THE CIRCULAR FLOW OF INCOME

The circular flow of income describes the movement of goods or services and income among the different sectors of the economy. It illustrates the interdependence of the sectors and the markets to facilitate both real and monetary flow.

The **real flow refers to the flow of factor services and flow of goods and services**. The flow of factor services from the households to the firms and the flow of goods and services from firms to the household is the real flow. The flow of factor services generates money flows in the form of factor payments which the firms pay the household and similarly the household need to pay the firms for the flow of goods and services. **The movement to the money/cash payment from one sector to the other sector corresponding to the real flow is referred to as the monetary flow.** Thus, the income of one sector becomes the expenditure of the other and the supply of goods and services by one sector becomes the demand of the other sector. The real flow and monetary flow move in a circular manner in an opposite direction. **A continuous flow of production, income and expenditure is known as the circular flow of income.**

The Four Macroeconomic Sectors

1. The Household Sector

This sector includes all the individuals in the economy. The primary function of this sector is to provide the factors of production. The factors of production include land, labour, capital and enterprise. The household sectors are the consumers who consume the goods and services produced by the firms and in return make payments for the same.

2. **The Firms Sector**

This sector includes all the business entities, corporations and partnerships. The primary function of this sector is to produce goods and services for sale in the market and make factor payments to the household sector.

3. **The Government Sector**

This sector includes the center, state, and local governments. The prime function of this sector is to regulate the functioning of the economy. The government sector incurs both revenue as well as expenditure. The government earns revenue from tax and non-tax sources and incurs expenditure for provide essential public services to the people.

4. **The Foreign Sector**

This sector includes transactions with the rest of the world. Foreign trade implies net exports (exports minus imports). Exports include goods and services produced domestically and sold to the rest of the world and imports include goods and services produced abroad and sold domestically.

The Three Markets

The Goods Market

In this market **the goods and services are exchanged among the four macroeconomic sectors**. The consumers are the household, government and the foreign sector while the producers are the firms.

The Factor Market: The **factors of production are traded through this market**. For the production of final goods and services, the firms obtain the factor services and make payments in the form of rent, wages and profits for the services to the household sector.

The Financial Market

This market consists of financial institutions such as **banks and non-bank intermediaries** who engage in borrowing (savings from households) and lending of money.

Significance of study of Circular flow of income

- Circular flow of income signifies the interdependence of the each activity upon one another. If there is no consumption there will be no demand and expenditure which in fact restricts the amount of production and income.

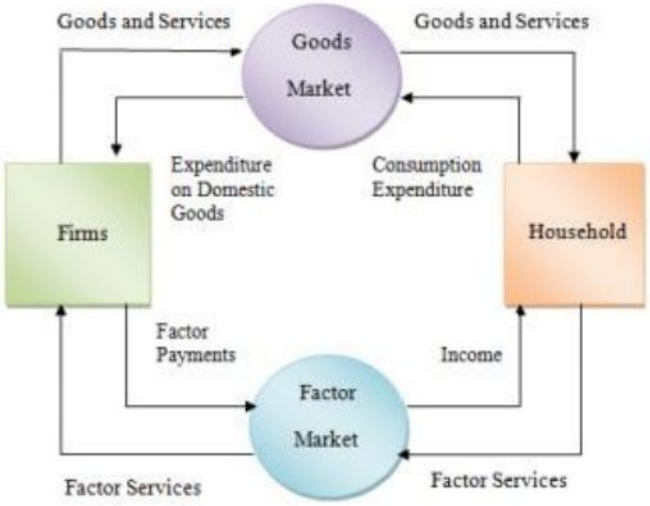
- It signifies that production, income and expenditure are of unending nature.
- Measurement of National Income

- The volume of income in the circular flow increases with the **injections** in the economy and decreases with the **leakages** in the economy. Injections are inflows of income to the circular flow and leakages are outflows of income. The Injections are mainly investment, government expenditure and exports and leakages are mainly saving, taxes and imports.

The Circular Flow of Income in a Two-Sector Model

In this model, the economy is assumed to be a closed economy and consists of only two sectors, i.e., the household and the firms. A closed economy is an economy that does not participate in international trade. In this model, the household sector is the only buyer of the goods and services produced by the firms and it is also the only supplier of the

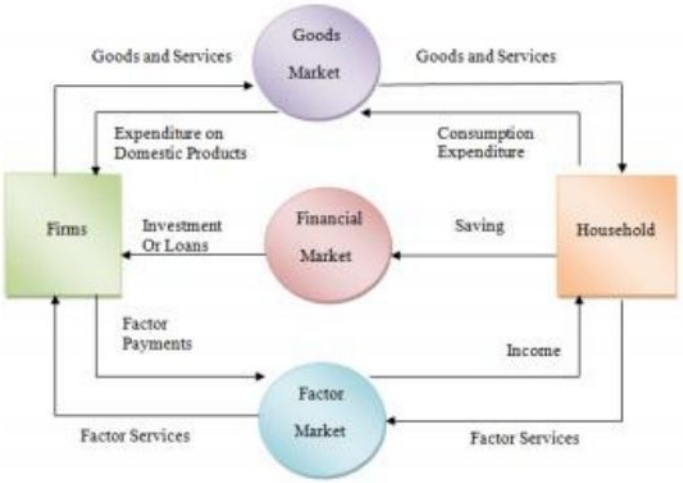
factors of production. The household sector spends the entire income on the purchase of goods and services produced by the firms implying that there is no saving or investment in the economy. The firms are the only producer of the good and services. The firms generate income by selling the goods and services to the household sector and the latter earns income by selling the factors of production to the former. Thus, the income of the producers is equal to the income of the households is equal to the consumption expenditure of the household. The demand of the economy is equal to the supply. In this model, Y = C where, Y is Income and C is Consumption.



We assumed that the household sector spends its entire income and that there is no saving in the economy however, in practice, the household sector does not spend all its income; it saves a part of it. The saving by the household sector would imply monetary withdrawal (equal to saving) from the circular flow of income. This would affect the sale of the firms since the entire income of the household would not reach the firm implying that the production of goods and services would be more than the sale. Consequently, the firms would decrease their production which would lead to a fall in the income of the household and so on. There is one way of equating the sales of the firms with the income generated; if the saving of the household is credited to the firms for investment then the income gap could be filled. If the total investment (I)

of the firms is equal to the total saving (S) of the household sector then the equilibrium level of the economy would be maintained at the original level. This is explained with the help of the following diagram.

The equilibrium condition for a two-sector model with saving and investment is as follows: Y = C + S or, Y = C + I or, C + S = C + I or, **S = I**
Where, Y = Income, C = Consumption, S = Saving and I = Investment

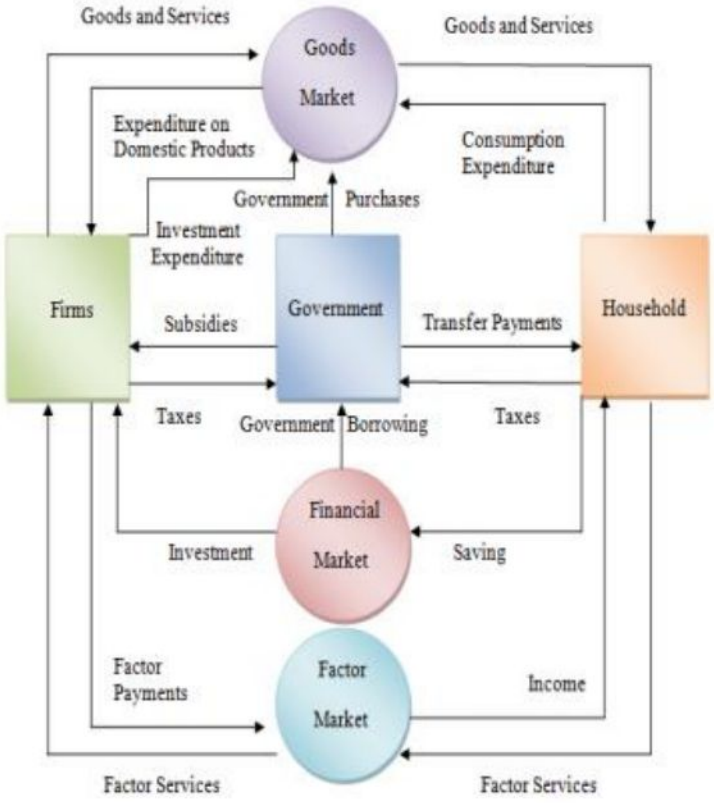


The Circular Flow of Income in a Three – Sector Model

The three sector model of circular flow of income highlights the role played by the government sector. This is a more realistic model which includes the economic activities of the government however; we continue to assume the economy to be a closed one. There are no transactions with the rest of the world. The government levies taxes on the households and the firms and it also gives subsidies to the firms and transfer payments to the household sector. Thus, there is income flow from the household and firms to the government via taxes in one direction and there is income outflow from the government to the household and firms in the other direction. If the government revenue falls short of its expenditure, it is also known to borrow through financial

markets. This sector adds three key elements to the circular flow model, i.e., taxes, government purchases and government borrowings.

In this model, the equilibrium condition is as follows: Y = C + I + G Where, Y = Income; C = Consumption; I = Investment and G = Government Expenditure. This is explained with the help of the following diagram.



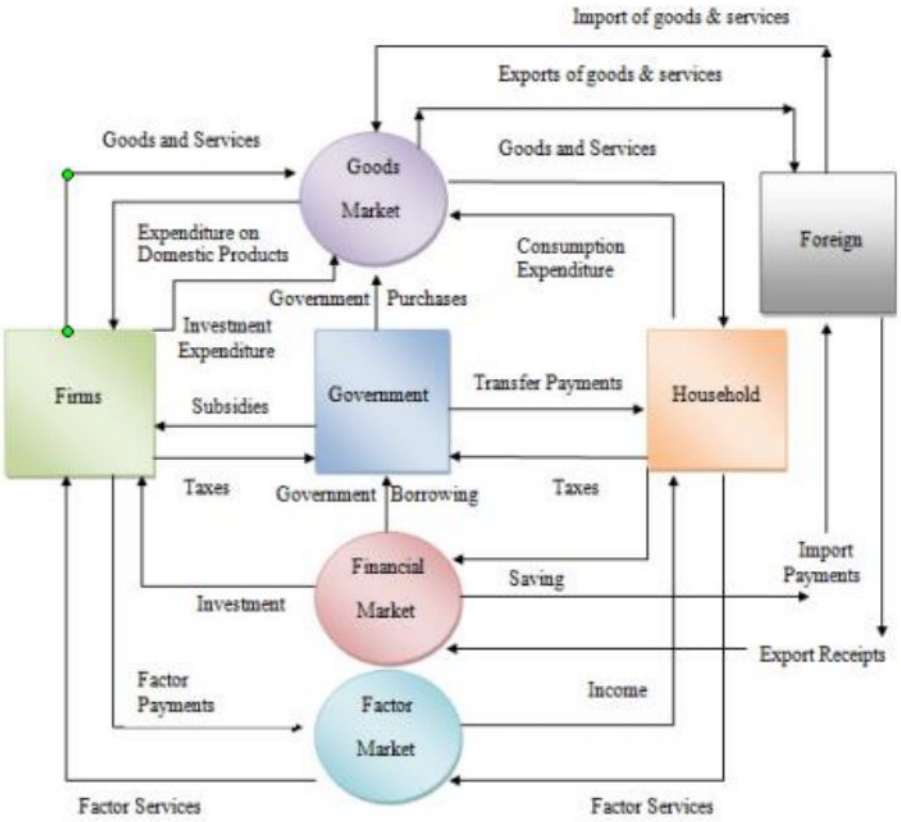
The Circular Flow of Income in a Four – Sector Model

This is the complete model of the circular flow of income that incorporates all the four macroeconomic sectors. Along with the above three sectors it considers the effect of foreign trade on the circular flow. With the inclusion of this sector the economy now becomes an 'open economy'. Foreign trade includes two transactions, i.e., exports and imports. Goods and services are exported from one country to the other countries and imports come to a country from different countries in the goods market. There is inflow of income to the firms and government in

the form of payments for the exports and there is outflow of income when the firms and governments make payments abroad for the imports. The import payments and export receipts transactions are done in the financial market.

In this model, the equilibrium condition is as follows: Y = C + I + G + NX where, NX = Net Exports = Exports (X) – Imports (M) Y = Income; C = Consumption; I = Investment; G = Government Expenditure; X = Exports and M = Imports.

This is explained with the help of a following diagram



Leakages and Injections in the Circular Flow of Income

The flow of income in the circular flow model does not always remain constant. The volume of income flow decrease due to the leakages of income in the circular flow and similarly, it increases with the injections of income into the circular flow.

Leakages: A leakage is referred to as an outflow of income from the circular flow model. Leakages are that part of the income which the household withdraw from the circular flow and is not used to purchase goods and services. This part of the income does not go to the goods market. There are three main leakages and these are:

- **Saving:** It is that part of the income that is not used by the household to purchase of goods and services or pay taxes. It is kept with the financial institutions like banks that can be lend further by the banks to the firms for investment or capital expansion purposes.
- **Taxes**: Tax revenue is the income paid by the household and firms to the government. It flows to the government rather that the goods market.
- **Imports**: Import payments are made to the foreign sector for the good and services bought from them. This is an outflow of income from the economy.

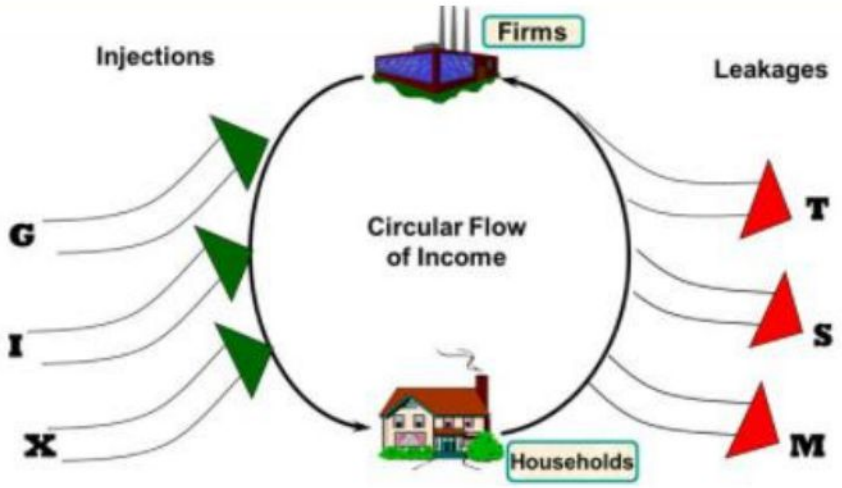
Thus, we see that leakages reduce the volume of income from the circular flow of income. **Leakages = S + T + M** Where, S = Saving; T = Taxes; and M = Imports

Injections: An injection is an inflow of income to the circular flow. The volume of income increases due to an injection of income in the circular flow. There are three main injections and these are:

- **Investment**: It is the total expenditure by the firms on capital expansion. It flows to the goods market.
- **Government Expenditure**: It is the total expenditure of the government on goods and services, subsidies to the firms and transfer payments to the household sector. Transfer payments are government payments like social security schemes, pensions, retirement benefits, and temporary aid to needy families etc.

- **Exports**: Export receipts are the payment made by the foreign sector for the purchase of domestic goods. It is an inflow of income from the foreign sector to the financial market.

Injections = I + G + X Where, I = Investment; G = Government Expenditure; and X = Exports



Balance of leakages and Injections in an open economy is-

$$S + T + M = I + G + X$$

Or, $(S - I) = (G - T) + (X - M)$