



# UPSC - IAS

**Civil Services Examinations**

**Union Public Service Commission**

**General Studies**

**Paper 3 – Volume 1**

**Economy**



# UPSC CSE - IAS

## Economy

### Paper – 3 Volume 1

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# 1 CHAPTER

# Economics and Economy



Year		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Pre	Mains	-	-	-	1	-	-	-	-	-	-	-

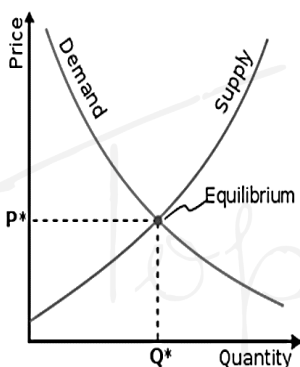
## Toppers Analysis

**Weightage from the Exam's point of view:**

**Prelims:** 20-25% questions are asked from this topic in Polity

**Mains:** 2-3 question is always asked from this chapter in mains

The students will learn about various acts and evolution of the constitution of India.



## ECONOMICS

- A social science concerned Mainly with description and analysis of the production, distribution, and consumption of goods and services
- Economics is considered as **Dismal** (poor/depressing) science as it doesn't give exact reasons of happenings w.r.t economics
- sometimes regarded as **failed science** as it fails to identify crisis. e.g., 2008 economic crisis, corona crisis etc.
- yet it is **valuable in nature** due to its potential scope, as economic activity is part of everyone's life in form of exchange of goods/services/money.
- It works on demand and supply principle and balancing allocation of scarce resources to fulfill needs (maintaining equilibrium).

## Concepts of Economics

### Microeconomics

- **Bottoms-up approach**
- It studies how **individuals** and businesses make **decisions to allocate resources**.
- **Supply and demand**, as well as other factors that influence **price levels**.
- Can be **used to make decisions by potential investors**.
- Illustrates the **commodities and services required** for a healthy economy.
- It also **forecasts which items and services are in high demand** in the future.
- **Professor Ragnar Frisch** Coined the term microeconomics and macroeconomics.

### Macroeconomics

- **Top-down Approach**.
- It studies the behaviour and performance of an **economy as a whole**.
- **Focuses** on foreign trade, government **fiscal & monetary policy**, unemployment rates, level of **inflation**, interest rates, the growth of total production output & business cycles that result in expansions, booms, recessions, and depressions.
- A **method of analyzing economic and fiscal policy**.
- Ensures that the **country's economic resources** are used to their **full potential**.
- John Maynard **Keynes** is **generally regarded as the father** of contemporary macroeconomic theory.
- It is generally an **advanced and complex form** of economics that deals with the **reasons and impacts of Microeconomics**.

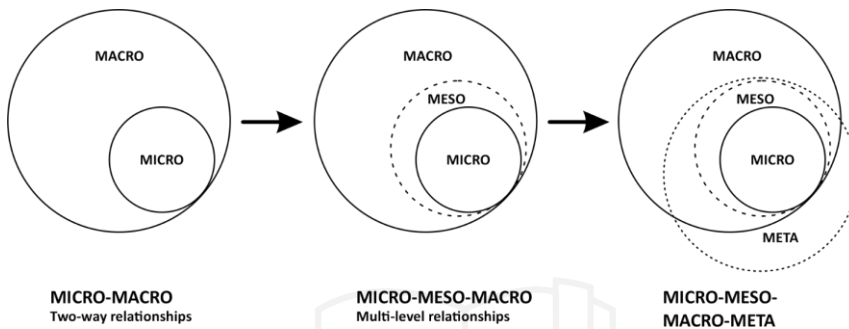
## Mesoeconomics or Mezzoeconomics

- Meso-economics studies the institutional aspects of the economy that are not captured by micro or macroeconomics.
- Meso-economic thinking argues that the country's economy is not a two-, but a three-tier structure
- The most important feature of a meso-economic framework is to study the actual web of contracts,

formal or informal, in family, corporate, market, civil, and social institutions

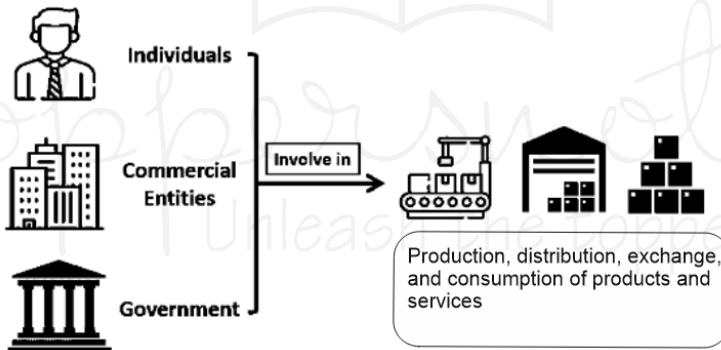
## Metaeconomics

- it broadens rational economic choice to include the moral and ethical dimension within a shared other-interest.
- It asks questions like why an economy is more competitive and sustainable than others



## Economy and Types of Economy

What is Economy?



## Open Economy

- An open economy has economic relations with other countries.
- Economic activities of such an economy are affected by international fluctuations.
- The size of national income may be greater or smaller than the domestic income.
- It is a realistic economy.

pressure to offer the best quality of goods and services to consumers.

- Job creation by foreign industries.
- It increases investment opportunities, economic growth and economic development.
- Participation of national production in the world economy and greater exploitation of the potential and export to the world.

## Advantages of an open economy

- Greater quantity of goods and services for consumers and increase in competitiveness and, therefore, in the

## Disadvantages of an open economy

- Foreign production can pose a threat to national production that doesn't have the same resources or technological advances to compete in quality and price.

- It is susceptible to global risks such as a slowdown or economic crisis. ( )
- a completely open economy risks becoming too dependent on imports.
- Domestic producers can suffer in an open economy because they cannot compete at low international prices.

### Closed Economy

- Does not have economic relations with the rest of the world.
- Activities taking place outside the territory do not affect the economic activities.
- There is no difference between national income and domestic income.
- It is an imaginary economy.

### Advantages of closed economies

- A closed economy can be beneficial because it can help a country to protect its industries and jobs.
- Price fluctuations can be easily fixed.
- There is no competition in the economy for domestic producers, hence they flourish and grow.
- Self-sufficiency is native to the economy, resulting in saving a lot of foreign reserves and preventing resource outflows

### Disadvantages of closed economies

- When running a closed economy, a country has no exposure to the external sector.
- There is no export or import.
- Likewise, there are no capital flows or international financial transactions.

Q. A “closed economy” is an economy in which (2011)

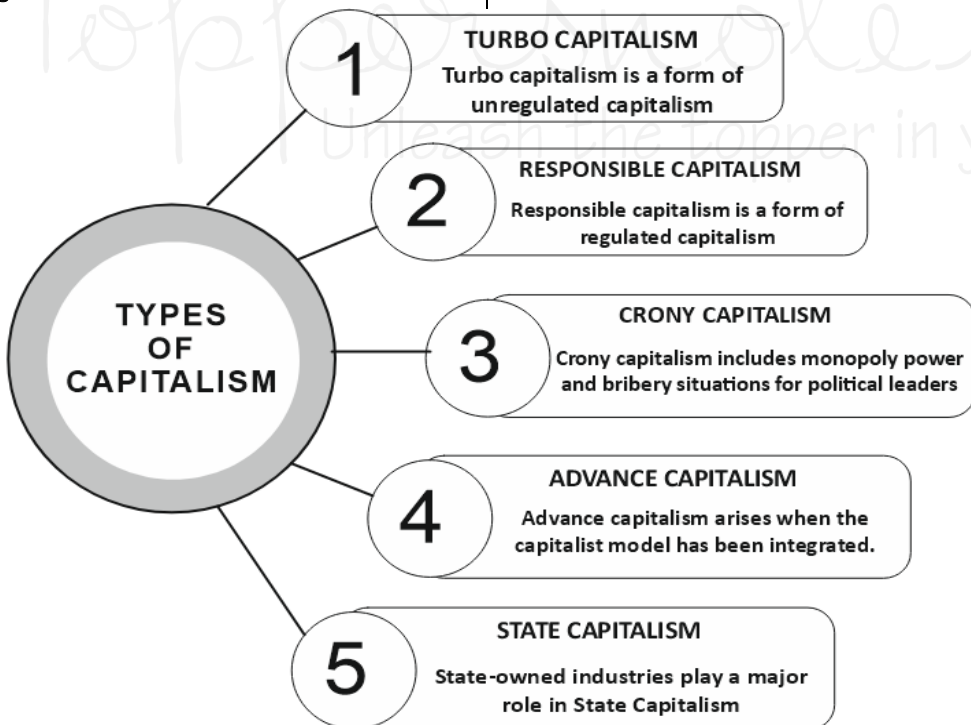
- the money supply is fully controlled
- deficit financing takes place
- only exports take place
- neither exports nor imports take place

Solution (d)

## Various economic ideologies

### Capitalism

- capitalism, also called free market economy or free enterprise economy, economic system, dominant in the Western world since the breakup of feudalism,
- Capitalism is characterized by private ownership, where owners control the factors of production and derive their income from it.
- Owners compete against others in their industries to sell goods at the highest possible price while keeping costs as low as possible.
- In this system competition stabilizes prices while keeping production efficient.



## Socialism

- The features of socialism are the opposite of those just listed for capitalism and were spelled out most famously by Karl Marx
- The role of the state will be more comprehensive and it influences every field of public life.
- The state accumulates the sources of production.
- It determines the fields of different businesses and executes them according to priorities.
- In a socialist economy, the means of production are not with the capitalists.
- The state holds the ownership on the means of production and they are utilized for the benefit of the society.
- The state takes steps to uplift the standard of living of the people.
- Economic activities and planning are done centrally.
- Accordingly, the funds are allocated to facilitate the sensible and fair growth of resources for the benefit of all.
- The socialist economy makes equal distribution of income and opportunities without consideration of family, caste and rights of property.

## Mixed Economy

- A mixed economy blends features of both free market (capitalism) and command economies (socialism).
- The **government** and **private sector** share influence in economic decisions.
- While the **government regulates specific sectors and offers public goods** like education, healthcare; individuals and **businesses retain ownership rights, profit-making opportunities, and market participation.**

### Anarcho-capitalism

- It is a political philosophy advocating for the **abolition of the state** and the **privatization of law and order** through a free-market system.
- The term is coined by libertarian economist **Murray Rothbard**.
- However, it gained recent attention with **Javier Milei**, self-identified as an anarcho-capitalist, winning the Argentine presidential race.
- In an anarcho-capitalist society, individuals will **pay private police and courts** for protection and dispute resolution.

	Capitalism	Socialism
<b>Ownership</b>	Assets owned by private firms	Assets owned by government/co-operatives
<b>Equality</b>	Income determined by market forces	Redistribution of income
<b>Prices</b>	Prices determined by supply and demand	Price controls
<b>Efficiency</b>	Market incentives encourage firms to cut costs	Government owned firms have fewer incentives to be efficient
<b>Taxes</b>	Limited taxes/limited government spending	High progressive taxes/Higher spending on public services
<b>Healthcare</b>	Health care left to free-market	Healthcare provided by government free at point of use
<b>Problems</b>	Inequality, market failure, monopoly	Inefficiency of state industry, less incentives
<b>Advantages</b>	Dynamic economy, incentives for innovation and economic growth	Promotion of equality. Attempt to overcome market failure.

**Q.** Capitalism has guided the world economy to unprecedented prosperity. However, it often encourages shortsightedness and contributes to wide disparities between the rich and the poor. In this light, would it be correct to believe and adopt capitalism driving inclusive growth in India? Discuss.

**(Mains GS 3) 2014**

### Liberal economics

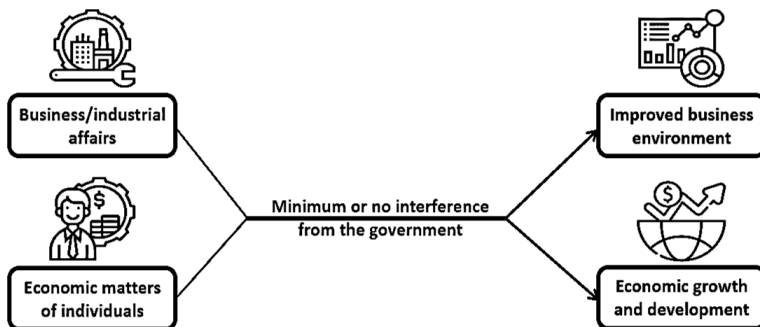
- An economic philosophy is founded on the belief that individuals are rational in the decisions they take in the economic system.
- Producers make goods and services that are in demand.
- Consumers spend their money to realize maximum value for it.
- The rationalities of all the economic actors-producers, traders, consumers and others, add-up to collective and systemic rationality that guides the economy well.

## Neoliberalism Theory

- It is linked to a Laissez-Faire Economy, an ideology that advocates for the government to intervene as little as possible in people's and society's economic affairs.

- Focuses on the free trade and privatization etc.
- It favors private enterprise and seeks to transfer the control of economic factors from the government to the private sector.

## Laissez - Faire Concept



## Keynesian Economics

- Keynesian economics gets its name, theories, and principles from British economist John Maynard Keynes (founder of modern macroeconomics)
- The focus of Keynesian economics is using active government policy to manage aggregate demand to address or help prevent recessions.
- Keynesian economists justify government intervention through public policies that aim to achieve full employment and price stability.
- The Keynesian solution is known as pump priming the economy like Bharat Mala for national highways and Pradhan Mantri Gram Sadak Yojana (PMGSY).
- Improvements in SDG 1, i.e. 'No Poverty', can be brought about through expansion of employment guarantee schemes such as MGNREGA in rural areas and expanding it to include informal workers in urban areas as well.
- 'Make in India' is one such initiative launched by the government to boost the export sector.

## The Beijing Consensus/ Chinese Economic Mode/ State Capitalism

- One is that the State owns large businesses itself and they co-exist with the private sector.
- This is a form of market economy capitalism, in which the authoritarian State acts as the dominant economic player, by owning and controlling businesses, and uses markets primarily for political capital.
- It is floated as a rival of the Washington Consensus.
- In this concept State sets long-term strategic priorities, and pursues them in multi- year plans.
- It is called socialism in the format of Chinese characteristics, but critics call it capitalism with Chinese characteristics.
- Based on three pillars:
  - Constant experimentation and innovation
  - Peaceful distributive growth with gradual reforms
  - Self-determination and inclusion of selective foreign ideas

## Difference b/w Nehruvian & Gandhian economy

Gandhian economy	Nehruvian economy
His thought is based on small scale and locally oriented production; using local resources and meeting local needs	He personally believed in the values of welfare State and equity.
Gandhi wanted village as an independent unit	Nehru wanted it a subordinate unit to a higher organization
Gandhi wanted a cottage based economy.	Nehru dreamt of major Industries in India.

## Washington Consensus

- This is a set of economic policy recommendations for developing countries, and Latin America in particular, that became popular during the 1980s.
- It minimized the state's role in the economy
- It pushed an aggressive free-market agenda of deregulation, privatization, and trade liberalized
- In summary, The Washington Consensus recommended structural reforms that increased the role of market forces in exchange for immediate financial help
- The Original Principles of The Washington Consensus is a set of 10 principles.

- These principles are based on tax reform, ownership, trade regulation, exchange rate etc.
- It was aggressively promoted by the IMF and the World Bank.
- It advocates free trade, floating exchange rates, free markets and macroeconomic stability.

### Santiago Consensus

- Drafted by the International Working Group of SWFs and welcomed by the IMF's International Monetary Financial Committee in 2008
- This is an alternative to the Washington Consensus.
- The concept of the model is inclusion which should not be only economic but social too.

### Abenomics

- It refers to the economic policies advocated by Shinzo Abe since the December 2012 general election.
- It is based upon "three arrows" of fiscal stimulus, monetary easing and structural reform.

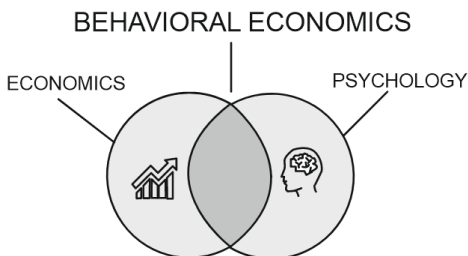
**Note-** The greatest structural issue facing the Japanese economy is the aging of society and shrinking of the population.

### Behavioural Economics

- Behavioral economics combines elements of economics and psychology to understand how and why people behave the way they do in the real world.
- It differs from neoclassical economics, which assumes that most people have well-defined preferences and make well-informed, self-interested decisions based on those preferences.

### Note-

- Economic Survey 2019 has brought in the Behavioural Economic Theory that provides insights to “nudge” the people to make economically and socially desirable choices
- In India many schemes that employ insights from behavioral economics have met with success like The Swachh Bharat Mission (SBM) and Beti Bachao, Beti Padhao (BBBP) scheme etc.



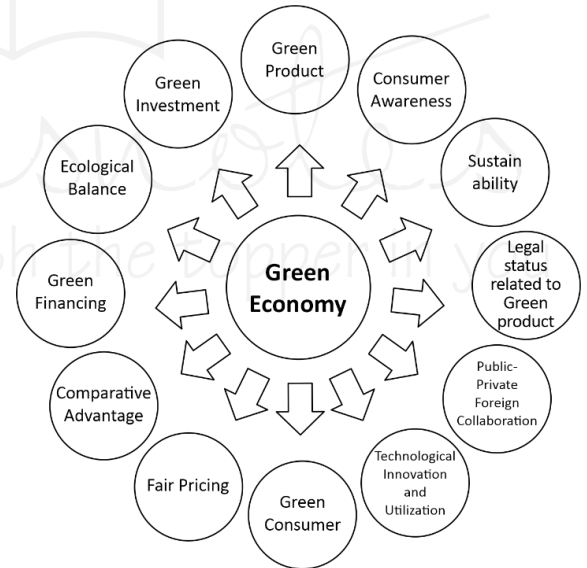
### Note -

- In behavioral economics, a “nudge” is a way to manipulate people’s choices to lead them to make specific decisions.
- For example, putting fruit at eye level or near the cash register at a high school cafeteria is an example of a “nudge” to get students to choose healthier options.
- An essential aspect of nudges is that they are not coercive: Banning junk food is not a nudge, nor is punishing people for choosing unhealthy options.

### Inclusive Green Economy

- A green economy is defined as low carbon, resource efficient and socially inclusive.
- It invests in protecting, growing and restoring biodiversity, soil, water, air, and natural systems.
- The Green Economy provides a macro-economic approach to sustainable economic growth with a central focus on investments, employment and skills.

**Note -** The term green economy was first coined in a pioneering 1989 report for the Government of the United Kingdom by a group of leading environmental economists, entitled Blueprint for a Green Economy.





# 2 CHAPTER

# Micro-Economics

- Microeconomics is the study of individuals, households and firms' behaviour in decision making and allocation of resources.

## Important Terms

### Opportunity Cost

- The cost of sacrificing one option when the consumer has to choose the other option.
- Opportunity Cost = Return of Next Best Alternative Not Chosen - Return of the Option Chosen

### Utility

- Utility of a commodity is its want satisfying capacity.
- The stronger the desire to have something the greater is its utility
- However, it is subjective.

Units Consumed	Total Utility	Marginal Utility
1	10	10
2	18	8
3	24	6
4	28	4
5	30	2
6	30	0
7	28	-2

### Production Possibility Frontier

- It is a curve that shows the different combinations of goods that can be produced with the available resources.
- In order to produce X quantity of some good, we have to forego Y quantity of another good.

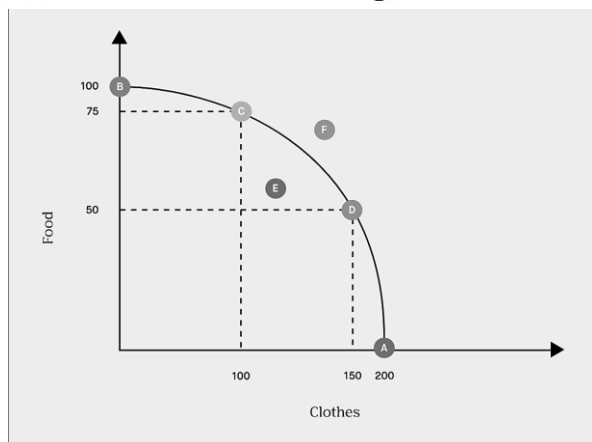
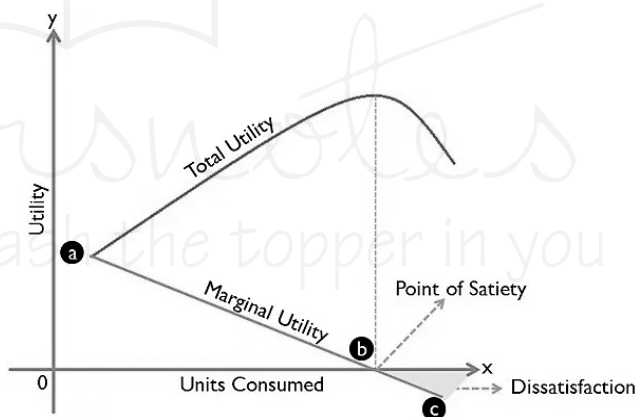
- Differs from place to place
- Differs from person to person

### Measures of Utility

- **Total utility:** Total utility is the total contentment procured from utilising the given amount of some goods.
- **Marginal utility:** It is the difference in total utility due to the utilisation of one extra unit of goods or commodities.

### Law of Diminishing Marginal Utility

- The marginal utility from consuming each additional unit of a commodity declines as its consumption increases, while keeping consumption of other commodities constant.

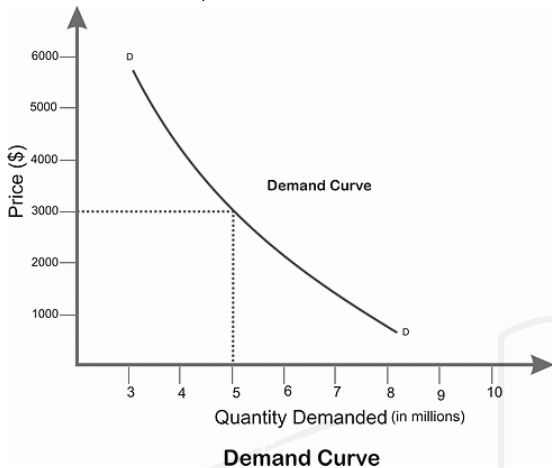


## Demand

- The quantity of a commodity that a consumer is willing to buy and is able to afford, given prices of goods and consumers' tastes and preferences.

### Law of Demand

- While keeping other things constant when the price of the commodity increases, the quantity demanded of that commodity falls.



## Categorisation of Goods

Goods: No one pays directly and No one is excluded

Types	Free goods	Common goods	Public goods
Examples	Air	Fishponds, grazing land	Street light, Defence
Free or Paid?	Free	Free	Free
Can anyone be excluded from using it?	No	No	No
Rivalry in consumption?	No	Yes	No
Opportunity Cost?	No	No	Yes

Goods: You have to pay or else you will be excluded

Types	Private / Economic Good	Club Good / Artificially Scarce Good
Free or Paid?	Paid	Paid
Can anyone be excluded from using it?	Yes; you can't use it without paying.	Yes; you can't use it without paying.
Rivalry in consumption?	Yes	No

- These goods can also be subclassified into
  - **Merit Good:** books, e-books etc.
  - **Demerit Good:** alcohol, violent video games etc.

#### 1. Normal Goods

- The goods whose demand increases with increase in the income level and decreases with decrease in income level.
- Eg. Cars, AC etc.

## Types of Demand

### Cross demand

- The demand of a product is not subjected to its own price but the price of other similar products.
- Tea-Coffee, Coke-Pepsi etc.

### Joint Demand

- Items used together and bought together
- Car-Petrol, Tea-Sugar, Bread-Butter etc.
- Here, if cars become expensive then demand for petrol also falls as less people buy cars and vice versa.

### Composite Demand

- Total demand of a good with multiple alternative uses.
- Steel demanded by spoons & cutlery factories, pipe makers, automobile industry etc.

### Derived Demand

- A demand for a commodity, service, etc. which is a consequence of the demand for something else.
- The demand for raw materials is directly tied to the demand for products that require the raw material for their production.

### Determinants of Demand

- Own price of the given commodity
- Price of related goods
- Income of the consumer
- Tastes and preferences of the consumer
- Future expectations about price and income

#### 2. Inferior Goods

- The goods whose demand decreases with increase in income level and vice versa.
- Eg. used cars, discount clothing etc.

#### 3. Luxury Goods

- The goods for which demand increases more than what is proportional as income rises.
- Eg. jewellery, diamond etc.

4. **Complementary Goods:** Goods which are consumed together. Eg. Car-Petrol, Tea-Sugar, Bread-Butter etc.
5. **Substitute Goods:** The goods which can be used in place of each other. Eg. Tea-Coffee, Coke-Pepsi etc.
6. **Giffen Goods:** Those goods where demand increases with increase in price because there is no ready substitute for them. They are essential goods, such as rice, potatoes and wheat.
7. **Veblen Goods:** Luxury items that connote status in society, such as cars, yachts, designer jewellery.

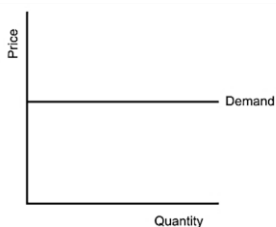


Figure 1: Perfectly Elastic Demand

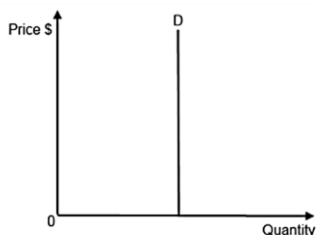


Figure 2: Perfectly Inelastic Demand

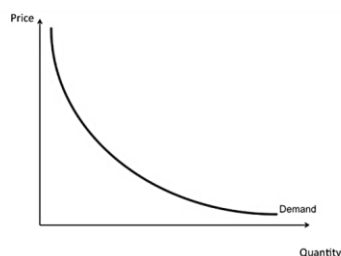


Figure 3: Unitary Elastic Demand

## Elasticity of Demand

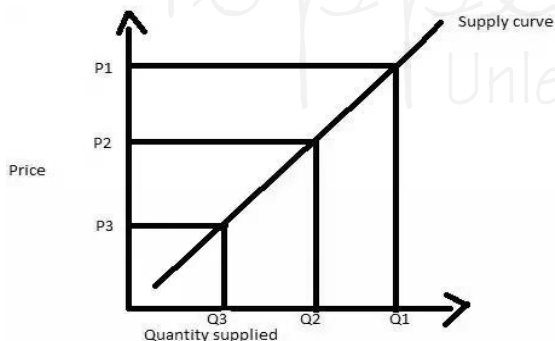
- It describes how sensitive a good's demand is to changes in other economic variables like prices and income.
- Higher demand elasticity for an economic variable indicates that the customers are more conscious of changes in this variable.

## Supply

- The total amount of a specific good or service that is available to consumers.

### Law of Supply

- While keeping other things constant, if there is an increase in price of goods, it will lead to an increase in the quantity supplied also.

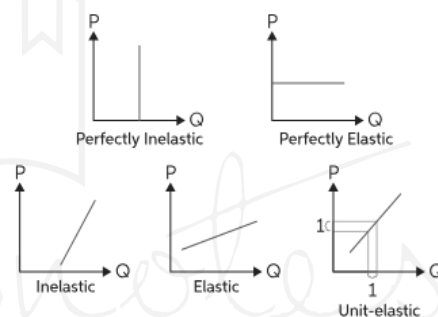


### Determinants of Supply

- Cost of Production
- Taxes
- Advancements in Technology

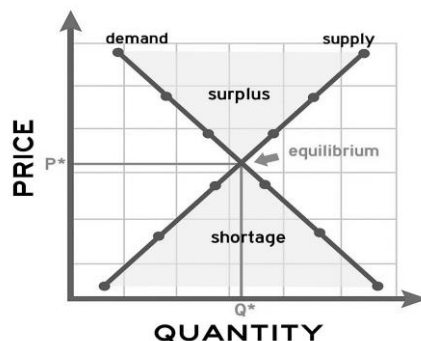
### Supply Elasticity

- It is a measure of the responsiveness of an industry or a producer to changes in demand for its product.
- Put simply, it measures a producer's ability to effectively cope with changes in demand.



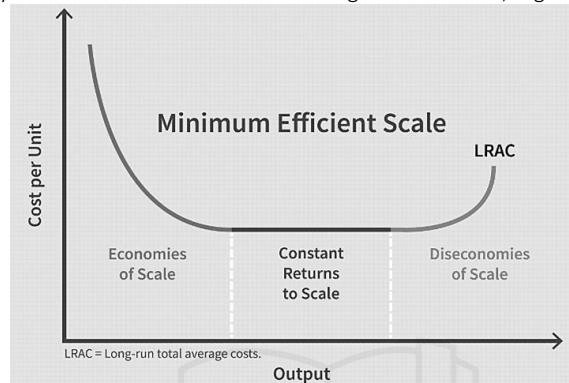
## Equilibrium Price

- aka market clearing price
- The price at which the producer can sell all the units he wants to produce, and the buyer can buy all the units he wants.



## Economies of Scale

- It occurs when a company reaches a certain level of production where the cost of production will not be increasing, instead it is reduced.
- Such a situation takes place when products are produced in bulk.
- Two types of economies of scale
  - **Internal Economies** arise from the expansion of the organisation itself, leading to real cost savings.
  - **External Economies** stem from factors outside the organization, such as improved transportation. These external factors enhance the organization's efficiency, resulting in reduced production costs per unit.
- **Diseconomies of Scale** may arise due to internal issues resulting from technical, organisational, or resource constraints.



## Economies of Scope

- It occurs when a company produces various products, and as a result, the cost of production gets reduced.

## Market Structure

- Market is a place where buyers and sellers come to close contact with each other and purchase and sale of commodities takes place.
- Market structure refers to the different structures that the market forms depending on the number of buyers and sellers.

### Paradox of Thrift

- By John Maynard Keynes
- This theory states that personal savings can be detrimental to economic growth.
- If during recession people try to save more then this will lead to fall in the aggregate demand and hence further fall in economic growth.

### Invisible Hand

- By Adam Smith, the Father of Economics
- It is an unseen market force that maintains the equilibrium in demand and supply of goods in a free market.

### 1. Perfect Competition

- Large number of buyers and sellers
- Identical products
- Sellers have freedom to enter or exit the market
- Firms face a perfectly elastic demand curve.

### 2. Monopolistic Competition

- Large number of buyers and sellers.

- Products are similar but not identical
- Freedom to enter or exit the market any time
- Entries are not as easy as perfect competition.

### 3. Monopoly

- Single seller selling goods.
- No close substitute of the goods produced available
- Restriction on the entry and exit of the existing firm
- Price discrimination

### Price Discrimination

- It happens when a company charges **different prices to different groups of consumers** for an identical good.
- Eg. Airfares differ based on how early one books the ticket.

### 4. Oligopoly

- Existence of few suppliers only.
- Change in the price of the products by one firm influences the others
- Barrier to entry or exist
- Eg. oil companies, semiconductor manufacturing companies etc.

### 5. Monopsony

- Existence of few or a single buyer
- No close substitute of the product available
- Eg. a coal factory in a particular region

# 3

## CHAPTER

# Economic Growth and Development



Year		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Pre	Mains	-	-	-	-	-	-	-	-	-	-	-
		-	-	2	1	-	-	1	1	-	1	-
		-	-	-	-	1	1	-	-	1	-	2
		-	-	-	-	-	-	-	-	-	1	-
		-	-	-	-	-	-	-	-	-	-	-

### Toppers Analysis

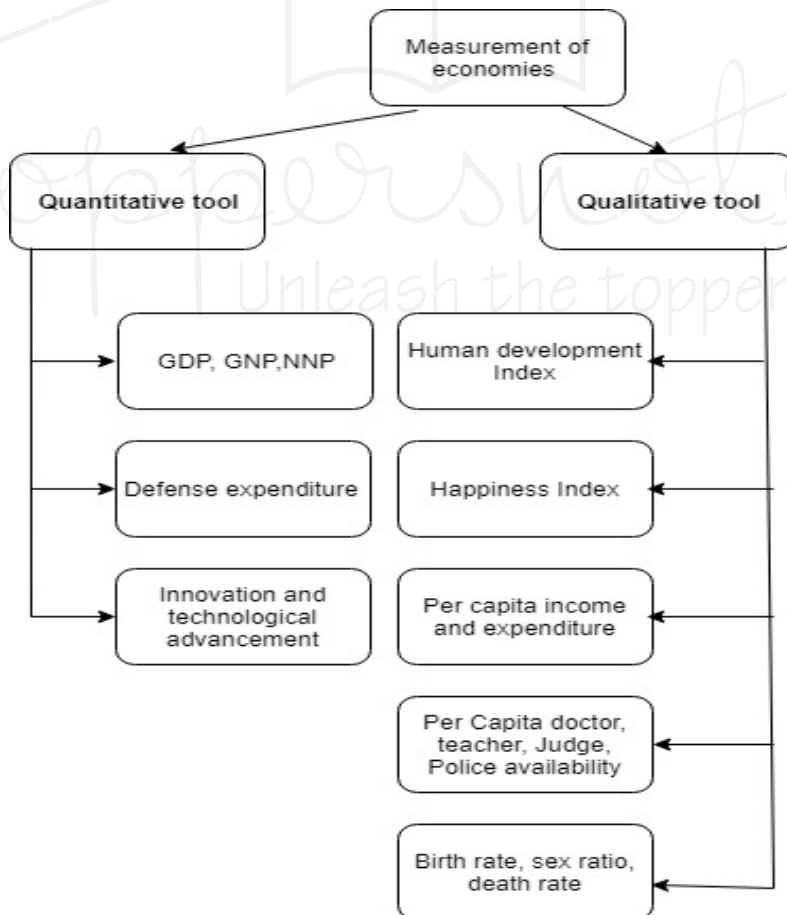
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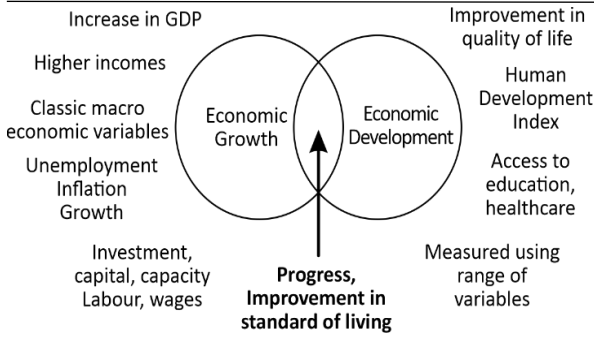
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### Economic growth vs Economic development





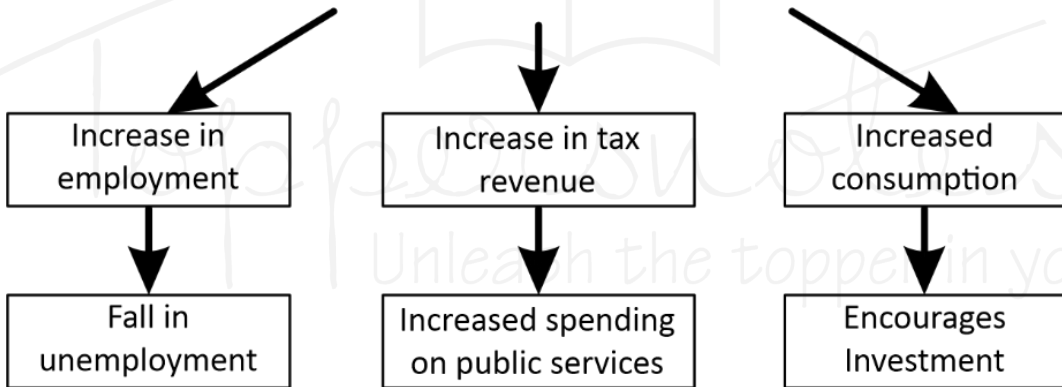
5. Can happen without development	5. Cannot happen without growth
6. Indicators: GDP, National Income etc.	6. Indicators: Human Development Index etc.

## Measuring Economic Growth

- Economic growth is an increase in the **production of economic goods and services** in one period of time compared with a previous period
- It can be measured in nominal or real (adjusted to remove inflation) terms.
- Traditionally, aggregate economic growth is measured in terms of gross national product (GNP) or gross domestic product (GDP), although alternative metrics are sometimes used.
- In economics, growth is commonly modeled as a function of physical capital, human capital, labor force, and technology.

Economic growth	Economic development
1. Increase in a country's production of good and services.	1. Increase in income as well as equitable distribution if income.
2. Narrow concept; uni-dimensional	2. Broad concept; multi-dimensional
3. It is a short-term process.	3. It is long-term process.
4. Quantitative in nature	4. Qualitative in nature

## Economic Growth



Q. What are the salient features of 'inclusive growth'? Has India been experiencing such a growth process? Analyze and suggest measures for inclusive growth.

**UPSC (GS-3 2017)**

Q. The nature of economic growth in India is described as jobless growth. Do you agree with this view? Give arguments in favour of your answer.

**UPSC (GS-3 2015)**

Q. Is inclusive growth possible under market economy? State the significance of financial inclusion in achieving economic growth in India.

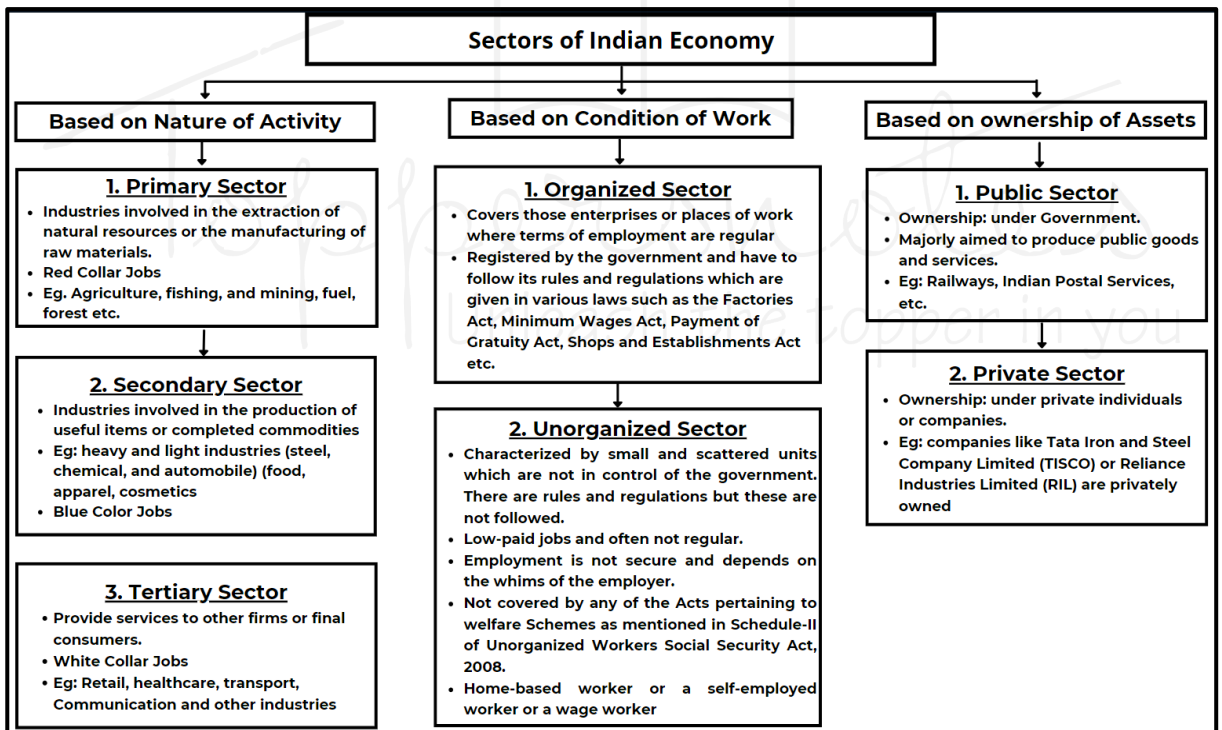
**UPSC (GS-3 2022)**

## Relation b/w GDP & Job Generation





## Sectors of Economy



### 4. Quaternary Sector

- economic activity based on the intellectual or knowledge-based economy.
- Eg: teachers, scientists

### 5. Quinary Sector

- part of the economy where the top-level decisions are made.
- Gold Collar Jobs
- Eg: senior business executives, government officials

## National Income

- **National income:** The total value of final goods and services produced by the citizens during an accounting year, after adjusting depreciation.
  - It is Net National Product (NNP) at Factor Cost (FC)
  - It does not include taxes, depreciation, and non-factor inputs (raw materials)
- It Includes: Wages, interest, rent, and profit received by components of products such as Labour, capital, land, and entrepreneurship

- **Domestic Income:** Total value of final goods and services produced within a domestic territory during an accounting year, after adjusting depreciation.
    - It is Net Domestic Product at Factor Cost.
  - Both NNP and NDP can be measured at constant prices (real income) or market prices (nominal income)
- National income:** Domestic Income + NFIA

### Terms Related to income Calculation

#### Transfer Payments

- A monetary payment for which no goods or services are exchanged.
- Efforts by local, state, and federal governments to redistribute money to individuals in need are usually referred to as transfer payments.

#### Market Price

- Price at which a thing is sold in the market.
- Covers wages, rent, interest, input prices, profit, & other costs of production.
- Also covers government-imposed taxes & government-provided producer subsidies.

#### Factor Cost

- Total cost of all the factors of production consumed or used in producing a good or service.

#### Depreciation

- The wear and tear of capital assets
- Capital consumption allowance - another term for depreciation.

#### Constant price

- Constant prices refer to the prices prevailing in the base year. A base year is a carefully chosen year which is a normal year free from price fluctuations.

#### Basic Price

- Amount a producer receives from a purchaser for a unit of a good or service provided as output, minus any tax due and any subsidy due on that unit as a result of its production or sale.

GOODS	SERVICES
Goods are tangible items or commodities that satisfy human needs	Services are activities or benefits one party offers to another
Tangible	Intangible
Ownership is transferred to the buyer	Ownership cannot be transferred
Can be returned to the seller	Can not be returned to the seller
Can be manufactured, stored, and transported	Cannot be manufactured, stored, and transported.
Goods manufactured can be identical	Services offered can never exactly be the same
Examples: Clothing, food	Examples: Health care, transportation

### Aspects of National Income

#### 1. Gross Domestic Product (GDP)

UPSC PRE 2015

- Total value of **final goods and services** produced in a country in a given financial year.
- **Domestic Territory** for calculation of GDP includes
  - A country's geographical borders, including its territorial waters.
  - A country's embassy, consulates and military bases in different nations.
  - Ships and aircrafts owned and operated by residents.
- Estimated at regular periods (such as quarterly, or yearly).
  - For India it is from 1st April to 31st March.
- **Goods included:** all final goods and services produced by the usual residents and non-residents in the domestic territory of the country
  - Does not include Net Factor Income from Abroad (NFIA)



- Calculated by Central Statistics Organization, Ministry of Statistics and Program.
- 'Quantitative concept' and indicates internal strength of the economy.
- Used by the IMF & World Bank in comparative analyses of member economies.

$$\text{GDP} = \text{Consumption} + \text{investment} + \text{government spending} + \text{exports} - \text{imports}$$

### Limitations of GDP

- It is quantitative, not qualitative.
- It is range bound-within a territory.
- It does not give an idea about the equal distribution of income and secondhand goods/transactions.
- GDP does not describe what is being produced and doesn't include household work.

## Types of GDP

### Nominal GDP

- Total financial business value **produced inside the country**.
- **Without Inflation** adjusted.
- At **Current year prices**.
- **High Worth**
- Compares quarters of a year.
- Does **not truly indicate the real performance** of the economy

$$\text{Nominal GDP} = \text{Current Year Production} \times \text{Current Year Price}$$

### GDP Purchasing Power Parity (PPP)

- While purchasing power parity (PPP) is **not a direct measure** of GDP, economists use it to see how one country's **GDP compares** to other countries' GDP in "international dollars" **using a method that adjusts for differences in local prices** and costs of living to make **cross-country comparisons** of real output, real income, and living standards.

### Real GDP

- GDP metric adjusted: With changes in the general price level.
- **Inflation-adjusted**
- At **regular prices**
- **Low Worth**
- Compares two or more FYs
- Only **change in real production** of goods and services is captured.

$$\text{Real GDP} = \text{Current Year Production} \times \text{Base Year Price}$$

### GDP Per Capita

- The GDP per capita is a **measure of the GDP per person** in a country's population.
- It means that the **quantity of output** or revenue per person in a **given economy** may be used to **estimate average productivity** or living standards.

UPSC PRE 2015

## Various Aspects of GDP Calculations

### GDP Deflator

- Ratio of Nominal GDP to Real GDP
- Gives an idea of how the prices have moved from the base year to the current year.

### GDP Growth Rate

- Measures how fast the economy is growing.
- Measures the change in GDP in two consecutive years or quarters.

### GDP at Market Price (GDPMP)

- Market price includes net indirect taxes along with the factor cost. (Net indirect tax is the difference b/w total indirect tax and subsidies)

### GDP at Factor Cost (GDPFC)

- Factor cost is the cost of producing a commodity. It includes the cost of land, labour, capital and the profits of the producer.

### Potential GDP

The highest market value of goods and services that can be produced in an economy over a period of time is known as potential GDP. Unlike normal GDP estimates during the current duration, potential GDP seeks to find the highest value that can be obtained.

### Determinants of potential GDP

- **Inflation:** The inflation rate in the country in a year influences the GDP

- growth. Higher inflation can boost the potential GDP rate.
- **Recession:** Recession is the slowdown in growth rate for two consecutive quarters. Recession can significantly reduce the GDP.
- **Factory output:** The output of finished goods from factories increases its contribution to GDP. Continuous growth will be suitable for high GDP.

**Q. Define potential GDP and explain its determinants. What are the factors that have been inhibiting India from realizing its potential GDP?**

**(UPSC CSE (M) – 2020)**

#### Factors inhibiting the potential GDP of India

- **Low productivity:** High employment generation in the economy will show that the potential GDP is high but it will not be achieved due to low productivity from employment generation.
- **Currency depreciation:** GDP is calculated using American dollars after converting it from Indian rupees. The depreciation of Indian rupees vis a vis the American dollar will reduce GDP value.
- **Decrease in foreign capital:** The inflow of foreign capital may decrease over a period due to various factors. This will result in the economy not being able to emulate the potential numbers.
- **Lack of Infrastructure:** The infrastructure growth in the domestic economy may not be in predicted lines. This will hamper the final contribution to GDP output.

#### Gross Value Added (GVA)

- Economic productivity metric that measures the contribution of a corporate subsidiary, company, or municipality to an economy, producer, sector, or region.
- Used to adjust GDP and measure how much money a product or service has contributed toward meeting a company's fixed costs.  
 $GVA = GDP + \text{Subsidies} - \text{Taxes or}$   
 $GDP = GVA + (\text{Tax-Subsidies})$

#### Note -

- The difference between the level of real GDP and potential GDP is known as the output gap.
- When the output gap is positive—when GDP is higher than potential—the economy is operating above its sustainable capacity and is likely to generate inflation.
- When GDP falls short of potential, the output gap is negative.

#### Green GDP

- Green GDP is a term used generally for expressing GDP after adjusting for environmental damage.
- An Expert Group was also convened under the direction of the Prime Minister by the National Statistical

Organization, Ministry of Statistics and Programme Implementation, Government of India in August 2011 to examine the prospects of developing green national accounts in India.

- Economic assets like oceans, mountains and forests do not have private ownership so Green GDP Does Not Include it.
- Green GDP includes the services which are provided by the environment.

#### Net Domestic Product (NDP)

- Net worth of all goods and services generated inside a country's geographic borders.
- Value of depreciation of national capital assets such as machinery, houses, and cars are subtracted from the GDP to calculate NDP
- **Other considerations:** such as asset obsolescence and destruction, are also taken into account by the NDP.

**Net Domestic Product (NDP) = Gross Domestic Product (GDP) – Depreciation.**

- **NDP Will always be lower than GDP.**
- **NDP is not used across world** due to different rates of depreciation

#### Significance

- To understand the historical situation of the loss due to the depreciation of the economy.
- To understand and analyze the sectoral situation of depreciation in industry and trade in comparative periods.
- Showcase the achievements of the economy in the area of R&D, which have tried to cure the levels of depreciation in a historical period.

#### Gross National Product (GNP)

**UPSC PRE 2018**

- Total value of all goods and services produced by citizens and enterprises in a country, regardless of where they are produced
- It is the GDP of a country added to its income from abroad.
- **'Income from Abroad' includes:**
  - **Trade Balance:** net outcome at year-end of the total exports and imports of a country

$$\text{NNP} = \text{GNP} - \text{Depreciation}$$

or

$$\text{NNP} = \text{GDP} + \text{Income from Abroad} - \text{Depreciation}$$

- **Interest on External Loans:** balance of interest on the money lent by the country and the interest on the money it has borrowed from other countries.
  - India has always been a 'net borrower' from the world economies.
- **Private Remittances:** an account of the 'private transfers' by Indians working abroad (to India) and foreign nationals working in India (to their home countries).
- **Factors to GNP:** Manufacturing of items such as equipment, machinery, agricultural products, and cars & some services such as consulting education, and health care.
- The cost of delivering services is not calculated.
- When a citizen holds dual citizenship: GNP per capita is utilized to calculate GNP on a country-by-country basis.
- In that situation, their earnings are counted twice, as each country's GNP.

$$\text{GNP (Y)} = \text{Consumption expenditure (c)} + \text{Investment (I)} + \text{Government expenditure (G)} + \text{Net exports (X)} + \text{Net income from Abroad (Z)}$$

$$Y = C + I + G + X + Z$$

$$\text{GNP} = \text{GDP} \pm \text{NFIA}$$

## Net National Product (NNP) (National income)

- Value generated by removing depreciation from the gross national product.
- Determines how much a country can consume in a specific period.

- When a country's net national product (NNP) dips or falls,
  - Businesses contemplate shifting to industries that are considered recession-proof.
- It is the Purest Income of an Economy
 

$$\text{Per Capita Income} = \text{NNP} / \text{Population}$$
- India Calculates National Income at Market Cost Since 2015. (NNP<sub>ML</sub> or NI<sub>MC</sub>)
- Market Cost = Factory Cost + Indirect tax (Centre + State)
- In India rate of Depreciation is decided by the Ministry of Commerce and industry.

### Gross Domestic Product GDP

GDP = Sum of all goods and services produced in a country in given financial year

### Net Domestic Product NDP

NDP = GDP - Depreciation on assets

### Gross National Product GNP

GNP = GDP + Income from abroad

### Net National Product NNP

NNP = GNP - Depreciation on assets  
 NNP = GDP + Income from abroad - Depreciation on assets

## Difference between Personal Income & Personal Disposable Income

### Personal Income

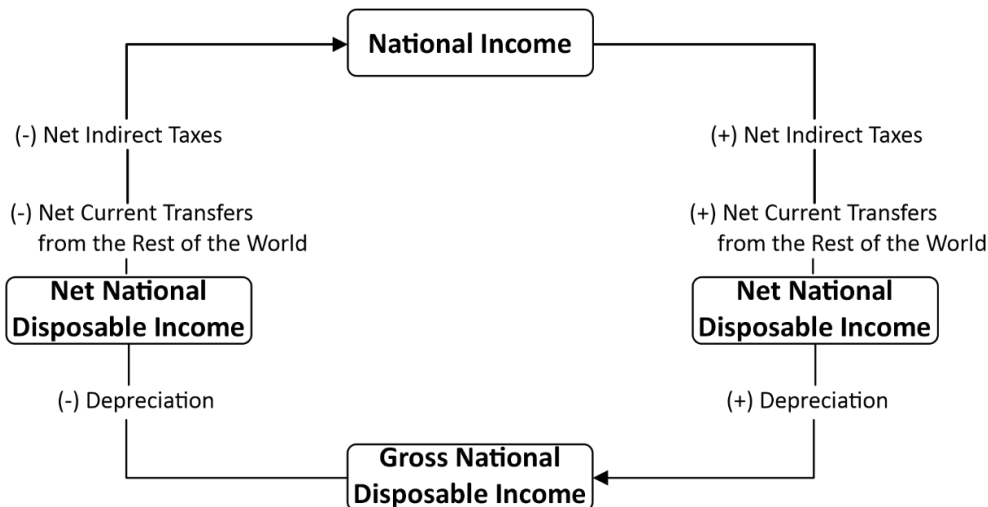
- It is the total income received by the individual of a country from all sources before payment of direct taxes.

$$\text{Personal Income} = \text{National Income} - \text{Undistributed Corporate Profits} + \text{Transfer Payments}$$

### Personal Disposable Income

- Disposable personal income is the amount someone has left to spend or save after paying taxes.

Characteristics	Personal Income	Personal Disposable Income
<b>Definition</b>	Refers to the total earnings generated by an individual from investments, salaries, dividends, bonuses, pensions, social benefits and other ventures over a given period	Refers to the amount of revenue or funds a person has after taxes have been paid
<b>Taxes</b>	Is subject to taxes	Is not subject to taxes



## Methods of Computing GDP

Methods of GDP Calculation		
<b>Expenditure Method</b> Consumption + Investment + Government Expenditure + Net Exports (i.e. exports – imports)	<b>Income Method</b> Rent + Wages + Interest + Profits	<b>Value Added/ Output Method</b> Final value of all goods and services - Intermediate Costs

### Value added / Product /Output method

Value Added Approach = Gross Value of Output  
 Consumption – Value of Intermediate

#### Example

Suppose a factory Makes Plastic Bottles. It purchases plastic for Rs. 6000 with this plastic, it makes plastic bottles worth Rs. 10000

In this case

Sales 10000 – This is called the Value of Output (Value of Goods and Service Produced)

Purchase 60000 – This is called the Value of Intermediate Goods (Expenditure on producing these goods and services)

Profit 4000 – This is called Value Added

### Format for Calculating National Income (in Income Method)

Calculation of National Income	
<b>Different Factor Incomes</b>	
Rent	10
Royalty	50
Interest	30
Compensation to Employees	40
Profit	20
Mixed Income	30
<b>Total (Domestic Income <math>NDP_{FC}</math>)</b>	<b>180</b>
Add NFIA	20
<b>NNP FC (National income)</b>	<b>200</b>

#### As per Income Method

We calculate factor income earned  
 Totaling by all factor incomes  
 as well as Mixed Incomes

Sum total of this is equal to NDP

FC(Domestic Income)

In this ,we add NFIA (Net factor income from Abroad) to arrive at National Income

#### Note

Depreciation is  
 not reduced in his method