

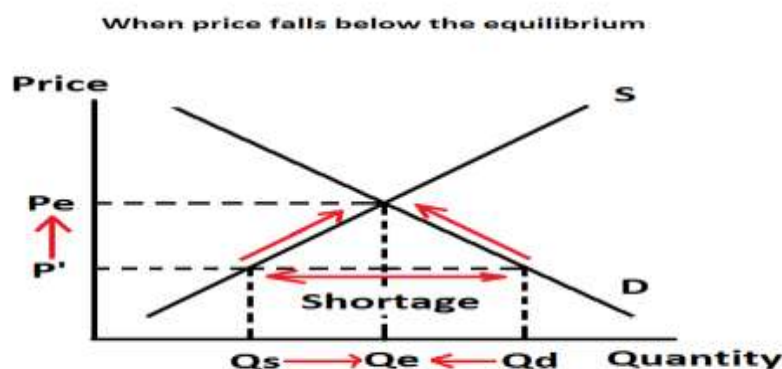
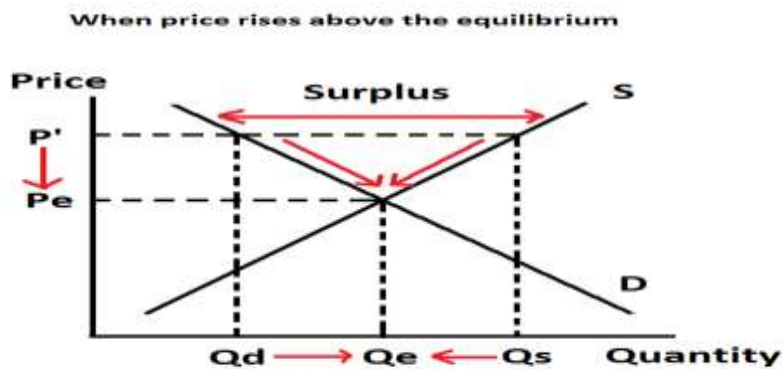
# ● Market Equilibrium

## 1) What is the equilibrium price of a good or service?

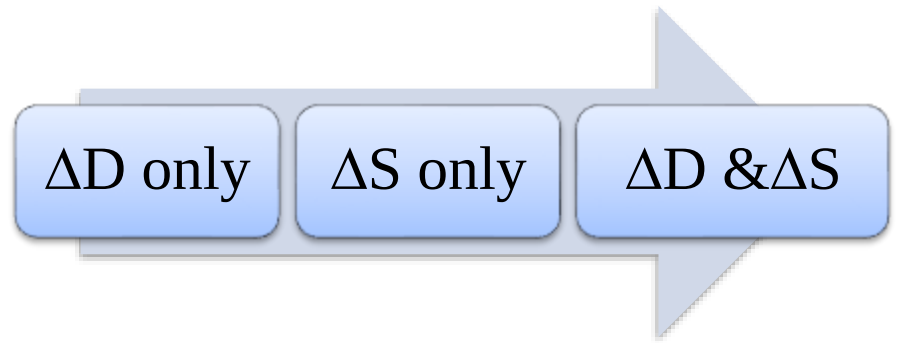
- The equilibrium price is the price at which the quantity demanded by the buyers is equal to the quantity supplied by the sellers.  $Q_d = Q_s$
- At the equilibrium price, the quantity demanded by consumers equals the quantity supplied by producers. At this price, the plans of producers and consumers are coordinated and there is no influence on the price to move away from equilibrium.



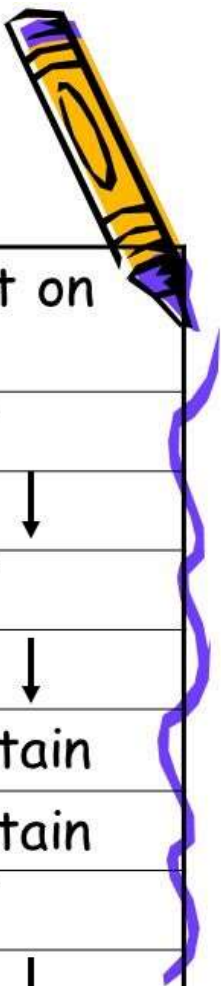
|                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2) Over what range of prices does a surplus arise? What happens to the price when there is a surplus (price adjustment / Price as a regulator)?</b>                                                                                                                                                                                                            | <b>3) Over what range of prices does a shortage arise? What happens to the price when there is a shortage (price adjustment/ Price as a regulator)?</b>                                                                                                                                                                                                              |
| <ul style="list-style-type: none"><li>- A <b>surplus</b> arises at <b>market prices <u>above</u> the equilibrium price.</b></li><li>- A surplus cause:<ul style="list-style-type: none"><li>- the price to fall,</li><li>- decreasing quantity supplied</li><li>- increasing quantity demanded</li></ul></li></ul> <b>Until the equilibrium price is attained</b> | <ul style="list-style-type: none"><li>- A <b>shortage</b> arises at <b>market prices <u>below</u> the equilibrium price.</b></li><li>- A shortage cause:<ul style="list-style-type: none"><li>- the price to rise,</li><li>- decreasing quantity demanded</li><li>- increasing quantity supplied</li></ul></li></ul> <b>Until the equilibrium price is attained.</b> |



## The effect of $\Delta D$ or $\Delta S$ or $\Delta$ both D& S on equilibrium price & equilibrium Quantity



# Effects of changes in demand and supply

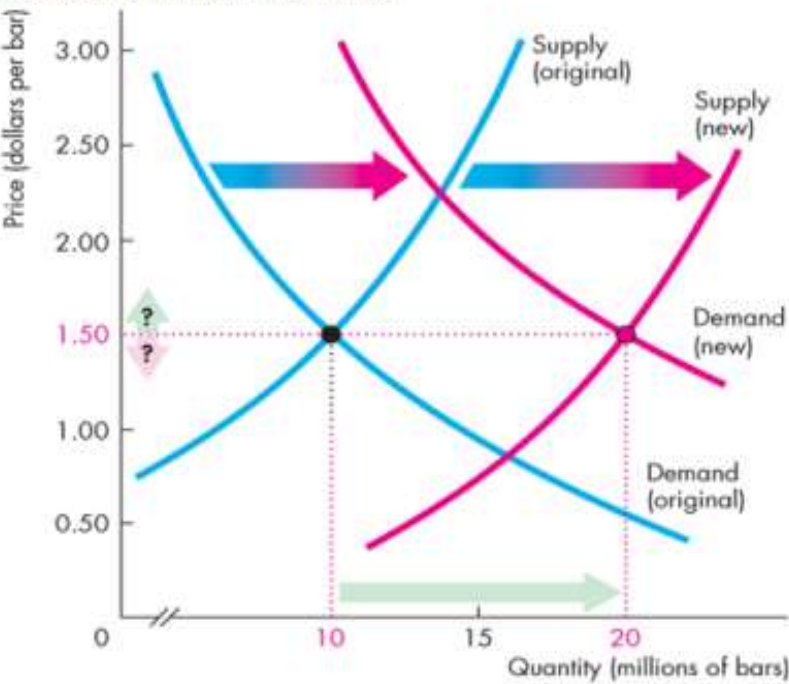


| Change in D | Change in S | Effect on $P_e$ | Effect on $Q_e$ |
|-------------|-------------|-----------------|-----------------|
| Increase    | Fixed       | ↑               | ↑               |
| Decrease    | Fixed       | ↓               | ↓               |
| Fixed       | Increase    | ↓               | ↑               |
| Fixed       | Decrease    | ↑               | ↓               |
| Decrease    | Increase    | ↓               | Uncertain       |
| Increase    | Decrease    | ↑               | Uncertain       |
| Increase    | Increase    | Uncertain       | ↑               |
| Decrease    | Decrease    | Uncertain       | ↓               |

What to the Quantity and price in case of?

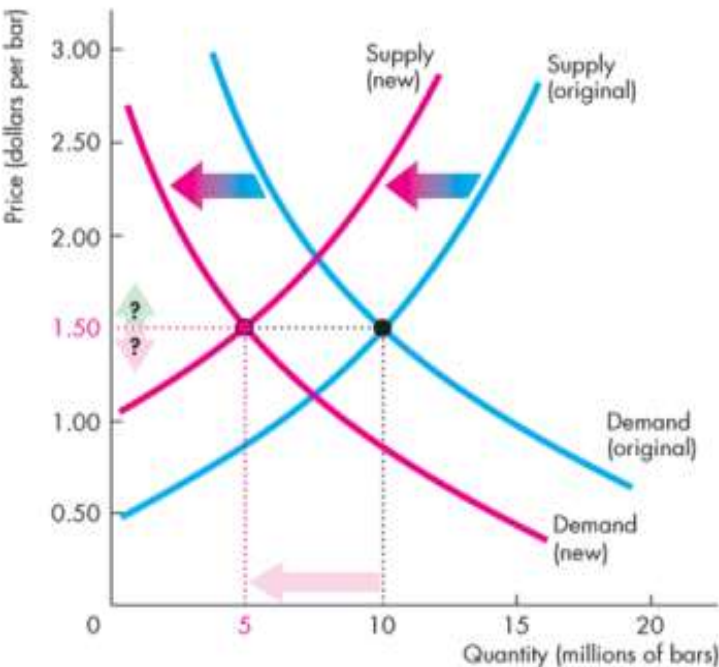
1. Demand and Supply changed in the same direction:

An increase in both demand and supply would rise the equilibrium quantity. While the change in equilibrium price is uncertain because the increase in demand raises the price and the increase in supply lowers it.



(a) Increase in both demand and supply

A decrease in both demand and supply would decrease the equilibrium quantity. While the change in equilibrium price is uncertain because the decrease in demand lowers the price and the decrease in supply raises the price.

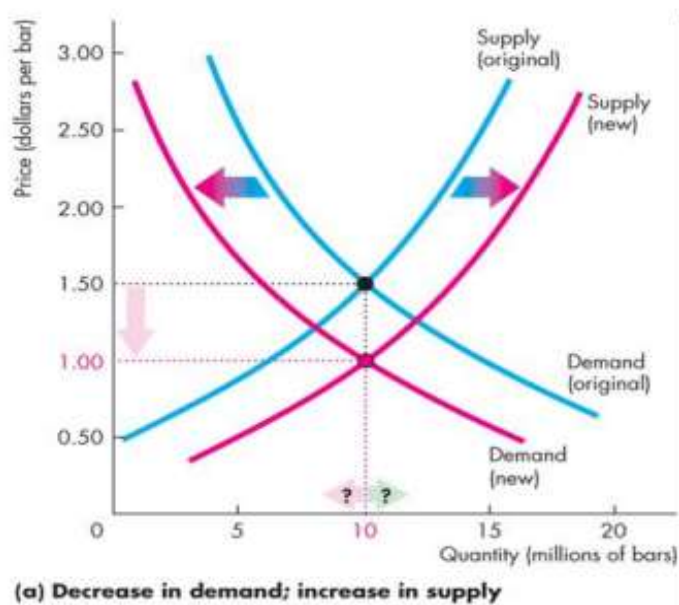


(b) Decrease in both demand and supply

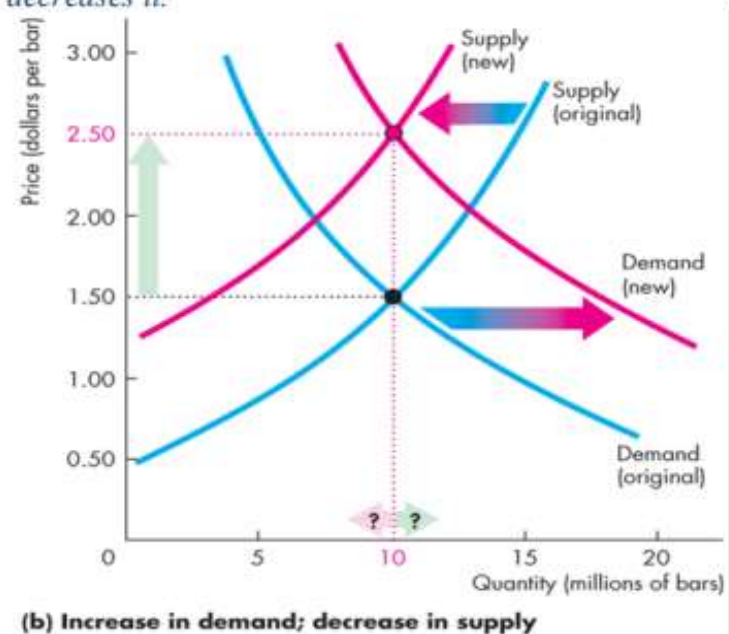
What to the Quantity and price in case of?

2. demand and Supply change in opposite directions.

A decrease in demand and an increase in supply would lower the equilibrium price. While the change in equilibrium quantity is uncertain because the decrease in demand decreases the quantity while the increase in supply increases it.



An increase in demand and a decrease in supply would raise the equilibrium price. While the change in equilibrium quantity is uncertain because the increase in demand increases the quantity while the decrease in supply decreases it.



- ✓ As D & S curves change at same directions → the equilibrium price is uncertain
- ✓ As D & S curves change at opposite directions → the equilibrium quantity is uncertain

**What is the effect on the Eq.price and Eq.quantity of Coffee if:**

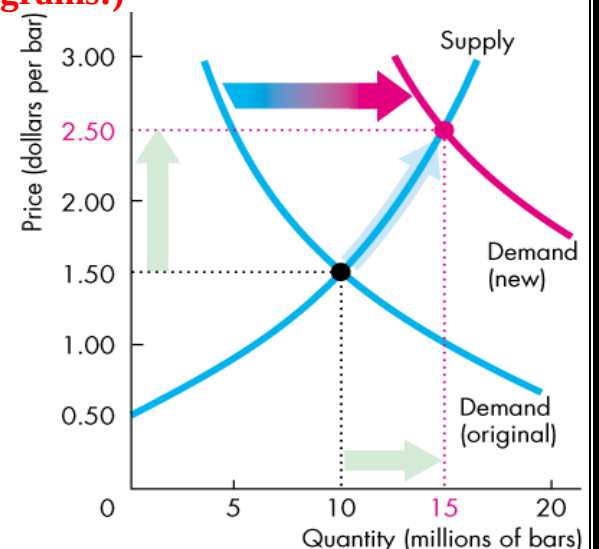
**1. The price of a Tea rises or the price of a Sugar falls? (Draw the diagrams!)**

As tea is a *substitute* for a coffee:

- A rise in the price of a tea increases the demand for coffee
- The demand curve for coffee shifts rightward,
- Supply remains unchanged; there is a movement up along the supply curve.
  - The equilibrium price of a coffee rises
  - The equilibrium quantity of coffee increases.

A sugar is a *complement* of a coffee

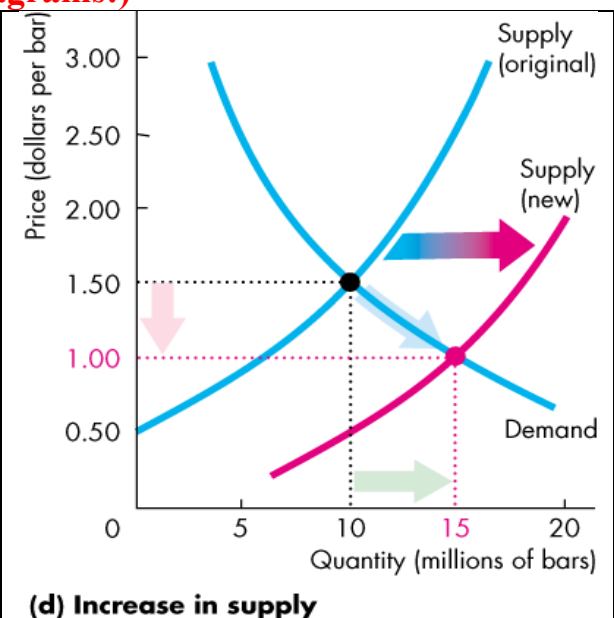
- A fall in the price of sugar increases the demand for coffee
- The demand curve for coffee shifts rightward.
- Supply remains unchanged; there is a movement up along the supply curve.
  - The equilibrium price of a coffee rises
  - The equilibrium quantity of coffee increases.



**2. More firms produce coffee or workers' wages rise? (Draw the diagrams!)**

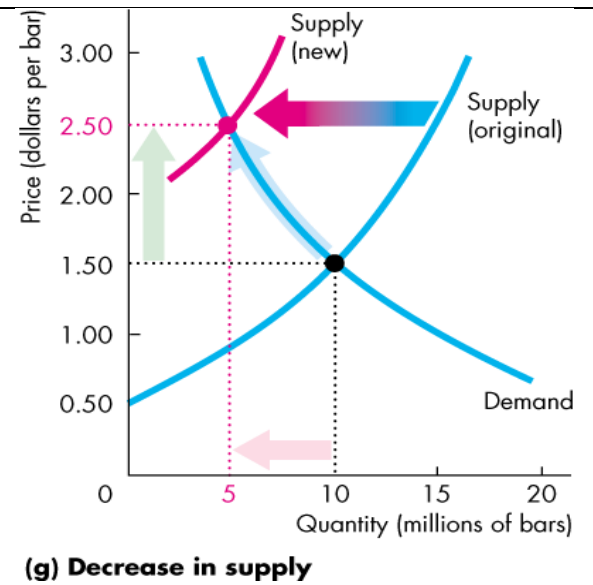
An increase in the number of firms that produce coffee lead to:

- Increase the supply of coffee
- The supply curve of coffee increases and shifts rightward.
- Demand remains unchanged; there is a movement down along the demand curve.
  - The equilibrium price of a coffee falls
  - The equilibrium quantity of coffee increases.



**An increase in the wages of workers leads to:**

- Increase the cost of producing coffee.
- The supply curve of coffee decreases and shifts leftward.
- Demand remains unchanged; there is a movement up along the demand curve.
  - The equilibrium price of a coffee rises
  - The equilibrium quantity of coffee decreases



**3. If the price of a tea falls and more firms produce coffee. (Draw the diagrams!)**

- When the price of a tea falls → this affects demand curve, demand decreases and shift leftward
- When more firms produce coffee → this affects supply curve, supply increases and shift rightward
  - The equilibrium price of a coffee falls
  - The equilibrium quantity of coffee is *uncertain* because
    - The decrease in demand → decreases the equilibrium quantity
    - The increase in supply → increases the equilibrium quantity
    - So, the equilibrium quantity might increase, decrease, or not change

