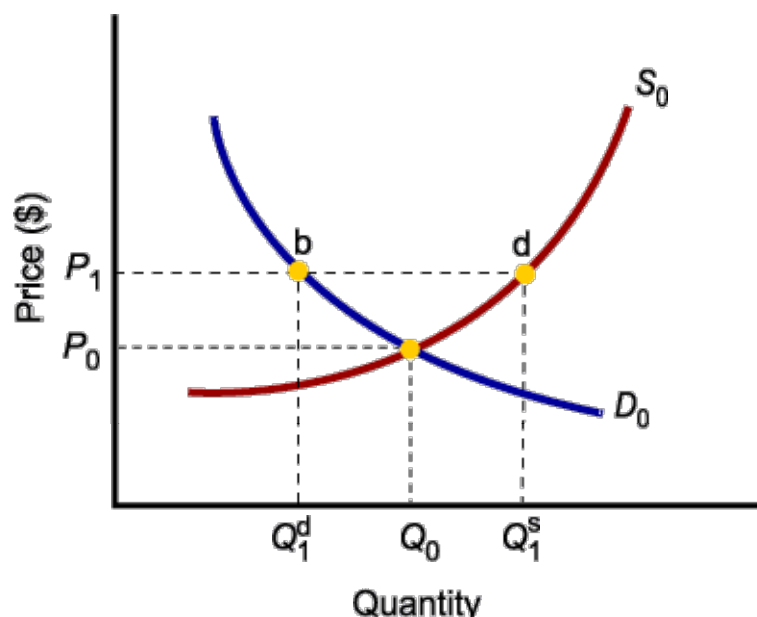


Market Equilibrium

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Market Equilibrium

- ❖ A market brings together those who are willing and able to supply the good and those who are willing and able to purchase the good.
- ❖ In a competitive market, where there are many buyers and sellers, the price of the good serves as a **rationing mechanism**.
- ❖ Since the demand curve shows the quantity demanded at each price and the supply curve shows the quantity supplied, the point at which the supply curve and demand curve intersect is the point at which the quantity supplied equals the quantity demanded. This is called the market equilibrium.



- ❖ Only in equilibrium quantity supplied is equal to quantity demanded.
- ❖ At any price level other than P_0 , the wishes of buyers and sellers do not coincide.

Supply and Demand Together

Equilibrium Price

- ❖ The price that balances supply and demand. On a graph, it is the price at which the supply and demand curves intersect.

Equilibrium Quantity

- ❖ The quantity that balances supply and demand. On a graph it is the quantity at which the supply and demand curves intersect.

Demand Schedule

Price	Quantity
\$0.00	19
0.50	16
1.00	13
1.50	10
2.00	7
2.50	4
3.00	1

Supply Schedule

Price	Quantity
\$0.00	0
0.50	0
1.00	1
1.50	4
2.00	7
2.50	10
3.00	13

At \$2.00, the quantity demanded is equal to the quantity supplied!

1. [Table 6](#) shows information on the demand and supply for bicycles, where the quantities of bicycles are measured **in thousands**.

1. What is the quantity demanded and the quantity supplied at a price of \$210?
2. At what price is the quantity supplied equal to 48,000?
3. Graph the demand and supply curve for bicycles. How can you determine the equilibrium price and quantity from the graph? How can you determine the equilibrium price and quantity from the table? What are the equilibrium price and equilibrium quantity?
4. If the price was \$120, what would the quantities demanded and supplied be? Would a shortage or surplus exist? If so, how large would the shortage or surplus be?

Price	Qd	Qs
\$120	50	36
\$150	40	40
\$180	32	48
\$210	28	56
\$240	24	70

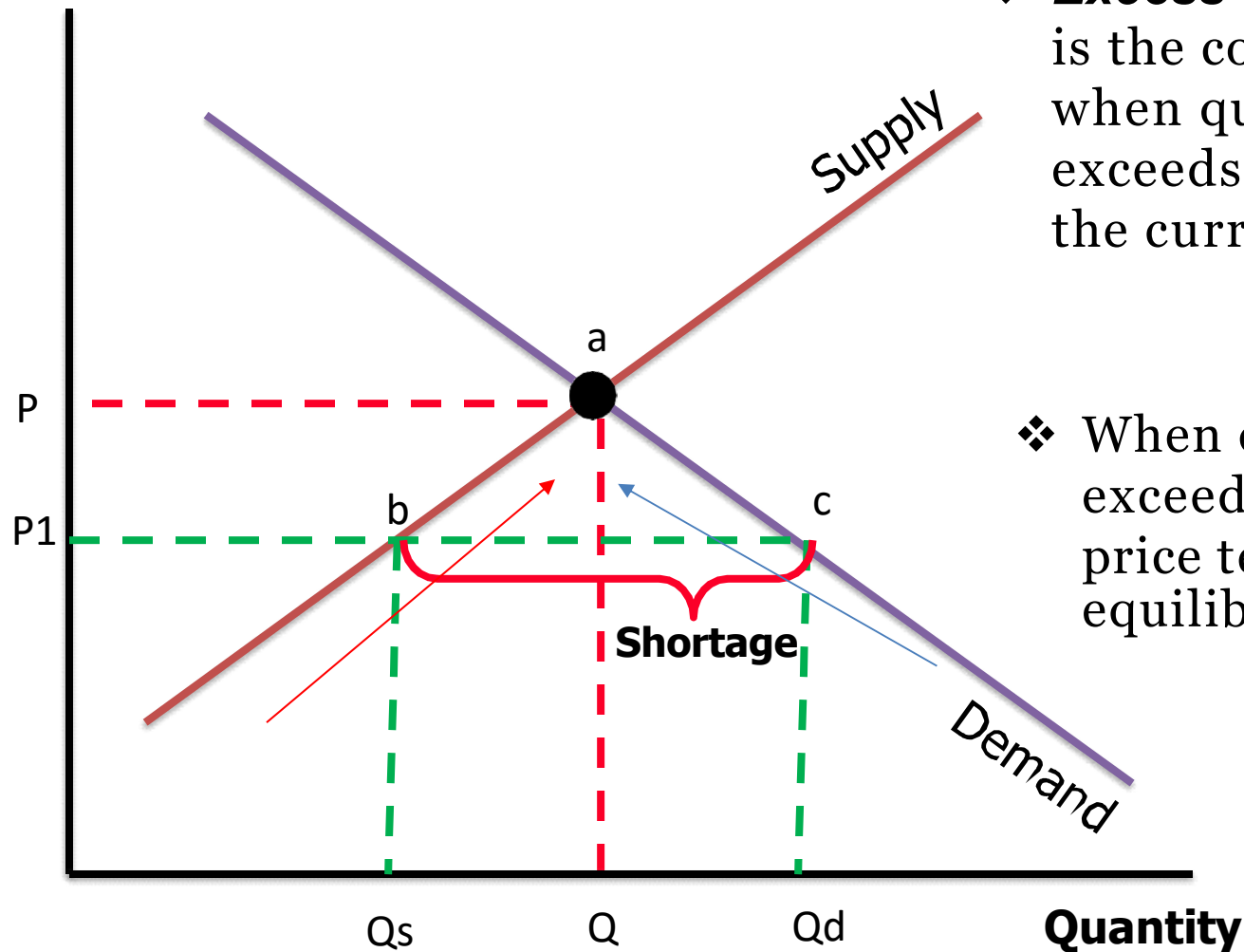
Table 6. Demand and Supply for Bicycles

Market Disequilibrium

Price

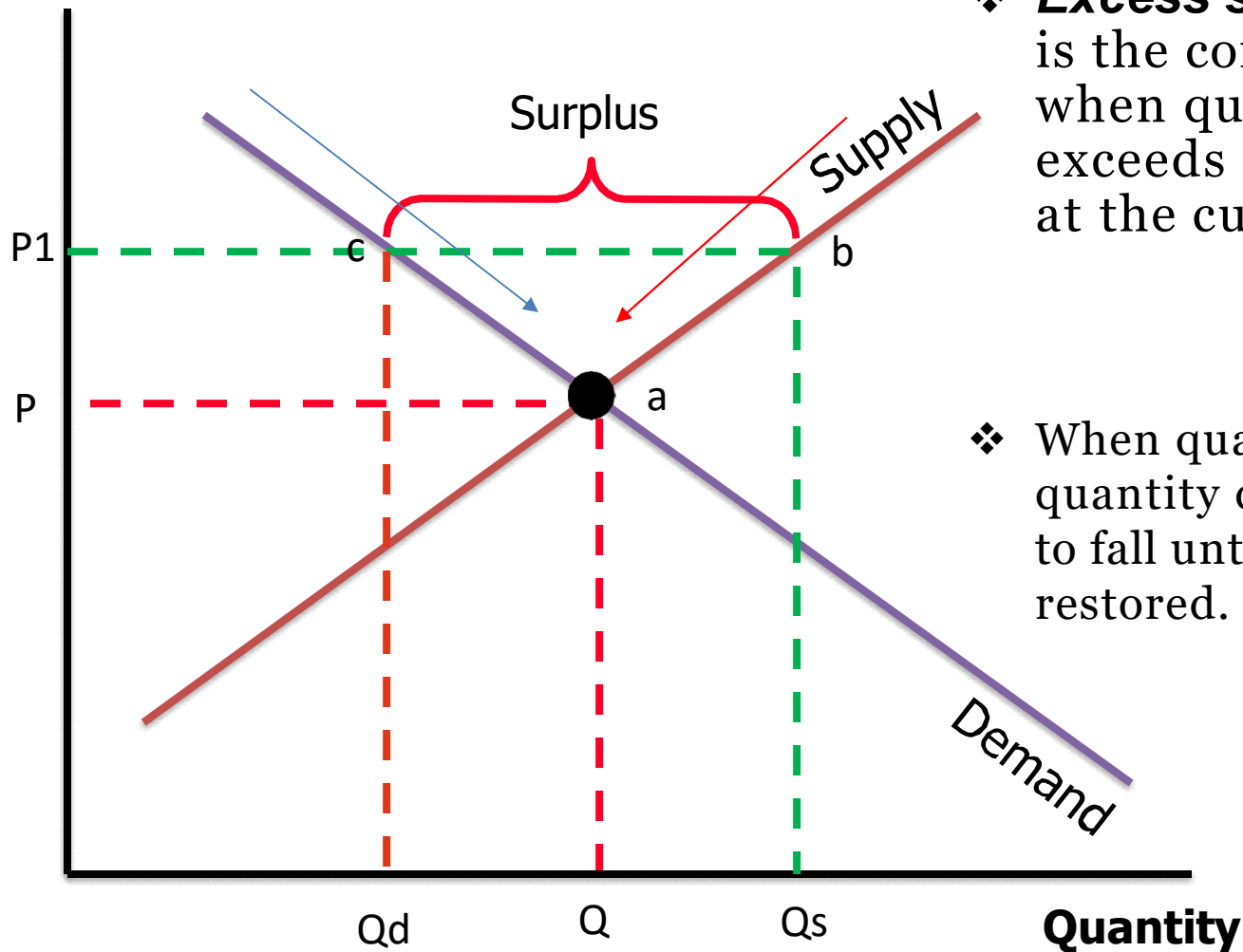
❖ **Excess demand**, or shortage, is the condition that exists when quantity demanded exceeds quantity supplied at the current price.

❖ When quantity demanded exceeds quantity supplied, price tends to rise until equilibrium is restored.



Market Disequilibrium

Price

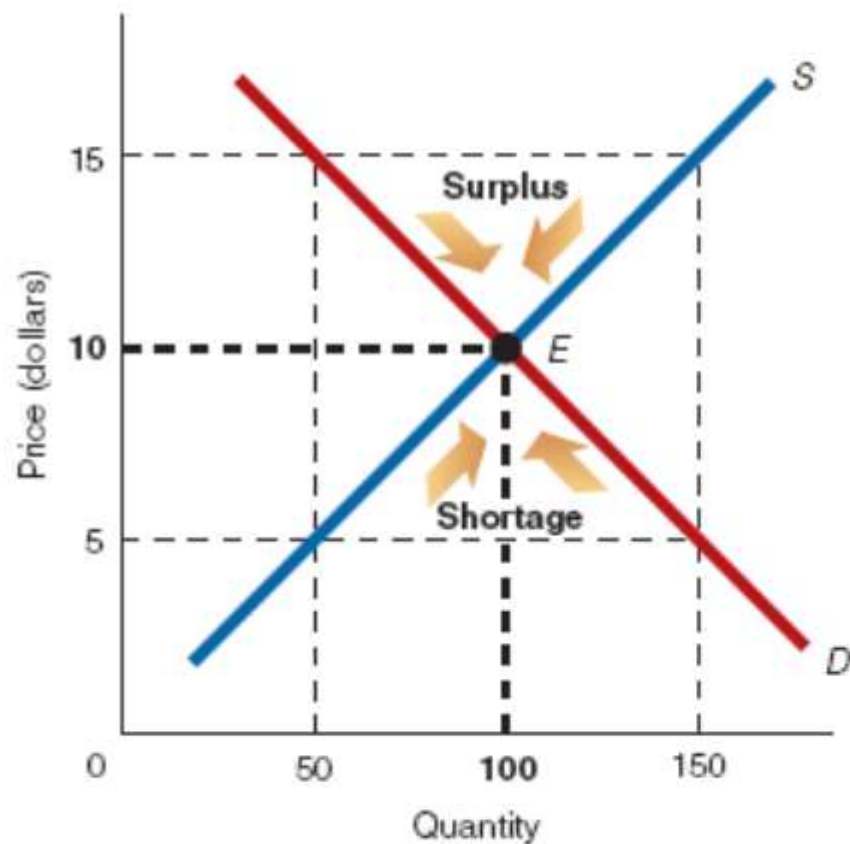


❖ **Excess supply**, or surplus, is the condition that exists when quantity supplied exceeds quantity demanded at the current price.

❖ When quantity supplied exceeds quantity demanded, price tends to fall until equilibrium is restored.

Market Equilibrium

Price	Q_s	Q_d	Condition
\$15	150	50	Surplus
10	100	100	Equilibrium
5	50	150	Shortage



Surplus and Shortage

- **Surplus (Excess Supply)** - A condition in which quantity supplied is greater than quantity demanded.
- Surpluses occur only at prices above equilibrium price.
- **Shortage (Excess Demand)** - A condition in which quantity demanded is greater than quantity supplied.
- Shortages occur only at prices below equilibrium price.

The Effects of changes in demand and supply on equilibrium price and quantity

A. Change in Demand

1. A change in demand will cause equilibrium price and output to change in the same direction.

a. A decrease in demand will cause a reduction in the equilibrium price and quantity of a good.

1. The decrease in demand causes excess supply to develop at the initial price.

a. Excess supply will cause price to fall, and as price falls producers are willing to supply less of the good, thereby decreasing output.

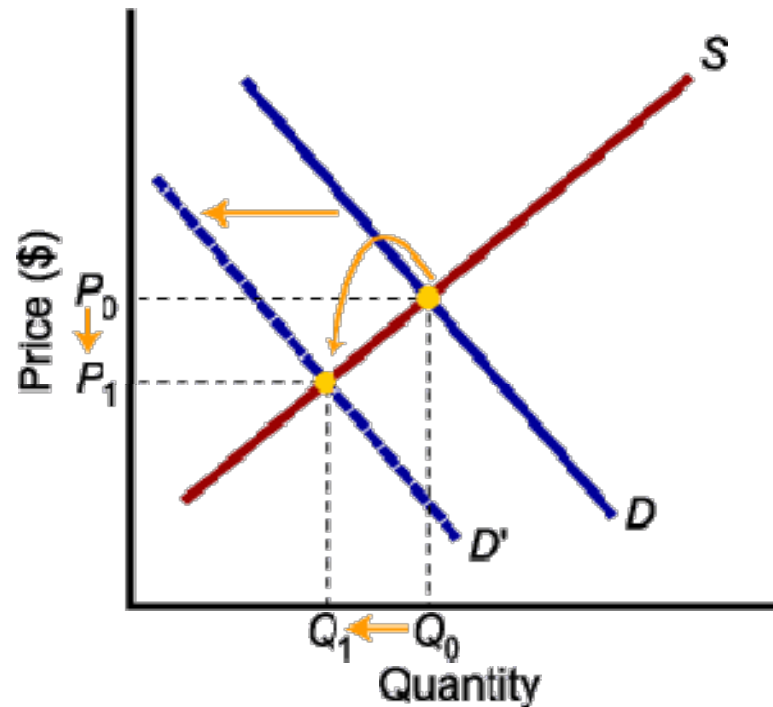
b. An increase in demand will cause an increase in the equilibrium price and quantity of a good.

1. The increase in demand causes excess demand to develop at the initial price.

a. Excess demand will cause the price to rise, and as price rises producers are willing to sell more, thereby increasing output.

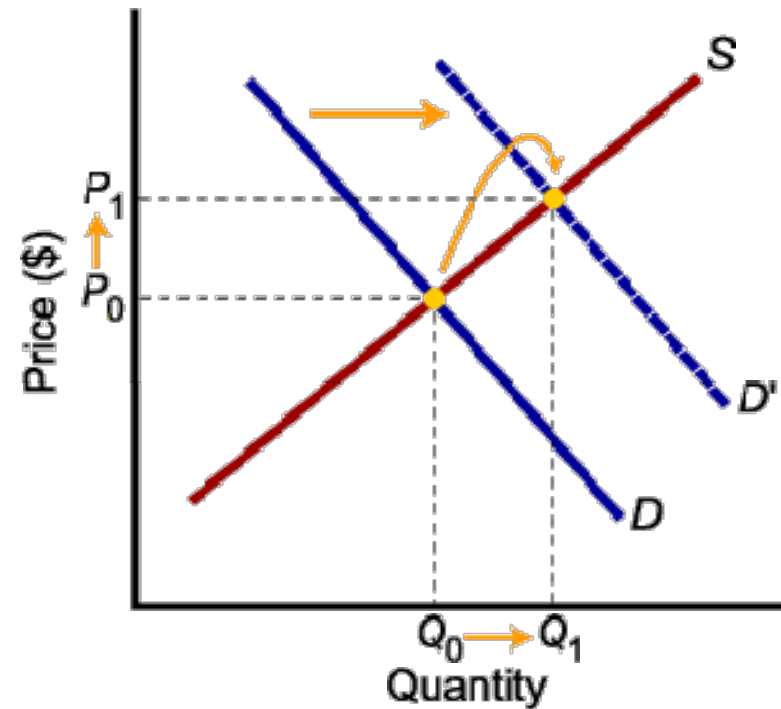
Decrease in Demand

- ❖ **Lower demand** leads to lower price and lower quantity exchanged.



Increase in Demand

- ❖ **Higher demand** leads to higher equilibrium price and higher equilibrium quantity.



B. Change in Supply

1. A change in supply will cause equilibrium price and output to change in opposite directions.

a. An increase in supply will cause a reduction in the equilibrium price and an increase in the equilibrium quantity of a good.

1. The increase in supply creates an excess supply at the initial price.

a. Excess supply causes the price to fall and quantity demanded to increase.

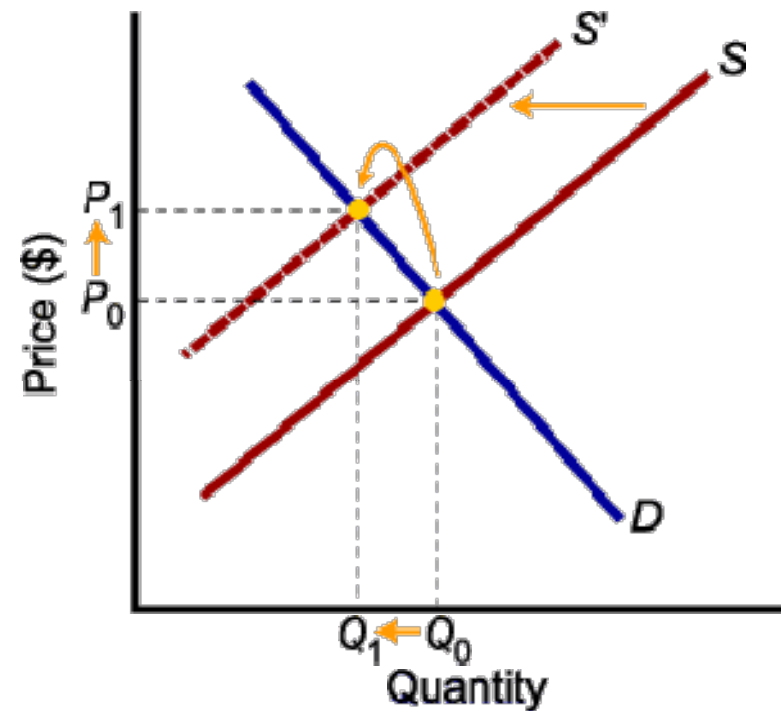
b. A decrease in supply will cause an increase in the equilibrium price and a decrease in the equilibrium quantity of a good.

1. The decrease in supply creates an excess demand at the initial price.

a. Excess demand causes the price to rise and quantity demanded to decrease.

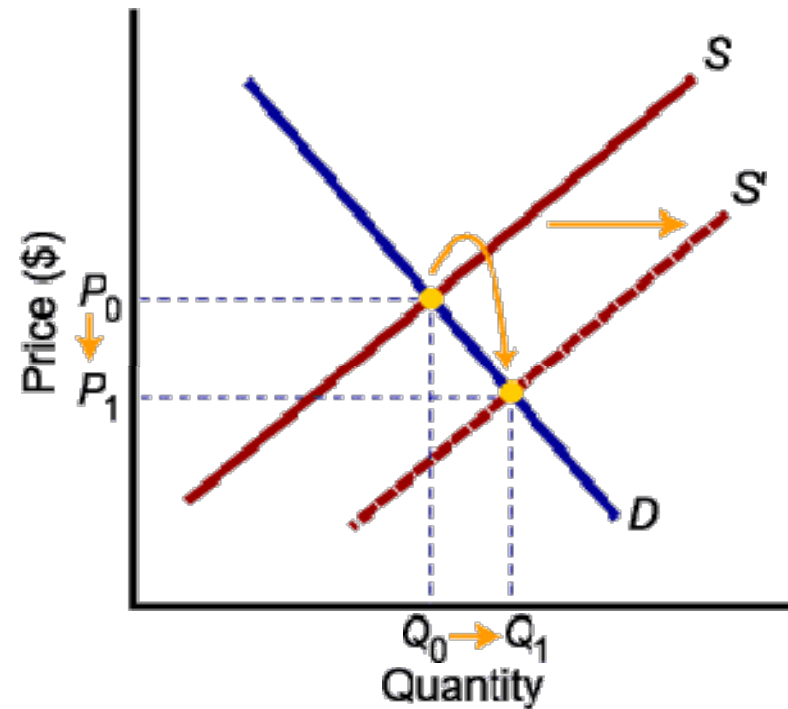
Decrease in Supply

- ❖ **Lower supply** leads to higher price and lower quantity exchanged.



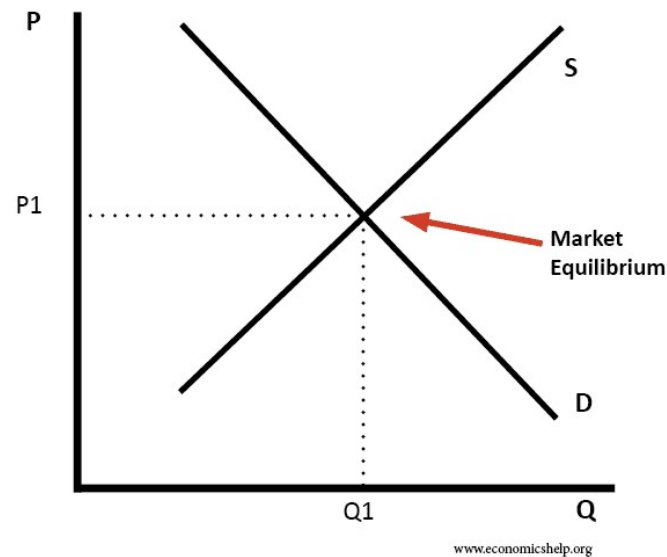
Increase in Supply

- ❖ **Higher supply** leads to lower equilibrium price and higher equilibrium quantity.



WHAT WOULD HAPPEN TO MARKET EQUILIBRIUM IF

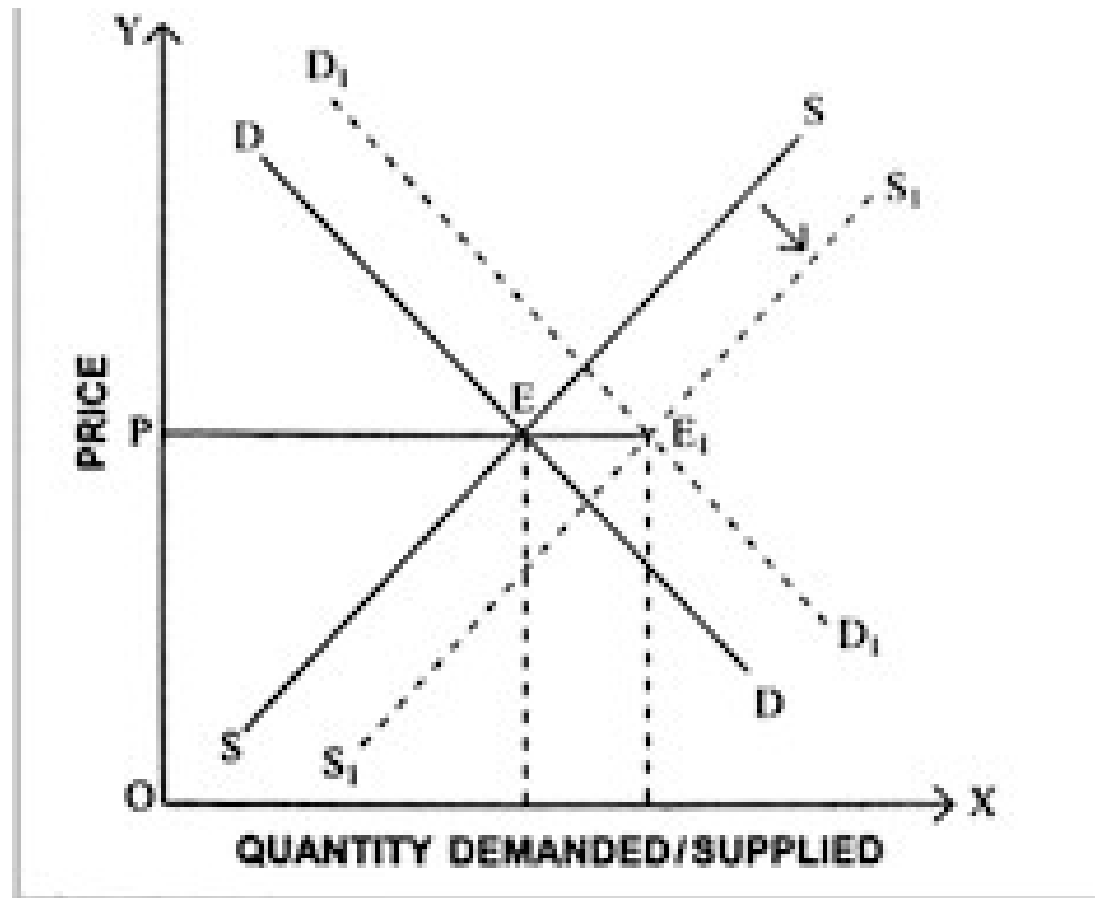
1. DEMAND AND SUPPLY CURVE MOVE IN THE SAME DIRECTION
2. IF THEY MOVE IN THE OPPOSITE DIRECTION



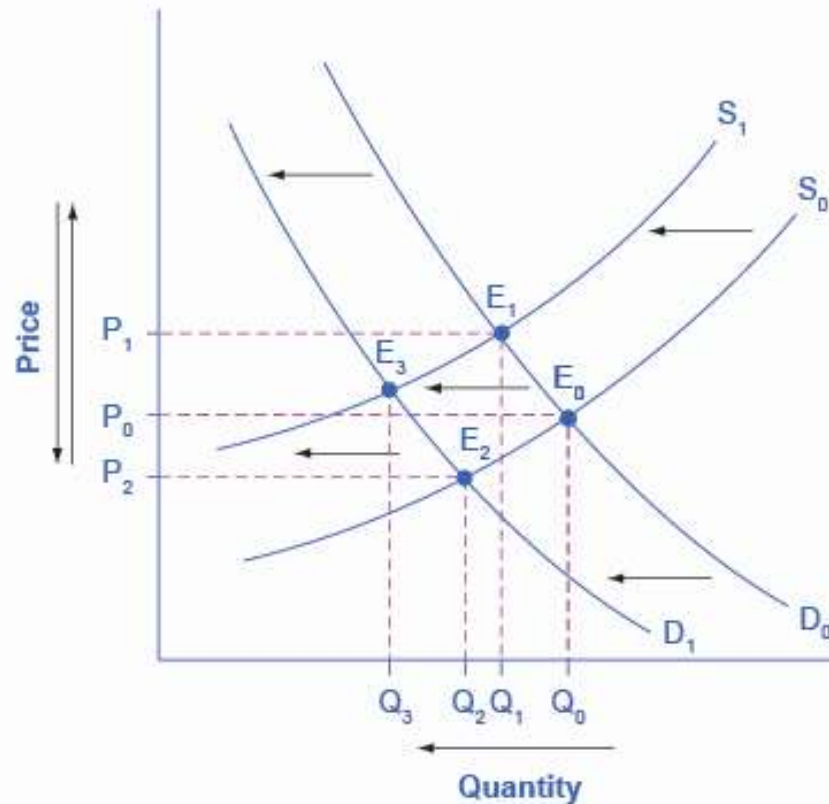
If the demand and supply change in the same direction, the change in the equilibrium output can be determined, but the change in the equilibrium price cannot.

- a. If both demand and supply INCREASE, there will be an increase in the equilibrium output, but the effect on the price cannot be determined.
- b. If both demand and supply DECREASE, there will be a decrease in the equilibrium output, but the effect on price cannot be determined.

Increase in Supply and Demand



Decrease in Supply and Demand



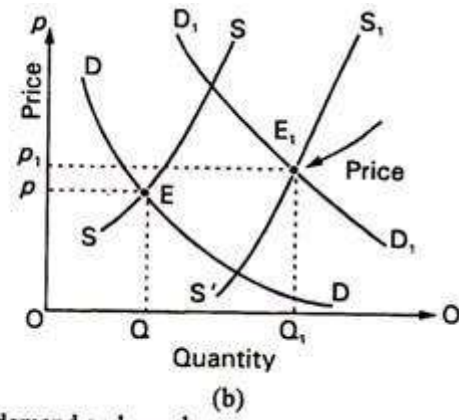
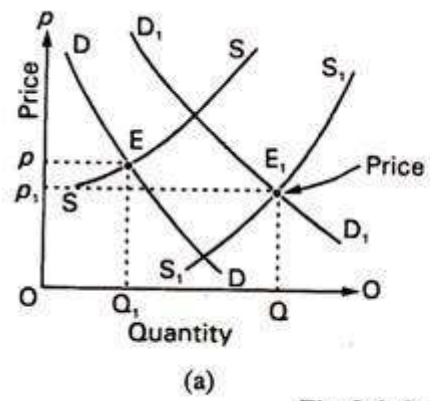
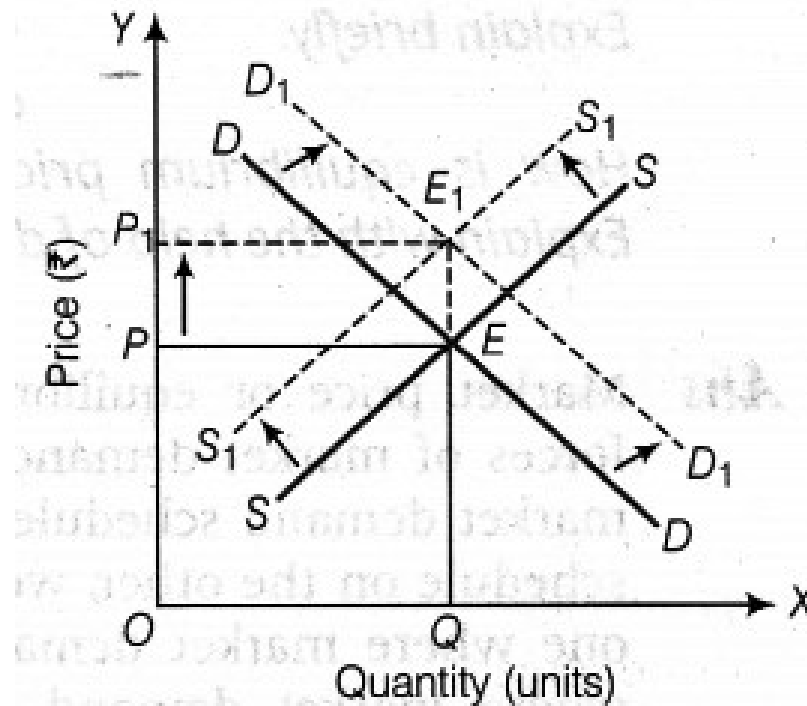


Fig. 9.6. Complex shifts in demand and supply

If the demand and supply change in opposite directions, then the change in the equilibrium price can be determined, but the change in the equilibrium output cannot be determined.

- a. A decrease in the demand and an increase in supply will cause a fall in equilibrium price but the effect on equilibrium quantity cannot be determined.
- b. An increase in demand and a decrease in supply will cause an increase equilibrium price but the effect on the equilibrium quantity cannot be determined.

Increase in Demand and Decrease in Supply



Decrease in Demand and Increase in Supply

