Introduction to Economics

Chapter One

Basics of Economics

- There is no universally accepted definition of economics (its definition is controversial).
- This is because different economists defined economics from different perspectives:
  a. Wealth definition,
  b. Welfare definition,
  c. Scarcity definition, and
  d. Growth definition
  e. Choice .... Etc
- Hence, its definition varies as the nature and scope of the subject grow over time.
- But, the formal and commonly accepted definition is as follow.

Economics is a social science which studies about efficient allocation of scarce resources so as to attain the maximum fulfillment of unlimited human needs.

As economics is a science of choice, it studies how people choose to use scarce or limited productive resources (land, labour, equipment, technical knowledge and the like) to produce various commodities.

The following statements are derived from the above definition.

- Economics studies about scarce resources;
- It studies about allocation of resources;
- Allocation should be efficient;
- Human needs are unlimited
- The aim (objective) of economics is to study how to satisfy the unlimited human needs up to the maximum possible degree by allocating the resources efficiently.

1.2 The rationales of economics

- There are two fundamental facts that provide the foundation for the field of economics.

i. Human (society‘s) material wants are unlimited.

ii. Economic resources are limited (scarce).

- The **basic economic problem** is about **scarcity** and **choice** since there are only limited amount of resources available to produce the unlimited amount of goods and services we desire.

Scarcity refers to the fact that all economic resources that a society needs to produce goods and services are finite or limited in supply.

- Thus, the term scarcity reflects the imbalance between our wants and the means to satisfy those wants.
- Due to the problem of scarcity; individuals, firms and government are forced to choose as to what output to produce, in what quantity, and what output not to produce.
- Therefore, **choice** is at the heart of all decision-making.
- Economists study how these choices are made in various settings; evaluate the outcomes in terms of criteria such as efficiency, equity, and stability

1.3 Scope and method of analysis in economics

1.3.1 Scope of economics

- Core of modern economics is formed by its two major branches: microeconomics and macroeconomics.
- Note: Both microeconomics and macroeconomics are complementary to each other.
- That is, macroeconomics cannot be studied in isolation from microeconomics.

Microeconomics

- Concerned with the economic behavior of individual decision making units such as households, firms, markets and industries
- It deals with how households and firms make decisions and how they interact in specific markets.

Macroeconomics

- Deals with the effects and consequences of the aggregate behaviour of all decision making units in a certain economy.
- It looks at the economy as a whole and discusses about the economy-wide phenomena.

Microeconomics	Macroeconomics
❖ Studies individual economic units of an economy. ❖ Deals with individual income, individual prices, individual outputs, etc. ❖ Its central problem is price determination and allocation of resources. ❖ Its main tools are the demand and supply of particular commodities and factors. ❖ It helps to solve the central problem of 'what, how and for whom to produce' in an economy so as to maximize profits ❖ Discusses how the equilibrium of a consumer, a producer or an industry is attained. Examples: Individual income, individual savings, individual prices, an individual firm's output, individual consumption, etc.	❖ Studies an economy as a whole and its aggregates. ❖ Deals with national income and output and general price level ❖ Its central problem is determination of level of income and employment. ❖ Its main tools are aggregate demand and aggregate supply of an economy as a whole. ❖ Helps to solve the central problem of 'full employment of resources in the economy.' ❖ Concerned with the determination of equilibrium levels of income and employment at aggregate level. Examples: national income, national savings, general price level, national output, aggregate consumption, etc.

1.3.2 Positive and normative analysis

- Economics can be analyzed from two perspectives: positive economics and normative economics.

Positive economics

- It is concerned with analysis of facts and attempts to describe the world as it is.
- It tries to answer the questions what was; what is; or what will be?
- It does not judge a system as good or bad, better or worse.

Example:

i. The current inflation rate in Ethiopia is 12 percent.

ii. Poverty and unemployment are the biggest problems in Ethiopia.

iii. The life expectancy at birth in Ethiopia is rising.

- These statements are all concerned with real facts and information.
- Any disagreement on positive statements can be checked by looking in to facts.

Normative economics

- It evaluates the desirability of alternative outcomes based on one‘s value judgments about what is good or what is bad.
- It deals with the questions like, what ought to be? Or what the economy should be?
- Normative analysis is a matter of opinion (subjective in nature) which cannot be proved or rejected with reference to facts.

Example

i. The poor should pay no taxes.

ii. There is a need for intervention of government in the economy.

iii. Females ought to be given job opportunities.

- Any disagreement on a normative statement can be solved by voting.

1.3.3 Inductive and deductive reasoning in economics

- There are two methods of logical reasoning: **inductive and deductive**.

Inductive reasoning

- Is a logical method of reaching at a correct general statement or theory based on several independent and specific correct statements.
- In short, it is the process of deriving a principle or theory by moving from facts to theories and from particular to general economic analysis.
- Truth/facts to theories/principles
- Specific to general

Deductive reasoning

- Is a logical way of arriving at a particular or specific correct statement starting from a correct general statement.
- Theories/principles to truth/facts
- General to specific

1.4 Scarcity, choice, opportunity cost and production possibilities frontier

1.

Resources

- *Free resources:* A resource is said to be free if the amount available to a society is greater than the amount people desire at zero price. E.g. sunshine
- *Scarce (economic) resources:* A resource is said to be scarce or economic resource when the amount available to a society is less than what people want to have at zero price.

The following are examples of *scarce resources.*

- All types of human resources: manual, intellectual, skilled and specialized labor;
- Most natural resources like land (especially, fertile land), minerals, clean water, forests and wild - animals;
- All types of capital resources (like machines, intermediate goods, infrastructure); and
- All types of entrepreneurial resources.

- Economic resources are usually classified into four categories.

Labour

- Refers to the physical as well as mental efforts of human beings in the production and distribution of goods and services.
- The reward for labour is called wage.

Land

- Refers to the natural resources or all the free gifts of nature usable in the production of goods and services.
- The reward for the services of land is known as rent.

Capital

- Refers to all the manufactured inputs that can be used to produce other goods and services. Example: equipment, machinery, transport and communication facilities, etc.
- The reward for the services of capital is called interest.

Entrepreneurship

- Refers to a special type of human talent that helps to organize and manage other factors of production to produce goods and services and takes risk of making loses.
- The reward for entrepreneurship is called profit.

Entrepreneurs are individuals who:

✓Organize factors of production to produce goods and services.

✓Make basic business policy decisions.

✓Introduce new inventions and technologies into business practice.

✓Look for new business opportunities.

✓Take risks of making losses.

Note

- Scarcity does not mean shortage.
- We have already said that a good is said to be scarce if the amount available is less than the amount people wish to have at zero price.
- But we say that there is shortage of goods and services when people are unable to get the amount they want at the prevailing or on going price.
- Shortage is a specific and short term problem but scarcity

2. Choice

Due to the problem of scarcity, individuals, firms and government are forced to choose as to what output to produce, in what quantity, and what output not to produce.

Scarcity → limited resource → limited output → we might not satisfy all our wants →choice involves costs → opportunity cost

3. Opportunity cost

Definition: Opportunity cost is the amount or value of the next best alternative that must be sacrificed (forgone) in order to obtain one more unit of a product.

- In a world of scarcity, a decision to have more of one thing, at the same time, means a decision to have less of another thing.

4. The Production Possibilities Frontier or Curve (PPF/ PPC)

- The production possibilities frontier (PPF) is a curve that shows the various possible combinations of goods and services that the society can produce given its resources and technology.
- To draw the PPF we need the following assumptions.

a. The quantity as well as quality of economic resource available for use during the year is fixed (fixed resource).

b. There are two broad classes of output to be produced over the year (two product).

c. The economy is operating at full employment and is achieving full production (efficiency).

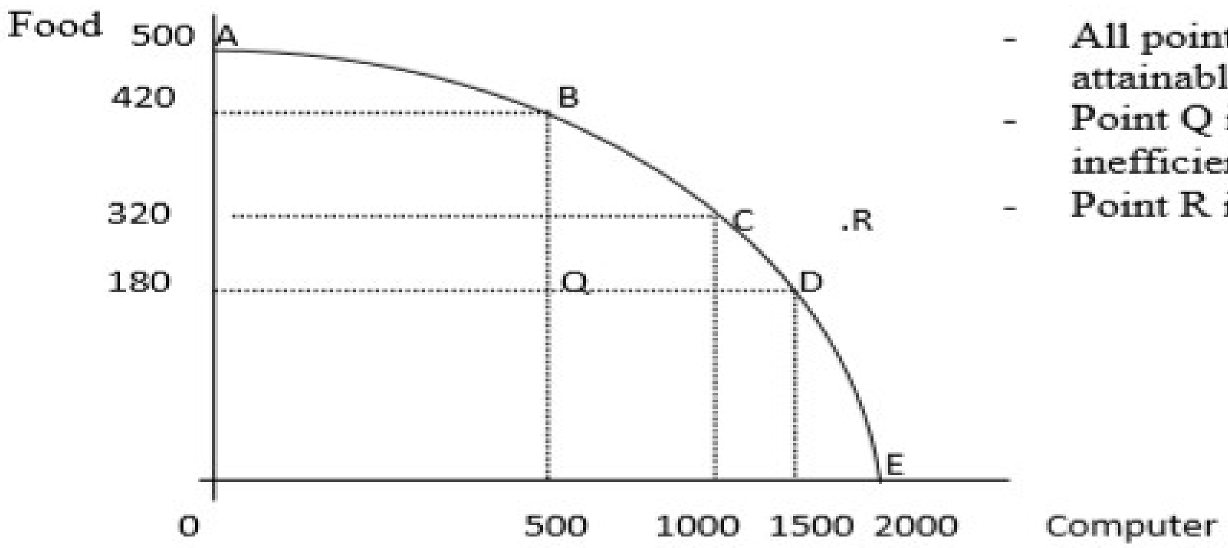
d. Technology does not change during the year (fixed technology).

e. Some inputs are better adapted to the production of one good than to the production of the other (specialization).

Table 1.1: Alternative production possibilities of a certain nation

Types of products	Unit	Production alternatives				
		A	B	C	D	E
Food	metric tons	500	420	320	180	0
Computer	number	0	500	1000	1500	2000

We can also display the above information with a graph.



- All points on the PPF are attainable and efficient
- Point Q is attainable but inefficient
- Point R is unattainable

Figure 1.1: Production Possibilities Frontier

$$\textit{Opportunity cost of a good} = \frac{\text{the amount of the next best alternative sacrified}}{\text{the amount of the good gained}}$$

Example: Referring to table 1.1 above, if the economy is initially operating at point B, what is the opportunity cost of producing one more unit of computer?

Solution: Moving from production alternative B to C we have:

$$OC = \frac{320-420}{1000-500} = \left|\frac{-100}{500}\right| = \underline{\underline{0.2}}$$ (The economy gives up 0.2 metric tons of food per computer)

- If there is advancement in science and technology and
- If there is increase in quality and quantity of economic resource, there is a outward shift in PPF (economic growth).
    - If the change is in one sector =>Asymmetrical
    - If the change is in both sectors =>symmetrical

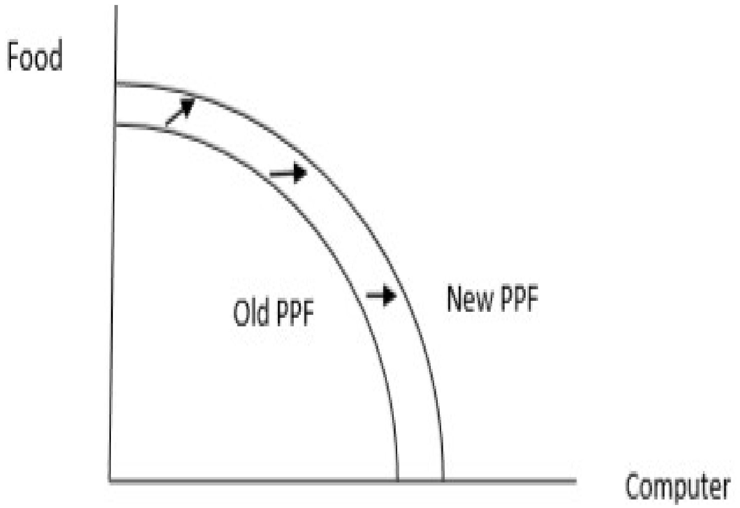


Figure 1.2: Economic growths with a new PPC

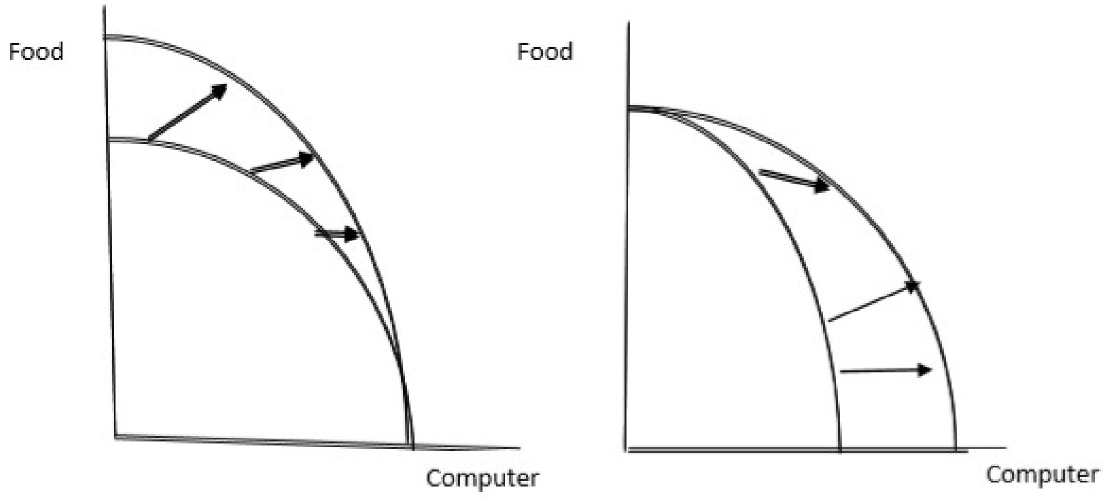


Figure 1.3: improvements in technology and quantity and/or quality of resources on national output

1.5 Basic economic questions

There are three basic economic problems that any economic unit needs to answer:

What to produce

- Problem of allocation of resources
- Types and amounts of commodities to be produced i.e. which goods and in what quantities

How to produce

- Problem of choice of technique
- Determine what production method or technique to use and what input to use.
- Identifying the best combinations of inputs or raw materials

For whom to produce

- Problem of distribution of national product
- To identify potential customers

1.6 Economic systems

- **An economic system** is a set of organizational and institutional arrangements established to answer the basic economic questions.
- Three types of economic system.
- These are capitalism, command and mixed economy.

Capitalism is the oldest formal economic system in the world.

- It became widespread in the middle of the 19th century.
- All means of production are privately owned, and production takes place at the initiative of individual private entrepreneurs who work mainly for private profit.
- Government intervention in the economy is minimal.
- This system is also called free market economy or market system or laissez faire.

Features of Capitalistic Economy

The right to private property: The right to private property is a fundamental feature of a capitalist economy.

- Economic or productive factors such as land, factories, machinery, mines etc. are under private ownership.

Freedom of choice by consumers: Consumers can buy the goods and services that suit their tastes and preferences.

- Producers produce goods in accordance with the wishes of the consumers.
- This is known as the principle of consumer sovereignty.

Profit motive: Entrepreneurs, in their productive activity, are guided by the motive of profit-making.

Competition: Among sellers or producers of similar goods to attract customers.

- Among buyers, there is competition to obtain goods.

- Among workers, the competition is to get jobs.
- Among employers, it is to get workers and investment funds.

Price mechanism: All basic economic problems are solved through the price mechanism.

Minor role of government: The government does not interfere in day-to-day economic activities and confines itself to defense and maintenance of law and order.

Self-interest: Each individual is guided by self-interest and motivated by the desire for economic gain.

Inequalities of income: There is a wide economic gap between the rich and the poor.

Existence of negative externalities: A negative externality is the harm, cost, or inconvenience suffered by a third party because of actions by others.

Command economy is also known as socialistic economy.

- Under this economic system, the economic institutions that are engaged in production and distribution are owned and controlled by the state.

Main Features of Command Economy

Collective ownership: All means of production are owned by the society as a whole, and there is no right to private property.

Central economic planning: Planning for resource allocation is performed by the controlling authority according to given socio-economic goals.

Strong government role: Government has complete control over all economic activities.

Maximum social welfare: Command economy aims at maximizing social welfare and does not allow the exploitation of labour.

Relative equality of incomes: Private property does not exist in a command economy, the profit motive is absent, and there are no opportunities for accumulation of wealth. All these factors lead to greater equality in income distribution, in comparison with capitalism.

A mixed economy is an attempt to combine the advantages of both the capitalistic economy and the command economy.

- It incorporates some of the features of both and allows private and public sectors to co-exist.

Main Features of Mixed Economy

- Co-existence of public and private sectors
- Economic welfare
- Economic planning
- Price mechanism

1.7 Decision making units and the circular flow model

We can use two models to understand the economic interaction among economic agents

- Two sector circular flow model
- Three sector circular flow model

There are three decision-making units in closed economy.

- Households
- Firm
- Government

These economic agents interact in two markets

- Resource markets
- Products markets

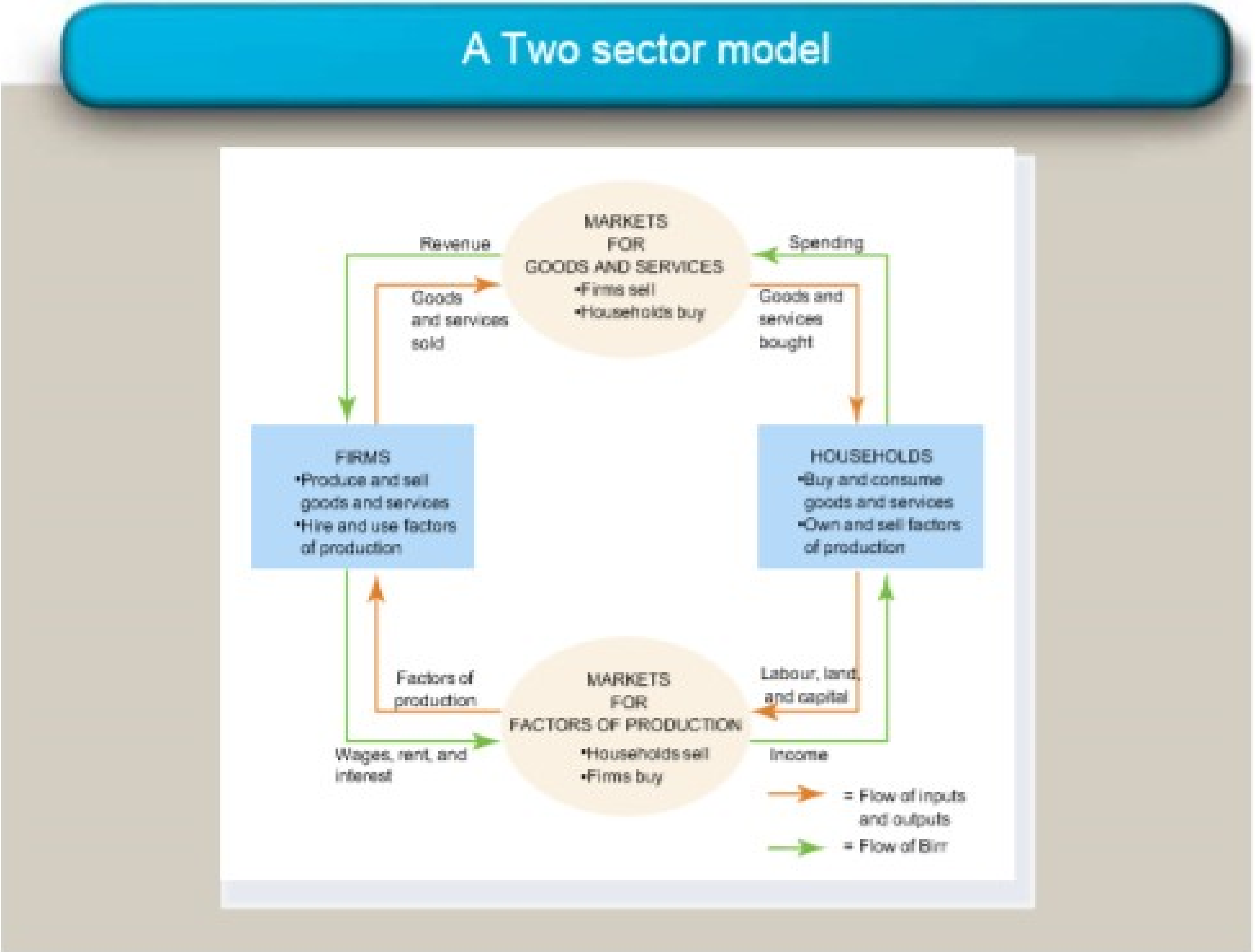


Figure 1.4: Circular flow of income with two sector model

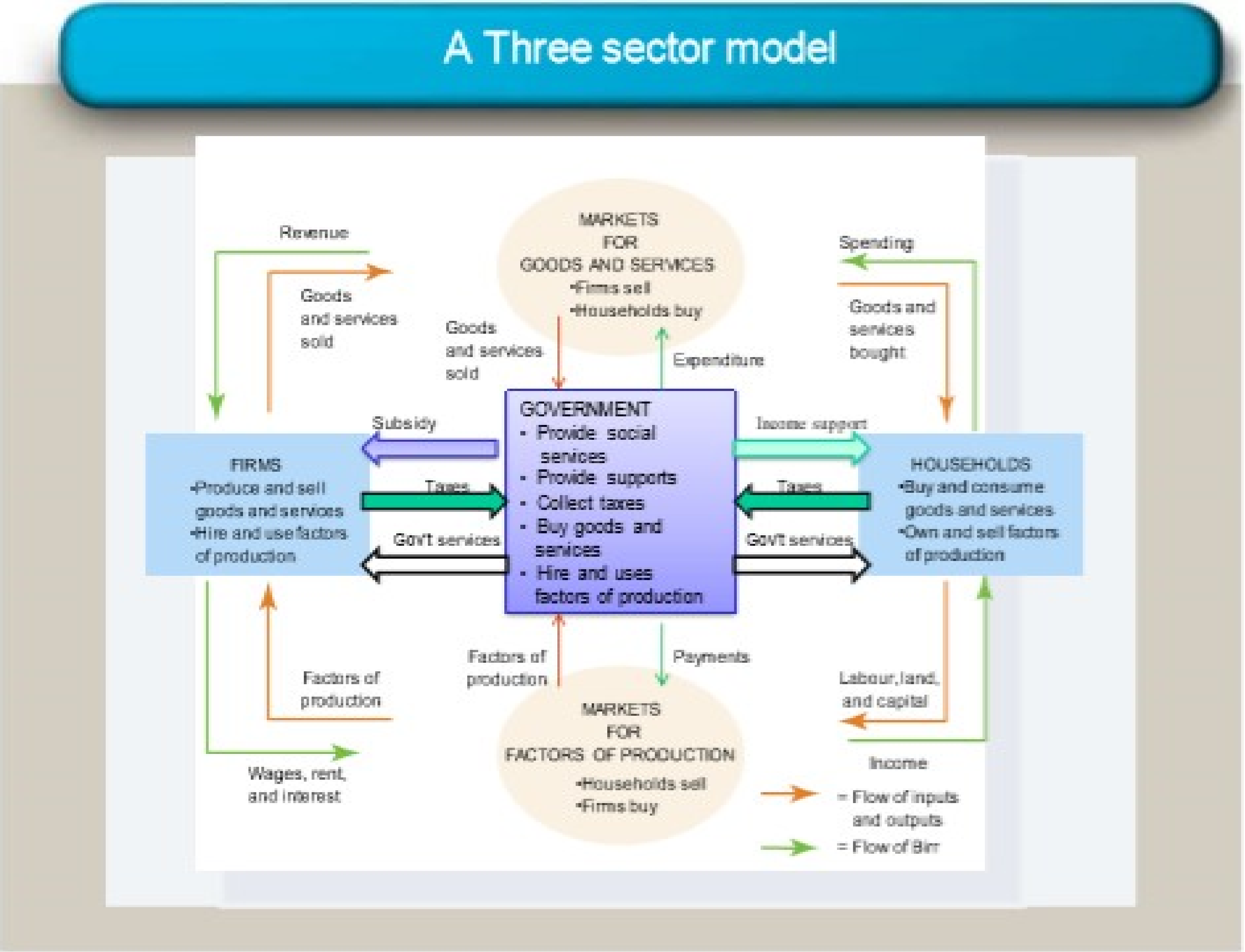


Figure 1.5: Three sector circular flow of resources