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INDIAN ECONOMY

for Civil Services Exam

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CHAPTER
1

ECONOMIC GROWTH & DEVELOPMENT

■ Introduction

- Economic growth is an increase in the production of economic goods and services, compared from one period of time to another. It can be measured in nominal or real (adjusted for 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.
- Economic development is the process by which emerging economies become advanced economies. In other words, the process by which countries with low living standards become nations with high living standards. Economic development also refers to the process by which the overall health, well-being, and academic level the general population improves.

■ National Income

- Understanding how national income is created is the starting point for macroeconomics. Conceptually national income is the total value of a country's final output of all new goods and services produced in one year. However, there are practical difficulties in estimating the national income as per this concept, hence we use the Pigouvian definition.
- A.C. Pigou has in his definition of national income included that income which can be measured in terms of money. In the words of Pigou, "National income is that part of objective income of the community, including the income derived from abroad which can be measured in monetary terms."
- According to Central Statistical Organization, "National income is the sum total of factor incomes earned by normal residents of a country in the form of wages, rent, interest and profit in an accounting year."
- National Income Accounting (NIA) refers to methods or techniques used to measure the economic activity in the national economy as a whole. As one calculates income at an individual level similar calculation can be done for at the country level as well. NIA is needed for comparing the estimates in the past from those in future and also forecast the growth rates in future. For example, if a country has a GDP of Rs. 103 Lakh which is 3 Lakh rupees higher than the last year, it has a growth rate of 3 per cent.
- In economics when a term 'a growing' economy is used, it means that the economy is adding up its income i.e. in quantitative terms. To find out the level of economic development of a country. It provides useful insight into how well an economy is functioning and where money is being generated and spent. One can compare the standard of living of different nations. It helps to show the rate of growth or development of different nations. It helps in-
  - Formulate Policies
  - Effective Decision Making
  - Compare internationally

Three Measurements of National Income

National Income calculated by three ways:

Consider the following while calculating National Income through Value Added Method

Value Added Method (or the Product Method)

- The value added or production method is used by economists to calculate GDP at market prices, which is the total values of outputs produced at different stages of production. It needs to be mentioned that caution should be taken to take final Goods and not Intermediate goods, as it will result in Double Counting.
- Some of the goods and services included in production are:
  - Goods and services actually sold in the market.
  - Goods and services not sold but supplied free of cost. (No Charge/Complementary)
- Some of the goods and services not included in production are:
  - Second hand items and purchase and sale of the same. Sale and purchase of second cars, for example, are not a part of GDP calculation as no new production takes place in the economy.
  - Production due to unwarranted/ illegal activities.
  - Non-economic goods or natural goods such as air and water.
  - Transfer Payments such as scholarships, pensions etc. are excluded as there is income received, but no good or service is produced in return.
  - Imputed rental for owner-occupied housing is also excluded.

Income Method

- This method emphasises on aggregating the payments made by firms to households, called factor payments. It is defined as total income earned by citizens and businesses of a country.
- There are four types of factors of production and four types of factor incomes accordingly i.e. Land, Labour, Capital and Entrepreneur/Organization as Factors of Production and Rent, Wages, Interest and Profit as Factor Incomes correspondingly.
- GDP = Wages+ Interest Income + Rental Income +Profit +Indirect Taxes-Subsidies+ Depreciation
- The term Profit can be further sub-divided into: profit tax; dividend to all those shareholders; and retained profit (or retained earnings).
- Such an approach is adopted in India to calculate the contribution of services sector to the economy.
- Any income corresponding to which there is no flow of goods and services or value added, it should not be included in calculation by Income method.

Expenditure Method

- The expenditure method measures the final expenditure on GDP. Amount of Expenditure refers to all spending on currently-produced final goods and services only in an economy. In an economy, there are three main agencies, which buy goods and services. These are: Households, Firms and the Government
- This final expenditure is made up of the sum of four expenditure items, namely:
  - Consumption (C): Personal Consumption made by households, the payment of which is paid by households directly to the firms which produced the goods and services desired by the households.

- Investment Expenditure (I): Investment is an addition to capital stock of an economy in a given time period. This includes investments by firms as well as governments sectors
- Government Expenditure (G): This category includes the value of goods and service purchased by Government. Government expenditure on pension schemes, scholarships, unemployment allowances etc. are not included in this as all of them come under transfer payments.
- Net Exports (X-IM): Expenditure on foreign made products (Imports) are expenditure that escapes the system, and must be subtracted from total expenditures. In turn, goods produced by domestic firms which are demanded by foreign economies involve expenditure by other economies on our production (Exports), and are included in total expenditure. The combination of the two gives Net Exports.

GDP= C+I+G+X-IM

C = consumption

I = Investment

G = Government expenditure

X = Export

IM = Import

■ Gross Domestic Product

- Gross Domestic Product (GDP) refers to total market value of all final goods and services produced in an economy over a period of one year. In India, fiscal or financial year is from 1st April to 31st March i.e. it measures the money value of final goods and services produced within a geographic boundary regardless of the nationality of the individual or firm.
- In calculation of GDP only final output of such goods and services is considered. Counting of final goods is necessary to avoid multiple (double or triple) counting of raw materials, intermediate products, and final products.

  Example - In an automobile industry, value of automobiles already includes the value of the steel, glass, tyres, engine and other components that have been used to make them.

  - Final Goods and Services: Goods and Services purchased for final use.
  - Intermediate Goods/ Raw Materials: Products used as input in the production of some other product.
- By calculating the value added at each stage of production, from the beginning of the process to the end. Specifically, it is derived by subtracting the value of the intermediate good from the value of the sale.
- Factors of Production includes the cost of labour apart from cost of raw material. There are four factors of production: Land, Labour, Capital and Entrepreneurship.

Types of GDP

- **GDP can be divided into:**
  - **Real GDP -** Real GDP refers to the current year production of goods and services valued at base year prices. Such base year prices are constant prices.
  - **Nominal GDP -** Nominal GDP refers to current year production of final goods and services valued at current year prices.

  Real GDP is a better measure to calculate the GDP because in a particular year GDP may be inflated because of high rate of inflation in the economy. Real GDP therefore allows us to determine whether production increased or decreased, regardless of changes in the inflation and purchasing power of the currency.

What are Index Numbers?

These are special averages. Other statistical averages like mean, median and mode measure the absolute changes of a given series of data. However, when such a measure of absolute variation is not possible we use index numbers. They measure the relative changes/variation in the level of a phenomenon.

Index numbers help us study the factors which cannot be measured directly. For example, there is no benchmark to measure the general price level in the market. But index numbers can help us measure the relative change or variation in the price levels.

It also allows measuring the relative changes in a group of closely related variables.

There are essentially three broad classifications of index numbers as shown below,

Price Index Number: Price index number is a scale used to measure changes in the level of prices in the economy. It compares the price of the current year, with that of the base year to give us an idea of the relative variation. It is a very good measure of inflation in the economy.

Quantity Index Number: As the name suggests, this measures the changes in the quantities of goods between any two given years. This can be the number of goods produced, sold, consumed, etc. It is a good indication of the output of an economy.

Value Index Number: This is an index number is the ratio of the aggregate value of a given commodity in the current year and its value in the chosen base year.

Concept of Base Year:

- Base year is the year used as the beginning or the reference year for constructing an index, and which is usually assigned an arbitrary value of 100.
- Economists use a price index to find the real GNP/GDP to make the calculation of GNP/GDP easier. A Price index is a number showing the changes in the overall level of prices. It shows a change in the general price level of an economy.
- The base year for calculating GDP has been changed to 2011-12 from 2004-2005. The government is considering to change the base year for calculation of GDP to 2020-21.

Base Year selection is made on the basis of:

- Stability of macroeconomic parameters. It has to be a normal year without large fluctuations in production, trade and prices of goods and services.
- Data available for the year should be reliable.
- Comparability so that same parameters should be in use in both the years. Therefore it should be a recent year and not go long back into history.

■ Net Domestic Product (NDP)

- Net Domestic Product (NDP) is the GDP calculated after adjusting the value of 'depreciation'. This is, basically a net form of the GDP, i.e. GDP minus the total value of the depreciation that happened in the assets while the goods and services were being produced.
- NDP = GDP - Depreciation
  - Because of the above, NDP of an economy is always lower than its GDP, since there depreciation can never be reduced to zero. The concept of NDP and NNP are not used to compare different economies because the method of calculating depreciation vary from country to country.

Concept of Depreciation

- In the process of production a country uses several capital assets such as machinery, equipment, automobiles, etc.
- The assets like machines face wear and tear over a period of time. It's value reduces. This is known as depreciation.
- When the value completely erodes the capital asset in question has to be either replaced or repaired. Expenses incurred for this are called depreciation expenditure.
- The sum of these two amounts is called Gross Investment in economics.
- Gross Investment = Net investment + Depreciation
- Net investment will increase the production capacity and output of a nation, but not by depreciation expenditure.
- The governments of the economies decide and announce the rates by which assets depreciate and a list is published, which is used by the different sections of the economy to determine the real levels of depreciations in different assets. When we divide NNP by the total population of nation we get the 'per capita income' (PCI) of that nation i.e. 'income per head per year'.

■ Gross National Product (GNP)

- GNP is a measure of the value of output produced by the nationals of a country irrespective of the geographical boundaries of a nation. It refers to the output of Indian citizens both within India and in all the countries of world.
- GNP = GDP + (Income from abroad)
- Example: Apple Inc. is a US based firm. When it opens up a production centre in India, value of output from that centre is added to India's GDP, but it is not added while calculating GNP of India.
- Similarly, when Indian companies such as HCL or Reliance provide services in the US, the value of those services are not added in the Indian GDP but they are considered while calculating the Indian GNP.
- GDP and GNP are measured on the basis of Market Price and Factor Cost.
  - Market Price:
    - It refers to the actual transacted price and it includes indirect taxes such as custom duty, excise duty, sales tax, service tax, etc. (impending Goods and Services Tax).
    - These taxes tend to raise the prices of the goods in an economy.
  - Factor Cost:
    - It refers to the cost of factors of production.
    - Factors of Production i.e. rent for land, interest for capital, wages for labour and profit for entrepreneurship. This is equal to revenue price of the final goods and services sold by the producers.
    - Revenue price (or factor cost) = Market Price - Net Indirect Taxes.
    - Net Indirect Taxes (NIT) = Indirect Taxes - Subsidies
    - Hence, Factor Cost = Market Price- Indirect Taxes + Subsidies

Difference between GDP and GNP:

- GDP is about where production takes place whereas GNP is about who produces them.
- GDP reflects the production of goods and services produced within the boundaries of the country by both the citizens and the foreigners. Hence focus of GDP is on where the output is produced rather than who produced it. When an economy with great levels of inflows of FDI and very less outgoing FDI, the GDP would generally be more than the GNP.

- But if in an economy, more of its nationals move abroad and generate economic activity when compared to foreigners those who come in and perform any economic activity its GNP would be larger than its GDP.
- In case of Indian economy, GNP is lower than its GDP as income from abroad is adverse/negative in India.
- Even though GDP is a figure which is prominently used by economists across the world, some economists criticize it for not reflecting the true state of a nation's economy. This is because GDP does not take into account the profits earned in a nation by overseas companies that are remitted back to foreign investors. If these remitted profits are very large compared with earnings from the nation's overseas citizens and assets, the NFFI figure will be negative, and GNP will be significantly below GDP. GNP of a nation also reflects how much the outside world is dependent on its products and how much it depends on the world for the same.

Net National Product (NNP)

- NNP is the value of the total output of the economy calculated without double counting, this is GNP, less allowance for depreciation (D) of the capital assets used in the production process.
- Hence NNP= GNP- Depreciation
- NNP = GDP + Income from Abroad - Depreciation
- NNP at Market Price - Indirect Taxes = Net National Income at Factor Cost

Net Foreign Factor Income (NFFI)

- Net Foreign Factor Income (NFFI) is the difference between the aggregate amount that a country's citizens and companies earn abroad, and the aggregate amount that foreign citizens and overseas companies earn in that country.
- Formula
  - Net Foreign Factor Income = GNP - GDP

Concepts Related to Nationality

What is Economic territory?

- Economic territory is the geographical territory administered by a government within which persons, goods and capital circulate freely.
- Those parts of the political frontiers of a country where the government of India, does not enjoy the above "freedom" are not to be included in economic territory of that country. One example is embassies.
- Government of India does not enjoy the above freedom in the foreign embassies located within India. So, these are not treated as a part of economic territory of India. They are treated as part of the economic territories of their respective countries.
- For example the United States of America (USA). embassy in India is a part of economic territory of the U.S.A. Similarly, the Indian embassy in Washington is a part of economic territory of India.
- Based on 'freedom' criterion, the scope of economic territory is defined to cover:
  - Political frontiers including territorial waters and air space.
  - Embassies, consulates, military bases, etc located abroad, but excluding those located within the political frontiers.
  - Ships, aircrafts, etc. operated by the residents between two or more countries.
  - Fishing vessels, oil and natural gas rigs, etc operated by the residents in the international waters or other areas over which the country enjoys the exclusive rights or jurisdiction.

What is the difference between citizen and resident?

- Citizenship is basically a legal concept based on the place of birth of the person or some legal provisions allowing a person to become a citizen. On the other hand residentship is basically an economic concept based on the basic economic activities performed by a person.
- A resident, whether a person or an institution, is one whose centre of economic interest lies in the economic territory of the country in which he lives. That is NRI are the citizens of India but their economic interest lies in other countries (a engineer working in US thus its economic interest in US) thus NRI are known as Non-Resident Indian.

What are Transfer Payments?

- Transfer Payments refer to the payments made by the government to individuals for which there is no economic activity produced in return by these individuals. A few examples of transfer payments include old age pensions, scholarships, etc.

■ Net National Income at Factor Cost

- It is a measure of the sum of all factor incomes earned by the residents of a country both from within the country as well as abroad.
- National Income and Net National Product (NNP) are synonymous. National Income is calculated by deducting indirect taxes from NNP and adding subsidies.
- The reason for deducting indirect taxes is that they have been added twice - once in the hands of the people who pay them and other in the hands of the governments. Similarly, various subsidies, which are forwarded by the governments, need to be adjusted while calculating national income.

Net National Income at Factor Cost = NNP at Market Price - Indirect Taxes + Subsidies

- In India, and many developing countries across the world, National Income (NI) is measured at factor cost instead of market prices. Some of the reasons for the same is lack of uniformity in taxes, goods not being printed with their prices, etc.

Relationship between Market Price and Factor Cost:

GNP at Factor Cost = GNP at Market Price – Indirect Taxes + Subsidies

GDP at Factor Cost = GDP at Market Price – Indirect Taxes + Subsidies

■ Personal Income (PI)

- In economics, personal income refers to an individual's total earnings from wages, investment enterprises, and other ventures. It is the sum of all the incomes actually received by all the individuals or household during a given period. Welfare payments are received by households, but these are not elements of national income because they are transfer payments.
- Similarly, in national income accounting, some income is attributed to individuals, which they do not actually receive. For example, undistributed profits, employee's contribution for social security corporate income taxes etc. are, part of national income but are not received by individuals. Therefore, they are to be deducted from national income to estimate the personal income. Personal income thus is:

  PI = NI + transfer payments - Corporate retained earnings, income taxes, social security taxes.

Disposable Income (DPI)

- Disposable personal income refers to the amount, which in actual is at the disposal of individuals to spend as they like. It is the amount which is left with the individuals after paying personal taxes such as income tax, property tax, professional tax etc. Therefore:
- DPI = PI -Taxes (Income Tax i.e. Personal Taxes)
- Hence, DPI results into Savings and Expenditure i.e (Spend and Save). This concept is very useful for studying and understanding the consumption and saving behaviour of the individuals.
- Disposable income = Consumption + Savings

What are the factors that affect National Income?

Several factors affect the national income of a country. Some of them have been listed below:

Factors of Production

- Normally, the more efficient and richer the resources, higher will be the level of National Income or GNP.

Land

- Resources like coal, iron and timber are essential for heavy industries so that they must be available and accessible. In other words, the geographical location of these natural resources affects the level of GNP.

Capital

- Capital is generally determined by investment. Investment in turn depends on other factors like profitability, political stability, etc.

Labour

- The quality or productivity of human resources is more important than quantity. Manpower planning and education affect the productivity and production capacity of an economy.

Entreprise

- The size of the national income also greatly depends upon! the number and skill of the entrepreneurs. If the captains of the industries! are efficient, they will combine; the various factors of production to the! optimum proportion and so the volume of total production will be quite large, if managerial skill is lacking in the country, the size of the national income will be small.

Technology

- This factor is more important for Nations with fewer natural resources. The development in technology is affected by the level of invention and innovation in production.

Government

- Government can help to provide a favourable business environment for investment. It provides law and order, regulations.

Political Stability

- A stable economy and political system helps in appropriate allocation of resources. Wars, strikes and social unrests will discourage investment and business activities.

New Methodology for Calculation of GDP in India

- Earlier domestic GDP was calculated at factor or basic cost, which took into account prices of products received by producers.
- The new formula takes into account market prices paid by consumers. It is calculated by adding GDP at factor price and indirect taxes (minus subsidies). It is in line with international practice and is expected to better capture the changing structure of the Indian economy.
- The government has also changed the base year for estimating GDP from 2004-05 to 2011-12. This has been done to incorporate the changing structure of the economy, especially rural India.
- Data for the new GDP series will now be collected from 5 lakh companies (against 2,500 companies earlier). Under-represented and informal sectors as well as items such as smartphones and LED television sets will now be taken into account to calculate the gross domestic product.

Concept of GDP Deflator

- It is a tool to measure the inflation comprehensively. It represents the ratio of GDP at current prices to GDP at constant prices. GDP deflator is published on a quarterly basis since 1996 with a lag of two months. It is because of this very reason that economists prefer the use of WPI or CPI for deflating nominal price estimates to derive real price estimates.
- Essentially GDP deflator = (Nominal GDP/Real GDP) * 100.
- Unlike the Wholesale Price Index and the Consumer Price Index, GDP deflator is not based on a fixed basket of goods and services, it covers the whole economy. One of the other advantages of GDP deflator is that changes in consumption patterns or the introduction of new goods and services are automatically reflected in the deflator, such a feature is missing in WPI/CPI.

Purchasing Power Parity

- Purchasing Power Parity (PPP) is an economic theory that compares different countries' through a "basket of goods" approach. According to this concept, two currencies are in equilibrium or at par when a basket of goods is priced the same in both countries.
- Some accounts of GDP are adjusted for PPP. This adjustment attempts to convert nominal GDP into a number more easily comparable between countries with different currencies.
- One way to think of what GDP with PPP represents is to imagine the total collective purchasing power of Japan if it were used to make the same purchases in U.S. markets. This only works after all yen are exchanged for dollars. Otherwise, the comparison does not make sense.
- For example, suppose it costs $10 to buy a shirt in the U.S., and it costs €8.00 to buy the same shirt in Germany. To make an apples-to-apples comparison, the €8.00 in Germany needs to be converted into U.S. dollars. If the exchange rate was such that the shirt in Germany costs $15.00, the PPP would be 15/10, or 1.5. For every $1.00 spent on the shirt in the U.S., it takes $1.50 to obtain the same shirt in Germany.

Green GDP

- Green GDP is a term used generally for expressing GDP after adjusting for environmental damage. When information on economy's use of the natural environment is integrated into the system of national accounts, it becomes green national accounts or environmental accounting.

- The process of environmental accounting involves three steps viz. Physical accounting; Monetary valuation; and integration with national Income/wealth Accounts. Physical accounting determines the state of the resources, types, and extent (qualitative and quantitative) in spatial and temporal terms.
- Monetary valuation is done to determine its tangible and intangible components. Thereafter, the net change in natural resources in monetary terms is integrated into the Gross Domestic Product in order to reach the value of Green GDP.

■ MISCELLANEOUS

■ Use of GDP instead of GVA in the country

The Reserve Bank of India has switched back to Gross Domestic Product (GDP)-based model from Gross Value Added (GVA) measure to provide its estimate of economic activity in the country.

- The change was done in order **to conform to global best practices and for ease of comparison.**
- This is also the approach followed by multilateral institutions, international analysts and investors, and primarily they all stick to this norm because it facilitates easy cross-country comparisons.
- Government had switched to the GVA methodology from 2015 and had also changed the base year to 2018 from January 2018.
- While GVA **gives a picture of the state of economic activity from the producers' side or the supply side, GDP gives the picture from the consumers' side or the demand perspective**.
- The Central Statistical Office (CSO) began using GDP as the main measure of economic activities.

GVA vs GDP:

GVA + taxes on products - subsidies on products = **GDP**

GDP

- It gives the economic output from the consumers' side. It is the sum of private consumption, gross investment in the economy, government investment, government spending and net foreign trade (difference between exports and imports).

Gross Value Added

- Put simply, it is a measure of total output and income in the economy. It provides the rupee value for the amount of goods and services produced in an economy after deducting the cost of inputs and raw materials that have gone into the production of those goods and services.
- It also gives sector-specific picture like what is the growth in an area, industry or sector of an economy.

How is it measured?

- At the macro level, from national accounting perspective, it is the sum of a country's GDP and net of subsidies and taxes in the economy.
- When measured from the production side, it is a balancing item of the national accounts.

Difference between GVA and GDP

- While GVA gives a picture of the state of economic activity from the producers' side or supply side, the GDP gives the picture from the consumers' side or demand perspective. Both measures need not match because of the difference in treatment of net taxes.

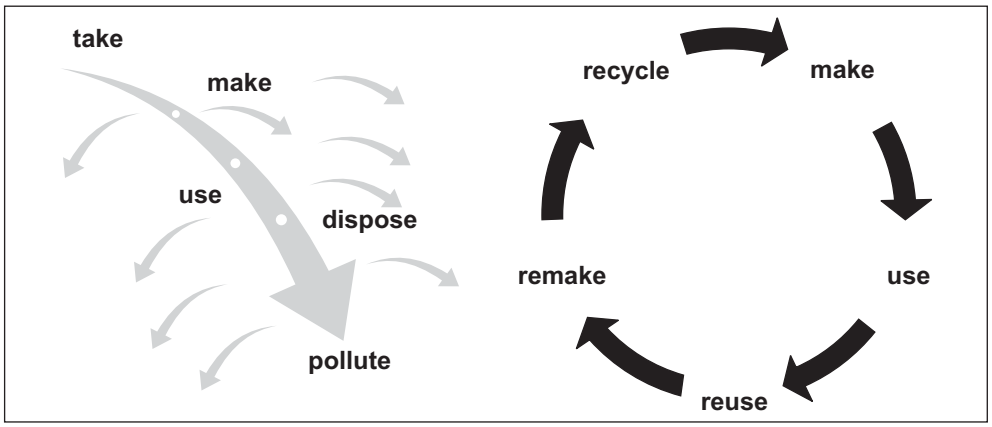
- **Why did policy makers decide to also give weight to GVA?**
  - A sector-wise breakdown provided by the GVA measure can better help the policymakers to decide which sectors need incentives/stimulus or vice versa. Some consider GVA as a better gauge of the economy because a sharp increase in the output, only due to higher tax collections which could be on account of better compliance or coverage, may distort the real output situation.
- **Which of the two measures is considered more appropriate gauge of the economy?**
  - A sector-wise breakdown provided by the GVA measure helps policymakers decide which sectors need incentives or stimulus and accordingly formulate sector specific policies. But GDP is a key measure when it comes to making cross-country analysis and comparing the incomes of different economies.

Atmanirbhar Bharat Abhiyaan

- Atmanirbhar Bharat, which translates to 'self-reliant India' or 'self-sufficient India', is a policy formulated by Prime Minister of India, Narendra Modi for making India "a bigger and more important part of the global economy", pursuing policies that are efficient, competitive and resilient, and being self-sustaining and self-generating.
- Five pillars of Aatma Nirbhar Bharat – Economy, Infrastructure, System, Vibrant Demography and Demand.

Circular Economy

- A circular economy is an economic system aimed at eliminating waste and the continual use of resources. Circular systems employ reuse, sharing, repair, refurbishment, remanufacturing and recycling to create a closed-loop system, minimising the use of resource inputs and the creation of waste, pollution and carbon emissions.



- The circular economy aims to keep products, equipment and infrastructure in use for longer, thus improving the productivity of these resources.
- Waste materials and energy should become input for other processes: either a component or recovered resource for another industrial process or as regenerative resources for nature (e.g., compost). This regenerative approach is in contrast to the traditional linear economy, which has a "take, make, dispose" model of production.