# Circular Flow of Economy

# **Economy**

An economy can be defined as an <u>integrated system of</u> <u>production</u>, <u>exchange and consumption</u>.

In carrying out these economic activities, <u>people are</u> <u>involved in making transactions</u>-they buy and sell goods and services.

# Types of flows

Economic transactions generates two kind of flows-

- Product or real flow i.e. the flow of goods and services, and
- Money flow.

Product and money flow in opposite direction in a circular fashion.

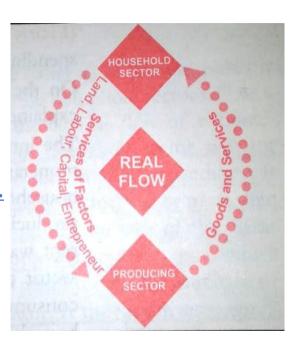
# Real or product flow

The real or product-flow consists of

- a) factor flow i.e. flow of factor services, and
- b) good flow, i.e. flow of goods and services.

Real flow (of income):- Real flow (of income) implies the flow of factor services from the household sector to the producing sector and the corresponding flow of goods and services from the producing sector to the household sector.

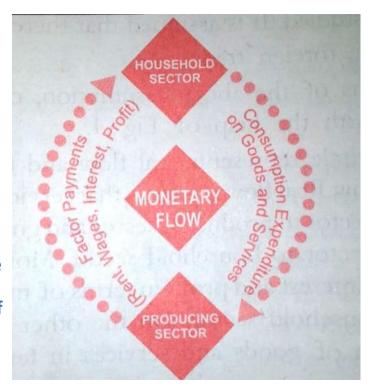
Given figure here shows that the households render factor services (in terms of land, labour,capital and enterprise) to the producers. Thus, factor services flow from the household sector to the producing sector. Using these factor services, the firm produces goods and services. These goods and services flow from the producing sector to the household sector as rewards for their factor services.



# Money flow

Monetary flow refers to the flow of factor income viz. rent, interest, profit and wages from the producing sector to the household sector as monetary rewards for their factor services. The households spend their incomes on the goods and services produced by the producing sector. Accordingly, money flows back to the producing sector as household expenditure.

Given Figure shows that the money flows from the producing sector to the household sector in terms of factor incomes. There is a corresponding flow of money from the household sector to the producing sector in terms of household expenditure.



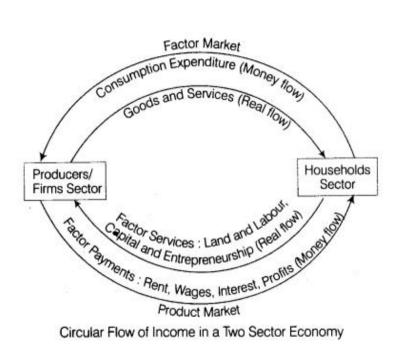
## Circular Flow of Economy (Circular flows of factor income and expenditure)

The <u>entire economics system</u> can therefore be viewed as <u>circular flows of factor income and expenditure</u>. To present the flow of income expenditure, the economy is divided into four sectors:- 1) <u>Household sector 2</u>) <u>Business sector or the firm 3</u>) <u>Government sector and 4</u>) <u>foreign sector.</u>

These four sectors are combined to make the following <u>three models</u> for the purpose of illustrating the circular flows of money and expenditure, and of product and money.

- Two-sector model including the households and business sectors.
- Three-sector model including the household, business and government sectors.
- <u>Four-sector model</u> including the household, business, government and the foreign sectors.

# Two-Sector model



This model circular flow of income, consists of two sectors of the economy Household sector Producing sector (Firms) is studied. This model represents a private closed economy in which product and money flow generated by the government and the foreign sector are ignored. Thus, it is assumed that there are no taxes, government spending or foreign trade. On the basis of our assumption, circular flow of income is explained with the help of given figure.

Before we analyse the circular flows, let us look at the <u>basic features and</u> functions of household and the firms.

# Household sector

The households are assumed to possess certain specific features

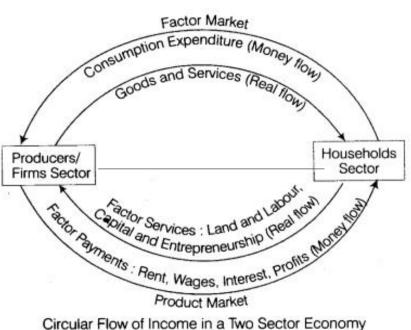
- i) Households are the <u>owners of all factors of production-</u>land, labour, capital and entrepreneurship.
- ii) Their total income consists of <u>returns on their factor of</u> production- wages, rent, interest and profit.
- iii) They are the <u>consumers of all the consumer goods and services;</u> and
- iv) They spend their total income of goods and services produced by the firms- if they save any part of their income, it flows to the firms in the form of investment.

# **Business sector**

The business firms, on the other hand, are assumed to have the following features and functions:

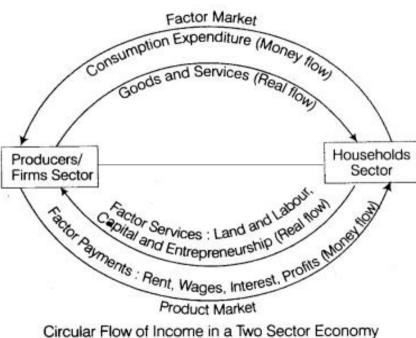
- i) Firms own no resources of their own
- ii) They <u>hier the factors of production</u>-land, labour and capital-from the households,
- iii) They <u>use factors of production and produce and sell</u> goods and services to the households; and
- iv) They do not save, that is, there is no corporate savings.

# Two-Sector model



The households are represented by the rectangle labelled 'households sectors' and the business sector by the rectangle labelled 'Producers/firms sector' with their respective characteristics. A line drawn from the 'Household' to the 'Firms' divides the diagram into two parts- the upper half and the lower half. The upper half represents the factor market and the lower half represents the commodity market. Both the market generate two kinds of flow-real or product flows and money flows.

# Two-Sector model

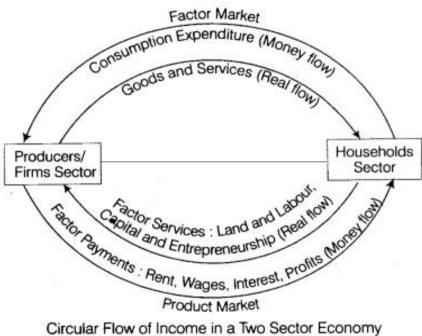


The <u>inner circle</u> represents <u>real flow</u> and Outer circle represents monetary flow

Real flow indicates that the service of the factors flow from the household sector to the producing sector and goods and services flow from the producing Sector to the household sector.

Monetary flow expresses that rent, wages, interest and profit in terms of money flow from the producing sector to household sector. On the other hand, the expenditure on consumption of goods and services in terms of money flow from the household sector to the producing sector.

# Two-Sector model

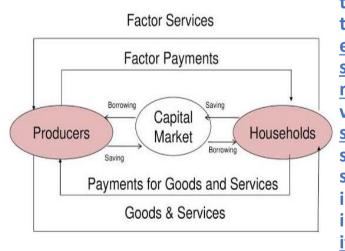


Since the <u>households</u> spend their entire income, the <u>total monetary receipts</u> of producing sector will be equal to the <u>income and consumption expenditure of the household sector.</u> In other words, the monetary receipts of the producers = income of the households = consumption expenditure of the households.

In this way, the total demand of the economy will equal to total supply. This position is called position of Equilibrium wherein the circular flow of income continues to operate regularly.

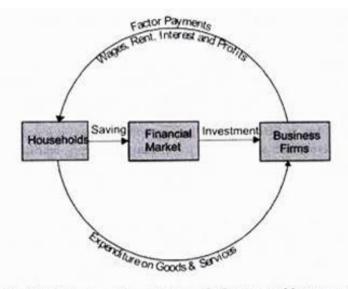
# Two-Sector model with savings

### **Two Sector Model With Savings**



We assumed that household supply finance directly to the firms. In reality, however, household do save a part of the income for investment. In order to explain the role of saving on the circular flows, we assume that all Savings are made by the households and extend the 2-sector model to include the financial sector. The financial sector (known also as financial market and capital market) is constituted of a large variety of Institutions involved in collecting household savings and passing it on the business sector. In our simplified 2-sector model , however, the financial only banks and include financial sector intermediaries(FI's) like insurance companies. industrial finance corporations, which accepts deposits its from the household and invest in the business sector in the form of loans and advances.

# Two-Sector model with savings



With the inclusion of the financial sector, the household income (Y) is divided into two parts:consumption expenditure (c), and ii) savings(S). As shown in figure 3.3, C and S take different routes to reach the business sector. The consumption expenditure flows directly to the firms whereas savings (S) are routed through the financial sector. Note that saving (S) take ultimately the form of investment (I). In the final analysis, we find that the entire money income generated by the firms flows back again to the firms which flows back again to households as afactor payment.

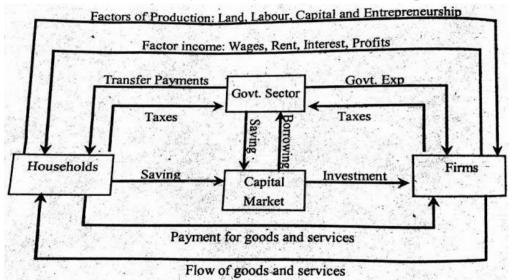
Fig. 6.2. Circular Money Flow with Saving and Investment

# Three-sector model (including the household, business and government sectors)

- It is formed by adding the government sector to the two sector model.
- It is a more realistic economy model as it includes the government which plays an important role in the economy.
- In this model, we can continue to assume that economy is a closed economy. It means that the circular flow of income is not influenced by the foreign sector at all.
- In this model economic activities of the government have also been accounted for. However,
- To keep it simple, for this model we will include only two fiscal transactions to the circular flows viz. 1) taxation-direct and indirect taxes ii) government expenditure on goods and services, subsidies and transfer payments. These fiscal transactions have different kinds of effects on the income and expenditure flows.

### 3-sector model circular flow of income & expenditure

<u>Taxes</u> are withdrawals from the income flows because they reduce private disposable income and therefore consumption expenditure and savings.

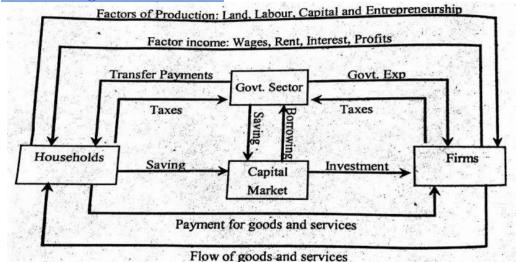


Government expenditure is an injection into the income stream. The government expenditure adds to the aggregate demand in the form of government purchases of factor services from the household and goods and services from the business sector.

<u>Transfer payment</u> by the gov. (e.g. old age pensions, subsidies unemployment allowance etc.) are injections to the circular flows. They add to the household income which leads to increase in household demand for consumer goods.

### 3-sector model circular flow of income & expenditure

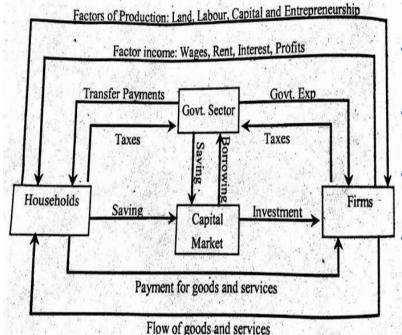
• The <u>magnitude of flows</u> between the <u>household and the firms</u> gets <u>reduced</u> because a <u>part of their incomes</u> flows to the government sector.



- As the figure shows, a part of the <u>household income</u> is <u>claimed by the government in</u> <u>the form of direct and indirect</u> taxes.
- Similarly, a part of firms' earning is taxed away in the form of corporate income tax. The indirect taxes are collected by the firms from the household and passed on to the government.

The government spends a part of its tax revenue on wages, salaries and transfer payments to the households and a part of it on purchase from the firms and payment of subsidies. Thus, the money that flows from the households and the firms to the government in the form of taxes, flows back to these sectors in form of government expenditure.

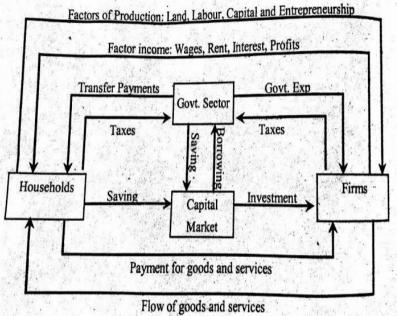
### 3-sector model circular flow of income & expenditure



- Income flows from producing and household sectors to the government sector the form of taxes.
- The income received by the gov. sector in the form of taxes flows to the producing sector in the form of Government expenditure on goods & services.
  - The government also give subsidies to the producing sector and transfer payments to the household sector.
  - A part of income earned by the government is saved and deposited in the capital market. Government also takes loans from the capital market to meet current expenditure or to the invest the same in development projects.

Accordingly, income flow into the gov. sector in the form of tax revenues & into the producing & household sector in the form of Gov. expenditure & transfer payment resp.

### 3-sector model circular flow of income & expenditure



Consequently, some more activities have been incorporated in the three sector model of circular flow of income as shown in the given figure

If the government spends its entire income received in the form of taxes from producing and household sectors then the same will flow back to these very sectors in the form of subsidies, transfer payments and other government expenditure. In this way, <u>circular</u> flow of national income continuous regularly.

# Four-sector model (including the household, business government and foreign sectors)

• A closed economy is one that consists of the first three sectors and is devoid of the rest of world sector. There are no exports and imports in a closed economy. But it is an unreal situation. In reality, every economy has four sectors.

#### **Four Sector Model**

• A complete model of circular flow of income. Studies the circular flow in an open economy. An open Economy comprises of four sectors:- household sector b) producing sector c) Government sector and d) Foreign sector/rest of the world sector.

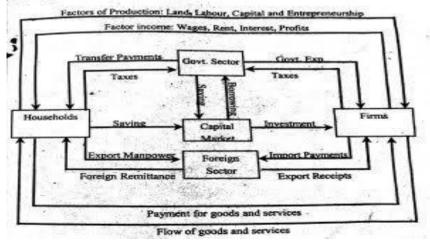
# Four-sector model (including the household, business government and foreign sectors) Four Sector Model

- It is formed by adding foreign sector to the three-sector model. The foreign sector consists of two kinds of international transactions:
  - i) foreign trade, that is, export and import of goods and services and ii) inflow and outflow of capital. The inter-country transaction makes a complex system

• For simplicity sake, we make the following assumptions:- i) the external sector consists of only exports and imports of goods and services. ii) The export and imports of goods and non-labour services are only made by the firms; and iii) the households export only labour.

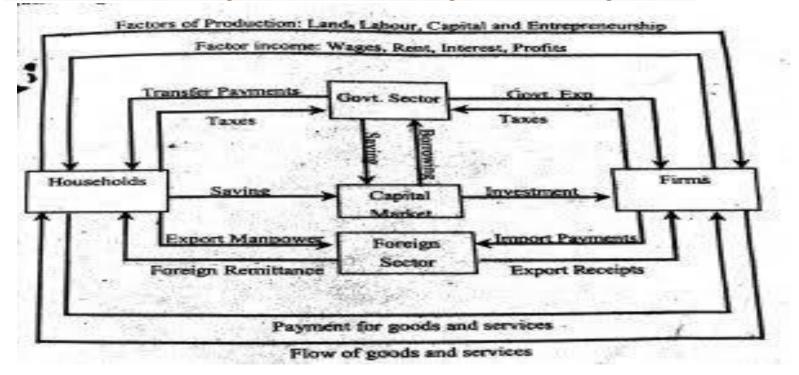
# Four-sector model (including the household, business government and foreign sectors)

From the point of view of circular flow of income, each sector plays a dual role; it receives certain payments from other sectors as well as makes certain payments to other sectors of the economy. Circular flow of income in different sectors can be expressed in the following manner

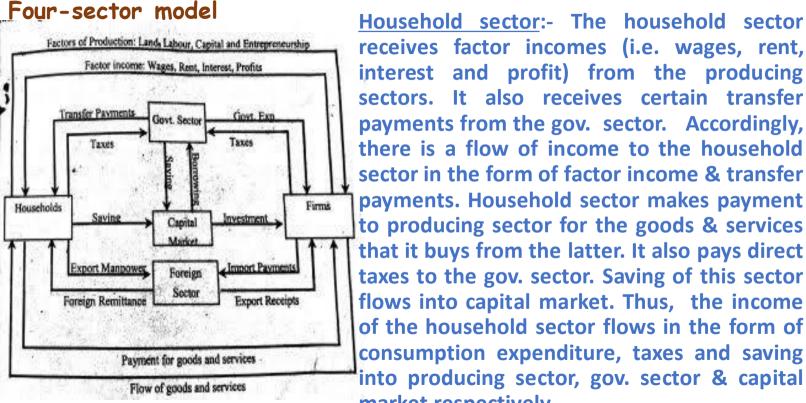


From Megha Ahuja, Assistant Professor, Graduate School of Business

Four-sector model (including the household, business, government & foreign sectors)



From Megha Ahuja, Assistant Professor, Graduate School of Business



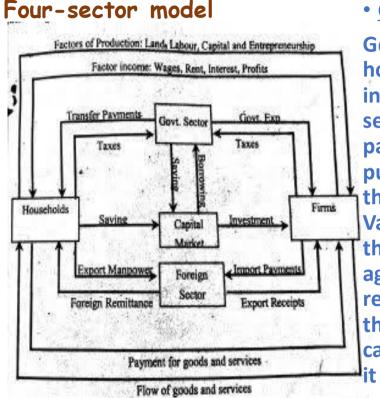
Household sector:- The household sector receives factor incomes (i.e. wages, rent, interest and profit) from the producing sectors. It also receives certain transfer payments from the gov. sector. Accordingly, there is a flow of income to the household sector in the form of factor income & transfer payments. Household sector makes payment to producing sector for the goods & services that it buys from the latter. It also pays direct taxes to the gov. sector. Saving of this sector flows into capital market. Thus, the income of the household sector flows in the form of consumption expenditure, taxes and saving

Four-sector model

Factors of Production: Land, Labour, Capital and Entrepreneurship Factor income: Wages, Rent, Interest, Profits Transfer Payments Govt. Sector Taxes Households Firms Saving Import Payments Export Manpower Export Receipts Foreign Remittance Payment for goods and services Flow of goods and services

• Producing sector:-

Producing sector receives its income from household and government sector in return for the goods and services that it sells them. It also receives income from the rest of the world sector in the return for its exports. It obtains loans from the capital market as well. Producing sector may also get subsidies from the government sector in order to increase production. The producing sector makes factor payment to the household sector for using the factor services. It pays taxes to the government sector. Payments are also made to the rest of the world for imports. Saving of the producing sector goes to the capital market.

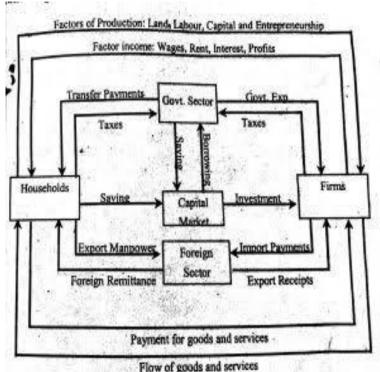


• Government sector:-

Government received direct taxes from the household sector and indirect taxes and incorporation taxes from the producing sector. The government sector makes payment to the producing sector for the purchase of goods and services. It also pays the producing sector by way of subsidies. Various kinds of transfer payment made to the household sector, viz. in the form of old age pensions, scholarship etc. If the receipts of the government sector are more than its payment, the surplus goes to the capital market. If it is the other way around, it borrows from the capital market.

From Megha Ahuja, Assistant Professor, Graduate School of Business

### Four-sector model



#### Rest of the world sector:-

The rest of the world sector receives income from the producing sector in return for the goods and services imported by the latter. Thus, money flows from the producing sector to the rest of the world sector. The rest of the world sector makes payment to the producing sector for the purchase of goods and services exported by the latter to it. Thus, there is a flow of income from the rest of the world sector to the producing sector.

From Megha Ahuja, Assistant Professor, Graduate School of Business

### Four-sector model

#### Factors of Production: Land, Labour, Capital and Entrepreneurship Factor income: Wages, Rent, Interest, Profits Transfer Payments Govt. Exp. Govt. Sector Taxes Firms Households Import Payments Export Manpower Foreign Sector Foreign Remittance Export Receipts Payment for goods and services Flow of goods and services

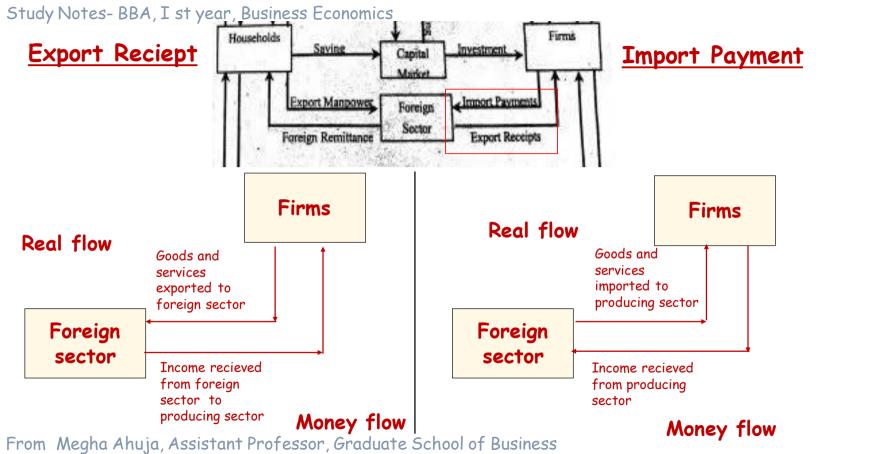
### **Capital market:-**

Household, producing and government sectors save a part of their income. Households do not spend all their income on the goods and services. They save for the rainy day or for accumulation of wealth or to buy consumer durables sometimes in the future. Likewise, producing sector also saves. It does not

The firms retain a part of their profit with a view to meeting the depreciation cost or expanding their business or increasing their reserve funds. This savings is deposited in the capital market. These savings are borrowed by the producing sector or gov. sector for the purpose of investment.

distribute all its profit among the shareholders.

purpose of investment. From Megha Ahuja, Assistant Professor, Graduate School of Business



Study Notes-BBA, I st year, Business Economics Export Manpower Households Firms Foreign Remittance Saving Investment Import Payments Export Manpower Foreign Sector Foreign Remittance Export Receipts Foreign Foreign sector sector Export of Manpower Household Household sector sector Income recieved from foreign sector Real flow Money flow From Megha Ahuja, Assistant Professor, Graduate School of Business