

# INTRODUCTORY MACROECONOMICS

**UNIT  
1**

**National Income &  
Related Aggregates (Part - 2)**



# विद्या दृष्टि

*The Vision Of Education*

**CLASSES AVAILABLE :-**

**6th to 10th**

◆ Maths ◆ Science ◆ English ◆ Sst

**11th & 12th**

◆ Pol. Science ◆ History

◆ Economics ◆ Accounts ◆ Maths ◆ English ◆ sociology



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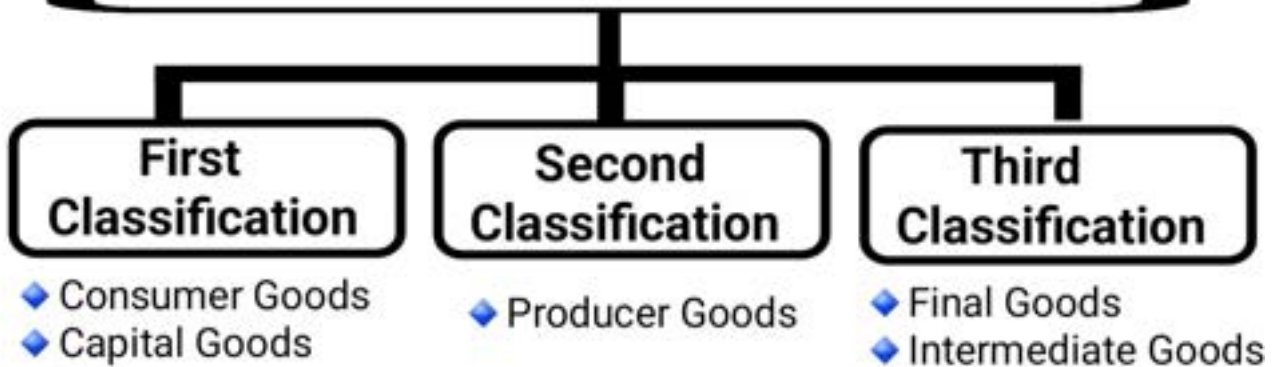
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# CLASSIFICATION OF GOODS



## Consumer / Consumption Goods

☞ Those goods are called Consumer goods, which are —

- ◆ **Directly used for the satisfaction of human wants**
- ◆ **Available for final consumption**
- ◆ Example - Household consumption goods

☞ **Consumption Expenditure**

- ◆ Expenditure on consumer goods is called consumption expenditure.

☞ **More Production of consumer goods improves people's welfare & quality of life.**

☞ These are classified into 4 category :-

- (1) Durable consumption goods
- (2) Semi Durable Consumption goods
- (3) Non Durable goods
- (4) Services



### Durable Consumption Goods

- ◆ used for **several years**
- ◆ Relatively **high value**
- ◆ Frequent uses
- ◆ Example :- Tv, Radio, Car, Scooter, Washing machine

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### Semidurable Consumption Goods

- ◆ Used for a period of **1 years or slightly more**
- ◆ Generally **not of very High Value**
- ◆ Examples :- Furniture, Crockery, Electric goods

### Nondurable Consumption Goods

- ◆ Used only once, so it is also called **Single use consumption goods**
- ◆ Relatively **low value**
- ◆ Examples :- Bread, LPG, Petrol, Milk

### Services

- ◆ Nonmaterial or Nontangible goods which directly satisfy human wants.
- ◆ Ex :- Services of doctors, lawyers, teachers, Servants

# Capital Goods

## Characteristics :-

- ◆ Does not directly satisfy human needs.
- ◆ Used by Producer as fixed assets to produce other goods.
- ◆ Relatively of high value.
- ◆ Final user = Producer
- ◆ Their use depreciates their value
- ◆ Example :- Plant & Machinery

## Inclusion / Exclusion :-

- ◆ Fixed assets involved in the production process for many years.
- ◆ Durable goods used as producer goods are capital goods but consumer goods are not capital goods.

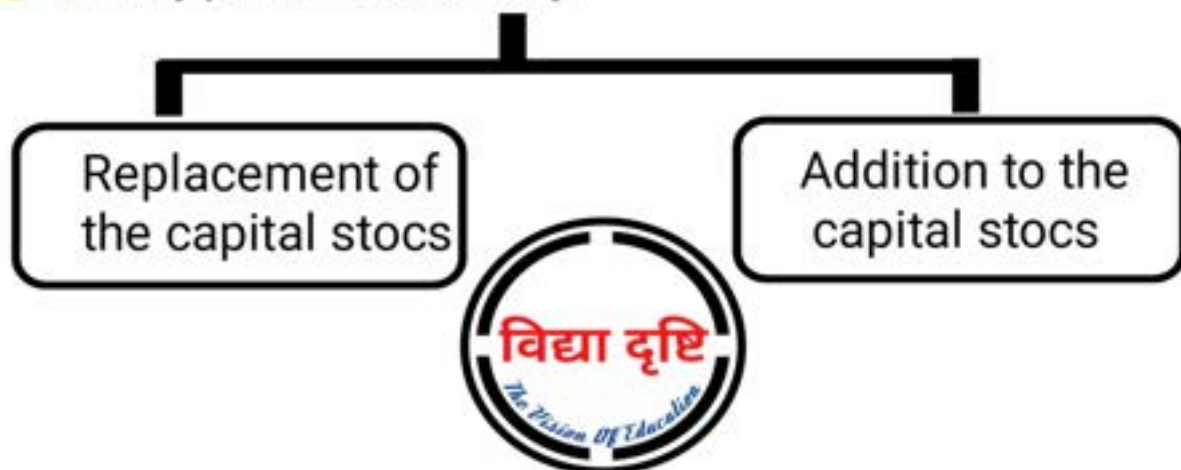
## Investment :-

- ◆ Expenditure on capital goods is called investment.

## Importance :-

- (1) More production increase the production capacity of Economy.
- (2) It is considered good for future growth.

## used by producer in two ways



# Producer Goods

## Definition :-

- ◆ Goods used in the process of Production are called Producer goods.

## Inclusion :-

- (a) Goods used as raw material.  
Ex :- woods to make furniture
- (b) Goods to be used as a fixed assets.  
Ex :- Plant & Machinery

## Relation between Capital goods & Producer goods

👉 **Raw materials**

Producer goods ✓  
Capital goods ✗

**Cause**

- ◆ not durable use goods
- ◆ Single use producer goods
- ◆ can't be repeatedly used in the process of production

👉 **Fixed Assets**

Producer goods ✓  
Capital goods ✓

**Cause**

- ◆ Durable goods
- ◆ Can be repeatedly used in the process of Production

👉 **Conclusion :-**

- (1) All capital goods are producer goods.
- (2) All producer goods are not capital goods.

## Final goods

👉 **Characteristics / Identification :-**

- ◆ Available for the use by final users
- ◆ Crossed the boundry line of production

It means crossed the process of value addition

- ◆ No value addition in it

👉 **Expenditure :-**

- ◆ Expenditure on it, is called final expenditure.

Final Expenditure = Consumption  
Expenditure(C) + Investment Expenditure(I)

$$F. E = C + I$$



### 👉 Importance :-

- ◆ Estimation of GDP & GNI are based on it.

### 👉 In one accounting year —

- (1) These are not used as raw material to produce other goods.
- (2) These are not resale to earn profit.

### 👉 Classification :-

- ◆ On the basis of final user, these are Classified into two categories

#### (a) Final Consumer goods

◆ Goods which are finally purchased by the consumer for satisfactions of their wants.

- ◆ Final user - Consumer
- ◆ Ex:- Double bread, butter, ghee

#### (b) Final producer goods

◆ Goods which are finally purchased by the producers and are generally used as fixed assets.

- ◆ Final user - Producer
- ◆ Ex :- Tractor, Harvester

## Intermediate Goods

### 👉 Basic criteria for Identification :-

- (1) Within the boundaryline of production
- (2) Value is still to be added
- (3) Not ready for use by their final users



### 👉 Expenditure :-

◆ Expenditure on it is called Intermediate consumption or Intermediate cost.

### 👉 Importance / Role

◆ It is not used in the estimation of GDP & GNI to avoid double accounting.

### 👉 In one accounting year

- (1) These are used as raw materials to produce other goods.
- (2) Can be Resale to earn profit.

👉 Ex :- Milk to make curd

## GVA/ GDP = Output - Intermediate cost

### 👉 Conclusion :-

- (a) On the basis of the final use or end use a commodity is a final goods or Intermediate goods.
- (b) The same goods may be final & Intermediate  
Ex:- Sugar used in home — Final goods (consumer)  
sugar used for making rasgulla — Intermediate goods (Producer)
- (c) The same goods may be partially final goods & partially Intermediate goods.  
Ex:- Milk of diary
- (d) It is important to differentiate between Final goods & Intermediate goods for the estimation of National Income.

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## Consumption Expenditure

👉 The expenditure incurred on the purchase of goods by the final user of Consumer goods produced in an economy is called aggregate consumption.

👉 **Final users of Consumer goods :-**

- (a) Household
- (b) The Government
- (c) Non Profit Private Institutions

Ex :- NGO, Temples, Mosques, Gurudwara

👉 **Component of Consumption Expenditure :-**

(1) Household — Household by consumer goods for their satisfaction of their wants.

(2) Government — The government buys consumer goods for distribution among defence forces, mid-day meals etc

(3) Non Profit Private Institution — Buy consumer goods for charity.

Aggregate Consumption Expenditure = C. E by households + C. E government + C. E by NPI

## Investment

◆ Capital formation or increase in stock of Capital is called investment.

$$I = \triangle k \left[ \begin{array}{l} I = \text{Investment} \\ k = \text{Capital stock} \\ \triangle k = \text{Change in Capital stock} \end{array} \right]$$

◆ **Investment has two Components :-**

- (a) Fixed Investment
- (b) Inventory Investment

## Fixed Investment

◆ The expenditure made **by the producers on the purchase of fixed assets or Capital goods** (Plant & machinery), is called fixed investment.

◆ An increase in the producer's stock of fixed assets during an accounting year is considered a fixed investment.

◆ It is also called **fixed capital formation**.

Fixed Investment = Stock of fixed asset at the end of accounting year - Stock of fixed asset at the beginning of accounting year

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### 👉 **Significance of fixed Investment :-**

- ◆ It increase the production capacity of the producers.
- ◆ Due to increase in production capacity

↓

Achieve higher level of output in the economy.

- ◆ Higher level of output leads to higher rate of economic growth.

## Inventory Stock

### 👉 **Following are included in it :-**

- (1) Unsold finished goods
- (2) Semi finished goods in the process of production
- (3) Raw material

### 👉 **Inventory stock is of two type :-**

#### **(a) Desired Inventory stock**

- ◆ It is also called **Planned inventory stock**.
- ◆ It is maintained by the producers with a view to take advantage of the future demand for their commodity.
- ◆ Because of this, there is **profit**.

#### **(b) Undesired Inventory stock**

- ◆ It is also called **unplanned inventory stock**.
- ◆ It arises because the demand for the commodity is less than the expected demand.
- ◆ Because of this, there is **loss**.

## Inventory Investment

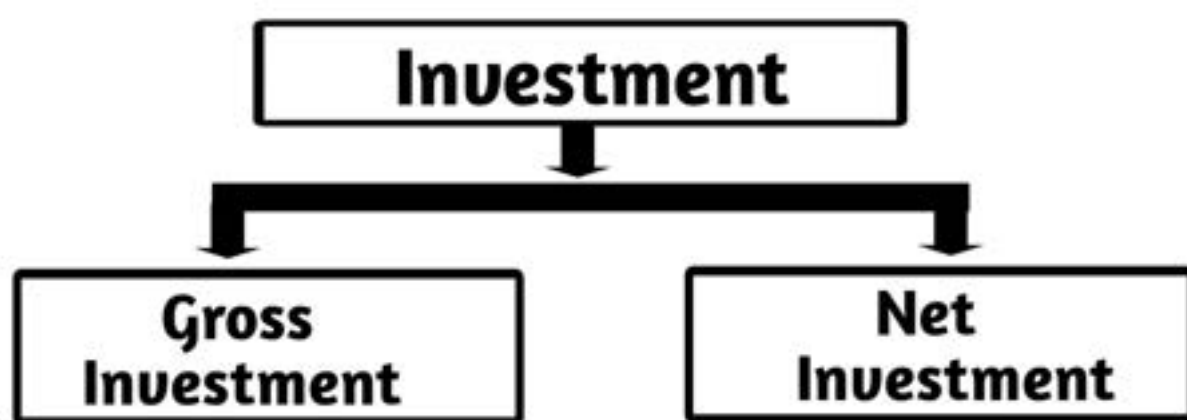
- ◆ Increase in inventory stock during one accounting year is called Inventory Investment.

**Inventory Investment = Inventory stock at the end of accounting year - Inventory stock at the begining of accounting year**

### 👉 **Significance of Inventory Investment :-**

- It ensure uninterrupted supply of inputs in the process of production.
- It protects producer from uncertainty of market related to —
  - ◆ Price of raw materials
  - ◆ Availability of raw materials
- It enables the producers to meet the potential (future) demand for their product (Stock of finished goods)





## Gross Investment

- ☞ The following expenditure are included in gross investment :-
  - (a) **Expenditure made on purchasing fixed assets.**
  - (b) **Expenditure made on Inventory stock**
  - (c) **Expenditure made on depreciation or Replacement Investment.**
- ☞ It doesn't reflect the net increase in the stock of current capital.
- ☞ Replacement investment is included in gross investment but it doesn't increase the capital stock.
- ☞ The unsold goods are re-purchased by the producers themselves, so it is included in Inventory stock & hence included in gross investment.

$$\text{Gross Investment} = \text{Net Investment} + \text{Depreciation}$$

## Net Investment

- ☞ Following Expenditure are included :-
  - (a) Fixed Investment
  - (b) Inventory Investment
- ☞ It doesn't include depreciatoon.
- ☞ It reflects the net increase in the current capital stock.



$$\text{Net Investment} = \text{Gross Investment} - \text{Depreciation}$$

### ☞ Significance of Net Investment :-

- ◆ This leads to an increase in the stock of Capital in the economy.
- ◆ Due to increase in Capital stock the availability of capital per unit of labour increases. Hence efficiency of labour rises.
- ◆ The main reason of unemployment in developing countries like India is lack of Capital. So net investment helps in generating opportunities of employment.
- ◆ It increases production Capacity of the economy. Hence increase in GDP & Economic growth.

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## Net Capital formation & high level of production

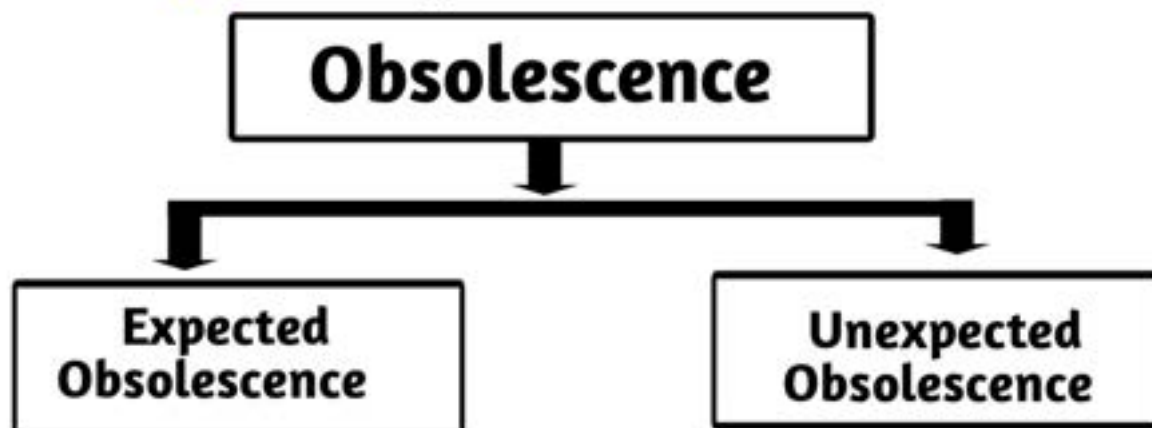
- Higher rate of net capital formation means more availability of capital per unit of labour (in terms of machine)
- With the increase in machines the efficiency of labour increases, which leads to a higher level of production.
- This is the reason that the labour Capacity of developed Countries like America is more than that of developing countries like India.

## Depreciation

- Depreciation is the decrease or decline in the value of fixed assets in the process of production.
- It is also called **Consumption of fixed Capital**.
- There is a **depreciation reserve fund** for the replacement of decrease in value of fixed assets.

### Cause of depreciation :-

- (a) Normal wear & tear
- (b) Accidental damages and,
- (c) Expected obsolescence
  - Due to change technology
  - Due to change in demand



## Expected Obsolescence

### Cause :-

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#### (a) Change in technology

- Loss of value of fixed assets when these become obsolete or outdated owing to change in technology.
- Ex :- Colour TV instead of B & W TV

#### (b) Change in demand

- Loss of value of fixed assets when these become obsolete or outdated owing to change in demand.
- Ex:- Demand shift from rubber shoes to leather shoes.

- 👉 Due to above reason the value of fixed assets decreases.
- 👉 It is a part of depreciation.

## Management of Expected Obsolescence

- (a) It can be managed on the basis of Knowledge & Experience of market conditions.
- (b) It can be managed by the depreciation reserve fund.

## Unexpected Obsolescence

### Cause

- (a) Natural Calamities — Earthquake, Floods, Fire
- (b) Economic recession
- 👉 Due to above reason the value of fixed assets decreases.
- 👉 It is **not a part of depreciation**. Loss due to this is called **Capital loss**.

## Management of Unexpected Obsolescence

- ◆ It is managed through **insurance of the fixed assets**.

## Significance of Depreciation Reserve fund

- 👉 In the absence of depreciation reserve fund the replacement investment will decrease, thereby **reducing the gross investment**.
- 👉 Decrease in Gross gross investment will result in **lower level of output**.
- 👉 Level of **income & employment** opportunity will also **decrease** due to low level of production.
- 👉 **Aggregate demand** will **fall** due to lower level of income an employment.
- 👉 A decrease in aggregate demand will result in **lower investment motivation**.
- 👉 Thus, there will be a reduction in re-investment and a **vicious cycle of investment** will be Created.

## Conclusion :-

- ◆ In fact, due to the above reasons, a situation of economic slowdown will arise in the economy and the economy may get trapped in the low level equilibrium trap.



## Low level Equilibrium Trap

A Situation when demand is low due to a decrease in income and low demand causes low production and this again leads to a decrease in income.

## Current Replacement Cost

The estimated value of depreciation for all the producing units in the economy, during period of an accounting year is called Current replacement Cost.

## Stock

☞ The economic variable which is **measured at a Certain point of time** is called Stock.

☞ **Some important Stock variables:** -

◆ Wealth ◆ Labour force ◆ Capital ◆ Quantity/Supply of money in a Country ◆ Bank deposit ◆ Population of a Country ◆ machinery

## Flow

☞ The economic variable which is **measured over a specific period of time**, is called flow.

☞ **Some important flow variables :-**

◆ Income ◆ Expenditure of money ◆ Capital formation ◆ change in supply of money in a Country ◆ Interest on Capital ◆ Birth/death rate ◆ Investment ◆ Consumption expenditure ◆ Production of any goods or services

## Relation between stock & Flow

- Stock & flow depends upon each other.
- Stock affects flow & flow affects Stock.
- The higher the stock of Capital, the greater the flow of goods and services
- Similarly, the higher the flow of Income, the Stock of wealth with the people is equally high.



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# Types of Economy

## (a) Open Economy

- ◆ An economy that has economic links with the rest of the world.
- ◆ There are four sectors at the macro level in such an economy.

- (1) Household
- (2) Producers
- (3) Government
- (4) Rest of the world.

## (b) Closed Economy

- ◆ There is no economic links with the rest of the world of such economy.
- ◆ Rest of the world is not included in it.

# Sector of Economy - Macro Level

## Household Sector

- ☞ Consumers of goods & Services are included in it.
- ☞ Owners or Suppliers of the factors of production.
- ☞ **Factor services provided by households :-**

- ◆ Land
- ◆ Labour
- ◆ Capital
- ◆ Entrepreneur



## Producer Sector

- ☞ All producing units or firms in the economy are included in it.
- ☞ Factor payment to household for their factors services.
- ☞ **Factor payment :-**

- ◆ Labour — Wages/ Salary
- ◆ Land — Rent/ Royalty
- ◆ Capital — Investment
- ◆ Entrepreneur — Profit

## Government Sector

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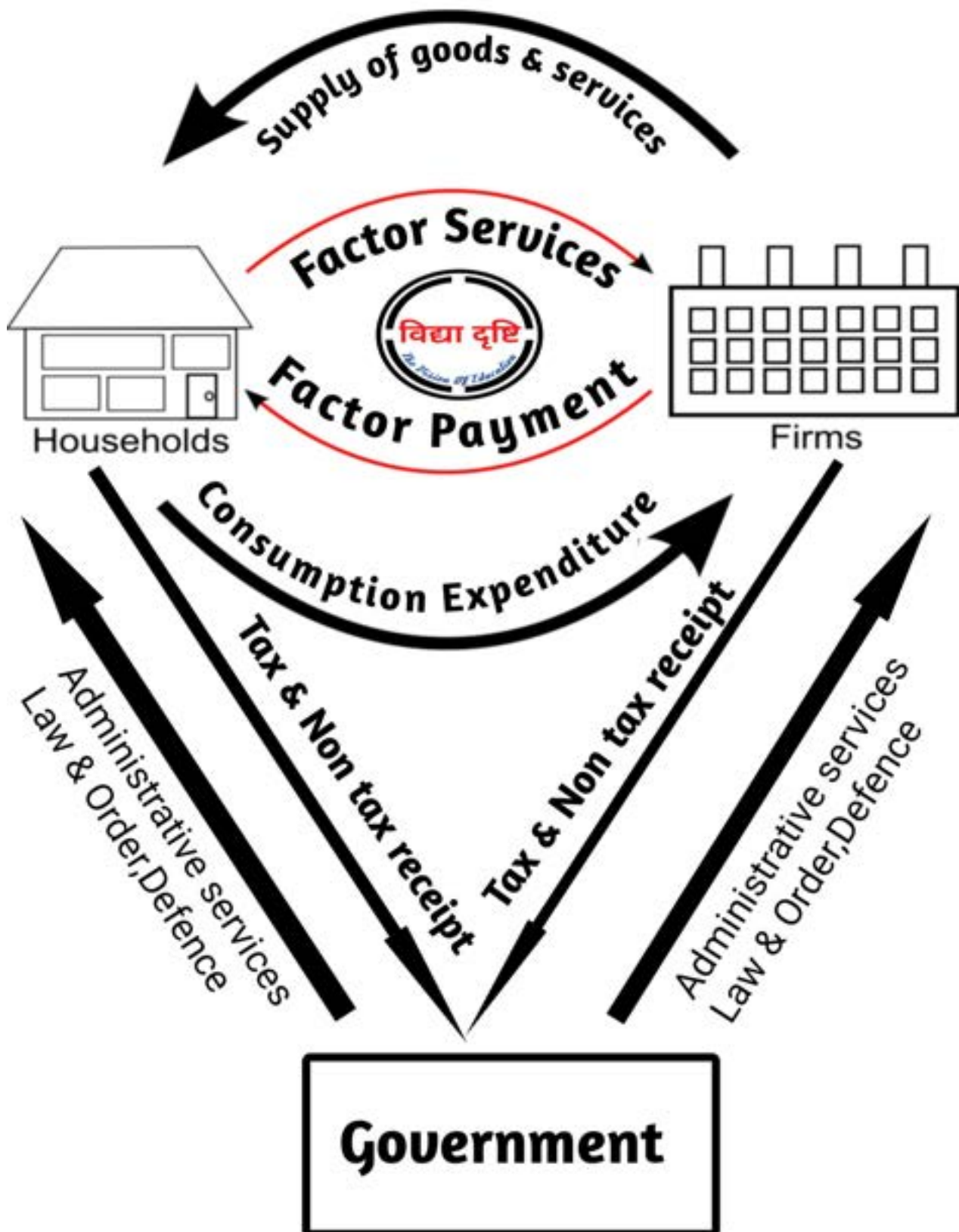
- ☞ It includes government as a —
  - ◆ Welfare agency
  - ◆ Producer
- ☞ Function of government as a welfare agency is to maintain Law & Order, Defence etc.

## External/Rest of the world Sector

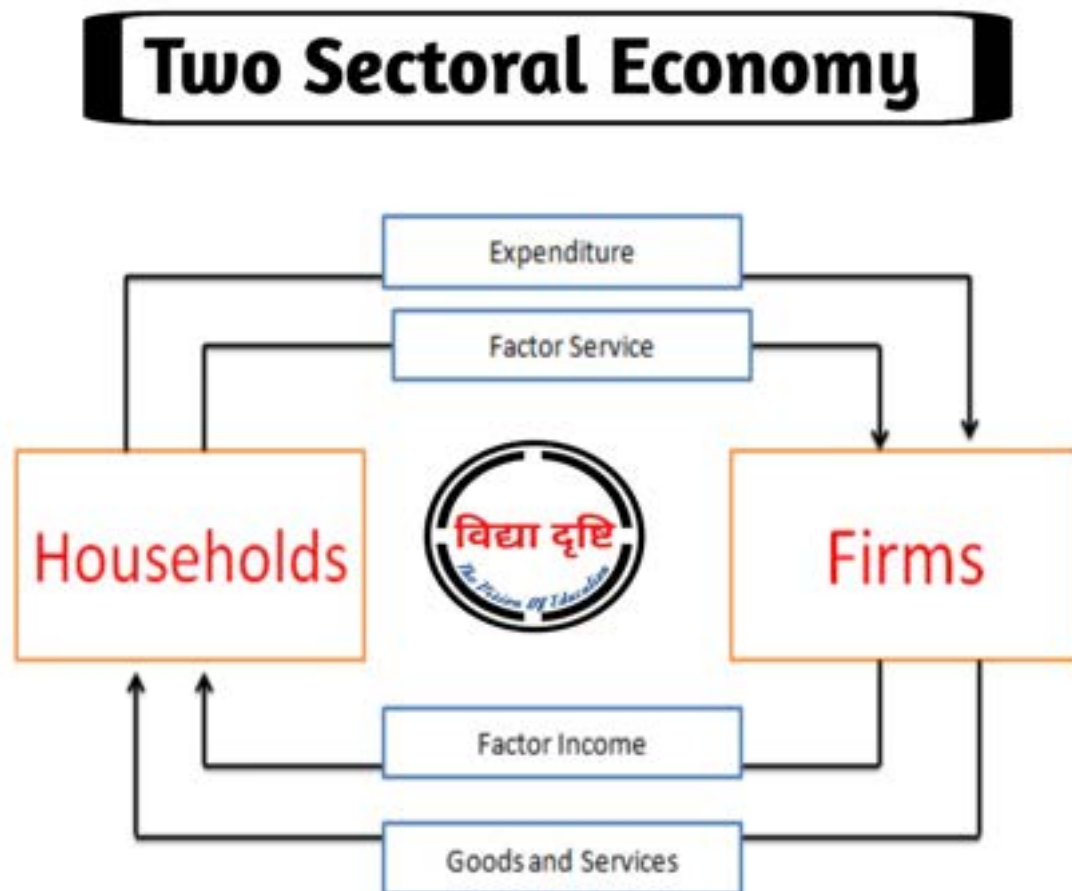
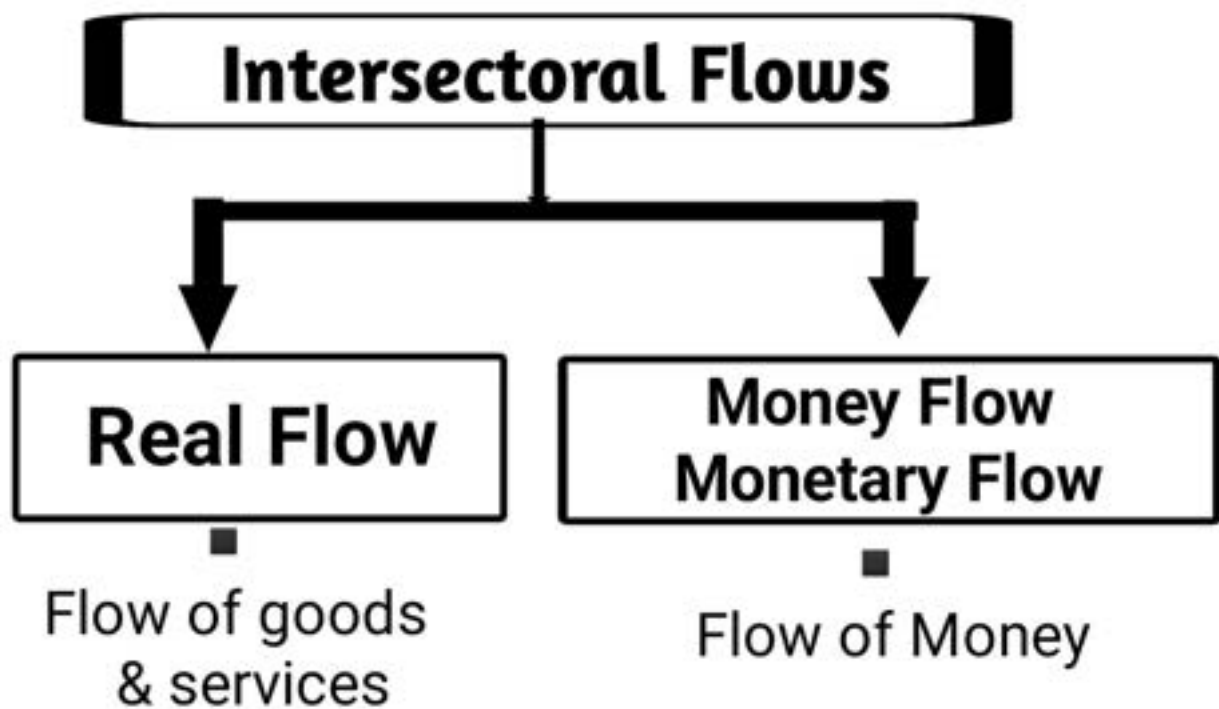
- ☞ It includes
    - ◆ Export & Import
    - ◆ Inflow & Outflow of Capital
- } between the Domestic Economy & Rest of the World

# Intersectoral Flows

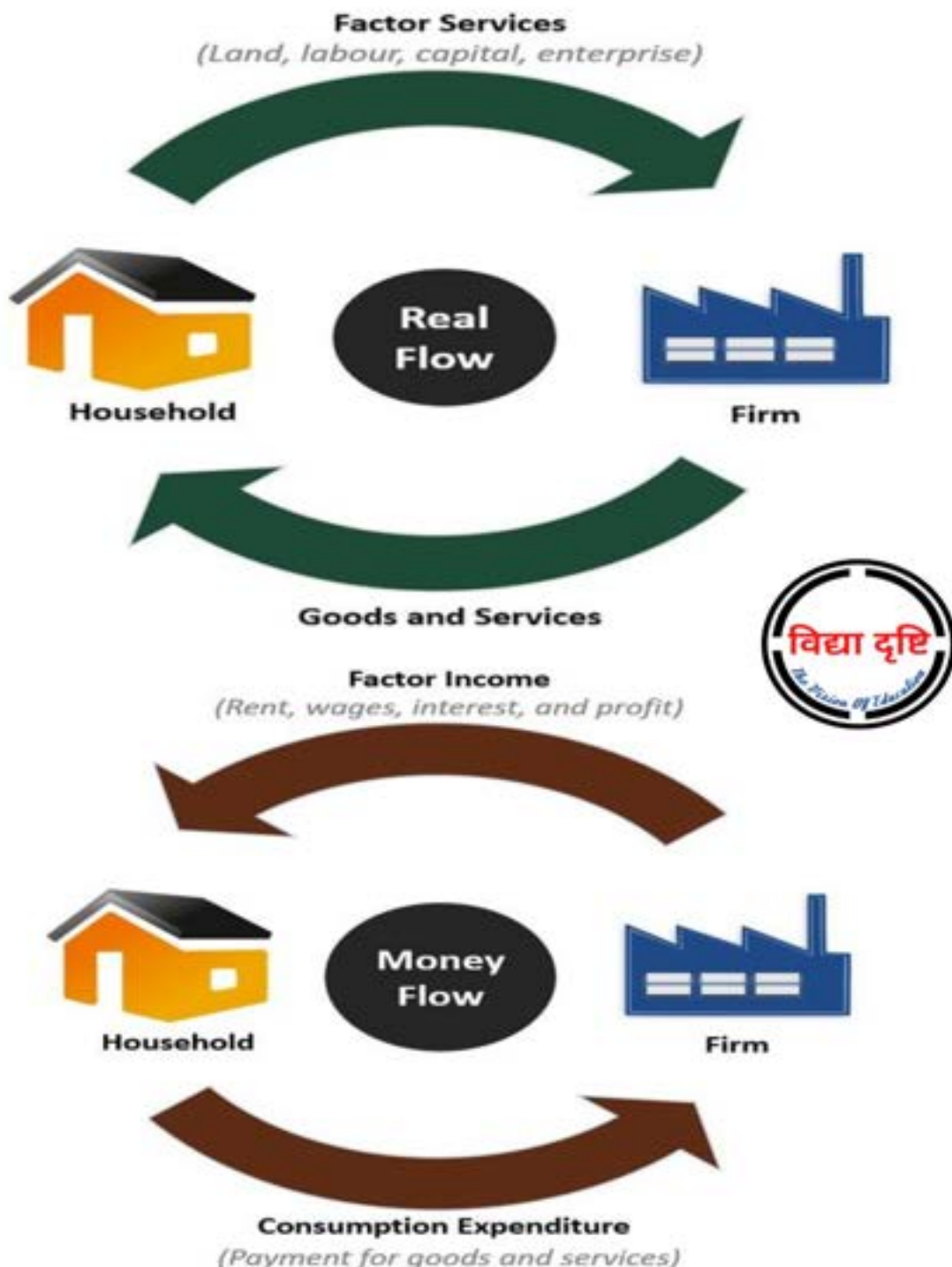
- ◆ Each sector of economy depends on the other.
- ◆ There is flow of goods, services & money between them, Which is called intersectoral flow.
- ◆ Since all the Sectors are dependent on each other. So it is called **Intersectoral Interdependence**.



- 👉 The household Sector depends on the producer Sector for the Consumption of goods & services.
- 👉 The producer Sector depends on the household Sector for the factor services.
- 👉 The government sector depends on the producer & household sector for its tax and non tax revenue or receipt.
- 👉 Producer & household depend on the government for administrative Services, law & order, defence.
- Conclusion :- Intersectoral interdependence leads to Intersectoral flows.



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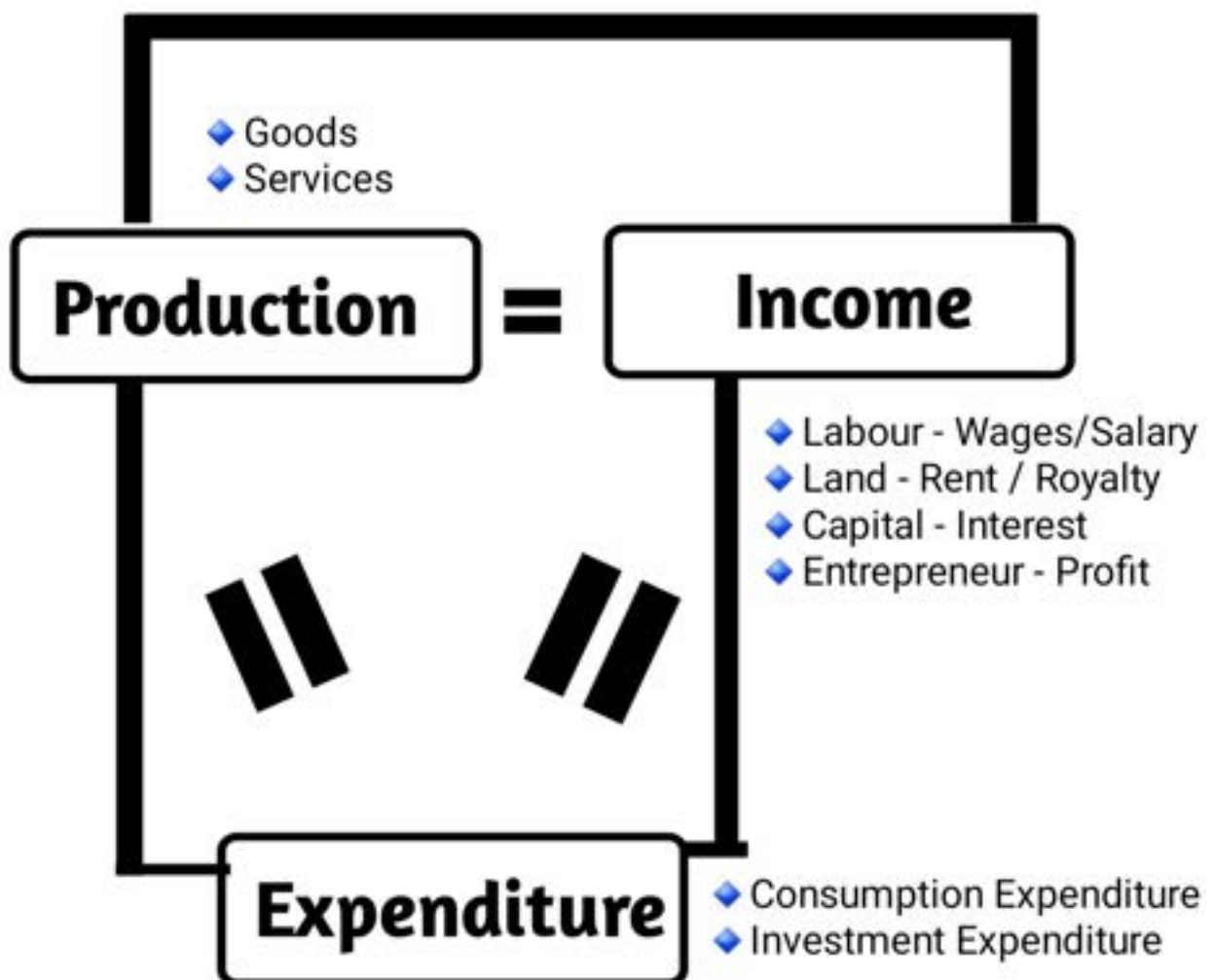
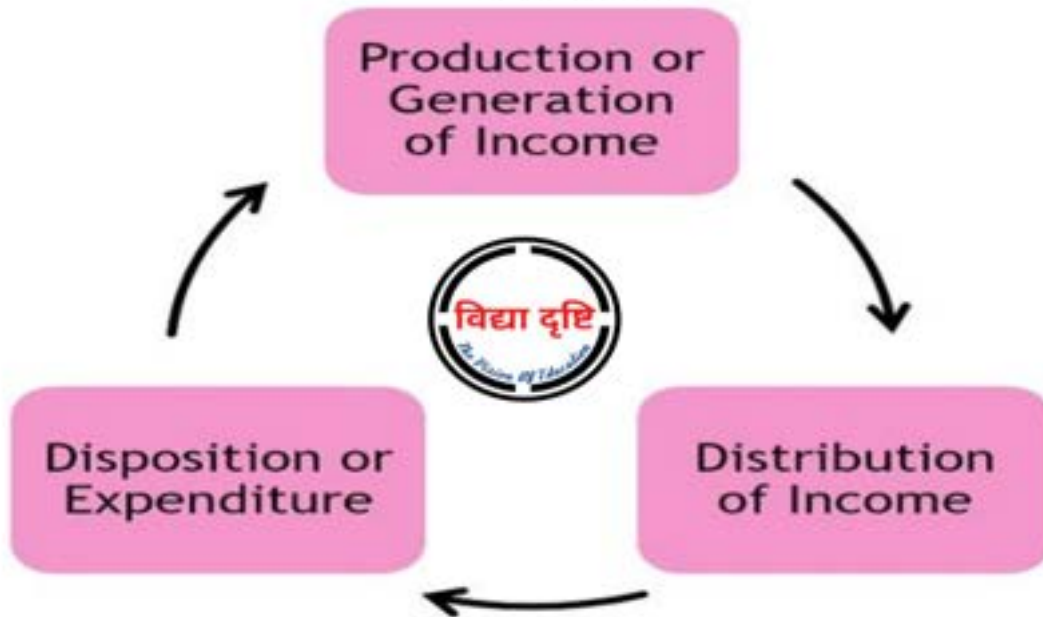
## Circular flow of Income / Money

- ☞ The following three activities continue in the economy :-
  - (a) Production of goods & services
  - (b) Generation of Income
  - (c) Expenditure
- ☞ Since, without the above activities the concept of economy would not exist. Therefore, they are called the **lifeline of the economy**.
- ☞ The flow of continuous activities of production, Income generation and expenditure is called **cyclic flow of Income**.

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👉 **This circular flow has three stages :-**

- (1) Phase of Production — value addition
- (2) Phase of Income generation — Distribution of income among factor of production
- (3) Phase of Expenditure — Consumption & Investment Expenditure



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## 👉 Observation :-

**Value of Production = Generation of Income = Expenditure**

## Triple Identity

👉 The circular flow of income has neither a starting point nor an end point.

## **Circular Flow in two Sectoral Economy**



### **Assumption**

- (a) Only two sector in the economy
  - ◆ Household
  - ◆ Producer
- (b) The household spend their entire income, so there is no savings.
- (c) Closed Economy
  - ◆ No Export
  - ◆ No Import
- (d) No role of government

### **Basic Principle of Cyclic flow**

- (a) For every real flow in one direction, there is a flow of money or income in the opposite direction.
- (b) The receipts of one Sector is equal to the payments made to the other sector.

### **Significance of Circular flow model**

- (a) Helps in understanding the interdependence between different sectors of the economy.
- (b) Helps in estimation of National Income.

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# Circular Flow



## INJECTION

Expansion of Circular Flow

## LEKAGE / WITHDRAWAL

Contraction of Circular Flow

## INJECTION

- ◆ A rise in the level of some macro variables leads to a rise in the level of output in the economy. It is called Injection
- ◆ Following variables are included as injection.
  - (a) Government Consumption expenditure
  - (b) Government investment expenditure
  - (c) Export (Expenditure on domestic product by foreigners)
- ◆ A rise in the level of any of these variables implies a rise in level of demand for the goods produced in domestic economy & hence level of output in the economy increase.
- ◆ This increase in the level of output leads to the expansion of cyclic flow.

## LEKAGE / WITHDRAWAL

- ◆ A rise in level of some macro variables leads to a fall in the level of output in the economy. It is called leakage.
- ◆ Following variables are included in as leakage :-
  - (a) Saving (opposite of Consumption)
  - (b) Government taxes (Opposite of government investment)
  - (c) Imports (opposite of exports)
- ◆ A rise in the level of any of these variables implies a fall in the level of demand for the domestic product & hence fall in the level of output in the economy.
- ◆ This fall in the level of output leads to the contraction of cyclic flow.

**INJECTION**  
(Expansion)

**LEKAGE / WITHDRAWAL**  
(Contraction)

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**Stable Circular Flow**

## Double demand Supply relation

- 👉 Relation between household & Producer.
- 👉 Household
  - ◆ Supply factor services to producer
  - ◆ Demand goods & Services from Producer
- 👉 Producer
  - ◆ Supply goods & services to consumer of household
  - ◆ Demand factor Services from household



## INTRODUCTORY MACROECONOMICS

### **UNIT 1** National Income & Related Aggregates (Part - 2)



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