National Income

GDP and Calculation Method

National Income

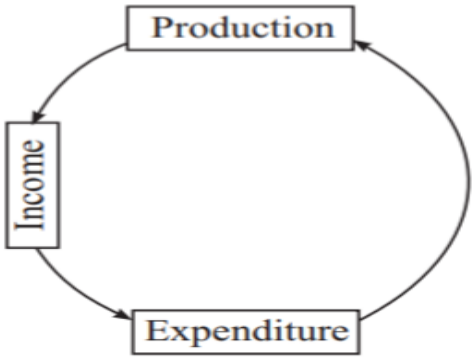
National Income of any country means the complete value of the goods and services produced by any country during its financial year. It is thus the consequence of all economic activities that are running in any country during the period of one year. It is valued in terms of money. In short one can say that the national income of any country is the total amount of income that is accrued by it through various economic activities in one year. It is also helpful in determining the progress of the country.
It includes wages, interest, rent, profit, received by factors of production like labour, capital, land and entrepreneurship of a nation.

- explain the final expenditure method of measuring national income;
- explain the precautions to be taken while measuring national income by final expenditure method;
- show that all the three methods of measuring national income lead to the same result; and
- calculate private income, personal income, personal disposable income, national disposable income (gross and net).

Measurement of National Income

There are three methods to calculate National Income:

1. Income Method
2. Product/ Value Added Method
3. Expenditure Method



- **Income Method**
  In this National Income is measured as flow of income.

  We can calculate NI as:

  Net National Income = Compensation of Employees+ Operating surplus mixed (w +R +P +I) + Net income + Net factor income from abroad.
  Where,

  W = Wages and salaries

  R = Rental Income

  P = Profit

  I = Mixed Income

- **Product/ Value Added Method**
  In this National Income is measured as flow of goods and services.

  We can calculate NI as:

  NATIONAL INCOME = G.N.P – COST OF CAPITAL – DEPRECIATION – INDIRECT TAXES

- **Expenditure Method**
  In this National Income is measured as flow of expenditure.

  We can calculate NI through Expenditure method as:

  National Income=National Product=National Expenditure.

Gross Domestic Product (GDP)

Gross domestic product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period. As a broad measure of overall domestic production, it functions as a comprehensive scorecard of a given country's economic health.

Though GDP is typically calculated on an annual basis, it is sometimes calculated on a quarterly basis as well. In the U.S., for example, the government releases an annualized GDP estimate for each fiscal quarter and also for the calendar year. The individual data sets included in this report are given in real terms, so the data is adjusted for price changes and is, therefore, net of inflation.

- Gross domestic product (GDP) is the monetary value of all finished goods and services made within a country during a specific period.
- GDP provides an economic snapshot of a country, used to estimate the size of an economy and growth rate.

- GDP can be calculated in three ways, using expenditures, production, or incomes. It can be adjusted for inflation and population to provide deeper insights.
- Though it has limitations, GDP is a key tool to guide policy-makers, investors, and businesses in strategic decision-making.

The formula for calculating GDP with the expenditure approach is the following:

GDP = private consumption + gross private investment + government investment + government spending + (exports – imports).

GDP Growth Rate

The GDP growth rate measures the percentage change in real GDP (GDP adjusted for inflation) from one period to another, typically as a comparison between the most recent quarter or year and the previous one. It can be a positive or negative number (negative growth rate, indicating economic contraction).

GDP per capita

GDP per capita is calculated by dividing nominal GDP by the total population of a country. It expresses the average economic output (or income) per person in the country. The population number is the average (or mid-year) population for the same year as the GDP figure.

Gross National Product (GNP) And Net National Product (NNP)

Base Year of GDP

In a financial index, a base year is the first of a series of years. It is, generally, set at an arbitrary amount of 100. The new and up-to-date base years are regularly added to keep data current to a database. Any year can be a base year, but analysts typically choose recent years.

The change in the base year captures the actual change in structures of the economy. The Ministry of Statistics and Programme Implementation (MOSPI) will decide on a new base year for the GDP series in a few months. The ministry is striving to bring in a new set of national accounts which would result in a revising the existing base year of 2011-12.

Though the MOSPI is considering 2017-18 as the new base year, no decision has been taken, and the expert's committees are awaiting some more data before finalising their opinion.

Gross National Product (GNP)

For calculation of GNP, we need to collect and assess the data from all productive activities, such as agricultural produce, wood, minerals, commodities, the contributions to production by transport, communications, insurance companies, professions such (as lawyers, doctors, teachers, etc). at market prices.

- Gross national product is the total measure of the flow of goods and services at market value resulting from current production during a year in a country, including net income from abroad.

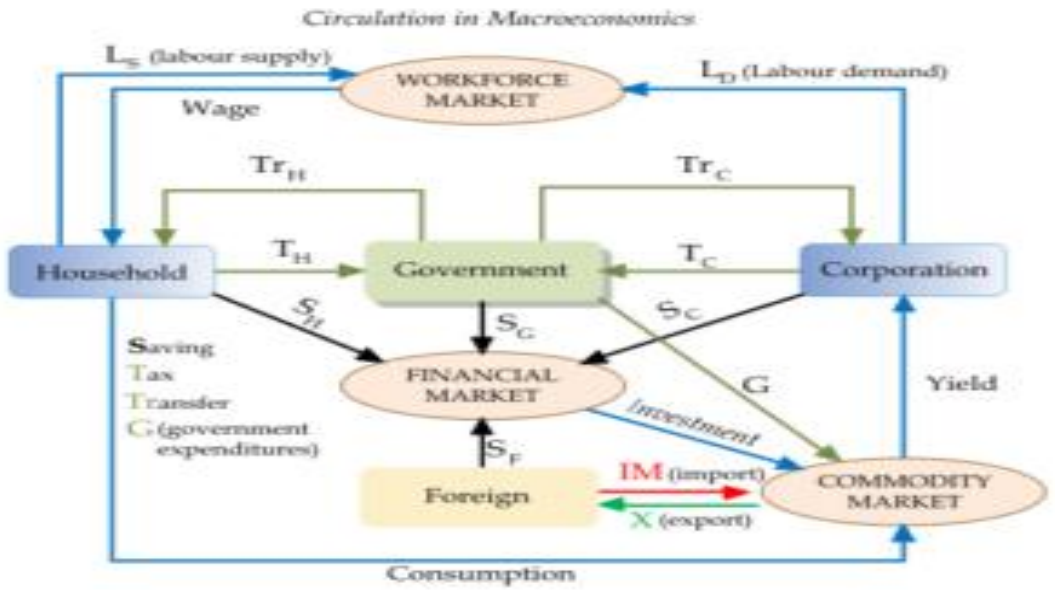
GNP= GDP + Net income from abroad(X-M) , where X= Export, M= Import

If the value of (X-M) is negative then, GDP > GNP

It also includes net income arising in a country from abroad. Four main constituents of GNP are:

1. Consumer goods and services
2. Gross private domestic income
3. Goods produced or services rendered
4. Income arising from abroad.

Net National Product (NNP)



Now let's understand the net national product or the NNP. The NNP takes into account the depreciation factor.

What is depreciation? Depreciation is the wear and tear of fixed assets. And in this context, it also refers to capital used to maintain existing stock.

And NNP is the total value of all final goods and services produced by the factors of production of a country within a given specific time minus depreciation. In other words, NNP is GNP –

depreciation. Now while calculating the NNP, economists take into consideration two very important factors—indirect taxes and subsidies.

The market price of any product includes taxes, which go to the government. Hence, while calculating the NNP, economists need to deduct the taxes. Similarly, the government also provides subsidies to encourage production of certain goods and services. And with that being the case, we need to add these subsidies while calculating the NNP. The NNP after considering taxes and subsidies is called the NNP at factor cost or national income.

- Net national product is considered a true measure of national product or income. It is defined as GNP minus depreciation or capital consumption allowance or wear and tear.

NNP = GNP – Depreciation

Unlike GDP, GNP, net national product (NNP) may also be categorized as:

NNP_{mp} (Net national product at market price) : Net national product at market prices is net value of final goods and services evaluated at market prices in the course of one year in a country

NNP_{fc} (Net national product at factor cost):

Net national product at factor cost is the net output evaluated at factor prices. It includes income earn by factors of production through participation in the production process such as wages and salaries, rents profits etc. NNP at factor cost is also called National Income.

$NNP_{mp} = NNP_{fc} – S + (IT+ GS)$ or, $NNP_{mp} = NNP_{fc}$ – subsidies + (indirect tax+ surpluses from government enterprises)

$NNP_{fc} = NNP_{mp} + S - (IT+ GS)$ or,

$NNP_{fc} = NNP_{mp}$ + subsidies - (indirect tax+ surpluses from government enterprises)

Normally, NNP at market prices is higher than NNP at factor cost because indirect taxes exceed government subsidies. However, NNP at market prices can be less than NNP at factor cost when government subsidies exceed indirect taxes.

Factor Cost and Personal Income

Fc and Mp difference

Money value of final goods and services can be estimated in two ways—at Factor Cost (FC) and at Market Price (MP). Briefly, the difference between FC and MP is ‘net indirect tax’. And net indirect tax is the difference between indirect tax and subsidy.

To find out Market Prices (MP), indirect taxes are added and subsidies are subtracted from Factor Cost (FC)

Market Price = Factor Cost + Indirect taxes – Subsidies

= Factor Cost + Net indirect taxes

In short, MP includes net indirect tax whereas FC does not. Thus, FC becomes MP when net indirect taxes are added to FC. In the absence of indirect taxes and subsidies, MP and FC are the same.

Facts Related to GDP

In economics, the final users of goods and services are divided into three main groups: households, businesses, and the government. One way gross domestic product (GDP) is calculated—known as the expenditure approach—is by adding the expenditures made by those three groups of users.

Accordingly, GDP is defined by the following formula:

GDP = Consumption + Investment + Government Spending + Net Exports

or more succinctly as

GDP = C + I + G + NX

where consumption (C) represents private-consumption expenditures by households and nonprofit organizations, investment (I) refers to business expenditures by businesses and home purchases by households, government spending (G) denotes expenditures on goods and services by the government, and net exports (NX) represents a nation's exports minus its imports.

Personal Income

Personal income is defined as the current income of persons or households from all sources. We have to deduct undistributed profit and corporate tax payable by the enterprise from private income to arrive at personal income

Personal income = private income - saving of private corporate sector (undistributed profit) - corporation tax

Personal disposable income

The household cannot spend the entire personal income. Government takes away a part of it by way of income tax and other miscellaneous taxes such as education tax, fire tax, sanitation tax. These taxes have to be deducted from personal income to arrive at personal disposable income.

Personal disposable income = Personal income – direct taxes paid by the households – miscellaneous receipts of the government. Personal disposable income is the income available to persons from all sources to dispose of as they choose.

National Income Growth

The real national income of India has increased at an annual average rate of 4.5 per cent. The rate of growth initially decelerated over the years but has subsequently accelerated continuously.

During the first decade, real income went up by 3.8 per cent, this rate came down to 3.5 per cent in the 1960s, 3.1 per cent in the 1970s and 5.5 per cent in 1980s. In the first three years of the 1990s, the GDP grew at 4 per cent annually.

In the following four years, the growth rate jumped to 7.1 per cent but only to fall back to 5.2 per cent in the succeeding five years. The major breakthrough occurred and sustained during the period 2003-08; real GDP grew at 8.2 per cent annually in the period 2003-08