Relationship between National Accounts and Balance of Payment

- Balance of payment is an account that summarizes and records all the transaction that an economy carryout with rest of the word within a particular period of time
- In balance of payment (BOPM 6 structure) there are two main accounts.
    a. Current & Capital account
    b. Financial account
- **<u>For national accounts, BOP current account is the account, which is important</u>**.
- Current account has main 4 sub-accounts.
    a. Trade Account
    b. Services Account
    c. Primary Income Account
    d. Secondary Income Account
- BOP current account balance is also known as, “net foreign savings” or net foreign investment”.

Structure of BOP Current A/C

01. Trade Account		
Exports	XXX	
Imports	XXX	
Trade Balance		XXXX
02. Services Account		
Receipts	XXX	
Payments	XXX	
Services Balance		XXXX
03. Primary Income Account		
Receipts	XXX	
Payments	XXX	
Income Balance		XXXX
		XXXX
04. Secondary Income Account		
Private Transfers (net)	XXX	
Official Transfers (net)	XXX	
Balance of current transfers		XXXX
05. Balance of Current Account		XXXX

Using BOP Current Account in National Accounts

01. Gross Domestic Production

Gross Domestic Product	=	Gross Domestic Expenditure	+	Trade & Services Account Balance

02. Gross National Income

Gross National Income	=	Gross Domestic Expenditure	+	Trade, Services & Primary Income Account Balance

Gross National Income	=	Gross Domestic Product	+	Primary Income Account Balance

03. Gross National Disposable Income

Gross National Disposable Income	=	Gross Domestic Expenditure	+	BOP Current Account Balance

Gross National Disposable Income	=	Gross Domestic Product	+	Primary and secondary Income Account Balance

Gross National Disposable Income	=	Gross National Income	+	Secondary Income Account Balance

04. Domestic Savings

Domestic Savings	=	Gross Capital Formation	+	Goods & Services Account balance

05. National Savings

Domestic National	**=**	**Gross Capital Formation**	**+**	**BOP Current Account Balance**

Commodity Balance Identity

- Commodity balance identity explains a common balance that can be seen in national accounting.
- Commodity balance identity explains that **total goods and services acquired by an economy are equal to total goods and services utilized by that economy in a given period of time.**
- In simple terms, **supply of total goods and services should equal to total utilization of goods and services.**

Total supply of goods & services	**=**	**Total utilization of goods & services**

- There are two sources of goods and services supply;
  a. Gross value of output at current market prices (GVO)
  b. Goods and non-factor services imports (M)

Total Supply	**=**	**Gross Value of Output (GVO)**	**+**	**Goods and non-factor services imports (M)**

- Goods and services utilization refers to the way in which economy used total goods and services those were available at a given time for an economy.
- There are four sources of resource utilization;
  a. Final consumption (Private Consumption + Public Consumption) (FC)
  b. Intermediate consumption (IC)
  c. Gross domestic capital formation (GDCF)
  d. Goods and non-factor services exports (X)

Goods & Services Utilization	=	IC + FC + GDCF + X

- Thereby Commodity Balance identity can be presented as follows:

Total supply of goods & services	=	Total utilization of goods & services

GVO + M	=	IC + FC + GDCF + X

GVO + M	=	IC + FC + GFCF + CII + Acquisition less disposable of valuables + X

Domestic Savings and National Savings

- Domestic Savings is the difference between gross domestic production at market price and final consumption.

Domestic Savings	=	Gross Domestic Production	-	Final consumption

Domestic Savings	=	Gross Capital Formation	+	Goods & Non-factor Services Net Exports

- National Savings is the difference between gross national disposable income at market price and final consumption

National Savings	=	Gross National Disposable Income	-	Final consumption

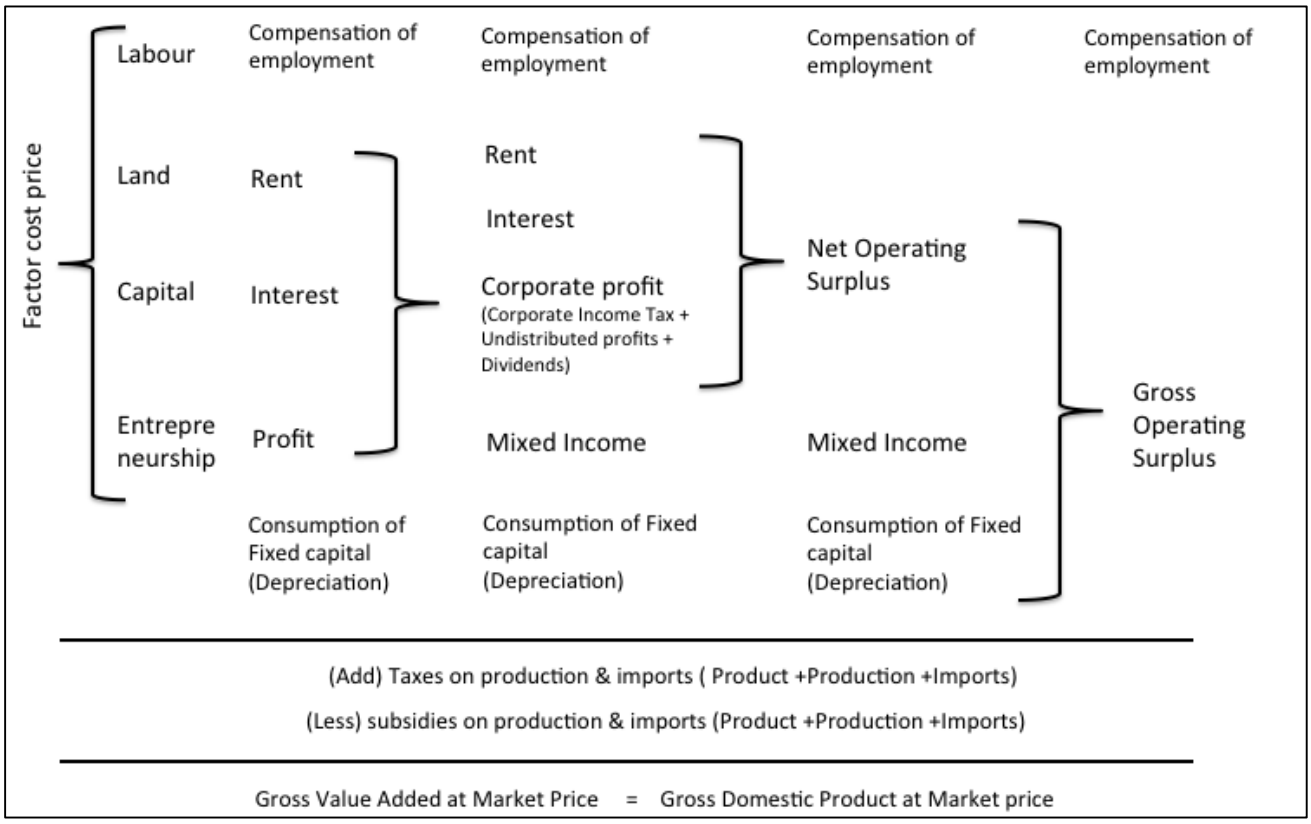
National Savings	=	Gross Capital Formation	+	Goods and Non-factor Services Net Exports	+	Net Primary Income Receivable from ROW	+	Net Secondary Income Receivable from ROW

Income Approach

Key Points

01. GDP at Market price equals GVA at market price

GDP at Market price = GVA at Market price



Key Definition

01. Primary Income

- Primary incomes are incomes that accrue to institutional units as a consequence of their involvement in processes of production or ownership of assets that may be needed for purposes of production.
- Primary income is consist of 3 main items;
    a. Compensation of employees (OE)
    b. Operating surplus (OS) & Mixed Income (MI)
    c. Net Taxes on production and on imports (t-s)

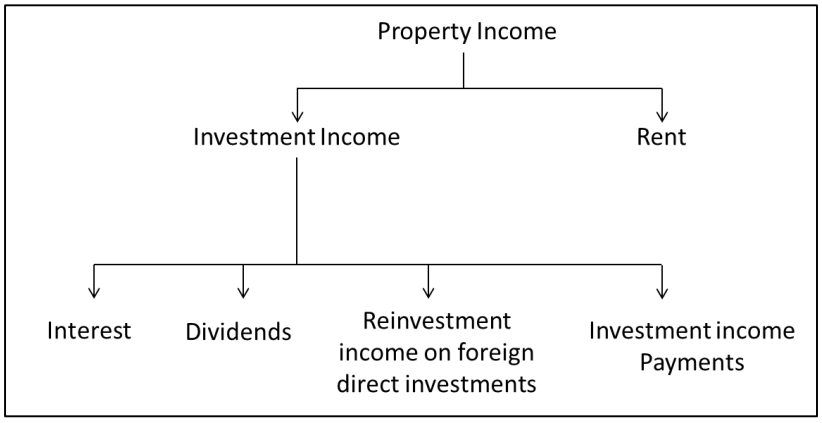
02. Compensation of employees

- A major item of primary income is compensation of employees that represents the income accruing to individuals in return for their labour input into production processes.
- Compensation of employees is defined as the total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the latter during the accounting period.
- This includes:
    a. Wages and salaries
    b. Social security contribution
    c. During a situation of sickness or unemployment situation direct payments made to employees by the employers.

03. Operating surplus and mixed income

Operating surplus

- Operating surplus is the income generated by the incorporated sector of the economy.
- This is the equals to property income earned by incorporated sector of the economy.
- Property income is that part of primary income that accrues by **lending or renting financial or natural resources, including land, to other units for use in production**.
- Operating Surplus can be mainly divided in to 2 parts:
    a. Investment income
    b. Rent Income



- Thus, Operating surplus includes;

a. Interest income (income receivable by the owner of a financial asset in return for providing funds to another institutional unit)

b. Rent income (income receivable by the owner of a natural resource for putting the natural resource at the disposal of another institutional unit for production.)

c. Dividends, undistributed profits and corporate taxes.

d. Re-investment earnings with regard to direct investments.

Mixed income

- Mixed income is the income received by the unincorporated enterprises owned by households in which the owner(s) or members of the same household may contribute unpaid labour inputs.

04. Net Operating Surplus Vs. Gross Operating surplus

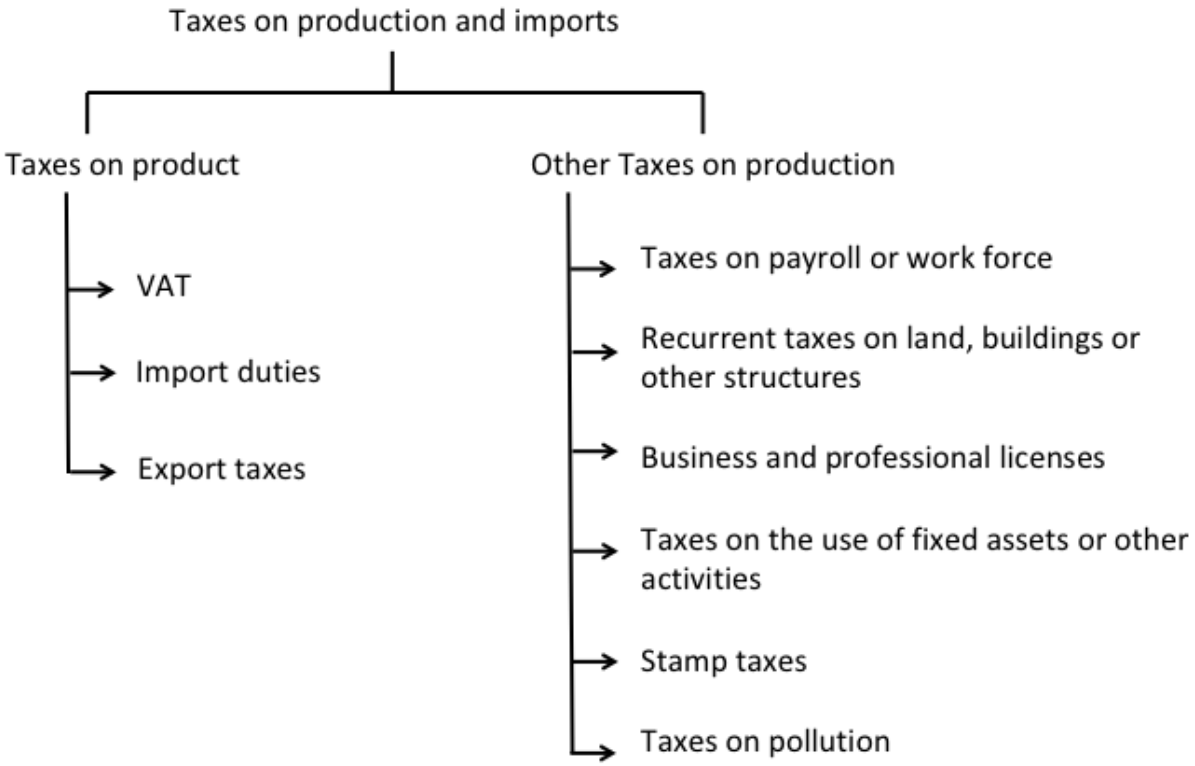
Method 01	Method 02	Method 03
Net Operating Surplus (Add) Mixed Income (Add) Compensation of Fixed Capital	Interest payment (Add) Rent Income (Add) Corporate Taxes (Add) Dividends (Add) Undistributed profits	Gross Output Value (GOV) at Market price (Less) Intermediary Consumption (IC)
Gross Operating Surplus	Net Operating Surplus (Add) Mixed Income (Add) Compensation of Fixed Capital	Gross Value Added (GVA) at Market price (Less) Consumption of employees (CE) (Less) Consumption of Capital (Depreciation) (Less) Net taxes on production and imports
	Gross Operating Surplus	Net Operating Surplus (Add) Mixed Income (Add) Compensation of Fixed Capital
		Gross Operating Surplus

05. Net Taxes on production and on imports (t-s)

- Net taxes on production and on imports consist of taxes on **products** and other taxes on **production** less subsidies on products and production.

- There are main two components included in **taxes on production and on imports**

1. Taxes on products
    a. Value added taxes (VAT)
    b. Import duties
    c. Export taxes
2. Other taxes on production.



06. Gross National Income (GNI)

- Gross National income is the summation of GDP at market price and net foreign primary income.
- This value is presented at market price.

Compensation of employees
Net Operating Surplus
Mixed Income
Consumption of Capital (Depreciation)
Net other taxes on production

Net taxes on production and imports

Gross Value Added at Basic Price
+ Net taxes on product

Net indirect taxes

Gross Domestic Product at market price (GVA at market price)
+ Net Foreign Primary Income

Gross National Income at market price

07. Gross National Disposable Income (GNDI)

- Gross National income is the summation of GNI at market price and net foreign secondary income.
- This value is presented at market price.

Compensation of employees
Net Operating Surplus
Consumption of Capital (Depreciation)
Mixed income
Net taxes on production and imports

Gross domestic Product at market price (GVA at market price)
+ Net foreign primary income (net)

Gross National Income at market price
+ Net foreign secondary income (net)

Gross National Disposable income at market price

Production at current prices Vs. Production at constant prices

- Output can be either valued at prices (market price or factor cost price) **exists at present** (current prices) or **prices exited on a specific base year (constant prices)**.

Production at current prices

- Production at current price is the monetary value of all the finished goods and services calculated by valuing output produced within a particular period at prices existed during the same time period.
- This is also known as **nominal output value**
- Therefore when an output is calculated at current prices it includes;
    a. Changes in price levels (inflationary change)
    b. Changes in volume of output (real output change)
- Since production at current prices includes changes in price it is not an appropriate measurement to measure economic growth between years.
- It is because even without a change in volume production value can get increased due to inflation.

Production at constant prices

- Production at constant price is the monetary value of all the finished goods and services calculated by valuing output produced within a particular period at prices of a specific base year.
- Base year is the year on which current year is compared against.
- This is also known as **real output value**
- In real output value it includes only the changes in volume of output. Thus it reflects the true picture of the changes in between years.
- Thus, real output is used as a measurement to measure economic growth between years.

Calculating Real Gross Domestic Production

- Real GDP is obtained by cleansing the inflationary impact from nominal GDP.
- Cleansing the inflationary impact in nominal output value is called as deflation.
- In order to deflate the inflationary impact in nominal GDP price indexes (indices) are used.
- Due to the practical difficulty of constructing a price index that captures all goods and services, several indexes are used to deflate inflationary impact in nominal output.
    a. Consumer price indexes
    b. Import-export price index

c. Wholesale price index

d. Wage index

$$\text{Real Output} = \frac{\text{Nominal Output}}{\text{Price Index}} \text{ X } 100$$

- By deflating different categories of products through the appropriate price index real GDP value is obtained.
- When we calculate real GDP, the price that is implied though the equation is known as **GDP deflator or GDP implicit price deflator**

GDP Deflator

- GDP deflator is the price index that reflects price changes of all the goods and services of an economy.
- In other words GDP deflator is the ratio between nominal output and real output of a particular year.
- GDP deflator is not a price index that is actually calculated but comes out in the process of deflating the nominal output to arrive at real output.

$$\text{GDP Deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \text{ X } 100$$

Q1. Explain how estimates of the Gross Domestic Product could be used to measure the economic growth of a country.

- In order to measure economic growth main two measurements can be used
    1. Change in real GDP in between years
    2. Change in real per capita income in between years.
- Both of the above the measurements are based on real GDP calculations.
- Real GDP captures total monetary value of domestically produced final output within a particular period.
- If real GDP has changed it shows the positive or negative variation of total production.
- So, it can be considered in measuring economic growth.

Q5. " National account statistics are a powerful tool of economic understanding and analysis" Explain.

- To evaluate economic performance
- To measure economic growth
- To compare countries internationally
- To estimate quality of life and economic welfare
- To understand structural characteristics of the economy
- For economic policy and economic planning
- To forecast behavior of macro-economic variables

Q6. Explain the usefulness of compiling national income statistics for a country.

- To measure the growth of economy.
- Analyzing the structure of economy.
- Comparing International per capital income levels.
- Identifying total resources of the economy and their utilization.
- Social and economic policy formulator.
- Monitoring the performance of the economy overtime.
- Analysis of the individual components of the economy.
- Identification of functional relationships between major macro-economic variable.
- Identifying the pattern of functional income distribution.