National Income

May 25, 2020

Gross Domestic Product (GDP)

- The total final value of goods and services produced within the domestic boundary of a country in a specifiedtime period (generally a financial year) is called Gross Domestic Product.

GDP can be calculated by three methods:

1.The Output/product or Value Added Method

- In this method, we calculate the aggregate annual
- Value of goods and services produced and to arrive at
- This we add up the value of all goods and services
- Produced by all the firms in an economy
- **Let us take an example:**
  - Value addition by the farmer is Rs. 100. Value addition does not depend on whether the farmer is selling the wheat in the market or consuming himself.
  - Value addition is basically "the value/price that somebody's work will fetch in the market" and it includes profit also. By the standard definition, GDP should be equal to the final value of all goods and services produced in the economy. So we can cross-check the above example.
  - **GDP = Final value of all goods produced**= Final value of wheat + Final value of bread= Rs. 50 + Rs. 200= Rs. 250 (which is same as above calculated from value-added method) Out of the Rs. 100 wheat produced by the farmer, only Rs 50 consumed by the farmer is the final good. The wheat that the farmer sold to the baker worth Rs. 50 is an intermediate good and not final good.

2. Expenditure Method

- An alternative way to calculate GDP is by looking at The expenditure side of all the sectors. Whatever Goods and services are produced in the economy are ultimately purchased by the four sectors of the economy i.e. household sector, government sector, private sector and the external sector.
- So if we add the expenditures done by these four sectors on the purchase of final goods and services produced by the firms within the domestic boundary then it shall be equal to the GDP of the country.
- The household sector spends only on the consumption goods (denoted by C')
- The private sector spends only on capital goods (investment) barring some exceptions when firms buy consumables to treat their guest or for their employees (denoted by I') The government sector purchase both capital and consumption goods (denoted by G')
- The external sector also purchases both consumption and capital goods from our economy which is basically called the exports from India (denoted by X).
- **$GDP = C' + I' + G' + X$**$= C – Cm + I – Im + G – Gm + X = C + I + G + X – (Cm + Im + Gm) = C + I + G + X – M$
- $GDP = C + I + G + X – M$
- C', I' and G' are all expenditure on domestically produced final goods as we are trying to calculate GDP. And C, I and G are expenditure by the three sectors on domestic and imported both final goods.

3.Income Method

- It has already been stated in the beginning that the sum of the final goods produced in the economy must be equal to the income received by all the four factors of production i.e. wages, rents, interests and profits.

- This follows from the simple idea that the revenues earned by all the firms put together must be distributed to those who have contributed in the production process which is basically the four factors of production entrepreneurship, labor, capital and natural resources.
- GDP = Profit earned by all the firm's + Interest received by all the capital deployed + Rent received for the natural resources + Wages earned by all the labourers
- GDP = Profit + Interest + Rent + Wages
- Gross Domestic Product (GDP) measures the aggregate/total production of final goods and services taking place within the domestic (geographical boundary) economy of the country during a year. But it may be possible that The foreign nationals working within India have contributed to that GDP production.
- So, now we are interested in measuring the output/earnings made by Indian residents only whether in India or abroad which is termed as Gross National Product (GNP).
- GNP is that income or product which accrues to the economic agents who are residents of the country. (i.e. income earned by the Non-Resident Indians (NRIs) will not be part of India's GNP).
- To calculate GNP, we add the factor income of Indians from abroad in GDP and subtract the contribution of foreigners in India's GDP.
- Gross National Product (GNP) = GDP + Factor income earned by the domestic factors of production employed in the rest of the world – Factor income earned by the factors of production of the rest of the world employed in the domestic economy
- GNP = GDP + Net factor income from abroad (NFIA) Factor income is basically the income earned by the four factors of production i.e. profit, rent, interest and

wages but it does not Include the transfer incomes/payments.

- Hence GNP is the sum of GDP and factor income and it does not include transfer payments from the rest of the world (for example remittances).
- National Disposable Income = National Income + Transfer payments
- Gross Domestic Product (GDP) + NFIA = Gross National Product (GNP)
- Gross Domestic Product (GDP) – Depreciation = Net Domestic Product (NDP)
- Gross National Product (GNP) – Depreciation = Net National Product (NNP)
- "Gross National Product (GNP) is also called Gross National Income and ***Net National Product (NNP) is also called Net National Income or just National Income."***
Market Price = Factor Cost + (Indirect Taxes- Subsidies)
- In India now (since January 2015 onwards) we calculate GDP at Market Prices rather than at Factor Cost. The way
- we are calculating GDP at MP and FC, similarly NDP can also be calculated at MP and FC and GNP and NNP can also be measured at MP and FC.
- The figure below presents a diagrammatic representation of the relations between the various macroeconomic variables.