ECONOMY

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Contents

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INTRODUCTION TO ECONOMY

Economics

- The term 'economics' derives from two Greek words, '**eco**' meaning home and '**nomos**' refers to accounts.

- The subject has developed from being about **how to maintain the family accounts into the wide-ranging subject of today**.

Evolution of Economics

- Economics has grown in scope, very gradually up to the 19th century, however at an accelerating rate ever since.

- It was only in the 18th century, that Economics grew as a separate field of study when leading philosophers tried to answer questions on the driving force of various economic activities and debated the role that governments should play with regards to this.

Defining economics

- There are a number of definitions of Economics:

  » Economics is a social science focused on the **satisfaction of needs and wants** through the efficient **allocation of scarce resources** which have alternative usages.

  » It is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses.

  » By extension of our basic definition, economics, as applied to national and societal level, is concerned with the **efficient** allocation of various natural resources to maximize the welfare of society.

- We can thus see that 'the problem of scarcity' is at the heart of study of economics and thus:

  » Scarcity implies that human wants for goods, services or the resources exceed what is available.

  » Economics tries to balance between **scarcity and choice.**

  » Economics finds methods of **reconciling unlimited wants with limited resources.**

Significance of Economics

- Resources are finite, and people and governments must make choices. Economics help us know how societies, governments, businesses, households, and individuals allocate these scarce resources.

- For example, from the limited budget for agriculture, governments decide how much to contribute for agricultural subsidies and for agricultural infrastructure.

- Economics provides us valuable knowledge for arriving at decisions in everyday life.

- With the help of economics, we can evaluate government policies and their likely outcomes. It provide us with valuable insights on the state of economy.

- Broadly, it tries to answer the following three questions:

  » What goods and services to produce?

  » How to produce these goods and services?

  » Whom to produce these for?

Branches of Economics

- Economics is generally divided into **two main branches,** Microeconomics and Macroeconomics**.**

Microeconomics

- Microeconomics **focuses on** the actions of **individual agents** within the economy, like households, workers, and businesses.

- For example, if a person earns 50,000 INR monthly, how much should he save and how much should he spend? How should he allocate his expenditure budget between different goods and services, given his unique likes and dislikes?

- Microeconomics believes in the rational actor model. In this model, individual actors are considered as rational beings who make rational calculations to maximize their utility (well-being) through their economic decisions.

Macroeconomics

- Macroeconomics is branch of economics which looks at the **economy as a whole**.

- It concentrates on broad issues such as the GDP growth, unemployed rate, the inflationary increase in prices, government deficits, and levels of exports and imports.

- Macroeconomics tries to understand what drives the business cycle from boom to bust, or from growth to recession, and what controls economic indicators such as gross domestic product, unemployment, inflation.

These two are linked closely as the behaviour of household or consumer or firm depends upon the state of national as well as the global economy and vice versa. For example, business sentiments depend on the state of the economy.

Type of Economic Systems

Economies can be further characterized into three types, based on the role of government and ownership.

Free Market Economy

- Free market economies are also known as the capitalist economies. Before understanding the Capitalist Economy, we need to understand the concept of "Capitalism".

- Capitalism is often believed of as an economic system in which private players or organizations own and control property in accordance with their interests, and demand and supply freely establish prices in markets in a way that can serve the best interests of society.

- The essential element of capitalism is the motive to make a profit.

- The 18th-century philosopher and father of modern economics, Adam Smith said: "It is not from the benevolence of the butcher, the baker, or the brewer that we expect our dinner, but from their regard to their own interest."

- It is this logical self-interest that can lead to economic success and prosperity.

- In a capitalist economy, capital assets, for instance mines, factories, and hospitals, can be privately owned and controlled. Labour is purchased for money wages. Capital gains accrue to private owners, and prices allocate capital and labour between competing uses.

- The government's role in such an economy is limited to regulation and control measures. The other measures by the government such as ensuring free competition, consumer rights, etc., are necessary for ensuring a free and fair market for all participants. At times this

role is compared to that of an umpire.

- Examples of Capitalist Economies are USA, UK, Germany, Singapore etc.

Command Economy

- Inspired by the ideas proposed by the German philosopher Karl Marx (1818–1883), this type of economic system first came up in the erstwhile USSR following the Bolshevik Revolution (1917). It got its perfect shape in the People's Republic of China (1949). This type of economic system also spread to other countries in Eastern Europe such as Poland and Yugoslavia.

- In this we see two different versions of the state economies. First, in erstwhile USSR identified as the socialist economy and second in pre-1985 China, known as the communist economy.

- A socialistic economy emphasized on the collective ownership of the means of production (property and assets). It also recognized a large role of the state in running the economy. In a Socialist Economy, all the factors of production are under the ownership and control of the community, indicated by State. So, all the factories, machinery, plants, capital etc. are owned by a community indicated by State.

- On the other hand, the communist economy advocated state ownership of all properties including labour with absolute power to state in running the economy.

- The important decisions with respect to production, supply and prices are all taken exclusively by the state. Such economies were also called as Centrally Planned Economy, Centralized Economy or Non-market Economy.

- Here, we need to note that, for Karl Marx, Socialism was a transitional phase to communism. But, it never did occur in reality in any State.

- Basically, these kind of economies came in reaction to the challenges prevalent in the capitalist economic system.

Mixed Economy

- Mixed Economy is a **combination of a capitalistic and socialistic economy,** wherein both the market and government decide the allocation of resources.

- Apart from private firms and consumers, the government may itself choose to produce or consume to affect the resource allocation and distribution.

- This is usually done to address issues of under-developed markets or enhance equitable distribution across citizens.

- India follows the Mixed Economy system. Thus, property is owned by the state as well as private entities and the decisions are also taken jointly by the both.

Sectors of Economy

- According to the 'three sector hypothesis', the economic activities are broadly classified into 3 broad categories:

Primary Sector

- It includes all those economic activities where there is direct use of natural resources such as agriculture, forestry, fishing, mining etc.

- The services in this sector are entirely dependent on the availability of the natural resource in order to keep day to day operations running.

- This sector forms the base for all the other sectors of the economy.

- In India, the primary sector particularly Agricultural sector provides employment to almost 53% of the entire workforce currently working and its contribution to GDP is around 17%.

Secondary Sector

- Secondary Sector adds value to natural resources by transforming the raw material into valuable products.

- For example, cotton fibre from the plant is used to spin yarn and weave cloth. Sugarcane from farms is used as a raw material to make sugar or gur. We convert earth into bricks which are then used to make houses and buildings.

- As these activities are associated with industries, this sector is also called the manufacturing or industrial sector.

- In India, the manufacturing industry provides employment of almost 18% of the entire workforce currently working. Contribution of industrial sector to GDP is around 27%.

Tertiary Sector

- This sector includes all those economic activities where different services are produced such as education, banking, insurance, transportation, tourism etc.

- The activities in this sector help in the development of the primary and secondary sectors.

- This sector is also called as the Service sector.

- In India, the tertiary sector contribution is the largest in terms of share of GDP at 54% and it employs 29% of the total workforce.

Sector-wise contribution in the GDP of India can be understood through the following graph of 2019-2020:
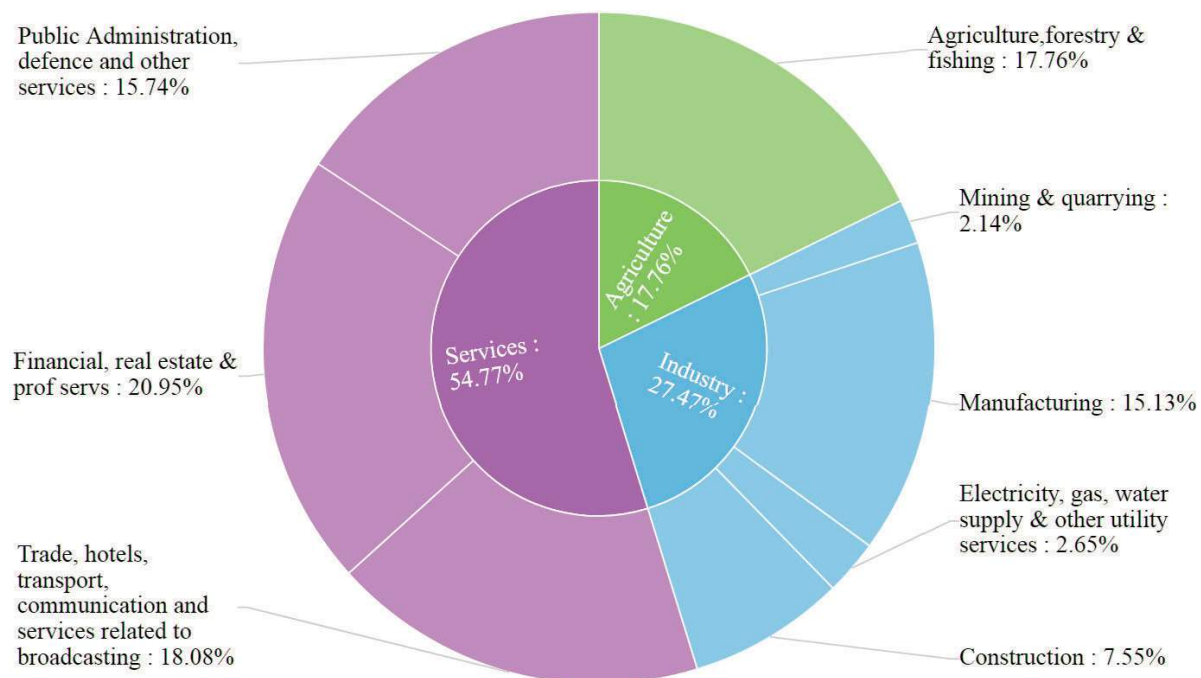

IMAGE 1.1: THE SECTORAL CONTRIBUTION TO GDP (%)

Economies based on the shares of the particular sector in GDP

Agrarian Economy

- An economy is called agrarian if the share of its primary sector is 50 % or more in the total output (GDP) of the economy.

- At the time of independence, India was an agrarian economy.

Industrial Economy

- If the **secondary sector contributes 50% or more** to the total output (GDP) of the economy, it is an industrial economy.

- Higher the contribution from the secondary sector, the higher the level of industrialisation.

Service Economy

- If the **service sector contributes 50% or more** to the total output (GDP) of the economy, it is a **Service Economy.**

'India is a Service economy in terms of contribution in GDP but Agrarian economy in terms of dependency/employment.'

India's direct transformation from primary sector to services

- The natural economic movement for a country is to go from agrarian economy to an industrial economy to a service economy but India has leapfrogged from an agrarian economy to a service economy.

- Trend in sectoral contribution to GDP in India.
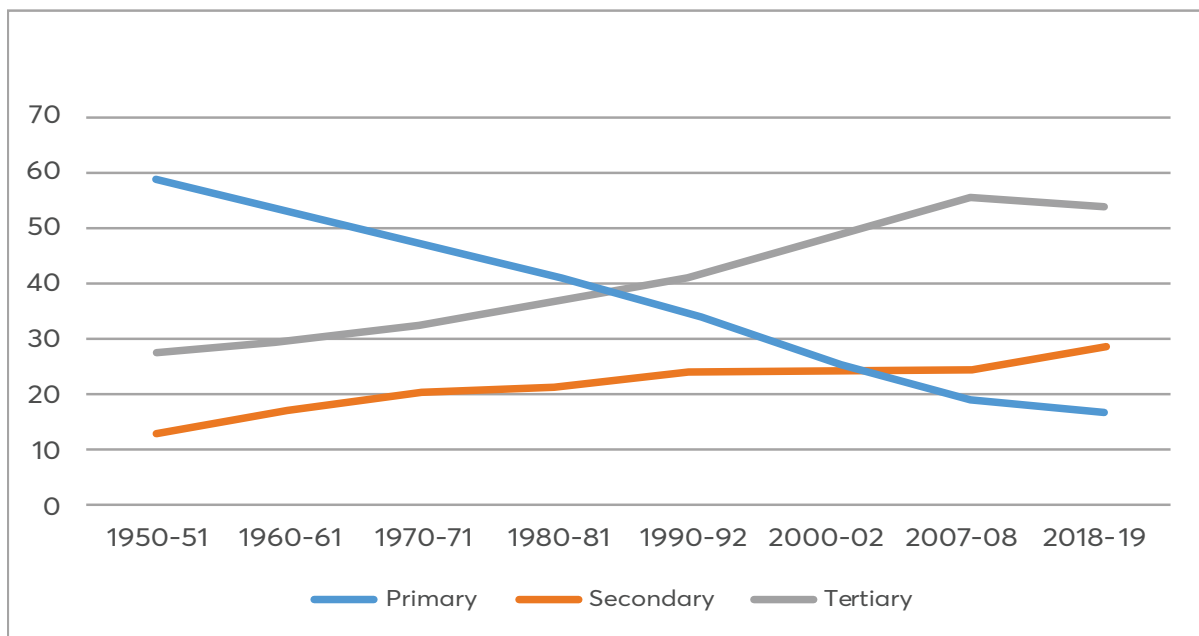
IMAGE 1.2: CHANGING SHARE OF VARIOUS SECTORS IN GDP

Following reasons can be attributed to this shift:

- India with educational investment toward secondary and higher education produced a group of highly educated workers who have largely worked in the service sector.

- Well educated human resource, fluent in English and availability of skilled cheap labour force (E.g., Cheap labour force in IT industry as compared to some of the developed western countries) are some of the reasons for the rapid growth of the service sector in the country.

- On the other hand, low growth in the Secondary sector can be contributed to License Raj, Restriction on foreign investment, stringent labour laws and

lack of skilled labour etc.

- Even after the LPG reforms, the lack of availability of infrastructure, transport, power, communication severely impacted manufacturing and industrial sectors. These factors also created a base for service sectors. As compared to secondary sector, the emergence of various e-commerce platforms is an example of how digital revolution can lower transaction costs and increase productivity which is ultimately responsible for the growth in service sector.

- Some of the other important factors are:

  » Increase in per capita income- leads to increase in demand for various services related to education, health etc.

  » Increase in tax revenue of the government- in the form of service tax.

  » Rampant migration-of rural population to semi-urban and urban regions.

NATIONAL INCOME

National Income Accounting

- National income accounting is a book-keeping system that a government uses to measure the level of the country's economic activity in a given time period.

- Though national income accounting is not an exact science, but it provides useful **insight** into how well an economy is functioning.

- Some of the metrics calculated by using national income accounting consist of Gross Domestic Product (GDP), Gross National Product (GNP) and Gross National Income (GNI) etc.

- The information collected with the help of national income accounting can be used for a different variety of purposes like the distribution of income within a population, evaluating the current standard of living, comparing activities within various sectors in an economy, as well as changes within those sectors over the period of time. A thorough analysis can assist in determining overall economic stability within a nation.

- The **q**uantitative information associated with national income accounting can be used to determine the effect of various economic policies.

Gross Domestic Product (GDP)

- Gross Domestic Product is the value of all **final** goods and services produced in the domestic territory of the country during a financial year.

- GDP includes only purchases of newly produced goods and services and does not include sale or resale of used goods (but services provided in reselling are included in GDP).

What is domestic territory?

- It includes political/geographical boundaries of the country including territorial waters and airspace.

- Ships and aircraft owned and operated by residents between two or more countries. For example, Air India flight between Japan and China is part of the domestic territory of India.

- Fishing vessels, oil and natural gas rigs and floating platforms operated by a resident of a country in the international waters. For example, Fishing boat operated by Indian fishermen in the international waters of the Indian Ocean.

- Embassies, Consulate and Military establishments of a country located abroad.

Goods

- Goods, in simple terms, are material things that satisfy human needs. Goods can be classified as:

» Final Goods: Final Goods can be further classified as:

  − Consumption/Consumer Goods

  − Capital/Producer Goods

» Intermediate Goods

Final Goods

- These are the Goods that are meant for final use or final consumption. They do not pass through any more stages of production or transformation.

- A final good is thus a product that the consumer finally uses.

- For example, shirt is a final good, bricks used for construction of house are final goods.

Consumption/Consumer Goods

- Consumer goods are those final goods which are bought for consumption by consumers.

- For example, food, clothing etc.

Capital/Producer Goods

- **Capital goods** are those final goods which **help in the production** of other goods.

- They do not get transformed during the production process rather they make production possible.

- For example, tools, machinery, vehicle etc.

Intermediate Goods

- Intermediate goods are the goods that are utilized as a raw material or input for the production of final goods.

- For example, copper used for making utensils, steel sheets used for making automobiles, etc.

Why only final goods are counted?

- The value of final goods already includes the value of the intermediate goods that have entered into the production process as inputs.

- Counting them individually will lead to the error of double counting.

- Lat us take an example of the agricultural sector. Suppose in a year a farmer produces 100 Rs. worth of potatoes. A Chips Company had to buy Rs. 50 worth potato to produce Chips worth Rs. 200. Now consider the following table:

	Farmer	Chips company
Production Value	100	200
Intermediate Good Used	0	50
Value added (Production Value - Intermediate Good)	100-0= 100	200-50 = 150
Total GDP when intermediate goods are included	100 + 200 = 300 (Here, we can see the value of potato i.e. Rs. 50 is counted twice first in farmer's case then for chips Company)	
Total GDP when only Final Good are counted	200-50 = 150	

Financial/Fiscal/Accounting Year

- It is a period of 12 months, used by governments, businesses, and other organizations in order to calculate budget, profit, losses, etc.

- In India, this period starts from 1st April and ends on 31st March.

- One financial year is divided into 4 quarters.

  Q1 = 1st April-30th June.

  Q2 = 1st July-30th September.

  Q3 = 1st October-31st December.

  Q4 = 1st January-31st March.

Different uses of the concept of GDP

- To determine the growth rate of an economy. The growth rate of 6% means that the size of the economy has increased by 6% from last year.

- It is a quantitative concept and its volume indicate the 'strength' of the economy. But it does not tell anything about the 'qualitative' aspects of the economy. For example, GDP will talk about the value of goods that a country produces but it will not talk about the quality of goods produced by the country. It also does not focus on any negative impacts this process has on the stakeholders.

- For example, pollution as a byproduct of economic activity is not considered while calculation of GDP.

- It is used for the comparative analysis by international organizations like IMF etc.

Potential Gross Domestic Product (GDP)

- It is a theoretical concept. It is an estimate of the value of the output that the economy would produce if labor and capital had been employed at their maximum sustainable rates (at steady growth and stable inflation).

- However, the cost of increasing inflation could make an economy momentarily produce more than its potential level of production.

- The potential labour force depending on various demographic factors and participation rates, the capital stock, the non-accelerating inflation rate of unemployment, and the level of labour efficiency decide this potential output which is very important to calculate the output gap.

Net Domestic Product (NDP)

- Net Domestic Product (NDP) is the annual measure of the economic output of a nation that is adjusted to account for depreciation.

  NDP = GDP - Depreciation

Different uses of the concept of NDP

- It is used to understand and analyze the loss due to depreciation to the economy.

- It is also used to show the achievement of the economy in the area of research and development in reducing loss due to depreciation.

Depreciation

- The monetary value of an asset decreases over time due to use, wear, and tear. This

decrease in value is called depreciation.

- It is an annual allowance for wear and tear of a capital good.

- In other words, it is the cost of the good divided by the number of years of its useful life.

- Ministry of Commerce and Industry in India announces the rate at which assets depreciate.

GNP/GNI

- Gross National Product/Gross National Income (GNP/GNI) is the monetary value of all final goods and services produced by the normal resident (explained below) of the country in a financial year regardless of production location.

- Residence, rather than citizenship, is the criterion for determining nationality in GNP calculations, as long as the residents spend their income within the country.

- As per the global accounting conventions, residents are generally those people who have lived in the country for the past one year or more. Similarly, non- residents are those who have stayed outside the country for the past one year or more.

GNP = GDP + Net Factor Income from abroad

GNP = GDP + Money flowing from foreign countries - Money flowing to foreign countries

- The items which are included in Net Factor Income from abroad are:

a. Trade Balance

- It is the Net outcome of total import and export (i.e. Export-Import) of a country in a year.

- For India, in recent years the trade balance is **negative** (Since, Import > Export). For instance, India's Trade Balance was minus

USD 14.1 billion in March 2021, compared with a deficit of around USD 12.6 billion in the previous month.

b. Interest on external loans

- The Net outcome of the inflow of interest payment (on money lent out) and the outflow of interest payment (on the money borrowed).

- That is, inflow of interest payment - outflow of interest payment.

- For India, it has been always Negative (Since, for India Outflow of Interest Payment > Inflow of Interest Payment).
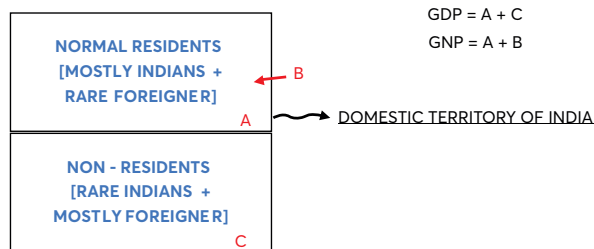
c. Private Remittances

- The Net outcome of the money inflow and outflow by Indian national working outside and the foreign national working in India.

- For India, it is Positive since India is the largest recipient of remittances in the world.

- For example, Suresh who works in Dubai sends money back to his family in India, hence that money will be included in private remittance while calculating GNI.

> In the case of India, NFIA is Negative. Hence, India's GNP is lower than its GDP.

Normal Resident

- It refers to the individual who **usually resides** in a country, whose economic interest lies in that country.

- Normal Resident include:

» Citizens and Non-Citizens (residing for more than 1 year)

» Institutions

- For example, Lisa who is an American

National works in a software company in Delhi for past five years is a Normal Resident since her economic interest lies in India and her stay in India has been for more than one year.

GDP = A + C

GNP = A + B

NORMAL RESIDENTS [MOSTLY INDIANS + RARE FOREIGNER]

B

A

DOMESTIC TERRITORY OF INDIA

NON - RESIDENTS [RARE INDIANS + MOSTLY FOREIGNER]

C

Different uses of the concept of GNP

- GNP is preferred to GDP by organizations such as the World Bank because it indicates both internal as well as external strength of the economy.

A- Income earned by the normal resident from the domestic territory.

B- Income earned by the normal resident from abroad.

C- Income earned by the non-resident from the domestic territory of the country.

Difference between GDP and GNP

GDP	GNP
It measures the market value of all final goods and services produced within the domestic territory of a country.	It measures the market value of all final goods and services produced regardless of production location.
The focus on GDP is on domestic production.	The focus on GNP is on production by normal residents.
It highlights the strength of the country's economy.	It highlights how the resident of the country contributes to the economy.

Net National Product (NNP)

- Net National Product (NNP) is the (Gross National Product (GNP) minus depreciation.
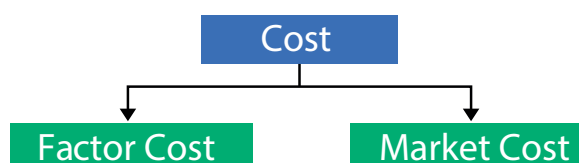
NNP = GNP - Depreciation

- NNP is used to find **Per Capita Income (PCI)** of the country.

PCI = NNP/total population of a nation.

Cost

- Cost is the value of money that has been used up to produce something or to deliver a service.

- The value of total produced goods and services can be calculated at either at Factor Cost or market cost.

Cost

Factor Cost

Market Cost

Factor Cost

- It is the input cost that the producer has to incur in producing goods and services.
- Factor Cost includes all factors of production used in producing a good or service.
- The factors of production comprise land, labour, capital, and entrepreneurship.
- It is the price of the commodity from the producer side.

Market Cost

- It is the cost at which the goods are sold in the market.
- It is derived by adding the Net indirect tax (E.g. GST) to Factor Cost (FC).

Market Cost = Factor Cost + Net Indirect Tax (Indirect tax - Subsidy)

- Market cost is used for determining actual GDP transaction i.e. **GDP at Market Price = GDP at FC + Indirect Taxes - Subsidy.**
- For example, Ramesh sell 100 cakes. The cost of production of cake is Rs. 9, Ramesh sells 100 products.

Years	Number of Products	Factor Cost per unit product	Tax	Subsidies	Net Indirect Tax	Market Price per unit product	GDP at MP	GDP at FC
2014-15	100	9	2	1	2-1 = 1	10	1000	900
2015-16	100	9	3	1	2-1 = 1	11	1100	900

- From January 2015 Government of India started estimating GDP at Market Price.
- Generally, Factor Costs are used to measure economic growth whereas Market Prices are used for actual transactions.
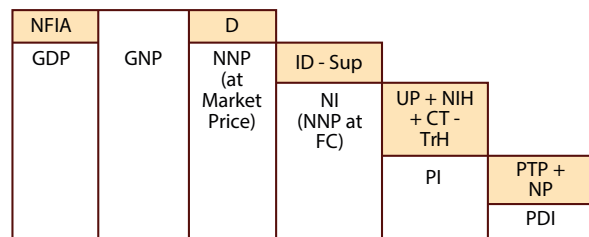
Relation between different measures of income:

- GNP = GDP + NFIA
- GNP = NNP (at MP) + depreciation
- NNP (at MP) = NNP (at FC) + Net Indirect taxes
- NNP (at FC) = NI

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 received by Households, **PTP:** Personal Tax Payments, **NP:** Non-Tax Payments, **PI:** Personal Income, **PDI:** Personal Disposable Income

Current Price vs Constant Price

- Current Price- Goods and Services are valued at the price of their year of production.

  » Used for measuring actual transactions.
  » GDP at Current Price gives us Nominal GDP.

- Constant Price-Goods and Services are valued at base year price.

  » Used in Estimating economic growth.
  » GDP at Constant Price gives us Real GDP.

Nominal GDP

- Nominal GDP is GDP calculated at current Market Prices.
- Nominal GDP will incorporate all the changes in Market Prices that have occurred during the current year due to inflation or deflation.
- Because Nominal GDP is measured in current prices, growing nominal GDP might reflect a rise in prices as opposed to growth in the number of goods and services produced. Hence, the nominal GDP presents a distorted picture of the actual growth.

Real GDP

- Real GDP is GDP calculated at the Market Prices at base year.
- If we are comparing the GDP growth between two years, the nominal GDP growth might be overestimated due to the effect of inflation.
- Therefore, Economists use the prices of goods from a base year to act as a reference point when comparing GDP from one year to another.
- For example, if 2011 were chosen as the base year, then real GDP for 2019 is calculated by taking the quantities of all goods and services purchased in 2019 and multiplying them by their 2011 prices.
- **Nominal GDP > Real GDP.** (But in theory this is not the case always.)

GDP Deflator

- GDP deflator measures the impact of inflation on the gross domestic product (GDP) i.e. how much a change in GDP relies on changes in the price level.
- It is calculated by dividing nominal GDP by real GDP and then multiplying by 100.

$$\text{GDP Deflator} = \frac{\text{Nominal GDP} \times 100}{\text{Real GDP}}$$

- The GDP Deflator can be viewed as a conversion factor that transforms real GDP into nominal GDP.
- Table below shows the relation between Nominal GDP, real GDP, and GDP deflator.

Years	Number of Products	Current Price	Base Year Price	GDP at Current Price	GDP at Base Price	GDP Deflator	Real GDP = Nominal GDP/ GDP Deflator) * 100
2011-12	100	10	10	1000	1000	100	1000
2012-13	100	15	10	1500	1000	150	1000
2013-14	100	22.5	15	2250	1500	150	1500

Income

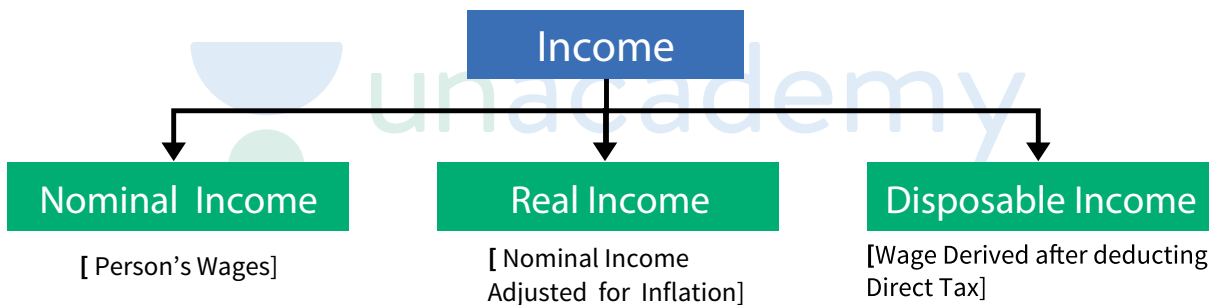- The income of a person has three forms.

IMAGE 2.2: FORMS OF INCOME

National Income or NNP at Factor Cost

- National Income at Factor Cost = NNP at Market Price - Indirect Tax + Subsidies.

Personal Income (PI)

- Personal Income is the part of the National Income received by the household.
- **PI = NI - Undistributed profits - Net interest payments made by the households - Corporate Tax + Transfer Payment to the household from the government and firms.**

Personal Disposable Income (PDI)

- It is the income left with the individuals after the payment of direct taxes from personal income.
- It is the actual income which can be spent on consumption by the household.

PDI = Personal Income (PI) - Personal tax payment - Non-tax payment

National Disposable Income (NDI)

- It is the total income which is available

for use with all the resident of a country during a financial year.

NDI = NNP MP + Other current transfer from the rest of the world

NDI = NI + Net Indirect taxes + Transfer payment from the rest of the world

- NDI gives the idea of what is the maximum amount of goods and services the domestic economy has at its disposal.

Private Income

- It is the total income (earned as well as unearned) of the private sector during the financial year.

**Private Income = Earned income of private sector + Unearned income of the private sector**

[e.g. transfer payment]

Base Year

- Base year is a year which is used as a basis for comparison by a price index such as GDP growth, CPI etc.

- The base year is allocated the value of 100 in an index.

- For example, to find the rate of inflation between 2013 and 2018, 2013 is the base year or the first year in the time set.

GDP Deflator: 2011-12 = 100
WPI   : 2011-12 = 100

Base year   Reference value =100
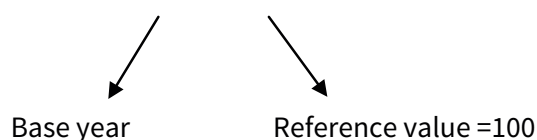
- The base year is changed periodically to take into account new goods and services in the economy.

Criteria for selection of base year

- A base year has to be a normal year without large fluctuations in trade, prices of commodities and variable should be on an average.

- The base year chosen should not be very old (so as to better reflect the basket of items to be measured)

- Moreover, the year chosen should have data available for all the necessary variables.

Data Collection Agency in India
Central Statistical Office (CSO)

- Central Statistical Office (CSO) in the Ministry of Statistics and Programme Implementation (MoSPI) is responsible for macroeconomic data gathering and record keeping.

- Release estimates of GDP, NI, GNP, NDP, Per Capita Income, CPI, IIP etc.

- The CSO coordinates with the various State governments and organizations to collect and compile data required to calculate GDP and other statistics.

- For example, At State level, State Directorates of Economics and Statistics (DESs) compile their respective State Domestic Product and other indicators.

- All the required data is collected and aggregated by CSO and used to arrive at the final numbers.

"New GDP Series" 2015

- The Central Statistical Office (CSO) came out with the new series of national

account with 2011-12 as the base year for computing National Account Statistics like GDP, GNP etc.

- The New GDP Series will expand the size of the economy by broadening its base in the farm, corporates, and unorganized sectors.

- The growth rate of the economy will now be measured by GDP at Market Price which will be called as GDP as they are practiced internationally. Earlier, GDP at Factor Cost was used for calculation of GDP.

- Earlier: GDP at Factor Cost

- Now: GDP at Market Price

- The sector-wise estimate of Gross Value Added is calculated at the Base Price instead of at Factor Cost.

In simple terms, for any product or commodity, the Base Price is the amount receivable by the producer from the purchaser for a unit of a product minus any tax on the product plus any subsidy on the product.

However, GVA at basic prices will consist of production taxes and eliminate production subsidies offered on the commodity.

On the other side, GDP at Market Prices comprise both production and product taxes and excludes both production and product subsidies and GVA at Factor Cost consist of no taxes and excludes no subsidies.

- **GVA at Factor Cost + (production taxes less production subsidies) = GVA at basic prices**

- **GDP at Market Prices = GVA at basic prices + product taxes- product subsidies**

- In the current series, the data for corporate income is collected from the Ministry of Corporate Affairs MCA-21 records which allow information even for small level firms.

- It covers data of financial sector from stock exchanges, financial institutions and from various regulators like Securities and Exchange Board of India (SEBI).

Production taxes

- These taxes are imposed on production and are independent of the volume of actual production.

- These are **direct taxes.**

- For example, Stamp duty, Registration fees, Professional tax.

Production Subsidies

- These are paid by the government in relation to production and are independent of actual production.

- For example, Subsidies to railways, Input Subsidies to farmers etc.

Product Tax

- Product Tax is paid on per unit of Output.

- These are Indirect tax.

- For example, Sales tax, Excise tax, Service tax etc.

Product subsidies

- These are paid by the government on per unit of output.

- For example, food, petroleum, fertilizer subsidies to farmers etc.

Criticism of New Methodology

- The 2011-12 series used for the first time used, an untested MCA21 database of Ministry of Corporate Affairs.

- Doubtful GDP numbers: The GDP growth for financial year 2017 (the year of

demonetization), was raised to 8.1%, the highest in the decade. For the financial year 2018, the year of GST introduction, it was raised from 6.7% to 7.2%. But these two events have been described by the expert as twin shock to the economy and it is difficult to see how an economic growth rate could accelerate in such scenario.

Positives of New Methodology

- It confirms to international standards i.e. based on the convention of IMF.

- It is based on more sources of data (for instance, MCA21 is a larger database for industries).

Measurement of National Income

- National Income (NI) is the total income earned by the normal resident of a country during the financial year.

- There are 3 methods for the measurement of National Income.

IMAGE 2.3: METHOD FOR MEASUREMENT OF NATIONAL INCOME
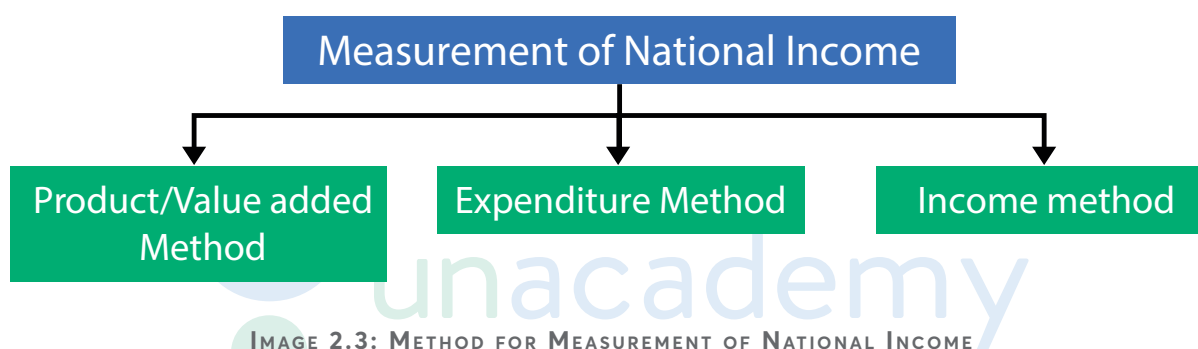
Product or Value-Added Method

- The value-added method is also called as output method or product method, and its primary goal is calculating the national income by taking into account the value added to a product during the different stages of production.

- In this method, NI is estimated by **adding up value addition of each firm** for all three sectors namely Primary, Secondary and Tertiary Sector.

- As this method emphasizes on net value addition by every component

in production, therefore the following factors should be excluded or subtracted from the output of the enterprise.

- » Net Indirect Taxes
- » Raw materials consumption
- » Capital consumption

- For example, Suppose a year a farmer produces 100 rupees worth of wheat for which he does not need any assistance of any input. Therefore, the entire amount of Rs. 100 is the contribution of the farmer. The baker had to buy Rs. 50 worth of wheat to produce bread worth of Rs. 200.

	Farmer	Baker
Total production Value	100	200
Intermediate Goods Used	0	50
GVA (Gross Value Added) = (Production value - Intermediate Good)	100	200 - 50 = 150

Income method

- In this method, NI is calculated by adding the income of all factors of production within the domestic territory in terms of rent, royalties, interest, profit, wages, salaries, etc.

$$GDP = W + In + P + R$$

W = Wage and salaries.

In = Interest Payments.

P = Gross Profit.

R = Rent.

Expenditure Method

- In this method, all the **expenditure on consumer goods** and investment which are produced within the domestic territory incurred by the household, government, firms are summed up to get NI.

$$GDP = C + I + G + (X-M)$$

C = Private final consumption expenditure.

G = Government final consumption expenditure.

I = Expenditure on final Goods [Investment or Capital Formation]

X = Exports M= Imports X-M = Net Exports

Items not included in National Income

- The items that are not incorporated in the calculation of National Income are -

  » Intermediary Goods = to avoid double counting.

  » Transfer Payments like gifts, scholarships, remittances.

  » Sale/Purchase of Old/Second-hand goods (but the broker commission is included).

  » Black Money.

  » Capital Gains.

  » Household Services (only housewives services if paid is counted).

Facts regarding National Income

- 1st estimate of National Income (NI) in India was made by Dadabhai Naoroji for the year 1867-68. It was published in his book titled 'Poverty and Un-British Rule in India'.

- 1st scientific estimate of National Income