# Unit 4: Introduction to Demand and Supply

### Introduction

Have you ever wondered what demand means, what the law of supply says, or what market equilibrium is? This unit will explore these fundamental economic concepts. By understanding demand and supply, you'll see how they determine the equilibrium price and quantity in a market. We'll also discuss how consumers and producers react to changes in price. The unit covers the concept of demand, supply, and market equilibrium.

### Unit Objectives

By the end of this unit, students should be able to:

- Understand the concept of demand.
- Explain the concept of supply.
- Describe how market equilibrium is achieved.

## 4.1 Concept of Demand

### Demand

Demand goes beyond just wanting something. It involves the willingness and ability to purchase a commodity at a given price and time. Simply wanting something doesn't create demand; you must also be able to pay for it and be willing to buy it at a specific price. Therefore, demand is defined as the amount of a commodity that a consumer is willing to buy at various prices during a given period.

### Quantity Demanded

Quantity demanded refers to the specific amount of a commodity that a consumer is willing and able to buy at a particular price during a specific time.

### Law of Demand

The law of demand states that, all else being equal (ceteris paribus), there is an inverse relationship between the price of a commodity and its quantity demanded. In other words, as the price increases, the quantity demanded decreases, and vice versa.

### Demand Schedule

A demand schedule is a table that shows the various quantities of a commodity that consumers are willing to purchase at different prices.

| Price (Birr per kg) | Quantity Demanded (kg/week) |
| --- | --- |
| 5 | 5 |
| 4 | 7 |
| 3 | 9 |
| 2 | 11 |
| 1 | 13 |

### Demand Curve

A demand curve is a graphical representation of the relationship between the price of a commodity and the quantity demanded. It typically slopes downward from left to right, reflecting the inverse relationship between price and quantity demanded.

### Demand Function

The demand function is a mathematical expression that shows the relationship between the quantity demanded and the price of a commodity, represented as:

$Qd=f(P)$

Where Qd is the quantity demanded and P is the price of the commodity.

### Market Demand

Market demand refers to the total demand for a commodity from all consumers at different prices. It is obtained by horizontally summing the individual demand curves of all buyers at each price.

## 4.2 Concept of Supply

### Supply

Supply refers to the quantity of a commodity that producers are willing and able to offer for sale at various prices over a given period. It is distinct from stock, which is the total amount of a commodity available, including what is not currently for sale.

### Quantity Supplied

Quantity supplied is the amount of a commodity that producers are willing to offer for sale at a specific price during a given period.

## Law of Supply

The law of supply states that, all else being equal, there is a direct relationship between the price of a commodity and the quantity supplied. As the price increases, the quantity supplied increases, and as the price decreases, the quantity supplied decreases.

## Supply Schedule

A supply schedule is a table that shows the quantity of a commodity that producers are willing to sell at different prices.

| Price (Birr per kg) | Quantity Supplied (kg/week) |
|---|---|
| 10 | 60 |
| 15 | 70 |
| 20 | 80 |
| 25 | 90 |
| 30 | 100 |

## Supply Curve

A supply curve is a graphical representation of the relationship between the price of a commodity and the quantity supplied. It typically slopes upward from left to right, reflecting the direct relationship between price and quantity supplied.

## Supply Function

The supply function is a mathematical expression that shows the relationship between the quantity supplied and the price of a commodity, represented as:

$Qs=f(P)$

Where $Qs$ is the quantity supplied and P is the price of the commodity.

## Market Supply

Market supply is the total amount of a commodity that all producers are willing and able to sell at various prices over a given period. It is obtained by horizontally summing the individual supply curves of all sellers at each price.

## 4.3 Market Equilibrium

### Market Equilibrium

Market equilibrium occurs when the quantity demanded of a commodity equals the quantity supplied at a particular price. This balance is achieved when the demand and supply curves intersect.

### Equilibrium Price

The equilibrium price is the price at which the quantity demanded equals the quantity supplied. It is the price where the market clears, meaning there is neither a surplus nor a shortage.

### Equilibrium Quantity

The equilibrium quantity is the quantity of a commodity that is bought and sold at the equilibrium price. It is determined at the point where the demand and supply curves intersect.

### Graphical Representation

Market equilibrium is depicted graphically where the demand and supply curves intersect. This intersection determines the equilibrium price and quantity.

## Unit Summary

In this unit, we have learned that demand is the amount of a commodity that consumers are willing to buy at various prices, while supply is the amount producers are willing to sell. The law of demand states that price and quantity demanded are inversely related, whereas the law of supply states that price and quantity supplied are directly related. Market equilibrium is achieved when the quantity demanded equals the quantity supplied at a specific price, determined by the intersection of the demand and supply curves.