# Economics for Business and Accounting

[AA13]

## Supplementary for Chapter 07

# Macro Economy and Business Environment

This supplementary to the Study Text will be tested
from January 2019 Examination.
The printed chapter in the book will not be applicable
from January 2019 Examination.

CHAPTER 07

# Macro Economy and Business Environment

## Chapter Introduction

This chapter provides a wider introduction on Macro Economics and also focuses on both Macro Economic goals and Macro Economic policies.

This chapter explains the purpose of National Income Accounting and one of the most important concepts in Macro Economic analysis and also looks at different approaches employed in measuring the same. This further explains activities that are considered and also activities that are not taken into account when measuring National Income. In addition to the above this further discusses about other important factors in relation to National Income accounting and also about the fiscal policies.

## Learning Outcomes

**At the end of each topic you should be able to;**

- Explain the nature of macroeconomic system
- Identify the macroeconomic objectives and their specific characteristics
- Identify the main players in a closed economy and an open economy and their specific roles in the economy
- Explain the concept of circular flow of national income, nature of different flows with related to four main sectors in the economy and the concept of overall macroeconomic equilibrium
- Interpret the three different approaches of measuring the aggregate value of national income
- Relate the other key concepts relating to national income including GDP, GNP, NNP, per capita income
- Discuss the limitations of national income accounting
- State the key factors relating to trade cycle and their impact on business activities
- Explain the fiscal policy, its instruments and the relationship between fiscal operations and business activities

| Detailed Area | Level of Knowledge | | | Level of Action | | |
|---|---|---|---|---|---|---|
| | Factual | Conceptual | Procedural | Comprehension | Application | Analysis |
| **Unit 7 Macro economy and Business Environment** | | | | | | |
| 7.1 Four main sectors of a macro-economy | ✓ | | | ✓ | | |
| 7.2 Circular flow of national income | ✓ | ✓ | | ✓ | | |
| 7.3 Three approaches to national income accounting | ✓ | ✓ | | ✓ | | |
| 7.4 Other concepts related to National Income (Including; Gross Domestic Income, Gross National Income, per capita Income) | ✓ | ✓ | | ✓ | | |
| 7.5 Limitations of national income accounting | | ✓ | | ✓ | | |
| 7.6 Trade cycles and its impact on business activities | | ✓ | | ✓ | | |
| 7.7 Fiscal policy and its instruments (Budget, Government expenditure and revenue) | ✓ | ✓ | | ✓ | | |
| 7.8 Relationship between fiscal operations and business activities | ✓ | ✓ | | ✓ | ✓ | |

# 7. Macro Economy and Business Environment

## Macro Economics

Macro Economics focuses on the behavior and performance of an economy as a whole. Macro Economists attempt to analyze and explain how the entire economic system functions. As the functioning of the entire economy depends on the behavioral pattern of Macro Economic variables, in Macro Economics especial attention is given to analyze the behavioral pattern of these variables such as wage rates, Balance of Payments (BOP), average price levels, demand and supply of money, exchange rate, employment level, and also international trade that operate within the economic system, It further discuses about macro economic problems a country faces such as unemployment, inflation, depreciation of domestic currency, Balance of Payment difficulties etc.

Micro Economics looks at smaller entities of the economy, such as individual consumers, firms, in fact it concentrates and analyses the choices made by individual participants in an economy while Macro Economics looks at the economy from a broader perspective and it mainly focuses on the aggregate behavior, i.e. overall performance of the economy.

Under Macro Economics the short as well as long term behavioral pattern of the entire economy is analyzed and also discussed. Macro Economics concentrates on short term behavioral pattern of factors like aggregate production level, employment and income levels etc. and also the long term growth/development and the inflationary trends. Understanding of the above is extremely useful for policy makers when formulating sound economic policies.

## Macro-Economic Objectives

Macro-economics is concerned with issues, objectives and policies that affect the whole economy. The major macroeconomic objectives are ;

- Price stability
- Full employment
- Equilibrium in Balance of Payment
- Fair distribution of income

- Sustainable development
- Economic growth

### Price Stability

To achieve price stability it is necessary to manage the economy without inflationary or deflationary pressures. Average price level in the economy is considered as stable when economy experiences very lower rates of inflation.

### Full Employment

An economy achieves full employment level when all the resources in the economy are utilized in the full with maximum efficiency. When aiming at achieving full employment level it is necessary to minimize labour unemployment by increasing employment opportunities.

### Equilibrium in Balance of Payment (BOP)

In order to achieve Balance of Payment equilibrium it is important to manage the economy without Balance of Payment crises when having exchanges across the boundaries.

### Fair distribution of income

Ensuring fair levels of income distribution among its population, a country is able to achieve equality. Income and wealth should be distributed in a way to ensure that every citizen of a country should have the ability to fulfill his/her wants and needs.

### Sustainable Development

Enhancing the levels of production while protecting the quality of environment and also ensuring that benefits of development are distributed among the population, a country is able to achieve sustainable development. All aspects of development such as environment , economy and social is sustainable development.

### Economic Growth

Continuous increase in a country's Gross National Product (GNP) is identified as Economic Growth.

## Macro Economic Policies

Economic management means taking necessary and appropriate policy measures to overcome macro economic problems of a country with a view of achieving expected macroeconomic objectives. Policies and strategies employed in managing an economy of a country is considered as Macro Economic policies.

**Monetary Policy**

The Government and the Central Bank use the monetary policy to determine the size and the rate of money supply as it affects the rate of interest rate, exchange rate and price and income levels of a country. Monetary policy is used by the government to achieve macroeconomic objectives and it aims at managing money supply and interest rate of the economy.

**Fiscal policy**

Fiscal policy too is another policy tool used by the government to achieve macroeconomic objectives of a country and it aims at managing government expenditure, revenue and also taxes. Decisions taken with regard to government expenditure, taxation and government debts are considered as fiscal policy measures.

**Supply side policies**

Supply side policies are designed to enhance the productive capacities of a country thus the Aggregate Supply (AS). These policies are aimed at improving quality and quantity of factors of production and tools such as privatization, deregulation and tax reforms are employed towards this.

**Income Policy**

Policies used by the government to control economy wide escalation in wage rates and price levels, mainly to curb inflationary pressures in the economy.

**Foreign Trade Policy**

Governments design foreign trade policies especially to enhance domestic exports and discourage foreign imports there by to enhance net exports, thus favorable balance of trade. Taxes & tariffs, export subsidies, import quotas, manipulation of exchange rate are such tools employed towards achieving favorable balance of trade.

**Direct Controls**

Measures taken by the government to intervene in the free market, policies aimed at controlling ownership and distribution of resources and also price determined through market forces are considered as direct controls.

**Macro Economic Variables**

- Overall production
- Employment
- General price level
- Exchange rate
- Interest rate
- Balance of payment

## 7.1 Four Sectors of a Macro Economy

The four sectors that make a leading contribution to the economic process of a country are;

- Household Sector
- Business Sector
- Government Sector
- Foreign (International) Sector

### Household Sector

Households own all the factors of production in an economy, i.e. land, labour, capital and entrepreneurial ability and they earn income by supplying these factors of production to firms. Income so generated is spent by the households to purchase goods and services produced by the firms. Households pay taxes to the government and obtain benefit from common services and transfer payments provided by the government. Household sector generate savings too, in an economy.

### Business Sector

Private and government establishments that produce goods and offer services for sale utilizing the factors of production offered by households with the intention of generating profits are identified as business sector. Part of the profit generated is reinvested and part is used to pay government taxes and another part is set apart to pay dividends if it is a public limited organization.

### Government Sector

Government institutions that provide law and order, national security, education & health services, public welfare catogarize under this sector. In addition the government sector institutions provide consumer’s subsidies to household sector and production subsidies to the business firms.

### Foreign / International Sector

Exchanges that take place with economies of other countries, across the borders, i.e. importation and exportation of goods and services and also movement of capital take palce through this sector.

## 7.2 Circular Flow of Macroeconomic Process

National income accounting is used to determine the level of economic activities of a country, and the circular flow diagram shows how the output and income flow from one sector to another. There are three different circular flow models depending on how the economy functions and the number of sectors considered.

- Simple Economy
- Closed Economy
- Open Economy

The total production, income and expenditure patterns are shown through the circular flow of an economy. The total amount spent (expenditure) by the household sector to purchase the aggregate production of a country is shown through the external flow. Internal flow shows how the income generated by producers through the sale of goods and services flows to the owners of factors of production, i.e. households. Therefore, external flow is considered as a financial flow and the internal flow is considered as a real flow.

### 7.2.1 Major Market Types in which exchanges among economic factors take place

| | |
|---|---|
| • Factor Market | Production factors required to produce goods and services are purchased in factor market and households provide factors of production and the income so generate from it is identified as factor income. |
| • Goods and Services Market | Government and private sector organizations produce goods and services by utilizing the factors of production obtained from the household sector and the market in which such goods and services are sold is identified as the goods and services market. |

### 7.2.2 Withdrawals / Leakages

The entire income earned by the households does not flow into the business sector, part of that income is spent for different purposes and part of the income that does not flow into the business sector is called leakages. Such leakages have a contractionary effect on national income.

- Savings (S)
- Government Taxes (T)
- Imports (M)

### 7.2.3 Injections / Additions

Any income that flows into the circular flow in addition to the income that flows from the household sector to business sector is identified as injections. Such injections have an expansionary effect on national income.

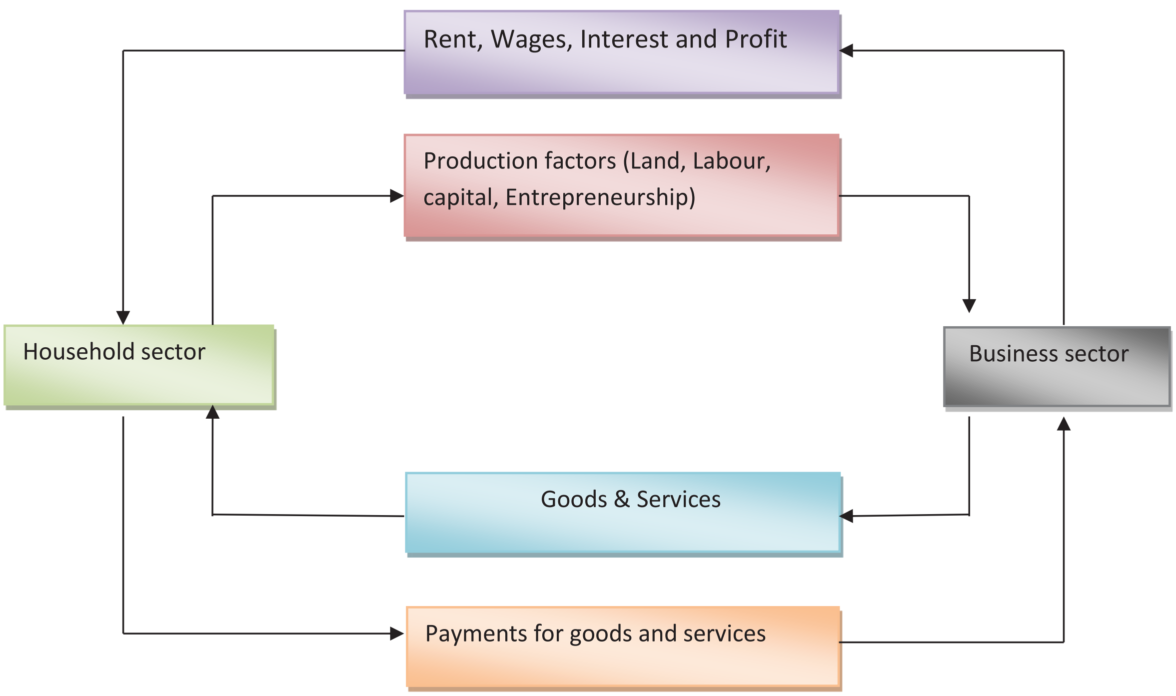
- Investments (I)
- Government Expenditure (G)
- Exports (X)

### 7.2.4 Simple Economy

Two sectors function in a simple economy and they are household sector and business sector.

- **Simple economy without savings and investments**

  In two sector simple economy the entire income generated by the household sector by supplying all the factors of production owned by them to the business sector is spent on consumption. Investments, savings and production of capital goods do not take place in such an economy.




Households provide the factors of production to the business sector and through this a real flow is created. Households supply these factors in return for rent, wages, interest and profits. Payments made by the business sector to household sector for utilizing these production factors creates a financial flow. Also, selling of goods and services produced by the business sector to the households crates a real flow. Households use the factor income earned to purchase goods and services produced by business sector and this again creates a financial flow. Economy achieves the equilibrium position when its total income equals to total expenditure.

## Q Question

What is identified as a leakage in a circular flow of income? Explain why investment expenditure is considered as an injection in circular flow model?

## A Answer

Savings (leakage) made by households return to the circular flow when the business sector utilizes these savings for investments and therefore when these savings returns to the circular flow as investments, it is considered as an injection.

## 7.3 National Income Accounting

National production means the total value of goods and services produced in an economy within a certain time period and this is calculated through the preparation of national income accounts. National income accounts are prepared to measure the overall performance of an economy for a given period of time. Estimation of economic tasks performed by all the institutional units in the economy, behavior of the economy and its structure and the value of economic flows for a specific time period is considered as preparation of national income accounting.

### Institutional Units

Economic unit that wants to acquire wealth, holds responsibility, engages in economic activities and has the capability to deal with other units is considered as an institutional unit. Types of institutional units that function in an economic territory are stated below.

1. **Non – Financial Corporation Sector (NFC)**

   Organizations belong to both private and state sectors that produce goods and services for the market come under this.

2. **Financial Corporation Sector (CFC)**

   Organizations belong to both private and state sectors that provide financial services for the market come under this category. Firms that operate in leasing , banking, insurance and financial sectors are the examples for organizations in this sector.

3. **General Government Sector (GG)**

   These are the public institutions that provide wide array of services for both private and collective consumption and they do not expect profits. Government institutions that provide services like health, education, defense and environmental protection come under this category.

4. **Non-Profit Institutions Serving Household Sector (NPISH)**

   Institutions in this sector produce goods and services, not for the market but supply at free of charge or at a price lower than the market price. Religious organizations, trade unions, political parties, come under this category.

5. **Household sector (HH)**

   Both consumers as well as producers belong to this sector. There are households that produce for their own consumption and also there are households that produce for the market. Clergy as well as those who are imprisoned people too come under this category.

6. **Rest of the World Sector (ROW)**

### Economic Territory

An area that comes under effective control of the government is considered as an economic territory. Persons, goods and capital can move about freely in an economic territory which is a particular geographic territory administered by a government. Value of the goods and services produced by entrepreneurs residing more than one year in an economic territory is considered under the domestic production and the income generated by the entire domestic institutional units is identified as national income. The economic territory of Sri Lanka consists of three major units and they are stated below.

- All the domestic units located in the geographical area of Sri Lanka
- Sri Lankan embassies located around the world
- Territorial waters of Sri Lanka and also aircrafts and ships that are controlled by Sri Lanka

## Production

An activity of combining factor inputs like labour, capital and raw materials under the control of an institutional unit to produce goods or services is defined as production. There should be an institutional unit that takes the responsibility for both the production process and the item that is produced through such process. Anything that comes into being naturally without any human intervention or guidance, things such as rivers, waterfalls, rain water, trees of a forest are not considered as economic products. However, when people or an institution rear fish in a reservoir as the very process takes place under the human control and responsibility that is considered as production.

## Production Boundary

In national income accounting it is important to identify what production is covered in the account, and also what production is not covered. Separating all the economic production activities that qualify to be included in the national income accounts and activities that do not qualify to be included is considered as drawing production boundaries.

Services provided by owner occupied dwellings, services rendered by paid domestic servants come under productive economic activities and these are considered for national income accounting. Under mentioned activities are considered as productive economic activities and they are included in national income accounts.

- Domestic services provided by owner occupied housing units
- Domestic and personal services rendered by paid domestic staff
- All goods that are retained by their producers for final consumption or for gross fixed capital formation
- Goods or services produced, not to be used by the producer of the same, but to be supplied to other institutional units

The following activities that take place in a domestic unit are considered as productive economic activities.

- Producing and storing of food crops for own consumption, obtaining food from forests, gathering of fruits, cutting and gathering of fire wood, hunting and fishing
- The processing of agricutural products, production of rice by milling paddy, production of flour by milling, processing of meat and fish for preservation, drying and bottling of fruits, curd manufacturing, weaving of mats
- Weaving of clothes, sawing dress, production of pottery, manufacturing of furniture
- Obtaining water supply

Although the above production activities taken place in a domestic include in the production boundary activities carried out for own private consumption of domestic units are not considered as economic activities and therefore not included in national income accounting.

- Cleaning, decorating, maintaining and carrying out smaller renovations of own dwelling
- Cleaning, servicing and repairing of household durables
- Preparation and serving of food
- Caring, training and providing instructions to children
- Caring of sick, old and infirm
- Transportation of members of the households and their goods



## Unobserved Economy

Illegal and hidden economic activities are too taken into account when measuring the Gross National Production.

### Hidden Economic Activities

Legal economic activities that are not subjected to systematic calculations are considered as hidden economic activities and attempts are made to deliberately hide these activities from the authorities due to some of the following reasons.

- To evade paying taxes
- To evade making social security contributions
- To avoid complying with legal standards (Payment of minimum legal wage, Laws in relation to maximum number of working hours, Laws in relation to security and hygiene)
- Disinclination towards complying with other administrative regulations. (Providence of statistical documents, unwillingness to fill questioners and other formats)

### Illegal Economic Activities

There are two forms of illegal activities and these are;

- Production and distribution of goods and services that are legally prohibited. (illegal felling and selling of trees, transportation of contrabands, production & distribution of drugs and liquor, Prostitution)
- Production and distribution of goods and services without obtaining legal authority. (Serving as a doctor without obtaining the registration at the Sri Lanka Medical Council, Driving a vehicle without a license, Sand mining without a permit)

### Productive economic activities which are included in Gross Domestic Production

- All the goods and services produced
- Domestic services obtained from one's own dwelling

- Labor sacrificed for wages or different type of payment
- Items produced for one's own consumption.
- Goods produced and services provided utilizing voluntary labour

**Productive economic activities, not included in Gross Domestic Production**

- Studying and leisure
- Natural resources obtained at free cost (Land, Water, Air)
- Unpaid domestic services
- Natural resources that grow without human effort (forests)
- Change in the value of resources due to changes in price or natural growth

**Non productive activities, not included in Gross Domestic Production**

- Transfer Payments
- Payments in relation to financial papers
- Payments made selling of used items

### Summarized National Account details

| Serial No. | ISIC | Economic Activities |
|---|---|---|
| 1 | A | Agriculture, Forestry and Fishing |
| 2 | BCDE | Mining, Manufacturing, Electricity and water production activities |
| 2.1 | C | Sub Section, Manufacturing |
| 3 | F | Construction |
| 4 | GHI | Wholesale & Retail trade, Transportation, Accommodation and Food Service activities |
| 5 | J | Information and Communication services |
| 6 | K | Financial and Insurance services |
| 7 | L | Ownership of dwellings, Real estate activities |
| 8 | MN | Professional, Scientific, Administration and Support services |
| 9 | OPQ | Public Administration, Defence, Education, Health and Social Security work activities |
| 10 | RSTU | Other services |
| Gross Value Added (GVA) at basic price | | |
| + Taxes on products | | |
| - Subsidies on products | | |
| Gross National Product (Market Price) | | |

## Main approaches of National Income Accounting

There are three main approaches in measuring National Income.

- Product/Output approach
- Income approach
- Expenditure approach

Final value of national production obtained by using all three approaches is the same and this implies that the expenditure incurred in producing the total output is equal to the income generated through selling the same output. Therefore, there is a clear relationship between national income and national expenditure in an economy.



## 7.3.1 Output Approach

The Gross Domestic Product (GDP) is total market value of all final goods and services produced utilizing the factors of production located domestically within a given period of time and through the output approach the value of GDP can be measured. Under output approach there are two methods to estimate GDP.

- Final Product Method
- Value Addition Method

### Final Product Method

The products that can be used for consumption or investments without any further processing are considered under this method. For example when manufacturing a wooden chair, the production process passes through several stages; sawing of the wooden, fixing of the parts, polishing etc. Going through these stages, the final product, the chair can be manufactured. Under final product method only the value of the final product, i.e. chair, is considered for GDP calculations. This is done with a view to avoiding double counting errors.

**Double counting** means counting the value of the same item more than once and this naturally leads to over estimation of GDP value.

Although measuring the value of GDP through final product method is practical, certain difficulties could be encountered.

- Whether an item is a final product or an intermediate product depends upon its usage, for example tyres purchased by a businessmen to manufacture a motor vehicle has to be considered as an intermediate product where as a person purchasing tyres for his/her vehicle has to be considered as a final product. Milk purchased to be consumed at home is a final product where as milk purchased by a firm to make butter is considered as an intermediate product.
- It is practically difficult to identify the person's intention of purchasing a product.

## Calculating the Domestic Production

Output means the goods turned out and services provided through a production process and the monetary value of goods and services produced is identified as Gross Value of Output (GVO). Gross Domestic Production shows the added value of the production in the entire economy.

There are two types of inputs in a production process, they are;

- Primary Inputs
- Intermediate Inputs

Primary inputs are the factor inputs used in a production process, for example: land, labour, capital and entrepreneurship and these are considered as inputs that generate value addition.

In a production process goods and services purchased externally are identified as intermediate inputs. Electricity, water, raw materials, stationary, consultancy services utilized in the process of production are considered as intermediate inputs. Utilization of intermediate inputs in a production process is called Intermediate Consumption (IC)

### Gross Value Added (GVA)

GVA is the measure of the value of goods and services produced in an area and it is derived by subtracting Intermediate Consumption (IC) from Gross Value of Output (GVO).

| | | | | |
|---|---|---|---|---|
| Gross Value Added | = | Gross Value of Output | − | Intermediate Consumption |
| GVA | = | GVO | - | IC |

GVA is the aggregate of values added throughout an economy. Value added is the newly generated value at each stage of production in a production process. Value of the final product is not the newly generated value by the producer and the value of the final product includes the value of intermediate consumption purchased externally during the production process. Therefore to obtain GVA it is necessary to deduct Intermediate Consumption from gross value of output. The value of the final goods and services produced in an entire economy equals to the aggregate of values added of all the entrepreneurs within the economic territory.

There are two methods through which value added can be measured in a production process.

- Measuring the value addition using the production source.
- Measuring the value addition using the income source.

- **Measuring the value addition using the production source**

When value addition is measured based on the production source, the value of all the inputs obtained externally and utilized in the production process has to be subtracted from the value of final product.

| | | |
|---|---|---|
| Eg. – Value of the final product | – | Rs. 700 |
| Raw Materials | - | Rs. 500 |
| Cost of services | - | Rs. 150 |

- Value addition = Rs. 700 – (500 + 150)
  = Rs. 50
- Intermediate Consumption = Rs. 500 + Rs.150
  = **Rs.650**

- **Measuring the value addition using the income source**

Under this method value addition is measured by adding amount of depreciation of fixed capital utilized to income received from all the factors of production used in the production process.

As the Gross Domestic Product has to be estimated at current market price, the value of net indirect taxes (Indirect Taxes less subsidies) is added to the aggregate of GVA.

| | | |
|---|---|---|
| Aggregate of the Gross Value Added (GVA) | = | xxx |
| + Net Indirect Taxes | = | xxx |
| Gross Domestic Product at current market price (GDP) | = | xxx |

When preparing national accounts according to the new method, the value of Gross Domestic Product is measured only using **current market price.**

Net Domestic product is calculated by subtracting expenditure on fixed capital consumption from Gross Domestic Product.

| | | |
|---|---|---|
| Gross Domestic Product (GDP) | = | xxx |
| -Consumption of Fixed Capital (CFC) | = | xxx |
| Net Domestic Product | = | xxx |

## Depreciation / Consumption of Fixed Capital

Capital resources such as plant & machineries, buildings, equipment are utilized in production process and therefore value of such capital inputs gradually gets diminished. In business accounting this process is identified as depreciation and in national income accounting the same process is termed as Consumption of Fixed Capital (CFC).

The net contribution of a particular production process to the production of an economy cannot be measured by merely looking at the net value addition that is by subtracting intermediate consumption from value of the final product. Accordingly the method of calculating Net Value Addition (NVA) is stated below.

| | | |
|---|---|---|
| Gross Value Added (GVA) | = | xxx |
| -Consumption of fixed Capital (CFC) | = | (xxx) |
| Net Value Added (NVA) | = | xxx |

## Prices used in National Income Accounting

Because of different taxes imposed and subsidies given to producers and consumers, three different types of prices can be identified in relation to the same product.

- Basic Price
- Producer's Price
- Purchaser's Price

### Basic Price

In simple terms the basic price is the price one pays for an item excluding the price paid for any extra features. This is the amount receivable by the producer from the person who purchases a unit of good or service he/she produced, excluding taxes payable on that product and including subsidies receivable on that product as a result of its production or sale. Transportation charges invoiced separately by the producer are not included in the basic price and this price is relevant when making production decision.

### Taxes on a product and other taxes imposed on the product

Taxes that imposed on a product is based on the unit of production, this could be a unit tax or tax as a percentage of the value of that product.

Ex.- Rs.5/= tax on Kilogram of rice

Other taxes imposed on the product means the taxes imposed on land, fixed assets, number of workers or other activities or on dealings relevant to the production of the given item, they are not the taxes imposed on the item produced or taxes imposed on the profit made from that item.

Ex. – Land taxes, Stamp duty, Environment pollution tax, tax on fixed assets.

### Subsidies on a product or other subsidies given on the product

Subsidies provided based on the production unit is considered as the subsidies on a product., other subsidies given on the product means subsidies given to activities in relation to the production process of that particular item.

Ex. – Subsidies given to encourage training programs, to encourage employment creation a percentage of the wage given as a subsidy, subsidies given to encourage recycling (to reduce pollution)

- **Producer's Price**

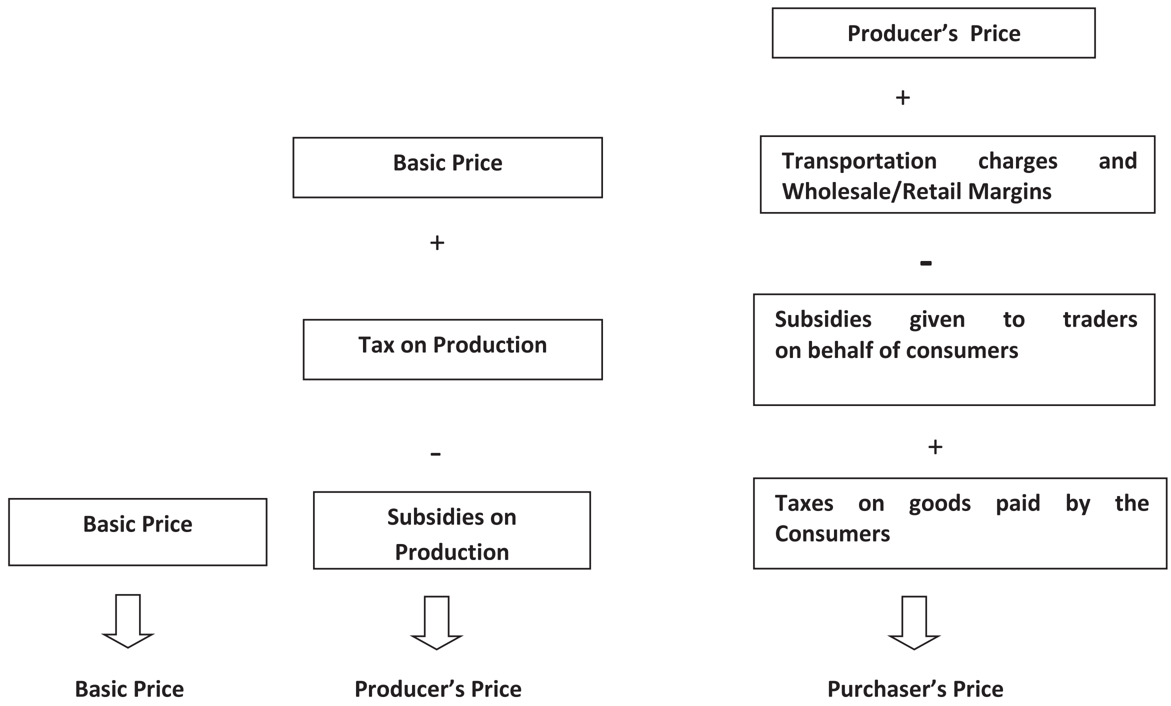
  When a unit of a product leaves the factory the price the producer charged from the trader is called producer's price. This is the amount receivable by the producer from the purchaser for a unit of good or service produced (Basic Price) plus any non deductible tax on products paid by the producer, less any subsidies on product received by the purchaser. Here only non refundable VAT in the purchaser's invoice is taken into account and refundable VAT and any transport charges invoiced separately by the producer are excluded.

| | |
|---|---|
| **Producer's Price** | **= Basic Price + Direct taxes on Producer – Production Subsidies (non- deductible taxes)** |

When measuring value addition under producer's price, only net taxes relevant to domestic producer are considered, net taxes on imports are excluded.

- **Purchaser's Price**

  The actual price the purchaser pays for a unit of good or service is called purchaser's price and this relevant for decision making by purchasers. To producer's price, transport charges paid separately by the purchaser to take delivery of the good, supplier's wholesale and retail margins, non deductible taxes on products payable by the purchaser are added to arrive at the purchaser's price. Subsidies received by the producer and deductible VAT or similar deductible taxes are excluded in arriving at purchaser's price.




## Gross Domestic Production (GDP)

The under mentioned three methods can be used to measure the Gross Domestic product at current market price.

| | | | | |
|---|---|---|---|---|
| Gross Domestic Product (GDP) at market price | = | Aggregate Gross Value addition at basic price. ($\sum$GVA) | + | Net Taxes (Taxes-Subsidies) on all goods and services produced including imports |

Gross Domestic Product (GDP) at market price = Aggregate Gross Value addition at producer's price. ($\sum$GVA) + Net Taxes on imports. (Taxes – Subsidies)

GDP at market price = Aggregate Gross Value of output at market price ($\sum$GVO) - Intermediate consumption(IC) + Net Taxes on production + Net Taxes on imports (Taxes-Subsidies)

### 7.3.2 Income Approach

The Income approach measures the total income received by the owners of factors of production in an economy. Calculation of the value of national income based on the payments made to factors of production involved in a production process or on the income received for production factors is identified as Income approach. Income calculated is referred to as Net Domestic Income.

There are several types of incomes generated in a production process; such types of incomes generated are identified as Primary Income. Primary income represents earnings due to the contribution of institutional units to the production process or for the provision of financial assets. Returns from renting natural resources to other institutional units too are considered as primary income. Primary Income consists of the following.

- Compensation for employees (CE)
- Operating Surplus (OS)
- Net taxes on production and Imports (t-s)
- Mixed Income (MI)

Summation of the above mentioned set of incomes generated as a result of the production producton process is equal to the Gross Vale Addition (GVA)

GVA = {CE +OS +MI + (t-s)}

► **Compensation for Employees**

All the incomes earned by an employee from a production unit because of his/her contribution to the production process is considered as total employee compensation, and the under mentioned components are included in that.

- Salaries and wages
- National security contributions made by the employer
- Compensation directly paid by the employer when the worker is sick, unemployed or going on retirement

► **Operating Surplus**

Operating surplus is a component of value added and GDP and what it refers to is the income generated by the corporate sector. By subtracting total cost and net production taxes (Taxes-Subsidies) from the value of production, gross operating surplus can be obtained. When measuring operating surplus factors like leasing rent, interest, gross profit and receipts from tangible assets are taken into account. Details of Such factors are;

- Interest payable to creditors that provide financial assets
- Paid and unpaid dividends to shareholders
- Leasing rent to be paid for owners of non produced assets like land and mineral resources

Operating surplus measures the surplus or deficit resulting from a production activity before considering interests, rent and other charges and it in fact corresponds to the income which a production unit obtains by utilizing their own production facilities.

► **Mixed Income**

This refers to the surplus or deficit resulting from production activity carried out by unincorporated enterprises owned by households. As the members of families serve these enterprises portion of the income generated through these business activities is identified as employee compensation (income contains an element of remuneration for work carried out by the owner or other members of his/her family and this cannot be separately figured out) also another portion is referred to as operating surplus. When measuring the mixed income operating surplus from owner occupied dwellings is omitted. By subtracting intermediate consumption, all the net taxes and earnings of employees serving for a wage, from the returns generated from enterprises run by households, the mixed income can be obtained.

► **Net taxes on production and imports**

Revenue from net taxes on production and imports and also amounts of subsidies provided for production and imports are considered as government's primary income, taxes imposed by the government on income and wealth are excluded from this. Aggregate of all the primary incomes of an economy is identified as Gross Domestic Income and it is equal to the value of Gross Domestic Product.

### Gross Domestic Income and Gross National income

As stated above the aggregate of all the primary incomes of an economy is identified as the Gross Domestic Income. Gross National income means the income generated from goods and services produced by the nation and the difference of income generated by domestic residents from their factors of production invested abroad and payments made to foreigners for investing their factors of production domestically is taken into account when compiling Gross National Income of a country.

| | | | | |
|---|---|---|---|---|
| Gross National Income | = | Gross Domestic Product | + | Gross Factor Primary Income |
| (GNI) | | (GDP) | | (NFPI) |

### Disposable Income

The purchasing power of households is reflected through the disposable income. The income available to the nation for final consumption and saving is referred to as Gross National Disposable Income. Net Foreign Transfers (NFTr) is the difference between all current transfers in cash receivable from nonresident units to resident institutional units and all current transfers in cash payable to nonresident units from resident institutional units. By adding the value of NFTr to Gross National Income , the Gross National Disposable Income can be obtained.

| Gross National Disposable Income = | Gross National Income + | Net Foreign Transfers |
|---|---|---|
| (GNDI) | (GNI) | (NFTr) |

| Gross National Disposable Income | = | Gross Domestic Product | + | Net Foreign Primary Income | + | Net Foreign Transfers |
|---|---|---|---|---|---|---|
| GNDI | = | GDP | + | NFPIr | + | NFTr |

Household Income and Disposable Household Income

The income earned by households through the factors of production owned by them is the household income and this is referred to as personal income too. Formula given below shows the manner of calculating the household income (HI).

**HI = GNI + HTr -GPI – D – PT – R – CS**

| | | | |
|---|---|---|---|
| H | – Household Income | HTr | – Transfers received by households |
| GNI | – Gross National Income | D | - Depreciation |
| GPI | – Government property income | R | - Retained profit |
| PT | – Taxes on corporate profit | | |
| CS | – Contributions to social security systems made by labour | | |

After paying taxes the amount of money households have available for spending and saving is considered as household disposable income. Therefore household disposable income can be measured by subtracting direct taxes paid by households from their income.

| Household disposable Income = | Household Income – | Household Direct Taxes |
|---|---|---|
| (HDI) | (HI) | (HDT) |

### 7.3.3 Expenditure Approach

Expenditure approach measures the value of Gross Domestic Product through the total amount of expenditure incurred in purchasing the national product, simply it is the total expenditure incurred in purchasing the final output of the economy. Macro economy consists of four sectors, namely household sector, business sector, government sector and international sector. Each sector spends money to purchase goods and services included in the gross domestic product and these expenditure items are;

- Consumption expenditure of households(C)
- Investment expenditure of Business sector(I)
- Expenditure incurred by the government to purchase goods and services (G)
- Net exports from international trade (NX) (Exports – Imports)

Accordingly the Gross Domestic Product can be derived as follows;

$$\boxed{\textbf{GDP} = \textbf{C + I + G + (X-M)}}$$

- **Consumption**

Spending on goods and services by the households to fulfill their requirements is identified as consumption expenditure and there are two types of consumer expenditures.

**1) Final consumption Expenditure**

Expenditure incurred by households to purchase goods and services for their consumption is identified as final consumption expenditure and final private consumption expenditure can further be categorized as follows.

a) **Private Consumption Expenditure –** Private consumption expenditure is the summation of consumption expenditure incurred by households and the expenditure on purchases made for household by nonprofit seeking entities that provide services for households. Acquisition of goods by consumers or for consumers, expenditure incurred for consumption by households in foreign countries, gifts received by households from foreign countries are included in the private consumption expenditure, but expenditures on used items are excluded. Simply this is the expenditure on locally produced goods and also imported goods and non factor services by households.

b) **Government / Public Consumption Expenditure -** Public Consumption Expenditure is the expenditures incurred by the central government and its sub institutions (local authorities) for purchasing goods and services and this can be classified as personal consumption expenditure and collective consumption expenditure. Expenditures by government on education, health, social security and welfare are identified as personal consumption expenditure and expenditures on public administration, train and highways, defence are classified as collective consumption expenditure.

**2) Actual / Exact Consumption Expenditure.**

As the person that spends and the person that consumes may not always be the same, without considering who spent money, the expenditure incurred actually to acquire goods and services is identified as actual, exact expenditure. Household's actual, exact amounts of expenditure can be obtained by adding private consumption expenditure to government's personal consumption expenditure.

- **Gross Capital Formation**

Production of goods that can contribute to the production process for a longer period and have a lifespan of more than a year is defined as gross capital formation, and it consists of three parts.

- Gross Fixed Capital
- Changes in stocks/inventories
- Changes in the value

**Gross Fixed Capital**

Production of goods that can contribute to the production process for more than a year is considered as gross fixed capital. Capital goods with a lifespan of less than one year are considered as the intermediate consumption goods and fixed asset intermediate goods with a lower value and a lifespan of more than one year is included in consumption expenditure. Fixed assets are again classified as tangible and intangible assets. Housing, plant & machinery, buildings are considered as tangible assets where as computer programmes, goodwill, trade names are considered as intangible assets.

Also fixed assets can be further classified as produced non financial assets and non produced non financial assets. Housing, other buildings & structures, machines & plants, weapons & ammunition, cultivated lands are considered as produced non financial assets and natural resources, treaties, license and brand names are considered as non produced non financial assets.

**Capital Consumption Expenditure**

When life span of the capital assets utilized in a production process expires , the finances allocated to purchase these capital assets again is considered as capital consumption expenditure.

**Net Capital formation**

Net capital formation is derived by subtracting capital consumption from gross capital formation.

**Net Capital Formation = Gross Capital formation – Capital Consumption**

- **Changes in Stock**

Changes in the amount of stocks estimated by subtracting the value of closing stocks from value of opening stocks and this consists of three parts.

- Unsold finished goods
- Stocks of unfinished goods (work-in-progress)
- Stocks of raw materials

- **Procession of valuables**

Things like gold, silver, pearls, antiques are not used in the production process, and also these items cannot be consumed out and therefore expenditure on such items does not come under consumer expenditure. Goods of this nature do npt get destroyed either. Since these cannot be considered as consumption or intermediate goods, such goods are classified as capital goods. Therefore changes in the values due to acquiring and disposing of such valuables are adjusted under capital formation.

**Gross Domestic Expenditure**

Gross Domestic Expenditure is estimated by adding three components of expenditures and they are private consumption expenditure, government expenditure, and gross investment expenditure. As gross investments are considered without excluding depreciation, it is termed as gross domestic expenditure. Gross Domestic Expenditure of an open economy can be estimated as follows.

$$\boxed{E_1 = C + I + G}$$

$E_1$ – Gross Domestic Expenditure of an open economy

G – Government Expenditure

C - Private consumption expenditure

I - Gross domestic private Investment

**Expenditure on gross national income at current market price**

| | | | |
|---|---|---|---|
| 1. | Consumption Expenditure | | |
| | 1.1 Private consumption | = | xxx |
| | 1.2 Government's consumption | = | xxx |
| 2. | Gross domestic capital formation | = | xxx |
| | 2.1 Gross domestic fixed capital formation | = | xxx |
| | 2.2 Changes in stock | = | xxx |
| | 2.3 Changes in values | = | xxx |
| 3. | Gross domestic expenditure at market price | = | xxx |
| 4. | Exportation of goods and services | = | xxx |
| 5. | Importation of goods and services | = | (xxx) |
| 6. | Gross Domestic Product at market price | = | xxx |
| 7 | (-) Foreign net primary income | = | (xxx) |
| 8. | Gross National Income at market price | = | xxx |

**Advantages of estimating production using expenditure approach**

- It is easier to cover sectors that engage in production and also sectors that engage in consumption.
- By looking at the difference between gross domestic product and gross domestic expenditure the amount of net exports can be identified.
- Information in relation to investments and national savings can be extracted.

**Relationship among Gross Domestic Production (GDP), Gross Domestic Expenditure (GDE) and Net Exports**

Differences in the value between Gross Domestic Expenditure and Gross Domestic Production result from the behavior of net exports or in other words the behavior of the balance of goods and services account. When net exports get a (-) value, i.e. when import expenditure is higher than export income, the amount of gross domestic expenditure gets a higher value than the amount of gross domestic product. When export income is higher than the import expenditure, i.e. when net exports has a (+) value, then the amount of gross domestic expenditure gets a lower value than the amount of gross domestic production.

Gross Domestic Production (Y) = C + I + G + (X-M)

Gross Domestic Expenditure (E1) = C + I + G

Net Exports = (X-M)

The following equation shows that the difference between Gross Domestic Production and Gross Domestic Expenditure is equal to net exports.

$$Y - (C + I + G) = (X\text{-}M)$$

As; $C + I + G = E1$

The above equations can be shown like;

$$\underbrace{Y - E1}_{\text{The difference between GDP \& GDE}} = \underbrace{X - M}_{\text{Net Exports}}$$

The above equation shows that the difference between Gross Domestic Product and Gross Domestic Expenditure is equal to net exports.

### Per Capita Income

Per Capita income is the income per person in a country and it is a useful measurement to compare standard of living among different countries and usually stated in terms of a international currency that is commonly used,

eg. Dollar.

$$\text{Per Capita income} = \frac{\text{Gross Domestic Production}}{\text{Mid year population}}$$

## 7.4 Importance of preparing national accounts.

- To assess the economic performance
- To make comparisons with other countries in the world
- To measure economic growth
- To understand the economic structure of the country
- To estimate per capita national income
- To have an understanding about economic context and utilization
- To forecast the behavior of macroeconomic variables
- To identify functional relationships among economic factors.

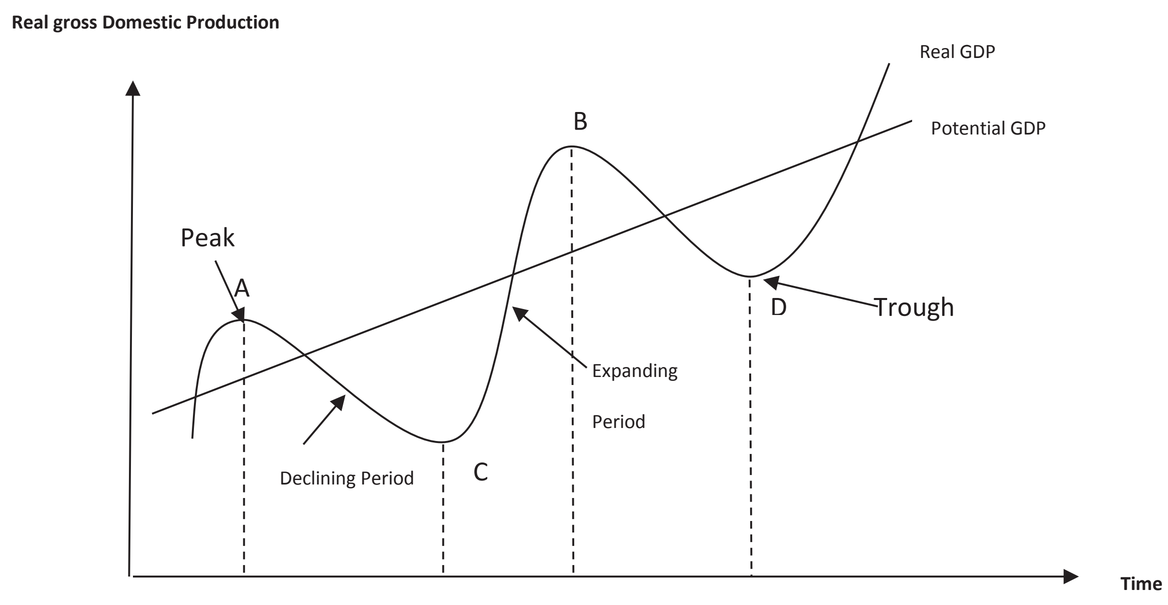
### 7.4.1 Limitations on national income accounts

- Non inclusion of productive activities taking place in informal economy
- Non inclusion of dependent economic activities in national production
- Non inclusion of services provided by housewives in national production
- Non inclusion of interest paid on public debts in national production calculations
- Non consideration of damage to environment due to production activities
- Non consideration of changes of productivity in public services
- Inclusion of expenditure on defense and wars under productive activities
- Non inclusion of some consumer goods with long lifespan in national production by categorizing them as investments.



## 7.5 Business Cycle

Business cycle means the cyclical fluctuations in economic activities (changes in the pattern of real GDP) with time and this is an important and useful tool in measuring how the economy of a country functions.




A natural upward and downward movement of real Gross Domestic Production (GDP) of a country around its long term growth trend is identified as a business cycle. This is characterized by economy wide fluctuations in economic activity, production levels and trade. Continuous upward movement of the production levels of an economy is experienced during the expansionary period and during contractionary period it is the reverse, characterized by continuous decline in the production levels and economic activity. Further, the downward trends persist for more than six months it is termed as economic recession. Generally an economic downturn, decline in economic activity can occur within a short period of time but noticeable upward movement in the economy (Economic expansion) to occur it will take a longer period.

There are four phases of business cycles, they are;

- Peak
- Contractionary Phase

- Trough
- Expansionary Phase

The phase in between trough and peak is the expansionary period during which the economy is growing, economy's output (GDP) is increasing; unemployment level is declining towards its natural rate, investor confidence growing, stock market booming etc. Rate of expansion slows down as the economy gets overheated, that is when it reaches the peak, the highest point of the business cycle. From peak the economy enters into the contractionary period during which period the rate of economic growth slows down, i.e. GDP growth falls, when this downward trend persists for a longer period the economy enters into a recessionary period, this is characterized by rising unemployment, worker layoffs, declining production levels and investor confidence etc. The contraction period ends at trough, the lowest point at which the economic expansion begins, the surge in economic activities become visible again.

The potential output is the level of real Gross Domestic Product that can be obtained by utilizing all the production factors to the full with maximum efficiency and this in fact is the maximum level of production a country can produce. It is determined by the amount of resources and their level of productivity of a country and the pattern of behavior of economic growth is reflected through this potential output level of a country.

The difference between actual output and potential output of a country is referred to as output gap and attempts to reach potential level of output by reducing the output gap or minimizing fluctuations is referred to as stabilization of the economy. Economic stabilization is achieved through the application of appropriate macroeconomic policies.

## 7.6 Fiscal Policy and its Tools

Policy decisions taken and changes introduced by the government with regard to its expenditure, taxation and borrowing in order to achieve macroeconomic objectives like economic growth and stability, price stability, sustainable development etc. are termed as fiscal policies. There are three different fiscal policy types the government can use, depending on the type of macroeconomic objective it aims at, they are;

- Contractionary Fiscal Policy
- Expansionary Fiscal Policy
- Neutral Fiscal Policy

Budget document presented by the government annually spells out the fiscal policy stance of the government for that particular year and therefore government's fiscal policy is referred to as budgetary policy too. Government's fiscal policy consists of two parts, and they are;

- Government's Expenditure
- Government's Revenue

### Government's Expenditures

It is the total public spending carried out by the government with a view to achieving its planned budget and it can be classified as;

- Recurrent Expenditure
- Capital Expenditure

**Recurrent Expenditure**

Except government's expenditures on acquiring real assets used in production processes for more than one year and also on capital transfers all other payments are considered as recurrent expenditure. There are three major types of recurrent expenditure;

- Recurrent expenditure on goods and services
- Interest payments
- Recurrent transfers and subsidies

**Capital Expenditure**

Expenditure incurred by the government in acquiring fixed capital assets, i.e. govt.'s spending on goods and services with a view to gaining future benefits is considered as capital expenditure.

Eg. - Investments on infrastructure development, health etc. Expenditure on capital enhances government's capital stock enabling the country to achieve higher economic growth. There are two types of capital expenditure, they are;

- Expenditure on acquiring real assets
- Capital Transfers

**Government's Revenue**

Income generated by the state through various means in order to fulfill various tasks of the government is referred to as government revenue. There are two major sources through which government collects revenue, they are;

- Tax Revenue
- Non Tax Revenue

## 7.7 The relationship between fiscal policy and business activities

In achieving macroeconomic goals, the government of a country can employ three different types of fiscal policies and they are, contractionary, expansionary and neutral fiscal policies. Budget statement spells out how the government intends to implement fiscal policies for a given year. The government can create a budget surplus when its revenue exceeds its expenditure and the opposite occurs when its expenditure exceeds its revenue, i.e. budget deficit. Through fiscal policy the government aims at changing its revenue and expenditure levels in order to achieve given macroeconomic objective. The government can create a decisive impact on Aggregate Demand and Aggregate Supply levels, employment level, pattern of resource and income distribution of a country by influencing its revenue and expenditure levels well as their composition.

Policies that create a budget surplus, i.e. when government's revenue exceeds expenditure, they have a contractionary effect on Aggregate Demand in the economy and therefore such policies are considered as contractionary fiscal policies. This makes the leakages in the aggregate income flow of a country higher than its injections, creating a contractionary impact on both the level of real production and employment.

When there is a budget deficit, i.e. when government's expenditure exceeds its revenue, the

Aggregate Demand in the economy expands, therefore policies aim at creating a budget deficit are considered as expansionary fiscal policies. As this makes injections in the circular flow higher than its leakages, such policies create an expansionary impact on both the level of real production and employment.

Government's fiscal policy is considered as neutral when it creates a balanced budget, this is when government's expenditure is equal to its revenue. This will have no visible impact on the real production levels of a country.

The government will have to resort to borrowing when its revenue is not sufficient to cover its expenditure and this could have upward pressure on the interest rate of the economy. Higher rate of interest discourages investments and what this implies is that higher government expenditure leads to crowd out private investments.

## Q Question

What is meant by comparative importance of Government revenue? Explain.

## A Answer

This can be considered as a yardstick to measure the importance of government's revenue in an economy. Here the government's revenue is stated as a percentage of the country's GDP at current price.

$$\text{Comparative importance of Govt's Revenue} = \frac{\text{Government's Revenue}}{\text{Gross Domestic Product (At current market price)}} \times 100$$

## Summary

Macro Economics looks at the economic system as a whole and analyses how it functions, it rather attempts to get the bird's eye view of an economy. It is the macro economic variables that determine the overall functioning of the economy. Microeconomics focuses on how individual entities of an economy such as individual buyers, consumers, and firms behave where as macroeconomics looks at the economy from a broader perspective, it in fact focuses on the entire economy by putting together all the smaller entities considered under microeconomics.

Every country aims at achieving some major economic objectives and these are referred to as macroeconomic goals. Taking effective measures to overcome macroeconomic problems is identified as economic management and through this the government aims at guiding the economy towards achieving given macro goal. Policy measures and strategies employed in managing an economy are referred to as macroeconomic policies.

National Income accounts show the values of national income flows among macroeconomic factors in an economic system and this process can be illustrated through a circular flow diagram. The circular flow diagram shows how the income and output flow from one sector to another.

Three approaches are available to measure the value of national production and they are; output approach, income approach and expenditure approach. Whatever the approach relied upon to estimate the value of national output, all three methods should produce the same value. What this implies is that the value of national production is equal to the income generated through such production and also the expenditure incurred in purchasing such production.

Policy decisions taken in relation to government expenditure, taxation and debts in order to achieve macroeconomic goals are termed as government's fiscal policies and among other things these policies can be employed to achieve sustainable development and reduce poverty in a country.

MACRO ECONOMIC OBJECTIVES

**Price stability**
It is the management of economy without inflation or deflation.

**Full employment**
It is utilization of all the resources of an economy to the full with maximum efficiency for production.

**Equilibrium in Balance of Payment**
It is the management of economy without balance of payment crises when dealing across the borders.

**Fair distribution of income**
This means achieving fair distribution of income. In other words distribution of income and wealth enabling every person in the country to fulfill his/her wants and needs.

**Sustainable development**
It is the enhancement of production while protecting the quality of environment and also ensuring fair distribution of benefits of development among the citizens of a country.

**Economic growth**
Ensuring continuous increase in Real Gross National Product without wider fluctuations in the economic movements.

**Conflicts among macro economic objectives**

- Higher economic growth and lower inflation
- Higher economic growth and Balance of Payment equilibrium
- Full employment and lower inflation
- Economic growth and environment
- Economic growth and equity

**Economic policies**

**Monetary policy**
It is changing the money supply in an economy by influencing interest rate, credit supply etc.

**Fiscal policy**
It is the changing of government revenue, expenditure and the public debits

**Supply side policy**

It is taking policy measures to enhance production (Aggregate Supply) in the economy.

**Income policy**
It is controlling the rate of increase in wages and the price of goods by introducing regulations and other measures.

**International trade policy**

Taking measurements to influence free international trade.

**Direct control policy**

These are the policies aim at changing the ownership and distribution of resources and also influencing the prices that determined through the market forces.

**Business cycles**

**Expansionary stage**

This is the stage in which there is a continuous increase in economic activities.

**Peak**

The highest point in the expansionary stage.

**Declining stage**

Slowing down of the functioning of the economy, decline in the economic activities.

**Trough**

When the economic activities drop to the lowest point and about to start the expansionary period.

**Institutional units**

- Non Financial Corporate sector
- Financial Corporate sector
- General Government
- Non-profit Institutions serving Household sector
- Household Sector
- Rest of the World Sector-ROW

**National income**

**Output approach**

Calculation of the value of final goods and services produced domestically within a given period is called Gross Domestic Production. Using output method these values can be estimated.

**Income approach**

Through this value of the national production is calculated by taking into account the total payments paid to all the factors of production involved in the production or income received from all the production factors. Income so estimated is identified as Gross Domestic Income.

**Expenditure approach**

Through this value of the Gross Domestic Production is estimated by measuring the expenditure incurred in purchasing the national production

**Concepts related to national income**

**Gross Domestic Product**

Total value of final goods and services produced within geographical boundaries of a country, i.e .domestically.

**Gross National Product**

Total value of final goods and services produced by nation within a year

**Net National Product(NNP)**

NNP is derived by subtracting capital deterioration from Gross National Product.

**Productions based on market price and factors cost price**

By adding net taxes to the value of given national product estimated under factors cost price, value of domestic production under market price can be arrived at

**Production under fixed price**

National production estimation prepared by removing the inflationary factor (adjusted for inflation) from national production estimates at current price.

# Exercises

1) Macroeconomics focuses on;
   i. analyzing the behavior of individual firms in an economy
   ii. analyzing the functioning of entire economic system as a whole
   iii. analyzing how the individuals fulfill their wants and needs
   iv. how to solve the problem of scarcity

2) One that is not considered as a macroeconomic goal;
   i. Price stability
   ii. Scarcity
   iii. Equality
   iv. Sustainable development

3) Out of the following which is not considered as institutional unit in national income accounting?
   i. Sector that provides self services in households
   ii. Non monetary corporate sector
   iii. Non profit seeking sector that provides services for households
   iv. Financial corporate sector

4) Non productive activity that is excluded in estimating the value of Gross Domestic Product is;
   i. Studying and leisure
   ii. Transfer income
   iii. Natural resources
   iv. Housekeeping

5) What are the macroeconomic policies employed in solving economic problems of a country?

6) What are the production activities included within production boundary in estimating National Income?

7) State the productive economic activities not included in estimating Gross Domestic Production?

8) Differentiate between primary inputs and intermediate inputs?

9) State the limitations in national income accounting?

10) What are the major components of public expenditure?

## Solutions

5)

- Monetary Policy
- Fiscal Policy
- Supply side Policies
- Income policies
- International Trade Policies
- Direct control policies

6)

- Domestic services provided by owner occupied housing units
- Domestic and personal services rendered by paid domestic staff
- All goods that are retained by their producers for final consumption or for gross fixed capital formation
- Goods or services produced, not to use by the producer of the same, but to be supplied to other institutional units

7)

- Studying and leisure
- Natural resources obtained at free cost (Land, Water, Air)
- Unpaid domestic services
- Natural resources that grow without human effort
- Change in the value of resources due to changes in price or natural growth

8)

Primary inputs are the factor inputs used in a production process, for ex., land, labour, capital and entrepreneurship and these are considered as inputs that generate value addition.

In a production process goods and services purchased externally are identified as intermediate inputs. Electricity, water, raw materials, stationary, consultancy services utilized in the process of production are considered as intermediate inputs.

9)

- Non inclusion of productive activities taking place in informal economy
- Non inclusion of dependent economic activities in national production
- Non inclusion of services provided by housewives in national production
- Non inclusion of interest paid on public debts in national production calculations
- Non consideration of damage to environment due to production activities
- Non consideration of changes of quality in public services
- Inclusion of expenditure on defense and wars under productive activities
- Non inclusion of some consumer goods with long lifespan in national production by categorizing them as investments.

10)

- Recurrent Expenditure
- Capital Expenditure