



ECO101: Introduction to Microeconomics

LECTURER: ADDRITA SHAMS

SECTION: 11

WEEK 03, LECTURE 05

TOPIC: MARKET EQUILIBRIUM

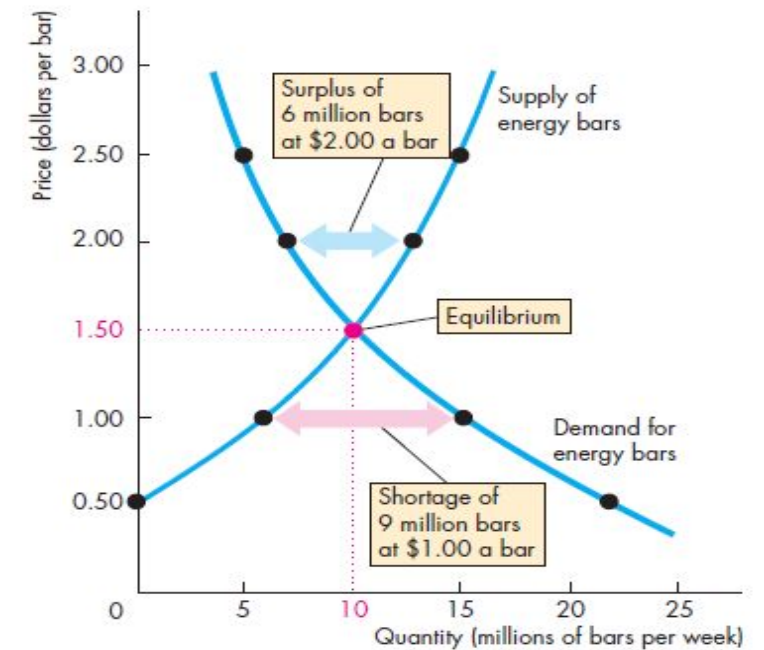
Market Equilibrium

- ▶ An *equilibrium* is a situation in which opposing forces balance each other. Equilibrium in a market occurs when the price balances buying plans and selling plans.
- ▶ The **Equilibrium Price** is the price at which the quantity demanded equals the quantity supplied.
- ▶ The **Equilibrium Quantity** is the quantity bought and sold at the equilibrium price.
- ▶ A market moves toward its equilibrium because
 - Price regulates buying and selling plans.
 - Price adjusts when plans don't match.

Market Equilibrium (contd.)

- ▶ **Price as a regulator:** The price of a good regulates the quantities demanded and supplied.
 - ▶ If the price is too high, the quantity supplied exceeds the quantity demanded. If the price is too low, the quantity demanded exceeds the quantity supplied.
- ▶ **Price Adjustments:** If the price is below equilibrium, there is a shortage and that if the price is above equilibrium, there is a surplus.
 - ▶ A Shortage Forces the Price Up
 - ▶ A Surplus Forces the Price Down
 - ▶ The Best Deal Available for Buyers and Sellers

FIGURE 3.7 Equilibrium



Price (dollars per bar)	Quantity demanded	Quantity supplied	Shortage (-) or surplus (+)
	(millions of bars per week)		
0.50	22	0	-22
1.00	15	6	-9
1.50	10	10	0
2.00	7	13	+6
2.50	5	15	+10

The Effects of a Change in Demand

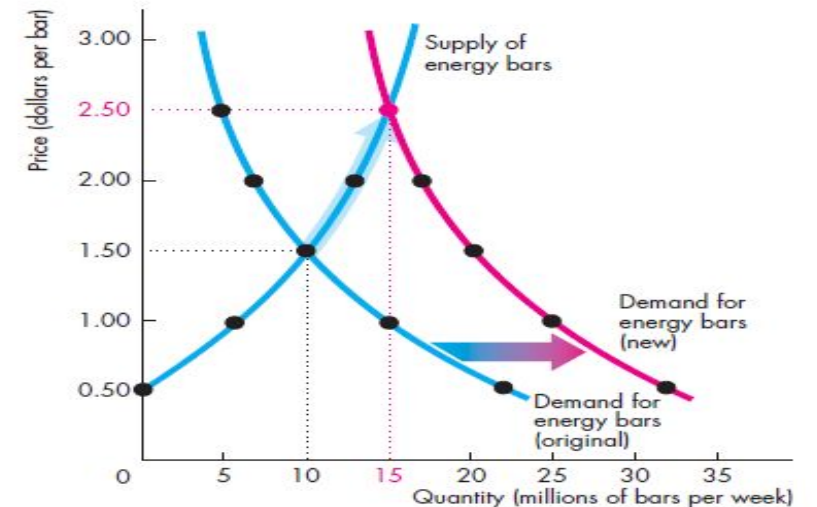
An Increase in Demand

- ▶ If more people join health clubs, the demand for energy bars increases.
- ▶ The increase in demand creates a shortage at the original price and to eliminate the shortage, the price must rise.
- ▶ There is an *increase in the quantity supplied* but *no change in supply*—a movement along, but no shift of, the supply curve.

A Decrease in Demand: The opposite situation happens

- ▶ We can now make our first two predictions:
 1. When demand increases, the price rises and the quantity increases.
 2. When demand decreases, the price falls and the quantity decreases.

FIGURE 3.8 The Effects of a Change in Demand



Price (dollars per bar)	Quantity demanded (millions of bars per week)		Quantity supplied (millions of bars per week)
	Original	New	
0.50	22	32	0
1.00	15	25	6
1.50	10	20	10
2.00	7	17	13
2.50	5	15	15

The Effects of a Change in Supply

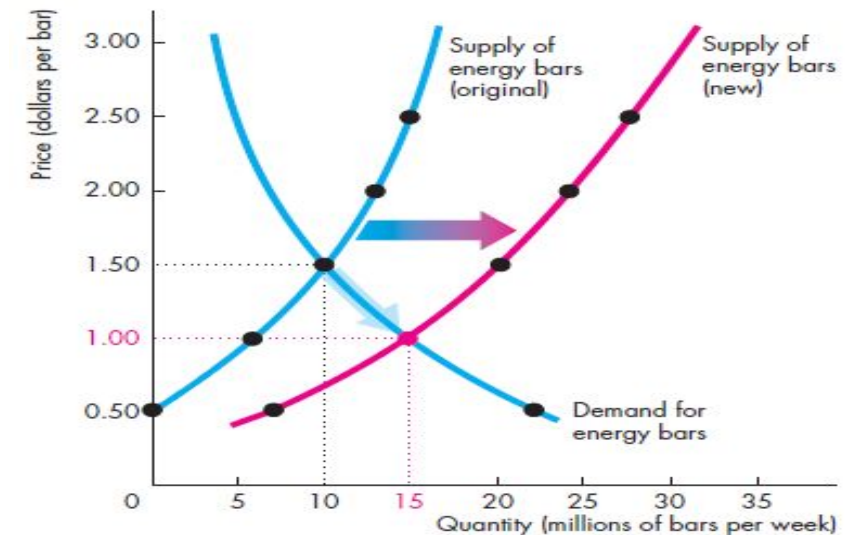
An Increase in Supply

- ▶ When energy bar producers switch to a new cost-saving technology, the supply of energy bars increases.
- ▶ When supply increases, the supply curve shifts rightward. The equilibrium price falls to \$1.00 a bar, and the quantity demanded increases to 15 million bars a week.
- ▶ There is an *increase in the quantity demanded* but *no change in demand*—a movement along, but no shift of, the demand curve.

A Decrease in Supply : Work it yourself

- ▶ We can now make two more predictions:
 1. When supply increases, the price falls and the quantity increases.
 2. When supply decreases, the price rises and the quantity decreases.

FIGURE 3.9 The Effects of a Change in Supply

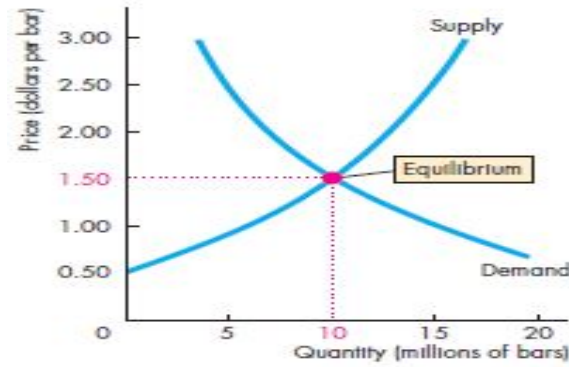


Price (dollars per bar)	Quantity demanded (millions of bars per week)	Quantity supplied (millions of bars per week)	
		Original	New
0.50	22	0	7
1.00	15	6	15
1.50	10	10	20
2.00	7	13	25
2.50	5	15	27

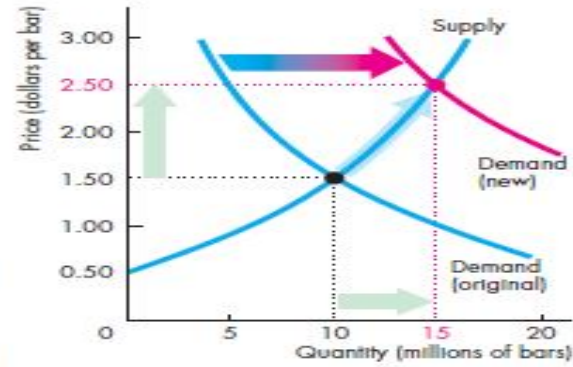
All Possible Changes in Demand and Supply

- ▶ **Change in Demand with No Change in Supply**
- ▶ **Change in Supply with No Change in Demand**
- ▶ **Increase in Both Demand and Supply**
- ▶ **Decrease in Both Demand and Supply**
- ▶ **Decrease in Demand and Increase in Supply**
- ▶ **Increase in Demand and Decrease in Supply**

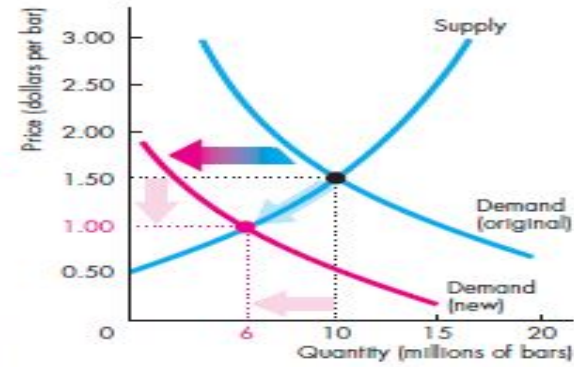
FIGURE 3.10 The Effects of All the Possible Changes in Demand and Supply



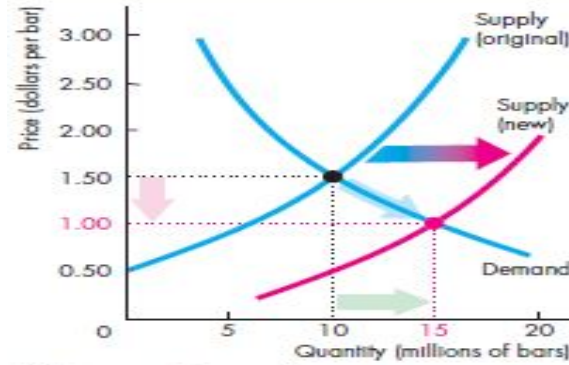
(a) No change in demand or supply



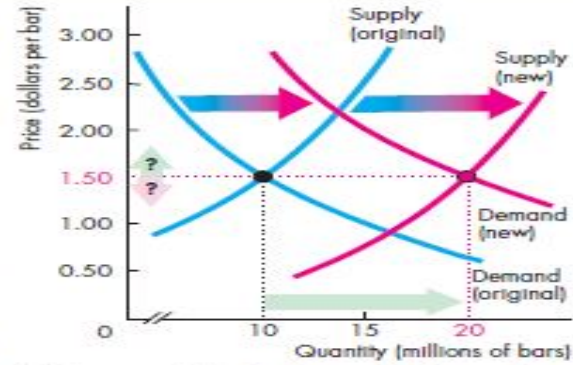
(b) Increase in demand



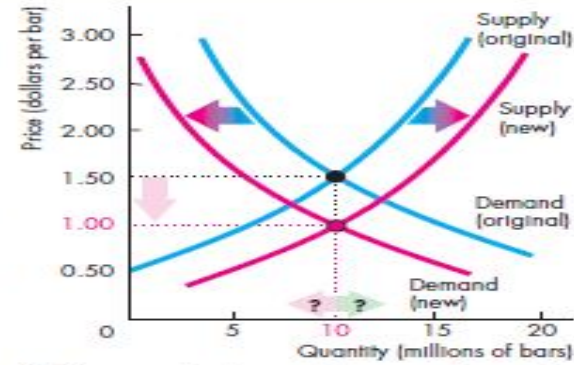
(c) Decrease in demand



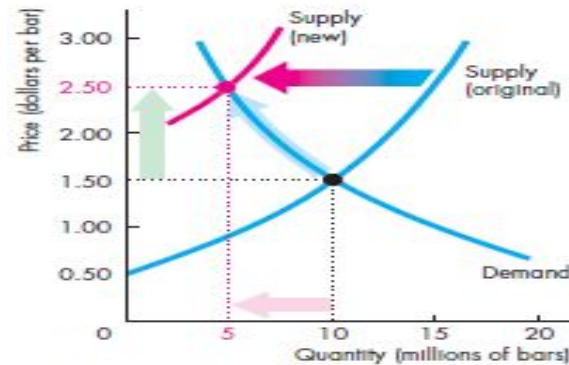
(d) Increase in supply



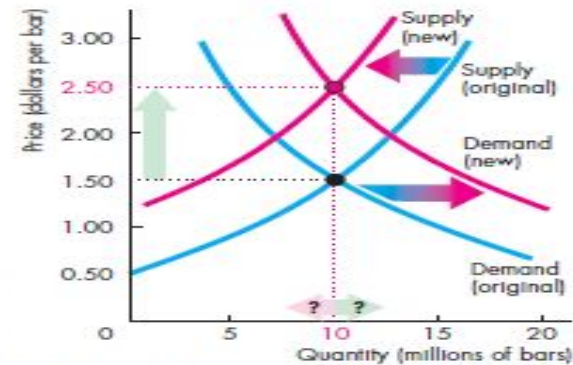
(e) Increase in both demand and supply



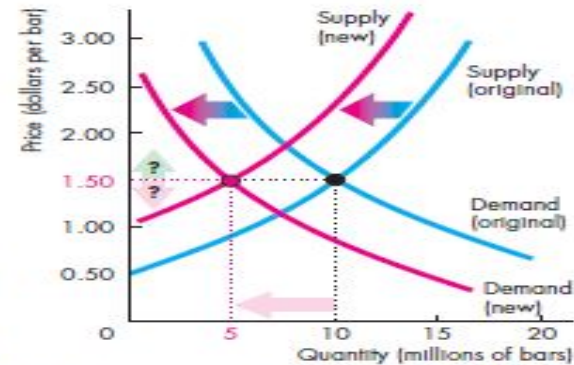
(f) Decrease in demand; increase in supply



(g) Decrease in supply



(h) Increase in demand; decrease in supply



(i) Decrease in both demand and supply

Mathematical Note

► Equation for Demand Curve: $P = a - b Q_d$

► Equation for Supply Curve: $P = c + d Q_s$

Here, P = price

Q_d = Quantity Demanded

Q_s = Quantity Supplied

a, b, c, d are positive constants.

► **At market equilibrium, Demand = Supply**

► *Note: In the exam you might be given demand and supply equation and asked to find out the Quantity and Price.*