

Subject – Macroeconomics

Notes Unit 2 Part A

By -

Dr. Nafees Hashim Rizvi

Assistant Professor

Department of Economics,

Shia P.G. College, Lucknow

Three Approaches to the Measurement Of GDP: Activities –

GDP is the final value of the final goods and services produced within the geographic boundaries of a country during a specified period of time, normally a year. It counts the goods and services produced within the country and hence does not consider the products that the country imports from another country.

GDP Growth Rate

GDP growth rate is an important indicator of the economic performance of a country. It is the percentage increase in GDP from year to year. It tells us exactly whether the economy is growing quicker or slower than the preceding year. Most countries use real GDP to remove the effect of inflation.

If the economy produces less than the preceding year, it contracts and the growth rate is negative. This signals a recession. If it stays negative long enough, the recession turns into a depression.

Significance of GDP

GDP is a broad measure of a country's economic activity, used to estimate the size of an economy and growth rate. Because GDP provides a direct indication of the health and growth of the economy, businesses can use GDP as a guide to their business strategy. Investors also watch other economic indicators since it provides a framework for investment decision-making.

The “corporate profits” and “inventory” data in the GDP report are a great resource for equity investors, as both categories show total growth during the period. Corporate profits data also displays pre-tax profits, operating cash flows and breakdowns for all major sectors of the economy.

Methods of GDP Calculation -

There are three methods of measuring GDP or Gross Domestic Product:

1. *Income Approach:*

The GDP income approach formula starts with the income earned from the production of goods and services. Under the income approach method, we calculate the income earned by all the factors of production in an economy.

Factors of production are the inputs that go into producing the final product or service. Thus, the factors of production for a business are – Land, Labour, Capital and Management within the domestic boundaries of a country.

Here’s the income method of GDP calculation:

$GDP = \text{Total National Income} + \text{Sales Taxes} + \text{Depreciation} + \text{Net Foreign Factor Income}$

Where,

1. Total National Income: The total of all wages, rents, interest, and profits
2. Sales taxes: Government taxes imposed on purchases of goods and services
3. Depreciation: Amount attributed to an asset based on its useful life
4. Net Foreign Factor Income: The difference between the total income that citizens and companies generate outside their country of origin and the total income generated by foreign citizens and companies within that country

Now if we add taxes and deduct subsidies, then it becomes Gross Domestic Product formula at Market cost.

$$\text{GDP (Market Cost)} = \text{GDP (Factor Cost)} + (\text{Indirect Taxes} - \text{Subsidies})$$

2. *Expenditure Approach:*

The second approach, known as the expenditure approach, is the converse of Income approach as rather than Income, it begins with money spent on goods & services. This measures the total expenditure incurred by all entities on goods and services within the domestic boundaries of a country. So let's learn how to calculate GDP using the expenditure approach.

$$\text{Mathematically, GDP (as per expenditure method)} = C + I + G + (\text{EX-IM})$$

Where,

1. C: Consumption Expenditure, i.e. when consumers spend money to buy various goods and services. For example – food, gas bill, car etc.
2. I: Investment Expenditure, i.e. when businesses spend money as they invest in their business activities. For example, buying land, machinery etc.
3. G: Government Expenditure, i.e. when the government spends money on various development activities and
4. (EX-IM): Exports minus Imports, i.e. Net Exports. ie. We include the exports to other countries in the calculation of GDP and subtract the imports from other countries to our country.

The calculation of GDP from the above methods gives us the nominal GDP of the country. We will consider the difference between the Nominal and Real GDP in the coming article.

Mostly GDP is calculated using both these approaches and calculations are done in such a way that the values from both approaches should come almost equivalent.

3. Output (Production) Approach:

The GDP Output Method measures the monetary or market value of all the goods and services produced within the borders of the country.

In order to avoid a distorted measure of GDP due to price level changes, GDP at constant prices or Real GDP is computed. Using the Output Approach, GDP is calculated by this formula:

GDP (as per output method) = Real GDP (GDP at constant prices) – Taxes + Subsidies.

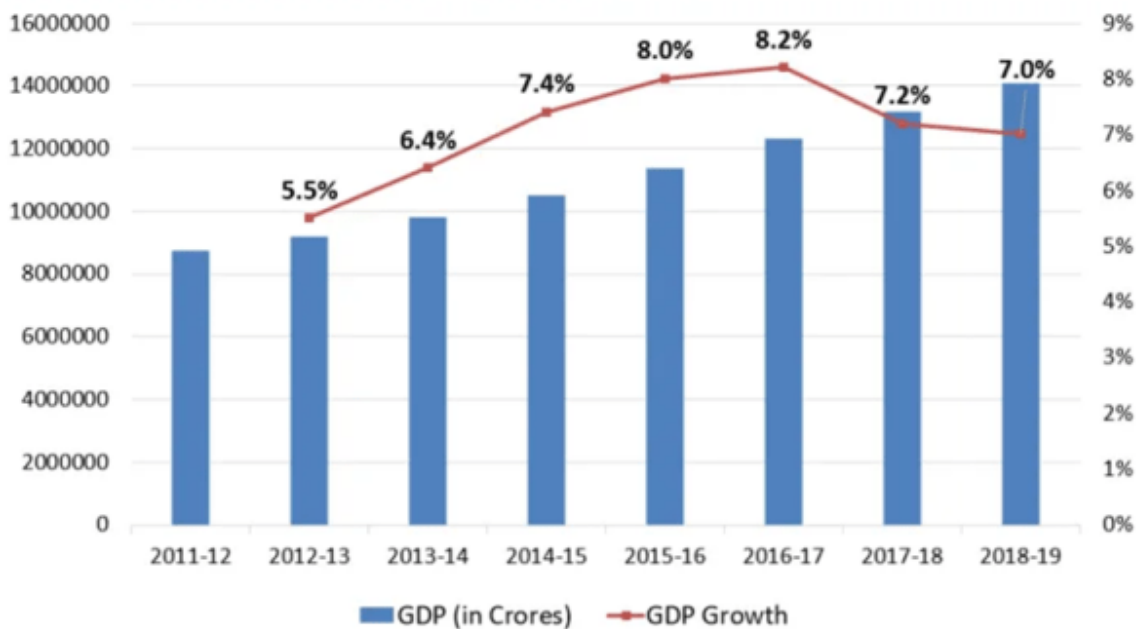
The Trend of India's GDP & GDP Growth Rate -

In India, contributions to GDP are mainly divided into 3 broad sectors – Agriculture and allied services, Industry (Manufacturing) sector and Service sector. In India, GDP is measured as market prices and the base year for computation is 2011-12.

As we have discussed above,

GDP at market prices = GDP at factor cost + Indirect Taxes – Subsidies

India's GDP & GDP Growth



Summary:

- GDP is a broad measure of a country's economic activity, used to estimate the size of an economy and growth rate.
- 3 Methods of Gross Domestic Product (GDP) Calculation are income method, expenditure method and production(output) method. It can be adjusted for inflation and population to provide deeper insights.
- In India, contributions to GDP are mainly divided into 3 broad sectors – Agriculture and Allied Services, Manufacturing Sector and Service Sector.
- GDP is considered a key tool to guide policymakers, investors, and businesses in strategic decision making.

Difficulties faced in Estimating National Income –

(1) Problems of Definition:

What should we include in the National Income?

Ideally we should include all goods and services produced in the course of the year, but there are some services which are not calculated in terms of money, e.g., services of housewives.

(2) Lack of Adequate Data:

The lack of adequate statistical data makes the task of estimation of national income more acute and difficult.

(3) Non-availability of Reliable Information:

The reason of illiteracy, most producers has no idea of the quantity and value of their output and do not follow the practice of keeping regular accounts.

(4) Choice of Method:

The selection of method while calculating National Income is also an important task. The wrong method leads to poor results.

(5) Lack of Differentiation in Economic Functioning:

In all the countries the occupational specialization is still incomplete so that there is a lack of differentiation in economic functioning. An individual may receive income partly from farm ownership and partly from manual work in industry in the slack season.

(6) Double Counting:

Double counting is also an important problem while calculating national income. If the value of all goods and services totaled, the total will overtake the national output, because some goods are currently consumed being used in the making of others. The best way to avoid this error is to calculate only the value of those goods and services that enter into final consumption.

References -

Books -

1. Branson W A, Macroeconomics: Theory and Policy, 3rd Edition, New York.

2. N. Gregory Mankiw, Macroeconomics, 7th Edition, Cengage Learning India Pvt Ltd, New Delhi.
3. Karl E. Case and Ray C. Fair, Principles of Economics, Pearson Education Inc., 8th Edition, 2007.
4. Lipsey R.G. and K A Christal, Principles of Economics, 9th Edition, Oxford University Press.
5. Shapiro E., Macroeconomics: Analysis, Galgotia Publication, New Delhi.

Websites –

1. 3 Methods of GDP Calculation - Yadnya Investment Academy (investyadnya.in).
2. (PDF) Three Approaches to Measuring GDP | Abdurrahman Sidi Umar - Academia.edu.
3. Measuring GDP: Three Methods of Measuring GDP | Ifioque.