National Income

The Pulse of the Economy

super notes.
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TRUST THE PROCESS

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"The best way to predict the future is to create it."

National Income

- National income is a key indicator for determining the economic growth of any country.
- The total income a country receives from various economic activities in a year is called its annual income.
- National income refers to the total value of all final goods and services produced in a country during a specific period (usually a financial year).
- It is the total money value of goods and services produced in a given year.
- In India, the Central Statistical Office (CSO) is responsible for calculating national income.

Financial Year

- The national income of a country is the money value of all final goods and services produced in a financial year. In India, the period from April 1 to March 31 is considered a financial year.

Final Goods and Intermediate Goods

- Products produced in a country that are used for direct consumption are known as Final Goods.
- Products used as raw materials (for producing another product) are known as Intermediate Goods.

Importance of measuring National Income

- To explain the economic condition of a country through the total income, or national income, received from the primary, secondary, and tertiary sectors.
- To understand the country's economic growth.
- To assess the contribution of different sectors.
- To help the government in planning and implementing projects.
- To compare the economic status of different countries.
- To understand the various types of investments and expenditures of the people in the country.
- To understand the strengths and weaknesses of the economy.

Central Statistical Office (CSO)

- An institution under the Ministry of Statistics and Programme Implementation.
- The Central Statistical Organisation was started on 2 May 1951.
- It is now known as the Central Statistical Office.
- The headquarters of CSO is in Delhi.

National Statistical Office (NSO)

The NSO is the central agency under the Ministry of Statistics and Programme Implementation (MoSPI) that oversees India's statistical data.

- The National Statistical Office (NSO) was formed in 2019 by merging the pre-existing Central Statistical Office (CSO) and the National Sample Survey Office (NSSO).
- The NSO, which prepares India's economic statistics, indicates the economic activities included in each sector of the economy.
- The NSO is the central government body that collects, analyzes, and publishes economic statistics in India, including national income.
- The data provided by the NSO forms the basis for formulating economic policies, planning government projects, and monitoring economic growth.

Key Responsibilities:

- Conducting and coordinating statistical surveys.
- Collecting, compiling, and publishing data related to the Indian economy, social issues, and other important areas.
- Preparing national accounts such as Gross Domestic Product (GDP), Index of Industrial Production (IIP), and Consumer Price Index (CPI).

National Sample Survey Office (NSSO)

- The NSSO is an organization dedicated to conducting large-scale sample surveys across India to collect socio-economic data.

- The NSSO was established in 1950.
- In 2019, the NSSO became part of the NSO, but its role and functions remain integral to India's statistical infrastructure.

## SECTORS OF ECONOMY

Primary Sector

- Activities that directly utilize natural resources are the main feature of the primary sector.
- Agriculture, cattle rearing, and fishing, which depend on natural resources, are some examples of activities in the primary sector.
- As it gives more importance to agriculture and allied activities, the primary sector is also known as the Agricultural Sector.

Secondary Sector

- Economic activities related to industry and manufacturing are included in this sector.
- The secondary sector is where new products are made using products from the primary sector as raw materials.
- Since it emphasizes industries, the secondary sector is also called the Industrial Sector.

Tertiary Sector

- Various activities in the tertiary sector make all economic activities, such as storing and marketing products from the primary and secondary sectors, efficient.
- The tertiary sector ensures various service activities like health and education. Therefore, the tertiary sector is also known as the Service Sector.
- The interdependence of various sectors is essential for economic progress.
- Production, distribution, and consumption happening in various sectors of the economy are known as a country's economic activities.
- Production is the process of creating goods and services using the Factors of Production.
- Distribution refers to the process where the product or income obtained through production is transferred among individuals or factors of production.
- A portion of the income thus distributed is used by the consumer to buy goods and services, and the surplus is set aside as savings.
- Consumption is the activity of using resources to satisfy needs and wants. The economy progresses when economic activities like production, distribution, and consumption are accelerated.

വിവിധ മേഖലകളുടെ പരസ്പരാശ്രയത്വം ചുവടെ നൽകിയിരിക്കുന്ന ചിത്രം വിശകലനം ചെയ്ത് കണ്ടെത്തൂ.

ചിത്രം 5.5
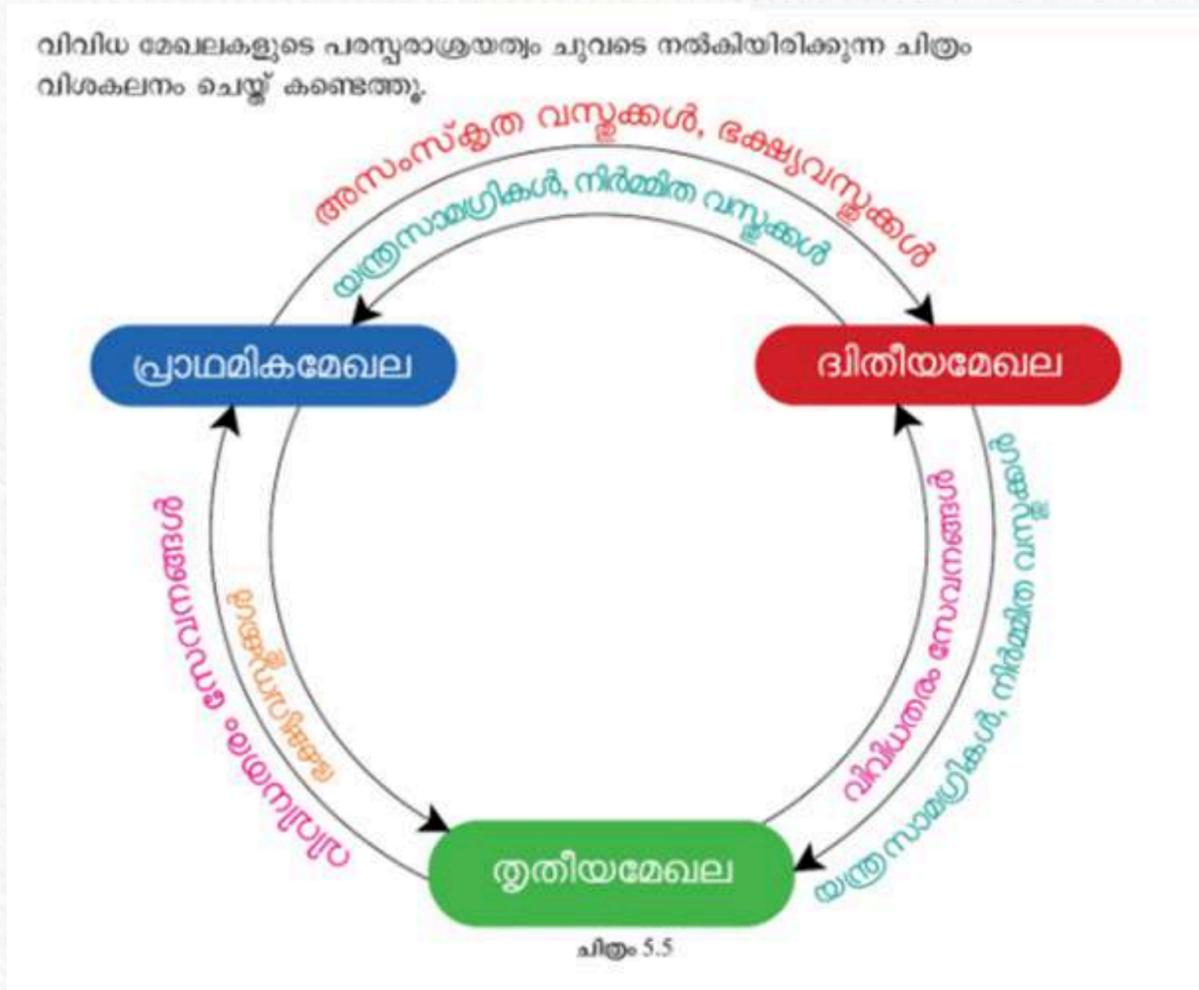
Methods of measuring National Income

- To calculate national income, the following three methods are adopted, based on production, income, and expenditure.

1. Product Method
2. Income Method
3. Expenditure Method

Product Method

- The product method is the method of calculating income based on the total money value of goods and services produced in the primary, secondary, and tertiary sectors in a financial year.

- This helps to identify the contribution of each sector to the national income and to ensure due importance is given to each sector.
- National Income (NI) = x1 + x2 + x3 + x4 + x5 +....
- Here, x1 + x2 + x3 + x4 + x5 +.... represents the total money value of various goods and services produced in the primary, secondary, and tertiary sectors of the country.

Income Method

- The income method is the method of calculating national income based on the money value of rewards received by the factors of production—land, labor, capital, and organization—which are rent, wages, interest, and profit, respectively, in a financial year.
- That is, National Income (NI) = r + w + i + p
- r = rent, w = wage, i = interest, p = profit
- This method helps us understand the income received by each factor of production in the country's national income.
- What can be calculated through the income method is the Gross National Income (GNI).

Expenditure Method

- This is the method of calculating national income based on the total expenditure on goods and services for various economic activities in the country in a financial year.

- In economics, Investment Expenditure is also considered as expenditure along with Consumption Expenditure for buying goods and services.
- The total expenditure of the country is the sum of consumption expenditure, investment expenditure, Government Expenditure, and the Net export value.
- That is, National Income (NI) = C + I + G + (X-M)
- C - Consumption expenditure, I = Investment expenditure, G = Government expenditure, (X-M) = The difference between the country's exports (X) and imports (M), or Net export.
- What can be calculated through the expenditure method is the country's Gross National Expenditure (GNE).

Government Expenditure

- Government expenditure, or public expenditure, is the cost incurred by the government for all its welfare-oriented activities. Government expenditures can be classified as Developmental Expenditure and Non-developmental Expenditure.

Consumption Expenditure

- The total amount spent by consumers to purchase goods and services for consumption is consumption expenditure.

Investment Expenditure

- The total expenditure by industrial units, individuals, or institutions on capital goods is investment expenditure.
- Examples include expenditure on land, machinery, etc.

Net Exports

- The difference between a country's export value and import value is known as net exports.

GDP (Gross Domestic Product)

- The total monetary value of final goods and services produced within the domestic borders of the country in an economic year is Gross Domestic Product (GDP).
- Domestic border means the land area under the government's control of a country and having full freedom for economic activities.
- When calculating Gross Domestic Product, income of individuals working abroad, profits of institutions and enterprises operating in foreign countries etc. are not included in it.
- For example, the economic gains of an Indian company operating in a foreign country are not included in India's Gross Domestic Product (GDP).

- Gross Domestic Product is suitable for analyzing the contribution from various sectors of an economy.
- In India, the economic year is from April 1 to March 31
- The economic year followed from 1867 in British rule is from April 1 to March 31
- Before 1867, it was from May 1 to April 30
- Gross - 'Total' - GROSS
- Domestic (DOMESTIC) - All economic activities done within the borders of a country are included in Gross Domestic Product

Economic Territory of a Country

- What is included in the country's economic territory.
- Air space, territorial waters
- Embassies, High Commissions of the country located in another country
- Areas with special rights of the country, sea areas with rights to conduct fishing or collect fuel under the sea bed, minerals.
- Free zones conducting offshore ventures under customs control.
- However, embassies, high commissions of other countries within India are not included in our economic territory.
- 'Product' - 'Goods and services' defined together

Depreciation

- Every asset goes towards depreciation in their use process, meaning destruction and tears occur to them.
- Depreciation is also known as Consumption on Fixed Capital (CONSUMPTION ON FIXED CAPITAL)
- 1. GROSS - DEPRECIATION = NET
- 2. GDPFC = GDPMP – Net Indirect Tax
- 1. GDPFC = GDP at Factor cost
- 2. Net Indirect Tax = Indirect Tax – Subsidies

Factor Cost

- Cost required for production factors such as land, labor, capital, entrepreneurship necessary to produce a good or service

Market Price

- After production of a good or service, when it reaches the market for sale, GST as indirect tax is also included. The cost combining factor cost and tax is market cost
- MARKET PRICE = FACTOR COST + NET INDIRECT TAX
- NET INDIRECT TAX = INDIRECT TAX - SUBSIDIES

GDP Deflator

- It is also known as GDP Price Deflator or Implicit Price Deflator.
- It is used to determine the price level of new final products and services produced domestically in a country within a year
- GDP Deflator = (Nominal GDP / Real GDP) x 100
- GDP DEFLATOR=NOMINAL GDP/REAL GDP*100

Nominal GDP

- Total value of all goods and services produced in a country in a specific period using current market prices

Real GDP

- Total value of all goods and services produced in a country in a specific period, adjusted according to inflation.
- Real GDP is also known as Constant Price GDP, Inflation Adjusted GDP or Constant Dollar GDP.
- Real GDP is generally considered as a more accurate representation of a country's basic economic activity

Gross National Product (GNP)

- When adding the income earned by Indians and Indian institutions from abroad to the domestic product and subtracting the income earned by foreigners and foreign institutions from India from it, Gross National Product (GNP) is obtained.
- That is, the total value of all final goods and services produced by the country's residents at home and abroad in an economic year is Gross National Product.
- GNP is the GDP of a country added with 'Net Factor Income from Abroad'.
- GNP = GDP + NFIA

Net Factor Income from Abroad

- NFIA indicates the difference between factor income received from other parts of the world and factor income given to other parts of the world.

NDP (Net Domestic Product)

- Net Domestic Product is defined as the net value of all goods and services produced within the geographical borders of a country. It is considered a major indicator of a country's economic growth

NDP = GDP - Depreciation

NNP (Net National Product)

- NNP (Net National Product)
- The market value of all finished goods and services produced by the citizens of a country living domestically and internationally in a year is Gross National Product or NNP.
- When buying and using a vehicle or machine, its operational efficiency decreases year by year.
- That is, as any object is used, that object gets age and wear. The necessary cost to compensate for such wear is called wear cost (Depreciation cost).
- When calculating national income, wear costs are taken into account.
- What is obtained by subtracting wear cost from Gross National Product is Net National Product (NNP).

NNP = NDP + NFIA

NNPFC = NDPMP - Net Indirect Tax + NFIA

NNPFC is a country's national income

Net National Product = Gross National Product - Wear Cost

(NNP = GNP - Depreciation Cost)

Net Investment

Net Investment = Gross Investment - Depreciation

National Income

- National Income refers to the total monetary value of all final goods and services produced by the residents of a country within or outside its domestic borders during a year.
- It represents the aggregate income earned by citizens through production in a year.

Items Not Included in the Estimate of National Income

1. Value of intermediate goods
2. Services provided by homemakers
3. Profits of foreign banks in India
4. Goods produced for self-consumption
5. Old goods/second-hand goods

Limitations in Measuring National Income

Although calculating national income is primarily aimed at understanding the economic condition of a country, this laborious effort is fraught with numerous practical difficulties and limitations.

- Absence of accurate statistical data
- Possibility of recording the monetary value of goods and services multiple times across production stages (Double Counting)
- Products and services produced and used for one's own needs are not included.
- Goods and services whose prices are not determined in the market are generally not included in national income.
- Domestic work is not accounted for in national income.

Sectoral Contribution to India's National Income

- Since January 2015, the National Statistical Office has begun using Gross Value Added (GVA) to accurately calculate the contributions of various sectors in the Indian economy.
- Prior to that, sectoral contributions were calculated based on Gross Domestic Product (GDP).
- According to Gross Value Added (GVA), the contribution of each sector in the economy can be calculated relatively faster and more accurately.
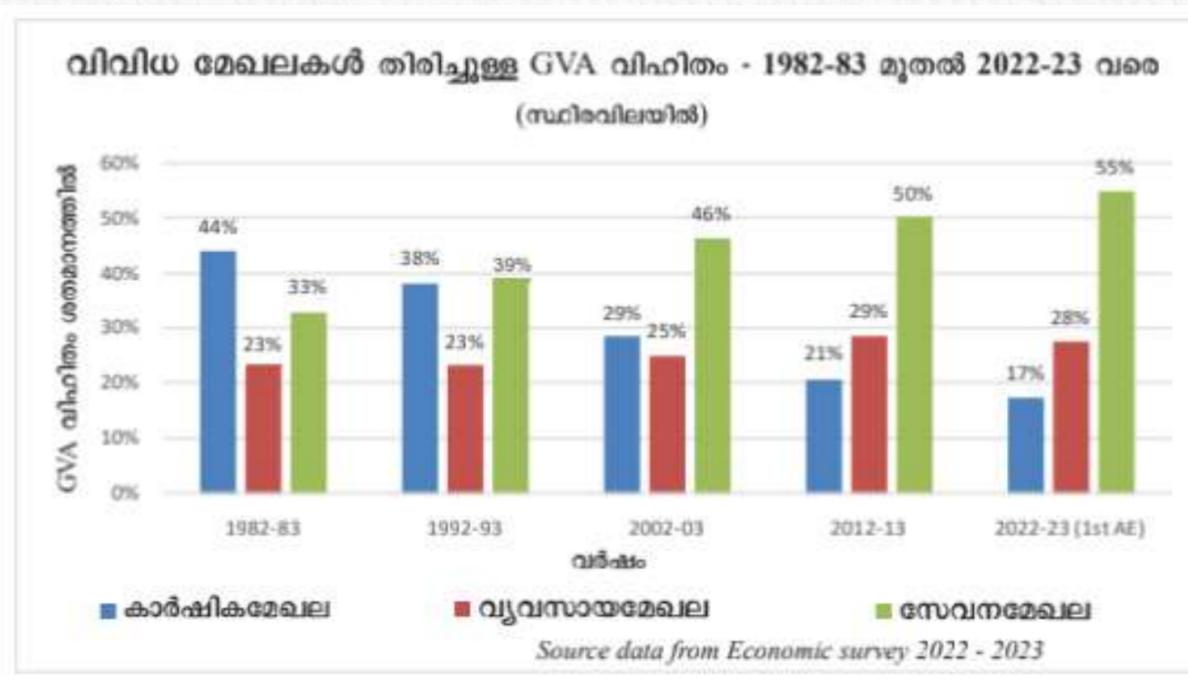
Gross Value Added (GVA)

- Gross Value Added (GVA) is the aggregate value of goods and services produced in the economy.
- Gross Value Added is calculated by subtracting the value of intermediate consumption from the value of gross product in national accounts.

മൊത്തവർധിതമൂല്യം = മൊത്തഉല്പന്നമൂല്യം - ഇടനില ഉപഭോഗമൂല്യം
(Gross value added (GVA) = Gross product value - Value of intermediate consumption)

- Intermediate consumption refers to the consumption of raw materials used in the production of a good or service.
- When calculating GVA, only the value added to the product is considered; taxes or subsidies on the product are not taken into account.
- However, when calculating GDP, the difference between product taxes and product subsidies is added to the Gross Value Added (GVA).
- Gross Domestic Product = Gross Value Added + (Product tax - Product subsidy)

- GDP = GVA + (Product tax - Product subsidy)
- The contributions from the primary, secondary, and tertiary sectors to India's national income in terms of Gross Value Added (GVA) over various periods can be understood from the graph provided below.

വിവിധ മേഖലകൾ തിരിച്ചുള്ള GVA വിഹിതം - 1982-83 മുതൽ 2022-23 വരെ
(സ്ഥിരവിലയിൽ)

Source data from Economic survey 2022 - 2023

Tax and Subsidy

- Tax is the compulsory payment made by citizens to the government to cover expenditures on welfare activities, development initiatives, and other public interests.
- Subsidy is the financial support or benefit provided by the government to individuals or institutions on goods or services, based on social-economic policies.

Gross State Value Added (GSVA)

- Time-series changes are evident in Kerala's Gross State Value Added (GSVA) and the contributions from its various sectors.

In both India's and Kerala's Gross Value Added, the contribution from the tertiary sector is higher compared to other sectors. What could be the reasons for this?

- Progress in health and education sectors ensuring advancements
- Growth of banking and insurance systems propelling the country's trade and commerce sectors forward
- Growth in transportation and communication sectors
- Growth in the tourism sector
- Growth in knowledge-based industries

All these contribute to the increasing share of the tertiary sector in the GVA.

Economic Growth and Economic Development

Through various economic activities, all economies aim to provide improved living standards. Thus, economic activities bring about both quantitative and qualitative changes in the economy. The quantitative change indicates economic growth, while the qualitative change signifies economic development.

Economic Growth

- Goods and services are produced in an economy as a result of activities in the agricultural, industrial, and service sectors.
- When the production of goods and services increases, national income rises, and the economy grows.
- Gross Domestic Product (GDP) is the monetary value of all goods and services produced within a country's domestic territory in a year.
- Observe the graph below showing changes in India's GDP across different years.

ഇന്ത്യയുടെ മൊത്തം ആഭ്യന്തര ഉത്പാദനം : 2012 - 2025 (at current prices)
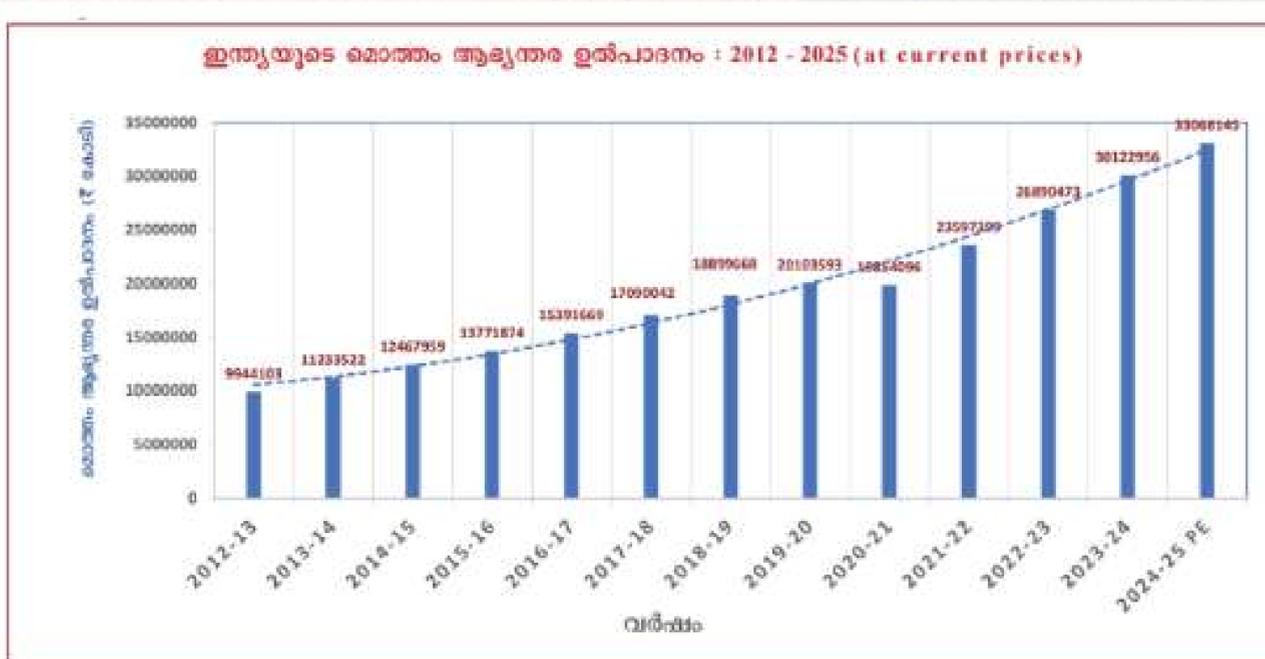
- Economic growth refers to the increase in a country's Gross Domestic Product compared to the previous year.
- It is calculated in real terms to eliminate the effects of inflation and to arrive at the true picture of the economy.
- When economic growth occurs, changes in production, employment, income, etc., enhance the country's capacity to meet the needs of its people.

Economic Growth Rate

- The economic growth rate is the rate of increase in GDP compared to the previous year, expressed as a percentage.

$$\text{Economic growth rate} = \frac{\text{Current year's GDP - Previous year's GDP}}{\text{Previous year's GDP}} \times 100$$

Observe and analyze the graph below for India's economic growth rates published by the Ministry of Statistics and Programme Implementation (MOSPI) from 2012-13 to 2023-24.
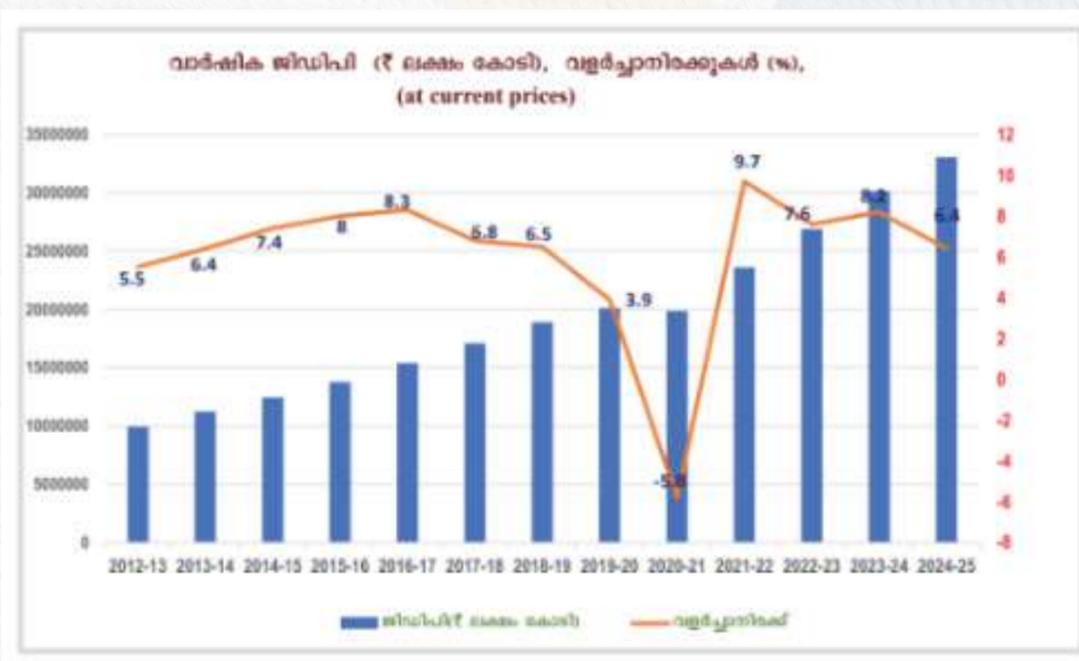
- The production of goods and services does not necessarily increase progressively every year.
- Fluctuations in growth may occur.
- From 2016-17 to 2019-20, although the growth rate declined, GDP increased, indicating positive economic growth. However, from 2019-20 to 2020-21, both GDP and the growth rate declined, resulting in negative economic growth. If the growth rate is above zero, it indicates positive growth; if below, negative growth. From 2020-21 to 2021-22, both GDP and the growth rate rose, shifting economic growth from negative to positive.

Per Capita Income (PCI)

- Per capita income is a key indicator used to measure and evaluate economic growth.
- It is calculated by considering the growth in national income and population.

$$\text{പ്രതിശീർഷവരുമാനം (PCI)} = \frac{\text{ദേശീയവരുമാനം (National Income)}}{\text{ആകെ ജനസംഖ്യ (Total Population)}}$$

Based on per capita income, the World Bank's World Development Report classifies economies into four categories.

No	Category	PCI in US Dollars ($)	Example (Countries)
1	Low income	Less than 1145	Afghanistan, Ethiopia, Chad
2	Lower middle income	1146 To 4515	India , Bangladesh , Kenya
3	Upper middle income	4516 To 14005	China , Brazil , South Africa
4	High income	Above 14006	USA , Germany , Japan

രാജ്യം	1991	2001	2011	2021
ഇന്ത്യ	364	442	1,569	2,116
ചൈന	318	949	5,425	12,554
യു.എസ്.എ.	26,741	35,892	48,303	69,287
അഫ്ഗാനിസ്ഥാൻ	317	169	606	369

- Per capita income is used to compare economic growth across different countries in the same period or within a single country across different periods.

Personal Income (PI)

- Personal Income is the total income earned by an individual from various sources over a specified period.
- Personal income represents an individual's actual income.
- A country's per capita income may be higher or lower than personal income, resulting in a difference between PCI and PI.
- Personal income is the aggregate income received by individuals in a country from all sources before direct taxes in a year.
- Personal Income (PI) = National Income - Undistributed profits - Corporate interest payments by households - Corporate tax + Transfer payments from government and corporations to households

Disposable Personal Income

- It is the value of money available for household consumption, savings, and expenditure after accounting for income tax.
- Disposable Income = Personal Income - Personal Income Taxes

Practice Questions

1. Which of the following is excluded in the calculation of GDP?
A) Income earned by citizens working abroad
B) Income earned by foreign nationals within the country
C) Government expenditures
D) Investments made by Indian companies in India

Answer: A) Income earned by citizens working abroad
Explanation: GDP includes income earned within the country's borders, but excludes income earned by citizens working abroad.

2. Which of the following statements is true about the GDP deflator?
A) It is used to calculate the Real GDP.
B) It is calculated by dividing Real GDP by Nominal GDP.
C) It includes only consumption-based price indices.
D) It is used to adjust for inflation by comparing the price level of all goods and services produced in the country.

Answer: D) It is used to adjust for inflation by comparing the price level of all goods and services produced in the country.
Explanation: The GDP deflator is used to adjust for inflation by comparing the current year's nominal GDP with real GDP.

3. Which of the following is correct about NNP (Net National Product)?
A) NNP is calculated by subtracting depreciation from GNP.
B) NNP includes the income earned by foreign nationals within the country.
C) NNP is a better indicator of economic output than GNP.
D) NNP excludes the income of a country's citizens earned abroad.

A) NNP is calculated by subtracting depreciation from GNP.
Explanation: NNP is calculated by subtracting depreciation from GNP, reflecting the net value of production.

4. Which of the following best defines GNP (Gross National Product)?
A) The total income earned by foreign nationals within a country.
B) The total value of goods and services produced within a country's borders.
C) The total income earned by a country's residents both domestically and abroad.
D) The total market value of final goods and services produced in the country after depreciation.

Answer: C) The total income earned by a country's residents both domestically and abroad.
Explanation: GNP includes the income earned by the country's citizens both within the country and abroad.

5. Which of the following is NOT considered when calculating the Real GDP?
A) Price levels in the current year
B) Inflation adjustments
C) Consumption expenditures
D) Price changes from previous years

Answer: D) Price changes from previous years
Explanation: Real GDP adjusts for inflation by considering current prices but excludes price changes from previous years, using constant prices.

6. Consider the following statements about GDP:

1. GDP stands for Gross Domestic Product.

2. GDP includes the income of a country's citizens working abroad.

3. GDP measures the total market value of all final goods and services produced within a country's borders.

4. GDP excludes the income earned by foreign nationals working within the country.

Which of the above statements are correct?

A) 1 and 3 only

B) 1, 3, and 4 only

C) 1 and 2 only

D) 1, 2, 3, and 4

Answer: A) 1 and 3 only

Explanation:

Statement 1: Correct – GDP refers to the total value of goods and services produced within the country's borders.

Statement 2: Incorrect – Income of citizens working abroad is not included in GDP, it is included in GNP.

Statement 3: Correct – GDP includes only the goods and services produced within the country's borders.

Statement 4: Incorrect – Income earned by foreign nationals within the country is included in GDP.

7. Consider the following statements about GNP:
1. GNP includes income earned by a country's citizens both domestically and abroad.
2. GNP is a better indicator of the total economic activity of a country as it includes income earned abroad.
3. GNP includes the income generated by foreign nationals within the country.
4. GNP excludes the income earned by foreign nationals working within the country.
Which of the above statements are correct?
A) 1 and 2 only
B) 1, 2, and 4 only
C) 2 and 4 only
D) 1, 3, and 4 only

Answer: A) 1 and 2 only
Explanation:
Statement 1: Correct – GNP includes income earned by a country's citizens both domestically and abroad.
Statement 2: Correct – GNP is a broader measure that includes income earned by citizens abroad.
Statement 3: Incorrect – Income generated by foreign nationals within the country is not included in GNP; it's included in GDP.