If you want to know how any event or policy will affect the economy, you must think first about how it will affect supply and demand.

# The Market Forces of Supply and Demand

## Markets and Competition

### What Is a Market

- A market is a group of buyers and sellers of a particular good or service. The buyers as a group determine the demand for the product, and the sellers as a group determine the supply of the product.
- Markets take many forms. Some markets are highly organized, such as the markets for many agricultural commodities. More often, markets are less organized.

### What Is Competition

- Each buyer knows that there are several sellers from which to choose, and each seller is aware that his product is similar to that offered by other sellers. As a result, the price and quanlity of ice cream sold are not determined by any single buyer or seller. Rather, price and quantity are determined by all buyers and sellers as they interact in the marketplace.
- competitive market: a market in which there are many buyers and many sellers so that each has a negligible impact on the market price
- In this chapter, we assume that markets are perfectly competitive. To reach this highest form of competition, a market must have two characteristics: 1) The goods offered for sale are all exactly the same; 2) the buyers and sellers are so numberous that no single buyer or seller has any influence over the market price.
- Some markets have only one seller, and this seller sets the price. Such a seller is called a monopoly.
- Other markets fall between the extremes of perfect competition and monopoly.
- Perfectly competitive markets are the easiest to analyze because everyone participating in the market takes the price as given by market conditions.

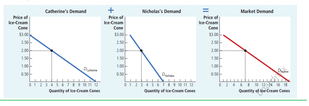
## Demand

### The Demand Curve: The Relationship between Price and Quantity Demaned

- As we will see, many things determine the quantity demanded of any good, but in out analysis of how markets work, one determinant plays a central role: the price of the good.
- quantity demanded: the amount of a good that buyers are willing and able to purchase
- law of demand: the claim that, other things being equal, the quantity demanded of a good falls when the price of the good rises
- demand schedule: a table that shows the relationship between the price of a good and the quantity demanded
- demand curve: a graph of the relationship between the price of a good and the quantity demanded

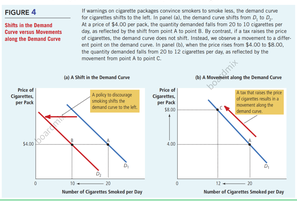
### Market Demand versus Individual Demand

- The quantity demanded in a market is the sum of quantities demanded by all the buyers at each price. Thus, the market demand curve is found by adding horizontally the individual demand vurves.




### Shifts in the Demand Curve

- Because the market demand curve holds other thing constant, it need not be stable over time. If something happens to alter the quantity demanded at any given price, the demand curve shifts.
- There are many variables that can shift the demand curve
  - Income
    - normal good: a good for which, other things being equal, an increase in income leads to an increase in demand
    - inferior good: a good for which, other things being equal, an increase in income leads to decrease in demand
  - Prices of Related Goods
    - substitutes: two goods for which an increase in the price of one leads to an increase in the demand for the other
    - complements: two goods for which an increase in the price of one leads to a decrease in the demand for the other
  - Tastes
  - Expectations
    - expectation of income
    - expectation of price
  - Numbers of Buyers
- Two ways to reduce the quantity of smoking demanded




## Supply

### The Supply Curve: The Relationship between Price and Quantity Supplied

- quantity supplied: the amount of a good that sellers are willing and able to sell
- law of supply: the claim that, other things being equal, the quantity supplied of a good rises when the price of the good rises
- supply schedule: a table that shows the relationship between the price of a good and the quantity supplied

| Price of Ice-Cream Cone | Quantity of Cones Demanded |
|---|---|
| $0.00 | 0 cones |
| 0.50 | 0 |
| 1.00 | 1 |
| 1.50 | 2 |
| 2.00 | 3 |
| 2.50 | 4 |
| 3.00 | 5 |

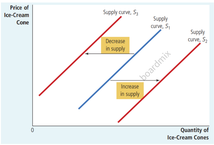
- supply curve: a graph of the relationship between the price of a good and the quantity supplied

### Market Supply versus Individual Supply

- The quantity supplied in a market is the sum of the quantities supplied by all the sellers at each price

### Shifts in the Supply Curve

- Any change that raises the quantity that sellers wish to produce at any given price shifts the supply curve to the right. Any change that lowers the quantity that sellers wish to produce at any given price shifts the supply curve to the left.



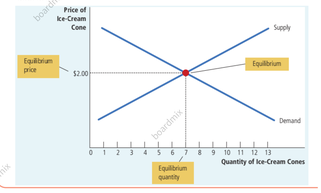

- There are many variables that can shift the supply curve

| Variable | A Change in This Variable . . . |
|---|---|
| Price of the good itself | Represents a movement along the supply curve |
| Input prices | Shifts the supply curve |
| Technology | Shifts the supply curve |
| Expectations | Shifts the supply curve |
| Number of sellers | Shifts the supply curve |

## Supply and Demand Together

### Equilibrium

- equilibrium: a situation in which the market price has reached the level at which quantity supplied equals quantity demanded
- equilibrium price: the price that balances quantity supplied and quantity demanded
- equilibrium quantity: the quantity supplied and the quantity demanded at the equilibrium price
- At the equilibrium price, the quantity of the good that buyers are willing and able to buy exactly balances the quantity that sellers are willing and able to sell.




- The action of buyers and sellers naturally move market toward the equilibrium of supply and demand.
- surplus: a situation in which quantity supplied is greater than quantity demanded
- shortage: a situation in which quantity demanded is greater than quantity supplied
- law of supply and demand: the claim that the price of any good adjusts to bring the quantity supplied and the quantity demanded for that good into balance

### Three Steps to Analyzing Changes in Equailibrium

- 1.Decide whether the event shifts the supply or demand curve(or perhaps both).
- 2.Decide in which direction the curve shifts.
- 3.Use the supply-and-demand diagram to see how the shift changes the equilibrium price and quantity.

| | No Change in Supply | An Increase in Supply | A Decrease in Supply |
|---|---|---|---|
| No Change in Demand | *P* same<br>*Q* same | *P* down<br>*Q* up | *P* up<br>*Q* down |
| An Increase in Demand | *P* up<br>*Q* up | *P* ambiguous<br>*Q* up | *P* up<br>*Q* ambiguous |
| A Decrease in Demand | *P* down<br>*Q* down | *P* down<br>*Q* ambiguous | *P* ambiguous<br>*Q* down |

## Conclusion: How Prices Allocate Resources

- Supply and demand together determine the prices of the economy's many different goods and services; prices in turn are the signals that guide the allocation of resources.
- In a free society there is no government planning agency making this decision and ensuring an adequate supply of food. Instead, the allocation of workers to farms is based on the job decisions of millions of workers. Theis decentralized system works well because these decisions depend on prices. The prices of food and the wages of farmworkers(the price and their labor) adjust to ensure that enough people choose to be farmers.