moving goods across the country.
- **Digital Enhancements:**
  - Over **6,100 railway stations** have been equipped with **Wi-Fi** to improve passenger experience and access to digital services.
  - The **Rail Sugam app** allows passengers to access essential services such as ticket bookings, train schedules, and other real-time updates.
  - The real-time train management system, along with digitized maintenance processes, enhances operational efficiency and reduces delays.
- **Capacity Building:**
  - The **iGOT Karmayogi platform** is an initiative that offers railway-specific training and educational content to improve the skills of railway personnel, ensuring better service delivery.

Ports, Waterways, and Shipping

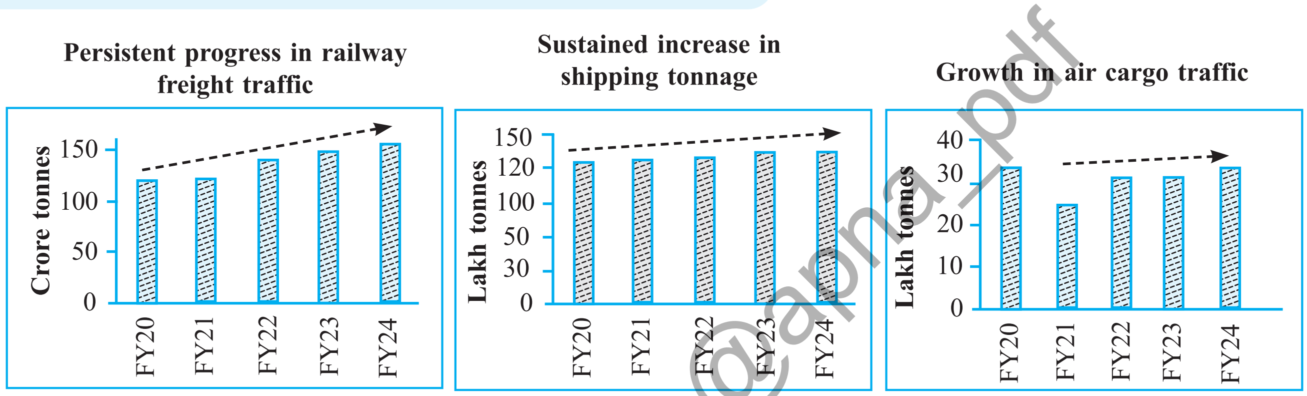
- **Improvements:**
  - The **Sagar Setu app** has been launched to facilitate efficient cargo and vessel operations by providing real-time data and analytics to stakeholders.
  - Efforts are being made to develop **lighthouses as tourist attractions**, boosting tourism and also aiding in navigational safety.
- **Tourism:**
  - **River cruise tourism** has seen significant growth, with the number of tourists opting for river cruises doubling. This has been facilitated by the development of port infrastructure and the promotion of India as a key river cruise destination.

Airways

- **Market Growth:**
  - India now ranks as the third-largest **domestic aviation market** in the world, with **37.6 crore** passengers recorded in FY24, showing a robust growth trajectory for the sector.
  - Domestic traffic grew by **13%** to **30.6 crore**, and **international traffic** surged by **22%** to **7 crore**, reflecting India's growing prominence as a hub for air travel.

- **Cargo and Policies:**
  - The air cargo sector saw an increase of **7%** in Year-on-Year (YoY) growth, handling **33.7 lakh tonnes** of cargo, which is crucial for the transportation of goods within India and globally.
  - The **UDAN scheme**, a key government initiative to enhance regional air connectivity, continues to expand, facilitating air travel to remote and underserved areas.
- **Digi Yatra:**
  - Over **2.5 crore** passengers have benefited from the **Digi Yatra** initiative, which allows for a seamless digital experience at airports using biometric data for identity verification.
- **Women Pilots:**
  - India has made notable strides in increasing the representation of women in aviation. With **15% women pilots**, India has nearly three times the global average of women pilots in the aviation sector.

Physical Connectivity Supporting Economic Activity



Tourism

- **Growth:**
  - India was ranked **39th** in the **World Economic Forum's Travel and Tourism Development Index 2024**, indicating substantial progress in enhancing the tourism infrastructure and services.
  - **Foreign tourist arrivals** saw a remarkable **43.5%** increase in 2023, with foreign exchange receipts growing by **65.7%** YoY to **₹2.3 lakh crore**, reflecting the increasing attraction of India as a tourist destination.
- **Government Initiatives:**
  - The government has launched the **PRASHAD scheme** to develop and enhance pilgrimage destinations, improving facilities for tourists visiting religious sites.
  - The **Swadesh Darshan 2.0** program aims to integrate and enhance tourism development across the country by focusing on sustainable and inclusive tourism.
  - India also chaired the **Shanghai Cooperation Organisation (SCO) Tourism Expert Working Group**, enhancing international collaborations for tourism development.
- **Digital Transformation:**
  - The creation of an **E-Marketplace for tourists** connects travelers with certified guides and services, making it easier for tourists to access quality services.
  - The **SAATHI initiative** educates the hospitality industry on health protocols, ensuring that safety standards are met for tourists.

- **Tourism Initiatives by the Government of India**

Initiative	Key Details	Implementing Agency
Swadesh Darshan 2.0	• Central sector scheme by the Ministry of Tourism • Financial support to selected 57 destinations across 32 States/Union Territories • Focus on sustainability and responsible tourism • Major themes: Culture, Heritage, Adventure, Eco-Tourism, Wellness, Rural, MICE, Beaches, Cruises	Designated by Central/State Governments
PRASAD Scheme	• Launched in 2014–15 • Restores and enhances significant pilgrimage and heritage sites	Identified by State/UT Governments

Dekho Apna Desh Campaign	• Launched in 2020 to promote domestic tourism	Ministry of Tourism
NIDHI Portal	• Registers lodging units across the nation	Ministry of Tourism
SAATHI Initiative	• Sensitizes the hospitality industry on Covid-19 regulations	Ministry of Tourism
Incredible India 2.0	• Focuses on niche markets like yoga, wellness, luxury, wildlife, and cuisine	Ministry of Tourism
RCS-UDAN 4.0	• Covers Northeast routes and seaplane connections • Promotes regional connectivity in aviation	Ministry of Civil Aviation

Real Estate

- **Economic Contribution:**
  - The real estate sector contributes over **7%** to India's Gross Value Added (GVA), underlining its significance to the economy.
  - **Residential sales** reached **4.1 lakh units** in 2023, a strong indication of demand for housing in urban areas.
- **Housing Initiatives:**
  - The **Pradhan Mantri Awas Yojana-Urban (PMAY-U)** scheme has sanctioned **1.2 crore urban houses**, facilitating affordable housing for urban poor.
  - The establishment of the **Affordable Housing Fund** and **SWAMIH Investment Fund** has provided the much-needed financial support for affordable housing projects.
  - The **Co-Lending Model** has been introduced to enhance access to credit for low-income groups in the real estate sector.
- **Future Outlook:**
  - India is expected to experience an increase in urbanization, with **half of India's population** projected to live in urban areas by 2050, driving demand for housing and infrastructure.
  - The digitization of land records and the introduction of **single-window clearances** for construction approvals aim to streamline the process and accelerate the development of real estate projects.

Telecommunications

- **Teledensity Growth:**
  - **Teledensity** in India has risen from **75.2%** in 2014 to **85.7%** in 2024, reflecting the growing access to telecommunications services across the country.
  - As of March 2024, there are **116 crore wireless connections**, showcasing the expanding reach of mobile networks.
- **5G Development:**
  - India launched **5G services** in October 2022 and currently ranks **15th globally** in mobile broadband speed. The rollout of 5G is expected to enhance connectivity and digital services in India.
  - The **Bharat 5G Portal** has been developed to encourage innovation and foster the growth of 5G technology in the country.
- **BharatNet Expansion:**
  - **6,83,175 km** of optical fiber cable has been laid, connecting over **2 lakh Gram Panchayats** as part of the BharatNet initiative, aiming to provide high-speed internet access to rural India.
- **Regulatory Reforms:**
  - The **Telecommunications Act 2023** has been modernized to address the evolving needs of the sector. It includes rationalized spectrum charges and encourages **FDI** (Foreign Direct Investment) in the telecom sector to boost infrastructure and services.

Telecom and Digital Financial Services Initiatives by the Government of India

Initiative/Policy	Objectives/Features	Implementing Body
National Digital Communication Policy 2018	• Broadband for all • 4 million additional jobs in Digital Communications • 8% GDP contribution by the sector	Ministry of Communications
Telecom Technology Fund (TTDF)	• Fosters innovation by connecting academia, startups, industry, and research institutions • Telecom Technology Development Fund (TTDF) aims to fund R&D in rural-specific communication technology	**Universal Service Obligation Fund (USOF)**, a body under the Department of Telecommunications, officially launched Telecom Technology Development Fund (TTDF) Scheme on October 01st, 2022.
BharatNet Project	• World's largest optical fiber rural broadband project • Funded by Universal Service Obligation Fund (USOF) • PPP model with Viability Gap Funding approved	Bharat Broadband Network Ltd.

PM WANI (Wi-Fi Access Network Interface)	• Public Wi-Fi hotspots via Public Data Offices (PDOs) • No licensing or fees required	Department of Telecommunications
Digital Financial Services	• **JAM Trinity:** Links Jan Dhan accounts, Aadhaar, and Mobile for subsidy leakages • **Account Aggregator Framework:** NBFC-regulated; retrieves, shares, and transfers financial data with consumer consent • **Roles:** Financial Information Provider (banks, NBFCs, insurance companies) and Financial Information User (FIU)	RBI
National e-Governance Services Limited (NeSL)	• Registered and regulated by the Insolvency and Bankruptcy Board of India • Provides Information Utility for financial data management	Insolvency and Bankruptcy Board of India (IBBI)

Information Technology Services, Tech Start-ups, and Global Capability Centres

- **IT Services Growth:**
  - The share of IT services in India's GVA has grown from **3.2%** in FY13 to **5.9%** in FY23, demonstrating the sector's increasing contribution to the economy.
  - IT services have become a major source of **exports** and have played a crucial role in the growth of **Global Capability Centres (GCCs)** across the country.
- **GCCs and Employment:**
  - As of FY23, India has over **1,580 GCCs**, providing employment to **16.6 lakh** people in fields such as **R&D**, **IT services**, and **business process management (BPM)**.
- **Technology Start-ups:**
  - In 2023, India saw the creation of **1,000 new start-ups**, establishing itself as the third-largest start-up ecosystem in the world.
  - The sectors of **EdTech**, **EnterpriseTech**, **BFSI**, and **RetailTech** are seeing rapid growth, with **SaaS** (Software as a Service) particularly gaining traction in the global market.
- **Gig Economy and Labor Market Trends**
  - **Gig Workers:** The **gig economy** has expanded, with over **15 million gig workers** in India, a result of the increasing demand for flexible, freelance work in sectors like delivery, IT, and healthcare.
  - **Regulatory Support:** The **National Employment Policy** and **Code on Social Security** have been instrumental in providing gig workers with access to benefits such as health insurance and pensions.

Initiatives Promoting Startups

Initiative	Launched By	Key Features
Startup India	Launched in 2016; Managed by DPIIT	₹10,000 Cr Fund of Funds for equity funding; fast-track wind-up within 90 days; 3-year exemptions from inspections, capital gain tax, and tax on operations; compliance self-certification; listing on GeM.
Startup India Seed Fund Scheme	Managed by SIDBI	Provides financial assistance to startups for prototype development, product trials, and market entry.
NIDHI (National Initiative for Development and Harnessing Innovation)	Department of Science and Technology	Includes incubators, seed funds, accelerators, and proof-of-concept grants to support knowledge-based and technology-driven startups.
Ranking of States on Support to Startup Ecosystems (RSSSE)	DPIIT, Ministry of Commerce and Industry	Evaluates states based on their startup policies and support mechanisms.
Prarambh**:** Startup India International Summit	DPIIT, Ministry of Commerce and Industry	Promotes knowledge exchange and collaborations between startups at the international level.
National Startup Awards	Ministry of Commerce and Industry	Recognizes outstanding startups across various sectors and regions, launched in 2016.

E-Commerce

- **Market Growth:**
  - India's **e-commerce market** is expected to exceed **USD 350 billion** by 2030, fueled by the increasing adoption of digital services, online shopping, and government initiatives like **Digital India**, **UPI**, and **ONDC**.

- **Challenges:**
  - Challenges include **data privacy concerns**, rising instances of **online fraud**, and the need for skill development for small businesses to effectively engage in online selling.
  - The **Consumer Protection (E-Commerce) Rules** and the **Digital Personal Data Protection Act** are crucial initiatives designed to address these concerns and create a safer online marketplace.
- **ONDC:**
  - The **Open Network for Digital Commerce (ONDC)** is an initiative backed by DPIIT aimed at democratizing e-commerce by making it accessible to small businesses, especially in rural areas.
  - **ONDC** has shown impressive growth with **18% growth** in restaurant orders and **52% growth** in grocery orders in FY24.

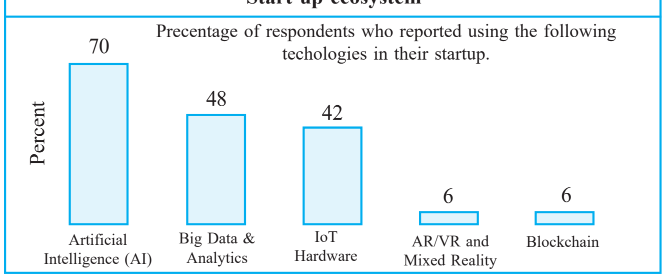
Initiatives Taken By The Government For The Promotion of E-Commerce Sector

Scheme/Rule	Ministry/Department	Objective	Key Features
One District – One Product (ODOP)	DPIIT, Ministry of Commerce and Industry	Facilitate onboarding of district-specific products onto e-commerce platforms.	Increases visibility of small businesses from rural areas by connecting them with digital markets.
Government e-Marketplace (GeM)	Ministry of Commerce and Industry	Enables government entities to procure goods and services online.	Launched in 2016; simplifies procurement for government departments, PSUs, and organizations.
www.tribesindia.com Portal	TRIFED, Ministry of Tribal Affairs	Promote tribal artisans by providing an e-commerce platform for their products.	Facilitates online sales and greater market access for tribal communities.
Open Network for Digital Commerce (ONDC)	Ministry of Commerce and Industry	Enhance market access and digitization for sellers across remote areas.	Helps integrate the remotest sellers into the national e-commerce framework.
Consumer Protection (e-commerce) Rules, 2020	Ministry of Consumer Affairs, Food and Public Distribution	Regulate e-commerce practices to protect consumers.	Includes cost transparency, redressal mechanisms, penal provisions, and ensures compliance with Consumer Protection Act, 2019.

Technology Start-ups in India

- **Growth and Key Stats**
  - Start-ups increased from **2,000 in 2014** to **31,000 in 2023** (NASSCOM).
  - **1,000 new start-ups** emerged in 2023.
- **Top Sectors (2023)**
  - **EdTech (16%), EnterpriseTech (12%), BFSI (10%),** others include Advertising, RetailTech, Media, Gaming.
- **Key Drivers**
  - **Internet Penetration:** Boosted retail tech growth.
  - **UPI (2016):** Catalyzed BFSI start-ups.
  - **Cloud Solutions:** Led to **21 SaaS unicorns**.
  - **COVID-19 Impact:** Growth in **HealthTech** (teleconsulting) and **EdTech** (remote learning).
- **Global Recognition**
  - India's startup ecosystem is ranked **3rd globally** by **NASSCOM**, with **16% of the world's AI talent**.
- **Government Initiatives**
  - **Start-up India Initiative:** Connects ecosystems globally.
  - **National Deep Tech Start-up Policy (NDTSP):** Addresses funding, IP, and regional awareness.
  - **Fund of Funds (₹10,000 crores):** Boosts early-stage funding.
  - **Start-up India Seed Fund Scheme (2021):** Supports prototype and commercialization.
  - **Drone Shakti** and **EV Custom Duty Exemptions:** Foster innovation in drones and EVs.
- **Deep-Tech and Emerging Tech**
  - **13,000+ deep-tech start-ups** in AI, IoT, Robotics, and Nanotech (DPIIT, 2024).
  - Tech adoption**: AI (70%)**, **Big Data (48%)**, **IoT (42%)**.

DeepTech usage is becoming mainstream in India's tech Start-up ecosystem



Insurance Sector

- **Life Insurance Corporation:** LIC was created in 1956; LIC has a share of around 70% in terms of first-year premium income. However, the government has announced the IPO of LIC shares in the budget 2020-21.
- **General Insurance Corporation:** Government-owned insurance company under the Ministry of Finance.
- **Agriculture Insurance Company of India:** A central public sector undertaking under the ownership of the Ministry of Finance. It was incorporated under Indian Companies Act 1956, in 2002.

Insurance sector reforms in India started with the formation of the **Malhotra Committee** in 1993

Insurance schemes backed by the Government

- **Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana**
  - It provides a **5 lakh rupee** sum insured for **secondary and tertiary care per family.**
  - Health Benefits Packages pay for **diagnostics, medications, surgery, medical care, and daycare expenses.**
  - The **National Health Authority**, registered under the **Society Registration Act 1860**, is the **nodal implementing agency**. At the state level, the State Health Agency implements the scheme.
  - **Socio-Economic Caste Census** (SECC) data is used **to identify the beneficiaries**.
  - **Funding Pattern: 60 : 40** for **all states and UTs with their own legislature**.; **90 : 10** in **Northeast** states and **Jammu and Kashmir, Himachal** and **Uttarakhand**; **100%** Central funding for **UTs without legislature.**
- **Pradhan Mantri Jeevan Jyoti Bima Yojana**
  - It was launched by the **Ministry of Finance, in 2015.**
  - It is **accessible** to anyone with a bank account who is between the **ages of 18 and 50.**
  - **Premium is 436 per annum**, excluding service tax.
  - **2 Lakh** will be given **in case of death for any reason**.
- **Pradhan Mantri Suraksha Bima Yojana**
  - It was launched by the **Ministry of Finance in 2015.**
  - It is **accessible** to anyone with a bank account who is between the **ages of 18 and 70.**
  - The **premium is 20 per annum.**
  - The scheme provides **one lakh rupees for partial disability** and **two lakhs rupees for accidental death and total disability.**
  - All Public Sector General Insurance Companies and other insurers willing to participate in the program and collaborate with banks towards this end will offer the scheme.

Insurance Penetration in India

Metric	Details
Insurance Penetration	• Measures the ratio of insurance premiums to GDP. • India's insurance penetration stands at around **4% (2022)**. **USA(11%), U.K (12.5%).**
Life Insurance Penetration	• Life insurance penetration is approximately 3.2% of GDP (2022).
Non-Life Insurance Penetration	• Non-life (general) insurance penetration is around 0.8% of GDP (2022).
Market Growth	• The sector has seen steady growth, driven by increased awareness and government schemes.
Key Factors	• Increased focus on rural areas and underserved markets. • Launch of government-backed schemes like Pradhan Mantri Fasal Bima Yojana (PMFBY) and Ayushman Bharat.
Target	• Aim to increase penetration levels by promoting digital insurance and improving accessibility.

11 Human Capital, Unemployment, Skilling and Poverty

HUMAN CAPITAL

- Human capital represents the collective skills, knowledge, competencies, and attributes individuals acquire through education, training, and health development, enabling them to contribute effectively to economic and social progress.
- Similar to how investment converts land into physical capital, human resources transform into human capital through education and skill-building (e.g., doctors, engineers, teachers). It encompasses both private benefits (e.g., higher income) and social benefits (e.g., economic growth and social cohesion).

Sources of Human Capital Formation

Aspect	Details
Education	Enhances knowledge, technical skills, and cognitive abilities, leading to improved income and productivity.
Health	Investments in healthcare, including preventive and curative measures, ensure a productive and efficient workforce.
On-the-Job Training	Organizational programs that upgrade employee skills, improving their efficiency and output.
Migration	Movement of individuals for better economic opportunities, though it involves associated costs like travel and accommodation.
Information	Access to accurate information on jobs, education, and healthcare ensures optimal decisions in human capital investment.

Physical Capital vs. Human Capital [UPSC 2018]

Aspect	Physical Capital	Human Capital
Decision Process	Based on expected returns and technical knowledge.	Formed through long-term investments in education and health.
Ownership	Tangible; can be bought, sold, and transferred.	Intangible; resides within individuals.
Separation from Owner	Can be separated (e.g., machinery).	Inseparable; tied to individuals' attributes.
Benefits	Provides private benefits to the owner.	Offers both private and societal benefits.
External Benefits	Benefits primarily limited to the owner.	Contributes significantly to societal progress and equity.

Human Capital vs. Human Development

Aspect	Human Capital	Human Development
Focus	Enhances productivity through education and health.	Improves overall well-being and quality of life.
Perspective	Treats individuals as means to economic ends.	Views individuals as ends in themselves.
Purpose	Investments are valued based on their contribution to output.	Investments prioritize personal development and dignity.
Underlying Principle	Economic-centric approach.	Rights-based, welfare-oriented approach.

Human Development Approaches

Approach	Key Idea	Focus Area
Income Approach	Economic freedom correlates with income levels.	Uses income as a measure of well-being.
Welfare Approach	Government maximizes welfare expenditure for public benefit.	Focuses on state-led welfare policies.

Basic Needs Approach	Identifies six basic needs: health, education, food, water, sanitation, and housing.	Targets specific needs to uplift vulnerable populations.
Capability Approach	Advocated by **Prof. Amartya Sen**, emphasizes enhancing individual capabilities.	Promotes empowerment through access to education, healthcare, and resources. **[UPSC 2018]**

Human Capital Formation in India

Key Drivers

- **Education:** Institutions like NCERT, UGC, and AICTE oversee quality and accessibility.
- **Healthcare:** Agencies such as the Ministry of Health and ICMR focus on improving national health indicators.
- **On-the-Job Training:** Many private and public organizations invest in workforce skill development.
- **Migration:** Facilitates resource optimization but poses challenges like brain drain.
- **Information:** Digital initiatives, like Skill India and e-learning platforms, enhance access.

Government Role

- **Policy Frameworks:** Emphasizes inclusive education and health services via flagship schemes like Sarva Shiksha Abhiyan and Ayushman Bharat.
- **Regulation and Quality Assurance:** Prevents market failures and ensures equity in service delivery.
- **Expenditure Focus:** Increased allocation for universal literacy, healthcare access, and vocational training.

Challenges

- Persistent poverty restricts access to education and healthcare.
- Skill mismatches hinder demographic dividend utilization.
- Regional disparities exacerbate inequalities in human capital formation.

LINK BETWEEN HUMAN CAPITAL FORMATION, SKILLING, POVERTY AND UNEMPLOYMENT

Human capital formation plays a critical role in addressing unemployment and poverty by fostering skills development and creating pathways for sustainable economic growth. Here is the interconnected relationship:

Human Capital Formation and Skilling

- **Definition:** Human capital formation involves investments in education, healthcare, and skills to improve individuals' productivity and capability.
- **Skilling:** Focused training and education programs enhance technical, managerial, and entrepreneurial abilities, aligning the workforce with market demands.
  - **Example:** Initiatives like **Skill India Mission** aim to bridge the skill gap and empower workers for higher employability.

Skilling and Unemployment

- **Reduction of Structural Unemployment:** Skill development aligns workforce capabilities with the demands of emerging sectors, reducing mismatches and structural unemployment.
- **Enhancement of Employability:** Skilled individuals are more likely to secure jobs in high-growth industries such as IT, healthcare, and manufacturing.
  - **Example:** Sectors like **Software-as-a-Service (SaaS)** and **HealthTech** have shown robust job growth due to skilling initiatives.
- **Encouraging Entrepreneurship:** Skills training promotes self-employment, reducing dependence on formal job markets and creating new opportunities for others.

Skilling and Poverty

- **Higher Earnings:** Skilled individuals earn higher wages, increasing household income and reducing poverty levels.
- **Breaking the Poverty Cycle:** Skilling interventions provide future generations with access to better education, healthcare, and jobs, breaking intergenerational poverty.
- **Regional Development:** Focused skilling in rural or backward areas empowers marginalized communities, addressing localized poverty.

Human Capital Formation and Poverty

- **Social Mobility:** Education and healthcare investments uplift disadvantaged sections of society, promoting upward mobility and reducing poverty gaps.
- **Empowerment:** Awareness and confidence gained through education and training enable people to escape socio-economic traps of poverty.

Interrelationship and Outcomes

- **Holistic Development:** Human capital formation integrates skilling efforts to address the twin challenges of unemployment and poverty.
- **Multiplier Effect:** Skilled individuals contribute to economic growth, increased consumer spending, and job creation, which further reduce unemployment and poverty.
- **Targeted Interventions:** Policies like the **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)** and **National Skill Development Mission** aim to upskill the workforce, tackling unemployment and poverty simultaneously.

SCHEMES FOR HUMAN CAPITAL DEVELOPMENT

Sector	Scheme	Objective	Latest Update/Details (2024-25)
Education (School)	Samagra Shiksha Abhiyan (SSA)	Improve school education from pre-primary to higher secondary levels.	₹36,453 crore allocated to enhance infrastructure and learning outcomes.
	PM eVIDYA	Enhance digital learning through DIKSHA, TV channels, and online resources.	Covers over 25 crore students through digital platforms.
	PM POSHAN (Mid-Day Meal Scheme)	Provide nutritious meals to school children.	Expanded to include pre-primary children.
	Foundational Literacy and Numeracy (NIPUN Bharat)	Improve foundational skills in literacy and numeracy for children.	₹5,300 crore allocated to strengthen early childhood education.
	PM Uchchatar Shiksha Protsahan Yojana	Strengthen higher education institutions and promote research and development.	₹1,558 crore allocated to improve higher education infrastructure and faculty training.
	Rashtriya Uchchatar Shiksha Abhiyan (RUSA)	Provide financial assistance to state universities for quality and infrastructure improvement.	₹1,815 crore approved under RUSA 3.0 for institutional excellence.
	GIAN (Global Initiative of Academic Networks)	Enhance higher education quality by inviting international faculty.	Over 1,800 courses offered with international experts engaged.
	IMPRINT (Impacting Research Innovation and Technology)	Support research projects addressing national needs.	₹700 crore allocated for interdisciplinary research projects.
Health	Ayushman Bharat - PM-JAY	Provide health insurance up to ₹5 lakh per family per year.	Over 7.79 crore hospitalizations authorized as of September 2024.
	PM Ayushman Bharat Health Infrastructure Mission	Strengthen public health infrastructure.	₹7,300 crore allocated for expanding primary and secondary healthcare facilities.
	National Health Mission (NHM)	Provide accessible and affordable healthcare.	Over 30,000 Health and Wellness Centers operational.
Skilling	Pradhan Mantri Kaushal Vikas Yojana (PMKVY)	Provide industry-relevant skill training.	PMKVY 4.0 focuses on AI, robotics, 3D printing, etc.
	SANKALP (Skills Acquisition and Knowledge Awareness for Livelihood Promotion)	Improve short-term and long-term skill training.	₹380 crore allocated to bridge skill gaps.
	PM Vishwakarma Kaushal Samman Yojana	Support skill upgradation of artisans and craftsmen.	₹13,000 crore allocated in Budget 2023-24.
Employment	MGNREGA	Provide 100 days of wage employment to rural households.	₹86,000 crore allocated in Budget 2024-25.
	PM Employment Generation Program (PMEGP)	Promote self-employment opportunities.	Generated employment for 7.9 million people till July 2024.
	Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)	Skill rural youth and enhance employability.	₹1,200 crore allocated; focuses on industry-relevant skills for rural youth.
Financial Inclusion	PM Jan Dhan Yojana (PMJDY)	Ensure universal banking access.	Over 53.14 crore accounts opened as of August 2024.
	PM Mudra Yojana (PMMY)	Offer loans to non-corporate small/micro enterprises.	₹23 lakh crore disbursed; 41 crore beneficiaries.
	Stand-Up India Scheme	Promote entrepreneurship among SC/ST and women.	Over 2.35 lakh beneficiaries availed loans.

Human Capital: Miscellaneous Facts

Demographic Condition at the Time of Independence

- **Census in British India:** The first census of British India was conducted in 1881. It provided detailed data about the population, its distribution, and demographic patterns. Subsequent census operations occurred every decade, marking an important historical record for assessing the country's progress.
- **Key Demographic Indicators:**
  - **Overall Literacy:** India had a literacy rate below 16% at the time of independence, with the female literacy rate alarmingly low at 7%. This highlights the significant educational challenges the country faced.
    - Improved to 74% **(Census 2011)**
  - **Infant Mortality Rate (IMR):** The infant mortality rate was extremely high at 218 per thousand live births, indicating poor healthcare and sanitation condition
    - **Improvement:** 35.3/1000 **(NFHS-5)**
  - **Life Expectancy:** The average life expectancy at the time of independence was 32 years, reflecting the low standards of healthcare, nutrition, and living conditions.
    - **Improvement:** The female life expectancy at birth is higher at 70.7 years as compared to males which is 68.2 years. **(NFHS-5)**

Human Development Report (UNDP)

The **Human Development Report** by the **UNDP** is an annual publication that ranks countries based on key development indices. It uses five primary indicators to measure and compare human development across the world:

- **Human Development Index (HDI):** Measures overall human development by combining factors such as health, education, and income.
- **HDI adjusted for Inequality:** Adjusts the HDI score to reflect inequality in a country's distribution of health, education, and income.
- **Gender Development Index (GDI):** Measures gender disparities in human development. Countries are ranked based on their deviation from gender parity in HDI.
- **Gender Inequality Index (GII):** Focuses on gender-specific aspects such as reproductive health, empowerment, and labor market participation.
- **Multidimensional Poverty Index (MPI):** Measures poverty based on various deprivations such as education, health, and living standards.

Dimensions and Indicators of Human Development

- **Dimensions of HDI:**
  - **Health of people:** Measured by life expectancy at birth (SDG 3).
  - **Educational Attainment:** Includes both expected years of schooling (SDG 4.3) and mean years of schooling (SDG 4.4).
  - **Standard of Living:** Measured by Gross National Income (GNI) per capita (SDG 8.5).
- **Gender Development Index (GDI):**
  - Countries are categorized based on their gender parity in HDI. Those closer to gender equality have a lower deviation from gender parity.
- **Gender Inequality Index (GII):**
  - The GII measures gender inequalities in three main areas:
    - **Reproductive Health:** Focuses on maternal health and adolescent fertility rates.
    - **Empowerment:** Looks at political and educational empowerment.
    - **Labor Market Participation:** Measures women's involvement in the economy.
- The **Global Gender Gap Index** uses these factors to rank countries based on gender equality. **[UPSC 2017]**

World Happiness Report

The **World Happiness Report**, published annually by the United Nations Sustainable Development Solutions Network (SDSN), assesses the well-being of people across the world. The report evaluates the following factors:

- **GDP per capita:** Economic prosperity of a nation.
- **Personal Freedom:** Level of individual liberty and rights.

- **Social Support:** Availability of social services and community support.
- **Generosity:** Willingness of citizens to contribute to others.
- **Healthy Life Expectancy:** The average number of years a person can expect to live in good health.
- **Levels of Corruption:** Perceived corruption within the government and business sectors.

The report helps assess the relationship between economic prosperity and happiness, with developed nations generally scoring higher due to better social support systems and personal freedoms.

Human Capital Project (World Bank)

The **Human Capital Project** of the World Bank seeks to measure and promote the development of human capital across nations. It uses the **Human Capital Index (HCI)**, which evaluates how well countries are doing in terms of their citizens' potential for productive life. The HCI is based on three key components:

- **Survival Rate:** The under-5 mortality rate. It reflects a country's healthcare system and child nutrition.
- **Quality-Adjusted Schooling:** Combines the quantity of schooling with its quality. It takes into account both the number of years of schooling and the quality of education.
- **Health Environment:** Measures adult survival rates and rates of stunting for children under five. These are indicators of the overall health environment and nutrition standards in a country.

The goal is to ensure that children today can expect to grow up healthier, more educated, and capable of contributing effectively to their country's economy.

National Rural Health Mission (NRHM)

- **Role of ASHA Workers: ASHA (Accredited Social Health Activist)** workers are pivotal in bridging the gap between rural communities and healthcare facilities. They assist in:
  - Accompanying women to healthcare facilities for antenatal care check-ups.
  - Using pregnancy test kits to detect pregnancies early.
  - Educating communities about nutrition, immunization, and maternal health. **[UPSC 2012]**

Janani Suraksha Yojana (JSY)

- **Objective: Janani Suraksha Yojana** is a 100% centrally sponsored scheme aimed at promoting institutional deliveries to reduce maternal and infant mortality rates. It integrates cash assistance for pregnant women and provides post-delivery care.
- **Details of the Scheme:** It incentivizes families to opt for institutional deliveries by providing financial aid to mothers. The scheme is part of India's broader goal to enhance maternal health and reduce preventable deaths. **[UPSC 2012, 2023]**

CARE ECONOMY: MEASURES, SCHEMES, AND POTENTIAL FOR GROWTH IN INDIA

A robust care economy is essential for India's future growth, addressing the pressing needs arising from demographic changes, gender inequalities, and rising economic demands. With an aging population, increasing female labor force participation, and a shift in family structures, India must develop an inclusive and efficient care economy to meet these challenges. This section expands on the importance, development, and policy frameworks necessary to strengthen the care economy in India.

Defining Care Work

Care work refers to the activities and relationships necessary for the care and maintenance of individuals across all age groups. The International Labour Organization (ILO) defines care work broadly to include both paid and unpaid work:

- **Paid Care Work:** Formal caregiving roles in hospitals, daycare centers, and senior care homes.
- **Unpaid Care Work:** Primarily domestic caregiving responsibilities within households, including child-rearing, elderly care, and household maintenance.

Importance of the Care Economy

- **Economic Growth:** The care economy can significantly contribute to India's GDP. Investment in caregiving services can create millions of jobs, improving labor force participation, especially among women. The care sector can be a major growth driver, providing long-term benefits to the economy.
- **Gender Equity:** A well-developed care sector is critical to achieving gender equity. By addressing the unequal burden of unpaid care work, the care economy can reduce gender disparities in labor force participation. Increased female labor force participation is key to improving women's economic outcomes and closing gender wage gaps.
- **Human Development:** Access to affordable care services such as childcare and eldercare improves overall social well-being. These services contribute to better health outcomes, quality education, and social stability, especially among vulnerable groups such as children, the elderly, and women.

Growing Need for a Care Economy

Demographic Changes

India's population structure is evolving rapidly, increasing the need for care services across age groups.

Demographic Category	Current (%)	Projected (%) by 2050
Children (0-14 years)	25%	18%
Elderly (60+ years)	10%	20.8%

- **Implications:**
  - The aging population will create a growing demand for elderly care, while declining child populations will require targeted childcare services.
  - Increased female workforce participation will necessitate accessible and affordable care services for both children and the elderly.

Gender Disparities in Care Work

India's Female Labor Force Participation Rate (FLFPR) remains low, partly due to the disproportionate burden of unpaid care work borne by women.

- **Unpaid Care Work:**
  - **Women:** Average **5.6 hours/day**.
  - **Men:** Average **30 minutes/day**.

This gendered distribution of care work reduces women's ability to engage in formal employment and limits their economic independence.

- **FLFPR Trends:**

Indicator	2017-18	2023-24
Female Labor Force Participation	23.3%	41.7%
Female Participation in Rural Areas	Higher than urban	Higher than urban

Childbirth and Its Impact on Employment

Motherhood often results in reduced employment opportunities for women due to the lack of childcare support. This is particularly prevalent in India, where:

- Many women leave the workforce during child-rearing years.
- Limited access to affordable childcare options restricts women's career progression.

Rural areas tend to have higher rates of female employment due to more flexible job opportunities, but these jobs often lack social security benefits.

Economic Contribution of the Care Economy

Value of Unpaid Care Work

Unpaid care work constitutes a significant portion of India's informal economy, contributing between **15-17%** of GDP. By formalizing this work, India can harness the economic value of caregiving and shift a significant proportion of informal care into the formal economy.

Potential for Job Creation

Globally, the care economy is projected to create significant job opportunities. For India:

Investment in Care Economy	Potential Jobs Created	Percentage for Women
2% of GDP	11 million	70%

Multidimensional Impact of Care Services

Childcare Services

Childcare is crucial for improving female labor force participation. Evidence from countries like **Mexico** and **Brazil** shows that public childcare programs have significantly boosted female employment.

In India, programs such as the **Palna Scheme** aim to provide working mothers with affordable childcare options through **Anganwadi-cum-Crèches**. By addressing the challenges faced by working mothers, these schemes can enhance workforce participation and economic independence.

Government Initiative	Scope	Target
Palna Scheme	17,000 Anganwadi-cum-Crèches	Working mothers

Elder Care Reforms

India's aging population will require comprehensive elder care infrastructure. The dependency ratio, which measures the number of dependents (children and elderly) relative to the working-age population, is expected to rise from **less than 20% in 2022** to **over 30% by 2050**.

This demographic shift calls for policy reforms in elder care, including:

- **Caregiver support programs**.
- **Skilled training** for eldercare providers.
- **Incentives for caregivers**, such as tax breaks and benefits.

Policies for Elder Care

Currently, India lacks a cohesive elder care policy. Recommendations include:

- Government investment in elderly care infrastructure.
- Tax incentives for businesses offering eldercare services.
- Multigenerational living support and elder-friendly community programs.

EMPLOYMENT OVERVIEW

Self-Employed vs Hired Workers

Aspect	Self-Employed Workers	Hired Workers
Nature of Work	Own and operate businesses or freelance.	Work for an employer with regular wages.

Income Stability	Irregular, dependent on market conditions.	Regular income with job security.
Workforce Proportion	Accounts for about 52% of the workforce.	Accounts for 48% of the workforce.

Categories of Workers in India

Category of Worker	Description
Self-Employed Workers	Own and operate businesses (e.g., cement shop owner)
Casual Wage Labourers	Temporarily engaged in agriculture or construction, receive wages
Regular Salaried Employees	Receive stable wages with job security (e.g., civil engineer)

Gender Distribution

Aspect	2011-12	2023-24
Self-Employed	52% of the workforce	54% of the workforce
Casual Wage Work	25% of the workforce	26% of the workforce
Regular Salaried Work	23% of the workforce	20% of the workforce
Self-Employed Men	56% of the workforce	58% of the workforce
Self-Employed Women	46% of the workforce	50% of the workforce
Casual Wage Work (Men)	23% of the workforce	24% of the workforce
Casual Wage Work (Women)	27% of the workforce	30% of the workforce
Regular Salaried Work (Men)	23% of the workforce	21% of the workforce
Regular Salaried Work (Women)	21% of the workforce	19% of the workforce

Unemployment

Definition of Unemployment: The **National Statistical Office** defines it as a state where people are **not employed** but are actively seeking work. Economists define an **unemployed person** as someone who cannot find **one hour** of work in half a day.

Sources of Unemployment Data

Unemployment data is collected from: **Census of India Reports, National Statistical Office Reports, Annual Reports of Periodic Labour Force Surveys and Directorate General of Employment and Training**

Types of Unemployment in India

1. **Open Unemployment**: Actively seeking but unable to find a job.
2. **Disguised Unemployment**: Excessive employment in sectors like **agriculture** that do not contribute to increased productivity. **[UPSC 2013]**
3. **Seasonal Unemployment**: Common in rural areas, especially **agriculture**, where people migrate during off-seasons.
4. **Cyclical Unemployment:** Result of the business cycle, where unemployment rises during recessions and declines with economic growth.
5. **Technological Unemployment**: Loss of jobs due to changes in technology.
6. **Structural Unemployment:** Unemployment arising from the mismatch between the jobs available in the market and the skills of the available workers in the market.
7. **Frictional Unemployment/Search Unemployment:** Time lag between the jobs when an individual is searching for a new job or is switching between the jobs; Considered as voluntary unemployment.

Key Employment and Unemployment Indicators

- **Labor Force Participation Rate:** Percentage of persons in the labor force (i.e., working or seeking or available for work) in the population.
- **Proportion Unemployed (PU):** Percentage of persons unemployed in the population.
- **Activity status:** Determined on the basis of the activities pursued by the person during the specified reference period.
- **Usual Status:** When the activity status is determined on the basis of the reference period of the last 365 days preceding the date of survey.
- **Current Weekly Status:** Activity status determined on the basis of a reference period of last 7 days preceding the date of survey.

Employees' State Insurance Act of 1948

The **Employees' State Insurance Act of 1948** is a piece of social security legislation that covers medical care and financial benefits in the events of sickness, maternity, disability, or worker death as a result of work-related injuries.

- The Act applies, in the first instance, to nonseasonal factories employing 10 or more persons.
- The Act's provisions apply to institutions, including industrial, commercial, agricultural, and other types. New classes of businesses, including shops, hotels, restaurants, cinemas, including preview theaters, road-motor transportation undertakings, and newspaper businesses with 20 or more employable workers are covered under the Act. **[UPSC 2012]**

EMPLOYMENT: INSIGHTS FROM ECONOMIC SURVEY 2023-24

India's labor market has seen significant improvement over the past six years, with the unemployment rate declining to **3.2% in 2022-23**. Enhanced youth and female workforce participation signals substantial opportunities. The organized manufacturing sector has rebounded, with formal employment witnessing growth.

As artificial intelligence (AI) transforms various sectors, adapting to the job market remains crucial. Promising avenues for quality employment include agro-processing and the care economy, with skilling and regulatory reforms needed for further job creation.

Current Employment Scenario

India's employment scenario is shaped by economic reforms, technological progress, and skill development:

- **Urban Unemployment (Quarterly):** Decreased from **6.8% (Q1 2023)** to **6.7% (Q1 2024)** for individuals aged 15+ (PLFS).
- **Workforce Estimate:** Approximately **56.5 crore (2022-23)** (PLFS).
- **Workforce Distribution:**
  - Agriculture: **45%**
  - Manufacturing: **11.4%**
  - Services: **28.9%**
  - Construction: **13%**
- **Employment Types:**
  - Self-employed: **57.3%** (significant female participation in agriculture).
  - Unpaid household workers: **18.3%**
  - Casual labor: **21.8%**
  - Regular wage/salaried workers: **20.9%**

Youth and Female Employment

Rising Youth Employment

- Youth unemployment rate (ages 15-29) reduced from **17.8% (2017-18)** to **10% (2022-23)** (PLFS).
- **EPFO Subscribers:** Nearly two-thirds of new subscribers are aged 18-28, indicating growing youth employment.

Female Labour Force Participation (FLFPR)

- FLFPR rose consistently, increasing significantly in rural areas from **24.6% (2017-18)** to **41.5% (2022-23)**.
- Growth supported by:
  - Higher agricultural output.
  - Access to basic amenities (clean cooking fuel, sanitation).

Manufacturing Sector Employment

- **Recovery Post-Pandemic:** Wages in organized manufacturing increased (ASI 2021-22).
- **Factory Landscape:**
  - Smaller factories (<100 employees): **79.2%**
  - Larger factories (>100 workers): Growing employment share and offering better wages.
- **Sector-Wise Employment:**
  - Food Products: **11.1%**
  - Textiles: **10%**
  - Primary Metals, Apparel, Motor Vehicles: **7% each**
  - Computers, Electronics, Chemicals: Significant growth.

Government Initiatives for Employment

Job Creation & Worker Welfare

- **National Career Service (NCS):**
  - **4.1 crore jobseekers**, **25.6 lakh employers**, **407 career centers**, **46,000 job fairs** (March 2024).
- **e-Shram Portal:** National database of **29 crore unorganized workers**.
- **Aatmanirbhar Bharat Rojgar Yojana (ABRY):** Benefited **60.5 lakh individuals**.
- **Pension & Insurance Schemes:**
  - Atal Pension Yojana: **7.15 crore subscribers (Dec 2024)**.
  - Pradhan Mantri Shram Yogi Maan-Dhan: **50 lakh enrollees**.
  - Insurance coverage via Pradhan Mantri Jeevan Jyoti Bima Yojana, Suraksha Bima Yojana.
- **Self-Employment & Entrepreneurship:**
  - PM Mudra Yojana: **47.7 crore loans** (March 2024).
  - Stand-Up India: Supported **2.29 lakh SC/ST & women entrepreneurs**.
  - Start-Up India: DPIIT-recognized startups created **12.42 lakh jobs** (2023).

Labour Code Simplification & Reforms

- **Integrated Labour Codes:** Consolidated 29 laws into **four Codes** (Wages, Industrial Relations, Social Security, Occupational Safety).
- Challenges:
  - Restrictive regulations limit opportunities.
  - Women's employment barriers in industries like petroleum and chemicals.
  - Comparatively rigid overtime and work-hour rules.

Technological and Economic Transitions

Fourth Industrial Revolution

- **Technological Disruption:** Advances in AI, IoT, and automation reshape job markets.
- **Job Forecast (WEF 2023):**
  - 23% of jobs will change globally by 2028.
  - India-specific roles in education, agriculture, digital commerce, AI, and cybersecurity.

AI Impact on Employment

- **AI Exposure:** 26% of Indian jobs are highly exposed, while **14% will benefit positively**.
- **AI in Action:** Automation in routine tasks, AI in manufacturing, BPO, education, and healthcare sectors.
- **Government Initiatives:**
  - Future Skills Prime.
  - YUVAi (Youth for AI).
  - India AI Mission (**₹10,300 crore**).

Gig Economy

- **Growth:** From **7.7 million (2020-21)** to an expected **23.5 million (2029-30)** workers (NITI Aayog).
- **Drivers:** Technological platforms, internet access, and skill-specific demand.
- **Challenges:** Social security remains inadequate despite provisions in the Code on Social Security (2020).

Climate Change and Job Creation

Impact of Climate Change

- **Heat Hazards:** Expected loss of **3.8% global working hours** (2030) affecting **agriculture and construction** workers.
- **Health Risks:** Innovative programs like SEWA's heat-linked insurance address worker vulnerabilities.

Green Energy Transition

- **Job Potential:** Renewable energy could generate **3.4 million jobs** by 2030 (solar & wind capacities).
- **ESG Standards:** Encourage investments, driving employment.

Future Job Creation Needs (Until 2036)

Projections

- Workforce growth based on:
  - **Rising female WPR:** From **27% (2023)** to **40% (2036)**.
  - **Declining agricultural workforce:** From **45.8% (2023)** to **25% (2047)**.

Policy Measures

- Enhance existing schemes like **PLI** (Production Linked Incentives), **MITRA Textile**, and **MUDRA**.
- Expand **flexi-jobs** and improve regulatory frameworks for MSMEs.

Agro-Processing: A Rural Employment Catalyst

- **Low Value Addition:** India's agricultural value addition (4.5% for fruits, 2.7% for vegetables) lags behind global benchmarks (30%-80%).
- **Market Potential:** Indian food processing market to reach **$535 billion by 2025** (15.2% CAGR).
- **Successful Models:** Sahyadri FPC, Araku Coffee, Mahagrapes.
- **Demand Opportunities:** Supplying Aanganwadis, mid-day meals, urban markets, and exports.
- **Program Convergence:** Integrate Mega Food Parks, Skill India, and NABARD.

SKILLING: LEVERAGING INDIA'S DEMOGRAPHIC ADVANTAGE

India is undergoing a significant transformation in its skilling landscape, leveraging its demographic advantage and equipping its workforce with essential skills to meet the demands of the global market and Industry 4.0. With increasing youth population, government policies, and initiatives have focused on converting this demographic dividend into a productive workforce. The progress in skill development across various sectors and schemes is a testament to India's potential in this area.

Leveraging Demographic Advantage

India's **youth population** (15-29 years) represents a significant portion of the global workforce, making it crucial to align skilling initiatives with industry requirements and global standards. As of **2022-23**, **4.4%** of youth received formal training, while **16.6%** received informal training (PLFS 2022-23).

> **Demographic Dividend**
>
> The **demographic dividend** is the economic growth potential arising from a shift in population dynamics, where the proportion of the working-age population (15–64 years) exceeds the dependent population (children and elderly). This window of opportunity fosters higher productivity, savings, and economic benefits if complemented by investments in education, healthcare, job creation, and governance. **[UPSC 2011, 2013]**

The **Skill India** initiatives, supported by the **National Skill Development Corporation (NSDC)**, aim to enhance the employability and productivity of the workforce through continuous upskilling and reskilling programs.

Global Comparison: India vs. Developed Economies

Metric	India	Developed Economies (e.g., USA, Germany, South Korea)
Formal Training Rate	4.4% (PLFS 2022-23)	50%+ (World Bank estimates for EU and OECD countries)
Workforce Skilled in AI	10% (approx.)	20-30% (Coursera Global Skills Report 2023)
Vocational Training Access	Limited (~15%)	Broad (60-70% in Germany's dual system, 80%+ in South Korea)
Women in Skilling Programs	~52% (PMKVY FY24)	Higher (70%+ participation in Scandinavian countries)

Equipping the Workforce for Industry 4.0

The focus of skilling in India has shifted towards **Industry 4.0**, ensuring that workers are prepared for emerging technologies such as **AI**, **robotics**, **automation**, and **advanced manufacturing**. This initiative is complemented by government schemes that emphasize **digital literacy**, **technical skills**, and **entrepreneurship development**.

Government Schemes for Skill Development

India's skilling initiatives are backed by several schemes under the **Ministry of Skill Development and Entrepreneurship (MSDE)** that cater to diverse sectors:

Scheme	Focus	Key Achievements
PMKVY	Short-term skill training and certification, with mandatory on-the-job training	Women participation increased to 52.3% in FY24
Craftsmen Training Scheme	Long-term vocational training in ITIs and NSTIs	Women's participation increased to 13.3% in FY24
Jan Shikshan Sansthan (JSS)	Capacity building in communication and management skills	82% of beneficiaries are women
National Apprenticeship Promotion Scheme (NAPS)	Promotes apprenticeship training by reimbursing partial stipends	Women's participation increased to 20.77% in FY24
Entrepreneurship Training	Training for entrepreneurship, with 3.21 lakh beneficiaries between FY19 and FY24	Focus on women's participation and rural youth
Skill India Digital Platform	Convergence of skilling, education, and employment using AI/ML technology	Integration with 690 online courses and 1650 e-books

International Mobility and Skill Development

India has made substantial progress in enhancing international mobility for skilled workers through **Skill India International Centres (SIIC)** and **NSDC International Limited**. The government announced the setting up of **30 SIICs**, with centers operational in **Varanasi** and **Bhubaneswar**. These centers are crucial in providing global job opportunities in sectors such as **Information Technology**, **Construction**, and **Hospitality**.

Targeted Skilling Initiatives

In addition to the MSDE schemes, targeted skill development initiatives focus on sectors like **green hydrogen**, **agriculture**, and **traditional trades**:

- **Jal Jeevan Mission**: Aims to provide skilling for water sector-related jobs and has created multi-skilling courses.
- **PM Vishwakarma Scheme**: Offers skill training for traditional artisans in 18 trades, focusing on modern toolkits.
- **Green Hydrogen**: Development of **50 new qualifications** for skilling, upskilling, and re-skilling in this emerging sector.
- **Agniveer Special Skill Provisions**: Focuses on skill certification for soldiers in defense services, ensuring smooth transition to civilian jobs after their service period.

Industry Collaboration in Skilling

The success of India's skilling initiatives relies heavily on collaborations between the government and the private sector, ensuring that training programs are aligned with market needs. **Industry collaboration** through the **NSDC** has facilitated:

- **Skill Impact Bonds**, launched in 2021, target training **50,000 youth**, ensuring that **60%** are female.
- **Flexi MoU Scheme**: Partnerships with companies like **Maruti Suzuki**, **Toyota Kirloskar**, and **NMDC** have led to **9,600 trainees** receiving industry-specific training.
- **Dual System of Training (DST)**: A program covering **978 ITIs** and training **37,865 apprentices** in FY22.

PM Vishwakarma Scheme

This scheme supports traditional artisans and craftspeople by providing skill recognition, upgradation, and access to credit and marketing aid. Over **2 crore applications** have been received, with **4.37 lakh candidates** trained. The scheme covers **18 trades** and offers stipends and allowances for training and travel.

Enhancing Skilling Outcomes

Aligning skill development with high-growth sectors such as **textiles**, **tourism**, and **green energy** can significantly enhance the impact of training programs. Key reforms to improve apprenticeship frameworks include:

- **Flexible Apprenticeship Programs**: Allowing for flexible working hours and better compensation models based on international best practices (e.g., **Switzerland** and **Germany**).
- **Regulatory Adjustments**: Simplifying the apprenticeship framework to reduce government involvement and ease compliance for businesses.

The **National Apprenticeship Promotion Scheme (NAPS)** and **National Apprenticeship Training Scheme (NATS)**, which support apprenticeships in various sectors, have engaged over **32 lakh apprentices** since FY17.

Conclusion and Way Forward

Positive Transformation and Challenges

India's employment landscape has evolved significantly in the past decade. The country has made substantial progress in formalization, skill development, and inclusive growth, aided by government initiatives. However, challenges remain, particularly in:

- **Formalizing the workforce**, especially in agriculture and the informal sectors.
- **Creating job opportunities** in underdeveloped sectors.
- **Ensuring social security** for vulnerable populations.

Key Opportunities and Considerations

- The **agro-processing sector** offers substantial job creation potential for **rural youth** and **women**.
- The **"silver dividend"** (untapped work capacity of older people) can boost GDP through their participation in the workforce.
- Addressing **unpaid care work** and developing **affordable care infrastructure** is crucial for increasing women's participation in formal employment.
- **AI research and development** must be strategically directed towards fostering shared prosperity and future growth.

Role of the Private Sector

The private sector plays a pivotal role in job creation and should prioritize:

- **Capital-labor balance**.
- **Fair income distribution**.
- **Social stability** through employment generation.

Private companies can also contribute by addressing the skilling challenge through **market-based solutions**, with the government's role in removing regulatory hurdles.

Looking Ahead

As India faces challenges like technological shifts, climate change, and geopolitical tensions, there is a pressing need for:

- **Collaboration** between the government, private sector, and society to create a **thriving job market**.
- Focus on generating **economic growth** through a diverse range of livelihood opportunities beyond traditional sectors.

The transformation of India's skilling ecosystem, guided by both public policy and private sector collaboration, will be a key driver in shaping the future workforce, ensuring India's demographic dividend is leveraged effectively for sustainable economic growth.

POVERTY

Poverty is a state of economic and social deprivation where individuals or households lack the resources to meet basic living standards. It is a multidimensional issue encompassing economic, health, education, and living standards. This analysis examines definitions, measures, committees, formulae, key data, and India's progress in addressing poverty.

Definitions of Poverty

World Bank Definition: Poverty is defined as living on less than the **International Poverty Line**, currently set at **$2.15 per day** (PPP, 2022). This measure represents absolute poverty, emphasizing survival needs.

Socio-Economic Caste Census (SECC) and BPL Estimation

The **Socio-Economic Caste Census (SECC)** is a critical tool used by the Indian government to identify Below Poverty Line (BPL) households for targeted welfare programs. Conducted in **2011**, the SECC provides a multidimensional assessment of household deprivation, focusing on housing, income, employment, and social vulnerabilities.

Three-Step Process in SECC for Identifying BPL Households

- **Automatic Exclusion:**
  - Certain households were excluded based on pre-defined wealth or asset ownership criteria, such as owning a motorized vehicle, refrigerator, or land above a specific threshold.
- **Automatic Inclusion:**
  - Households meeting extreme deprivation indicators were automatically included.
    - **Destitute Households:** Households without any adult member aged 16 to 59 years.
    - **Primitive Tribal Groups (PTGs):** Households belonging to PTGs.
    - **Single-Parent Households:** Households headed by a single mother with no adult male member aged 16 to 59 years.
    - **Manual Scavengers:** Households where the head is a manual scavenger.
    - **Destitute Persons:** Households where the head is a destitute person.
- **Neither Automatically Included nor Excluded:**
  - For these households, inclusion was determined based on **seven deprivation criteria**.

Seven Deprivation Criteria Used in SECC

- **Housing Condition:**
  - Households with **only one room** and no solid walls or roof.
- **Demographic Vulnerability:**
  - Households with **no adult male aged 15–59 years**.
- **Gender-Based Vulnerability:**
  - Female-headed households with no adult male members aged 15–59.
- **Disability:**
  - Households with differently abled members and no able-bodied member.
- **Economic Dependence:**
  - Landless households deriving major income from **manual labor**.

- **Literacy and Social Vulnerability:**
  - SC/ST households with no literate members aged above 25 years.
- **Special Deprivation:**
  - Households with no able-bodied members capable of earning a livelihood.

Findings of SECC (2011)

- **Poverty Estimates:**
  - Percentage of people **below the poverty line (BPL)** in 2011-12:
    - **Rural Areas:** 30.95%
    - **Urban Areas:** 26.4%
- **Household Characteristics:**
  - Highlighted the structural and economic disparities across India.
  - Used for identifying beneficiaries under schemes like **NFSA**, **Ayushman Bharat**, and **Ujjwala Yojana**.

> **District Rural Development Agencies (DRDAs)**: The role of the DRDA is in terms of planning for effective implementation of anti-poverty programmes; coordinating with other agencies- Governmental, non Governmental, technical and financial for successful programme implementation; etc.; It watches over and ensures effective utilization of the funds intended for anti-poverty programmes. **[UPSC 2012]**

> However the Government had decided to discontinue District Rural Development Agencies (DRDA) with effect from 01.04.2022

Multidimensional Poverty (UNDP and OPHI)

The UNDP and the Oxford Poverty and Human Development Initiative (OPHI) introduced the **Multidimensional Poverty Index (MPI)** to capture broader aspects of deprivation:

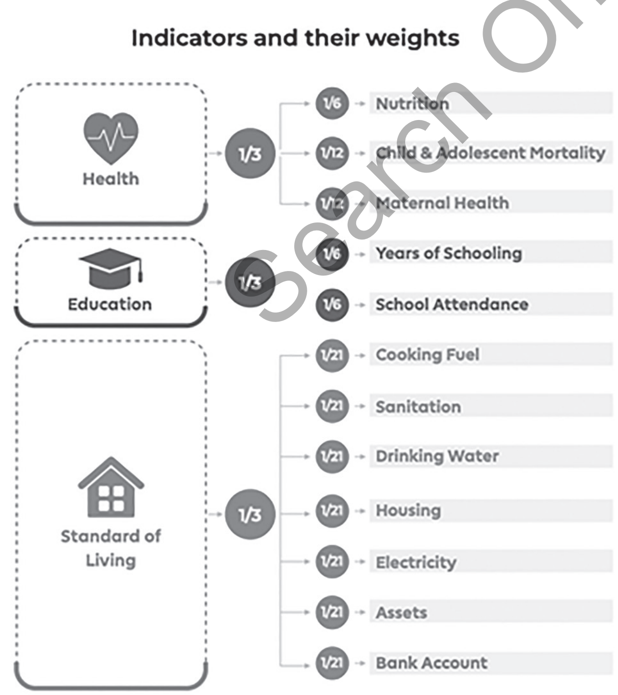
- **Dimensions**:
  1. **Health**: Nutrition and child mortality.
  2. **Education**: Years of schooling and attendance.
  3. **Living Standards**: Deprivations in sanitation, water, housing, cooking fuel, electricity, and assets.

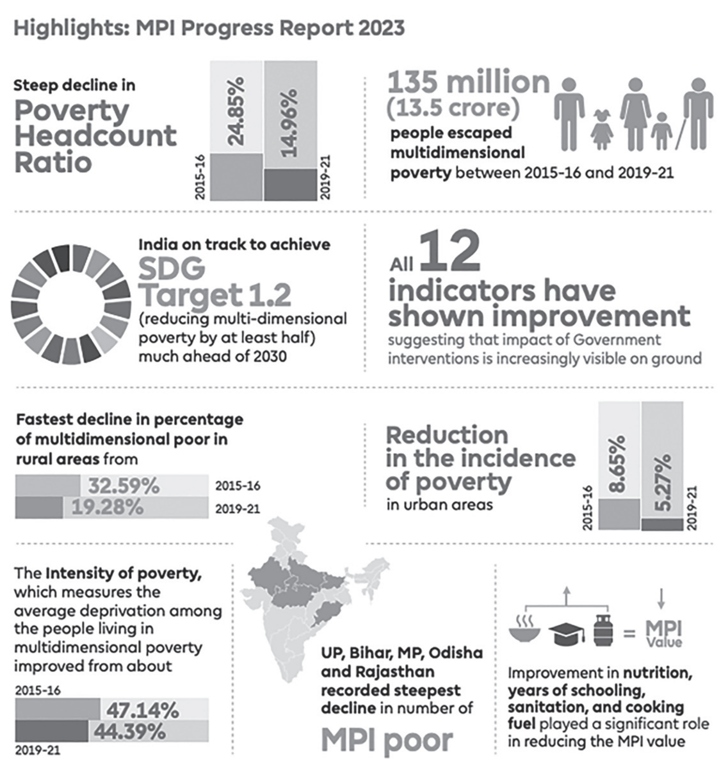
India's Multidimensional Poverty Index (NITI Aayog)

India adapted the global MPI to its context, aligning it with national priorities:

- **Dimensions and Indicators (12 indicators)**
  1. **Health:** Child mortality, maternal health, and nutrition.
  2. **Education:** Years of schooling and school attendance.
  3. **Living Standards:** Access to sanitation, drinking water, housing, electricity, cooking fuel, assets and financial inclusion.

These dimensions highlight India's efforts to address economic and non-economic poverty factors, reflecting policy changes aimed at improving basic services and infrastructure.

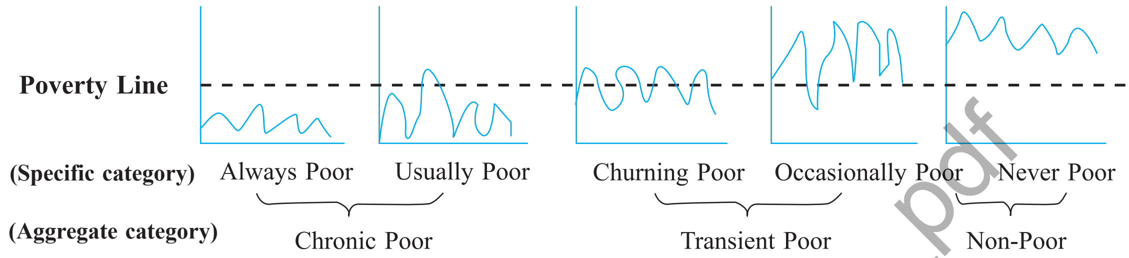




Categorizing Poverty

Category	Description
Always Poor	Individuals who are consistently poor and struggle to meet basic needs.
Chronic Poor	People who are usually poor but occasionally have some extra income (e.g., casual workers).
Churning Poor	Individuals who regularly move in and out of poverty (e.g., small farmers, seasonal workers).
Occasionally Poor/ Transient Poor	People who are generally well-off but experience temporary periods of poverty due to bad luck.
Never Poor	People who consistently have sufficient income and are not at risk of poverty.

The Chronic Poor, Transient Poor and Non-Poor



Intensity of Poverty and MPI

The **Intensity of Poverty (A)** reflects the average proportion of deprivations among the multidimensionally poor, while the MPI combines the **headcount ratio (H)** and **intensity of poverty (A)** to measure overall deprivation.

Formula for MPI

MPI=H×A

- **H**: Proportion of people who are multidimensionally poor.
- **A**: Average proportion of weighted deprivations experienced.

For example, if 30% of people are poor and their average deprivation is 40%, the MPI is:

MPI=0.3×0.4=0.12

Key Committees and Their Approaches

Alagh Committee (1979)

- **Objective:** Establish poverty lines based on nutritional requirements.
- **Methodology:**
  - Defined a poverty line based on minimum calorie consumption of **2,400 calories/day (rural)** and **2,100 calories/day (urban)**.
  - Computed consumption expenditure required to meet these calorie norms at **1973-74 prices**:
    - **Rural:** Rs. 49.1 per capita/month.
    - **Urban:** Rs. 56.7 per capita/month.
  - Adjusted for inflation in subsequent years.
- **Significance:** Introduced the calorie-nutrition linkage as a benchmark for poverty estimation.

Lakdawala Committee (1993)

- **Objective:** Update the methodology for poverty estimation using state-specific indices.
- **Methodology:** Retained calorie-based norms but introduced the following changes:
  - **State-Specific Poverty Lines:** Adjusted for cost variations using **CPI-AL (rural)** and **CPI-IW (urban)**.
  - Assumed the consumption basket of CPI-AL and CPI-IW reflected poor households' needs.
- **Outcome:**
  - Rural poverty was estimated at **28.3%** and urban poverty at **25.7%** for **2004-05**.

Tendulkar Committee (2009)

- **Objective:** Address limitations in calorie-based methods and reflect changing consumption patterns.
- **Key Shortcomings Addressed:**
  - **Outdated Poverty Line Basket (PLB):** Calorie-based norms from **1973-74** did not account for changes in consumption.
  - **Price Adjustment Issues:** Spatial (regional) and temporal (over time) adjustments were inadequate.
  - **Exclusion of Private Expenditures:** Earlier methods excluded private spending on **health and education**, assuming these were State-provided.
- **Methodology:**
  - Shifted to **uniform PLB across rural and urban areas.**
  - Included **private health and education expenditure**.
  - Adjusted prices more accurately for regional and temporal inflation.

- **Outcome:**
  - Revised poverty lines (2004-05):
    - **Rural:** Rs. 446.68 per capita/month.
    - **Urban:** Rs. 578.80 per capita/month.
  - Estimated **41.8% rural poverty** and **27.5% urban poverty**, significantly higher than Lakdawala's estimates.
  - **Estimated poverty in 2011-12: 21.9% of the population**.

Rangarajan Committee (2014)

- **Objective:** Refine poverty estimation to align with international standards.
- **Methodology:**
  - Returned to **nutrition-based norms**:
    - **Rural:** 2,155 calories/day.
    - **Urban:** 2,090 calories/day.
  - Expanded consumption basket to include **basic needs like clothing, housing, transport, education, and health**.
  - Used **Monthly Per Capita Expenditure (MPCE)** for revised poverty lines:
    - **Rural:** Rs. 972 per capita/month.
    - **Urban:** Rs. 1,407 per capita/month.
- **Outcome:**
  - Estimated poverty at **30.9% in rural areas** and **26.4% in urban areas** for **2011-12**, significantly higher than Tendulkar's estimates.
  - **Estimated poverty in 2011-12: 29.5% of the population**.

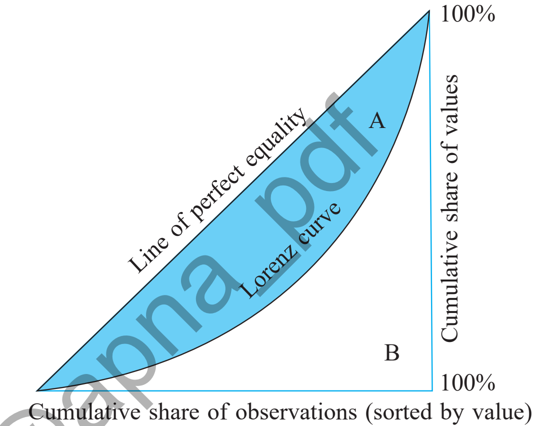
India's Progress in Poverty Reduction

- **IMF (2023)**: Over **140 million Indians** exited extreme poverty between 2015 and 2021 due to economic reforms and targeted welfare schemes.
- **UNDP (2023)**: Over **415 million people** moved out of multidimensional poverty between 2005-06 and 2019-21.
- **World Bank (2022)**: Recognized India's success in reducing poverty, emphasizing inclusive growth and financial inclusion.

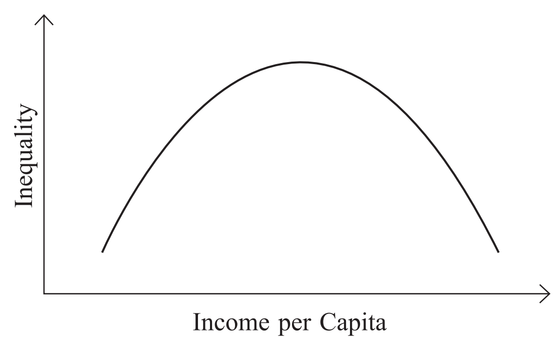
India's reduction in poverty aligns with the UN's **Sustainable Development Goals (SDGs)**, particularly SDG 1 (No Poverty).

Key Terminologies in Poverty Measures

- **Headcount Ratio (H)**: Proportion of the population below the poverty line:
  - **H=Number of poor individuals/ Total population**
- **Poverty Gap Index**: Reflects the shortfall of incomes of the poor from the poverty line.
- **Sen Index**: Combines headcount ratio, poverty gap, and inequality among the poor.
- **Lorenz Curve:** A graphical representation of income or wealth distribution within a population, showing the degree of inequality.



  - **Gini Coefficient**: Measures income inequality; ranges from **0 (perfect equality)** to **1 (maximum inequality)**.
  - **Formula: A/ A+B**
- **Kuznets Curve:** A hypothesis that as an economy develops, market forces initially increase, then decrease economic inequality.



POVERTY ALLEVIATION SCHEMES

Sector	Scheme	Objective	Latest Update/Details (2024-25)
Rural Development	Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)	Provide guaranteed 100 days of wage employment to rural households.	₹86,000 crore allocated in Budget 2024-25; over 260 crore person-days of work generated.
	Pradhan Mantri Awaas Yojana - Gramin (PMAY-G)	Provide pucca houses with basic amenities to rural poor.	Over 2.67 crore houses completed as of November 2024.
	National Rural Livelihood Mission (NRLM)	Enhance rural livelihoods through self-employment and entrepreneurship.	₹15,047 crore allocated in 2024-10.05 crore women mobilized into SHGs.

Urban Development	Deendayal Antyodaya Yojana - National Urban Livelihoods Mission (DAY-NULM)	Skill urban poor for self-employment and wage employment.	13 lakh urban poor trained under Skill Training Programs.
	PM Street Vendor's Atma NirbharNidhi (PM SVANidhi)	Provide working capital loans to street vendors.	Total of 88.98 lakh loan applications amounting to ₹12,035.59 crore have been sanctioned as of May 2024
Food Security	National Food Security Act (NFSA)	Ensure food security through subsidized grains to eligible beneficiaries.	Covers 81 crore people under PMGKAY.
	Integrated Child Development Services (ICDS)	Provide supplementary nutrition, immunization, and pre-school education for children and mothers.	₹20,000 crore allocated for nutritional support under ICDS in 2023-24.
Health	Ayushman Bharat - PM-JAY	Provide health insurance up to ₹5 lakh per family per year to economically weaker sections.	Over 7 crore hospitalizations authorized; ₹5,500 crore allocated.
	Mission Indradhanush	Universal immunization for children and pregnant women.	5.46 crore children and 1.32 crore pregnant women vaccinated as of december 2024.