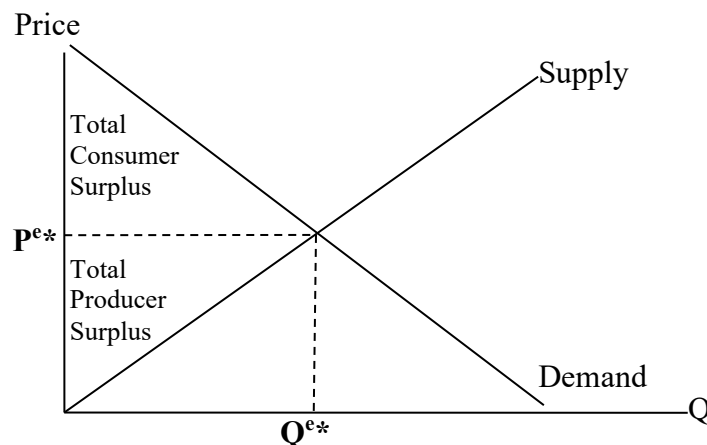


### TOPIC 03: SHIFTING SUPPLY AND DEMAND

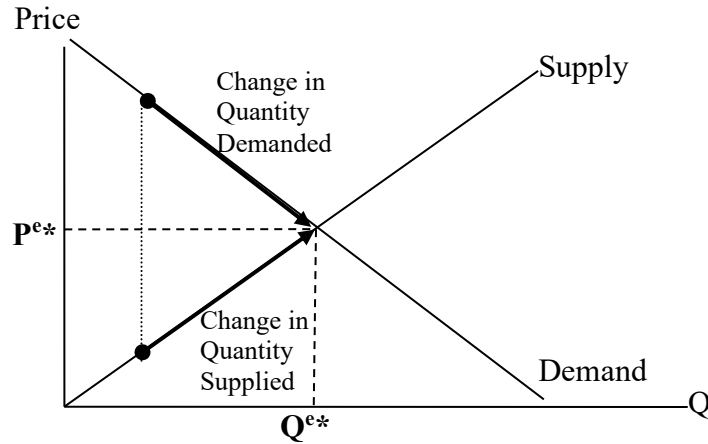
- I. The anatomy of the analysis
  - a. Understanding consumer and producer surplus on the diagram.
    - i. We take all prices as uniform across a particular market, such as socks, but people will value supplying or consuming that unit differently. We can note the difference as surplus, assuming the transaction took place.
    - ii. *Reservation price* is the most a person will pay for something or the minimum a person is willing to sell something for. Supply and demand curves are made up of reservation prices.
    - iii. The difference between the most you would buy something for and what you did buy it for is your *consumer surplus*.
    - iv. The difference between the least you would sell something for and what you did sell it for is your *producer surplus*.



- v. While *individual* consumer surplus is Reservation Price – Market Price, *total* consumer surplus is all the reservation prices, or the demand curve, minus Market Price. To calculate total consumer surplus, remember the formula for a triangle.
        - vi. Similarly, there is a difference between individual producer surplus and total producer surplus.
  - b. Understanding movements along a curve.
    - i. When the world changes, people respond to that change by adjusting the quantity they consume or sell. The move along the

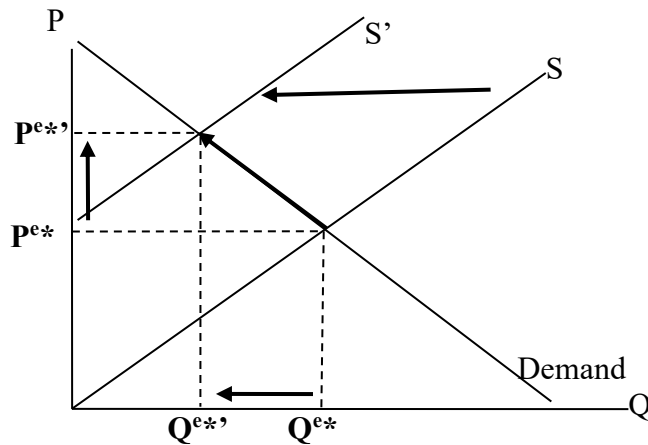
supply or demand curve reflects a change in the quantity demanded or supplied.

ii. Movements along the curves tend toward equilibrium.



II. Understanding the shifts in a curve.

- a. Recall that the supply curve is a bunch of marginal costs and the demand curve is a bunch of marginal benefits.
- b. As the world changes, these costs and benefits change as well. A *curve* will shift, causing a movement along the *other* curve.
- c. This is perhaps the most interesting use of supply and demand analysis. While the diagram illustrates a simple world where the only things that matter are supply, demand, price, and quantity, we can simulate changes in the market by shifting the supply or the demand curve to the left or to the right. For example, suppose a hurricane came through and destroyed all the factories for making books. How does this affect the market for making books?



- i. The grounding assumption in this sort of analysis is *ceteris paribus*, Latin for “all other things being equal.” In other words, we do not consider how the market will react to this shock beyond the most immediate response. Because the economy is so complex, the analysis has to be done bit by bit. How does this *one change* affect this *one part* of the economy?
      - ii. Note that the supply of books shifted to the left and, to achieve the new equilibrium, there was an instantaneous movement *along* the demand curve.
    - d. Another way to think about shifts is that *ceteris paribus* assumption:
      - i. The same amount of books will cost more to produce.
      - ii. The same price of books will result in fewer books produced.
    - e. Determining which way which curve shifts can be difficult for new students of supply and demand analysis. The best way to figure it out is to first note that any shift will result in one of four results:
      - i. The price will increase and the quantity will decrease.
      - ii. The price will increase and the quantity will increase.
      - iii. The price will decrease and the quantity will decrease.
      - iv. The price will decrease and the quantity will increase.
    - f. Then ask yourself which outcome seems most appropriate for the change that occurs. Each possibility corresponds to one and only one scenario: supply to the left (i); demand to the right (ii); demand to the left (iii); and supply to the right (iv).
- II. Common Demand shifters
  - a. Income
    - i. *Normal good or service*—a change in income result in demand shifting in the same direction (e.g. increase income increases demand).
    - ii. *Inferior good or service*— a change in income result in demand shifting in the opposite direction (e.g. increase income decreases demand).
  - b. Population of consumers
  - c. Price of other goods
    - i. *Substitutes*—two goods or services consumed instead of one another
    - ii. *Complements*—two goods or services consumed together
  - d. Tastes
  - e. Expectations
- III. Common Supply shifters
  - a. Production (changes in productivity)

- b. Input prices and taxes
- c. Population of producers
- d. Opportunity cost
- e. Expectations