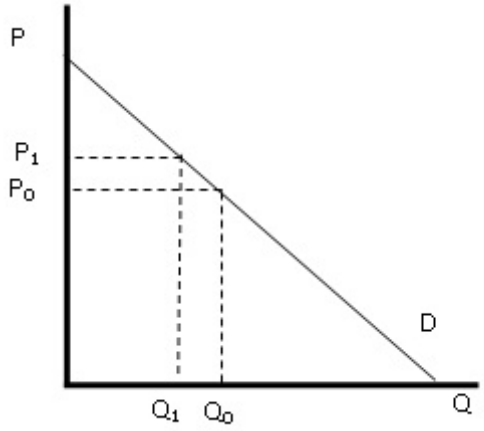
Lecture # 2 -- The Basics of Supply and Demand

I. The Market Mechanism

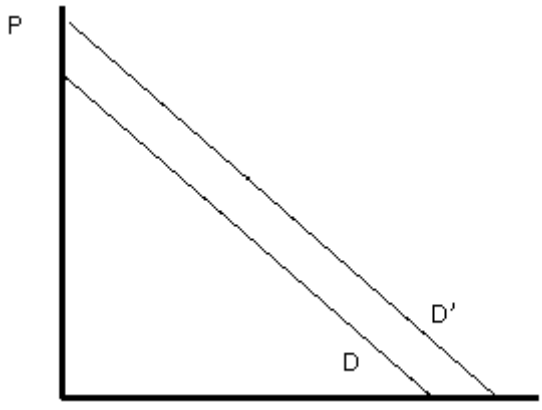
- A market is the collection of buyers and sellers that, through their actions or potential interactions, determine the price of a product or set of products.
    - Markets can include more than one industry.
- We describe a market with supply and demand curves.
- Note that the supply and demand model discussed in class assumes perfect competition. Perfect competition includes four assumptions:
    1. Many buyers and sellers, so that price is taken as given
        - No one firm (e.g. Microsoft) can influence price.
    2. Firms sell identical products
        - It doesn't matter who you buy from.
    3. Perfect information
        - Everyone knows their options.
    4. No barriers to entry or exit
        - Anyone who wants to enter the market (or leave the market if they are losing money) can.
- Our discussion of health care markets will consider how well these assumptions hold for health care
- It is important to evaluate the assumptions for any market you are considering to think about whether perfect competition is a reasonable approximation of the market.

II. The Demand Curve

- The Demand Curve shows how much consumers are willing to buy at a given price.
    - Be sure to understand the distinction between *demand* (the curve itself) and *quantity demanded* (a point on the demand curve).
- Demand slopes downward.
- Factors influencing demand:
    - Price of the good
    - Income
    - Preferences
    - Substitutes & complements
- A change in prices (note: on the axis) leads to a movement along the demand curve.
    - Here, as price increases to P1, quantity demanded falls to Q1.



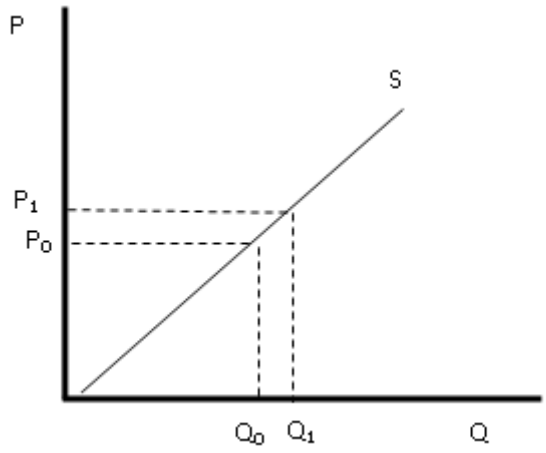
- Other changes (note: not on the axis) cause the demand curve to shift.
    - Here is an example of demand shifting outward (e.g. because of higher income).



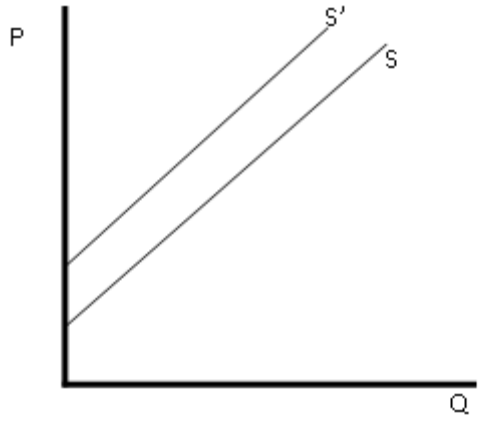
- The slope of the curve depends on the substitutes available for the good.

III. The Supply Curve

- The Supply Curve shows the quantities producers are willing to make available at a given price.
- Supply slopes upward.
- Factors influencing supply:
  - Price of the good
  - Prices of inputs
  - Technology
  - Weather (e.g. for agriculture)
- Again, a change in price (note: on the axis) leads to a movement along the supply curve.
  - Here, as price increase from P0 to P1, quantity supplied increase from Q0 to Q1.

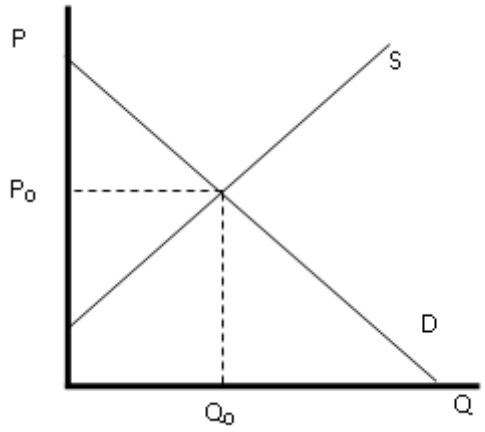


- Other changes (note: not on the axis) cause the supply curve to shift.
  - Here is an example of supply shifting in (e.g. because costs have increased).

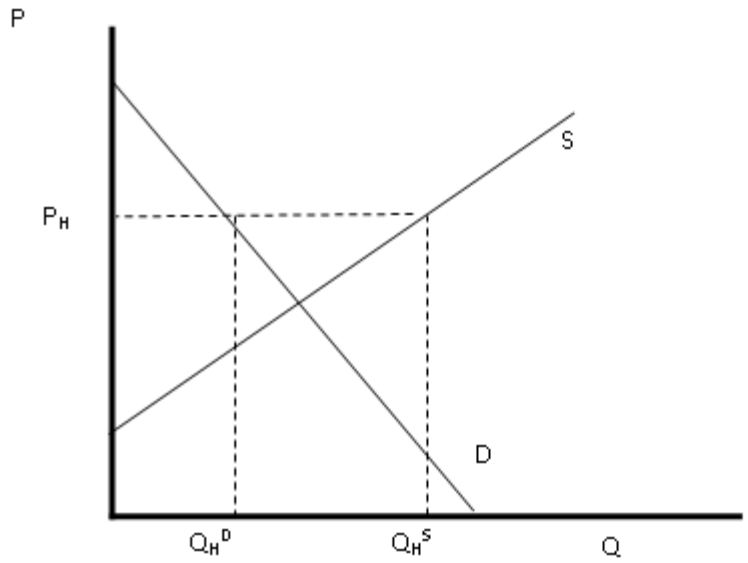


IV. Equilibrium

- Equilibrium occurs where the quantity demanded equals quantity supplied. At this point, no participant wants to change his or her behavior.
    - There is neither a shortage nor excess supply, so there is no pressure for price to change further.

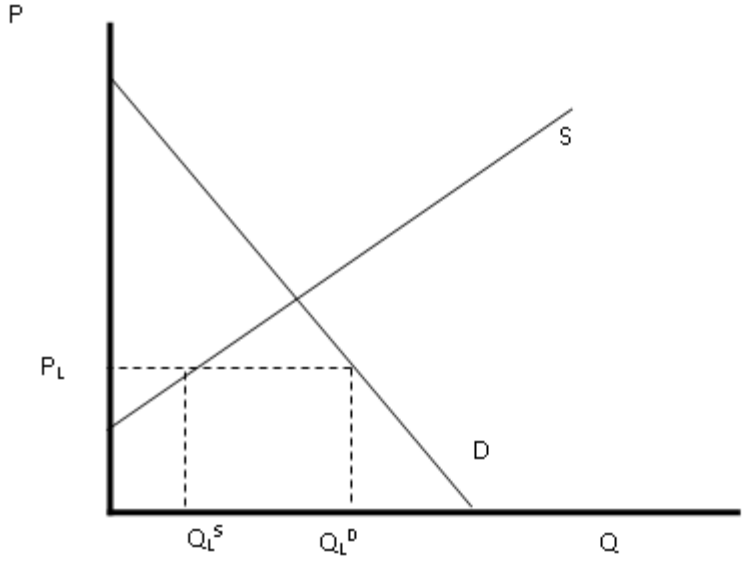


- The graphs below illustrate how a market gets to equilibrium.
    - In this first example, the price, P_H, is higher than the equilibrium price



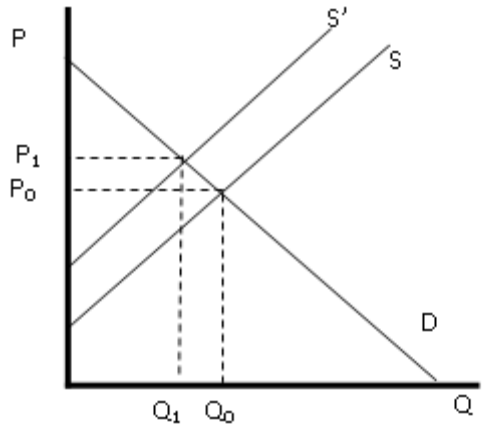
        - At this price, suppliers will wish to sell a lot, so quantity supplied will be large (note that Q_H^S is on the right of the graph, signifying a high quantity)
        - However, consumers will not wish to purchase much at this price, so quantity demanded, Q_H^D, will be low.
            - This results in a *surplus* in the market, also referred to as *excess supply*.
        - As a result of this surplus, sellers have incentive to lower the price to sell more of their goods.

- In this second example, the price, P_L, is lower than the equilibrium price

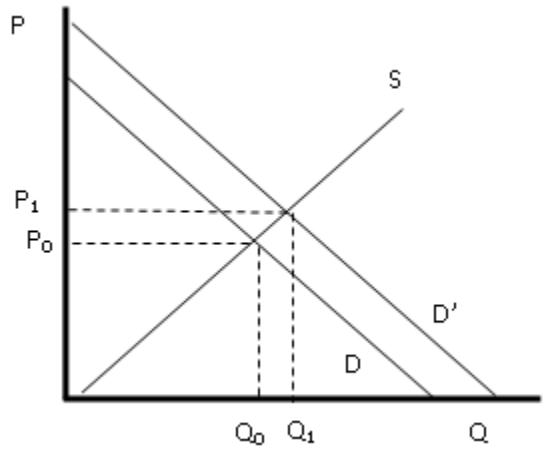


    - At this price, consumers will wish to buy a lot, so quantity demanded, Q_L^D, will be large
    - However, sellers are not willing to sell much at a low price, so quantity supplied, Q_L^S, will be small.
        - This results in a *shortage* in the market, also referred to as *excess demand*.
    - As a result of this shortage, consumers have incentive to offer a higher price to get what they want.
- Note that the only point where neither buyers nor sellers have a reason to change their behavior is when the price is where supply equals demand.
    - The supply and demand curves intersect at this point.
    - This intersection gives us the equilibrium price and quantity.

- As our examples in class show, a *shift* in one curve leads to a *movement along* the other curve.
    - Here, for example, supply shifting in (e.g., reduced availability of sunflower oil) causes us to move to a new equilibrium with higher prices and lower quantity.



- Application: General equilibrium effects
    - Reduced availability of sunflower oil from Ukraine affects other markets. Economists call these secondary impacts general equilibrium effects.
    - For example, consider how the market for palm oil is affected. Because palm oil is a substitute for sunflower oil, demand increases.
    - We move along the supply curve to a new equilibrium with higher prices and more palm oil sold.



    - *Question*: Other markets, such as foods with oils in them, are also affected. How would you illustrate the changes in those markets using a supply and demand diagram?