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Lecture Notes: EC133
September 18, 2017

1 Demand and Supply

- We are going to work under the assumption of a competitive market. It is usually defined as

  1. Many buyers and sellers in the market (even though experimental evidence shows that "many" is at least three traders in one side of the market).
  2. Same good/service.

- The result is that no individual actions have a noticeable effect on the price of the good or service sold. Usually we say that the market participants in a competitive market are price-takers.

- The supply and demand model is a model how a competitive market works. It has five key elements

  1. Demand curve
  2. Supply curve
  3. Demand and supply shifts
  4. Market equilibrium
  5. Changes in market equilibrium

- The observation that as the price of a good goes up, the quantity demanded by consumers gets less and less is known as *the law of demand.* The main idea is that when prices drop, you are willing to buy more of that good.

- We should make an important point: *When, everything else being equal (ceteris paribus), the price of a good changes, this generates a change in quantity demanded, and we mean a movement along the demand curve.* On the other hand, *when anything but the price of a good changes, this generates a change in demand, and we mean a shift of the demand curve.*

- We expect a shift of the demand when:

  1. change in the **substitutes:** Two goods are substitutes if a fall in the price of one of the goods makes consumers less willing to buy the other good.

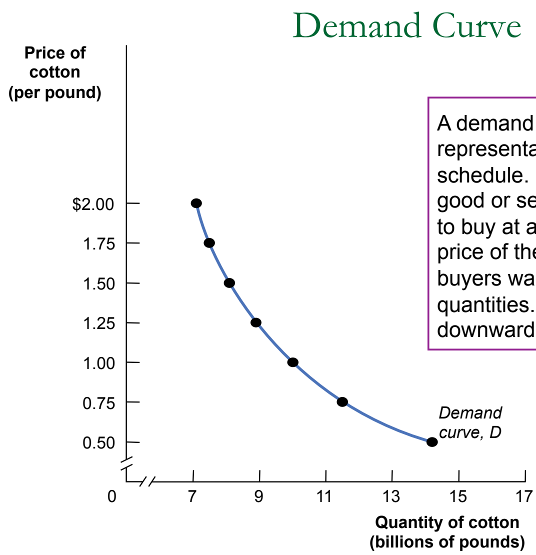

Figure 1: Demand curve

2. change in the **Complements:** Two goods are complements if a fall in the price of one good makes people more willing to buy the other good.
3. change in income. When a rise in income increases the demand for a good —the normal case— we say that the good is a normal good. When a rise in income decreases the demand for a good, it is an inferior good.
4. Change in Tastes.
5. Changes in Expectations.
6. Changes in the number of consumers.

- Supply is related to the production and the technology available to produce goods.
- The supply curve is upward sloping since the costs of production of every additional unit increases. We will say that the **marginal cost** is increasing.
- What causes a supply curve to shift?
  1. Change in input prices. An input is a good that is used to produce other good
  2. Changes in the prices of related goods and services
  3. Changes in technology
  4. Changes in expectations
  5. Changes in the number of producers
- Equilibrium in a competitive market: when the quantity demanded of a good equals the quantity supplied of that good.

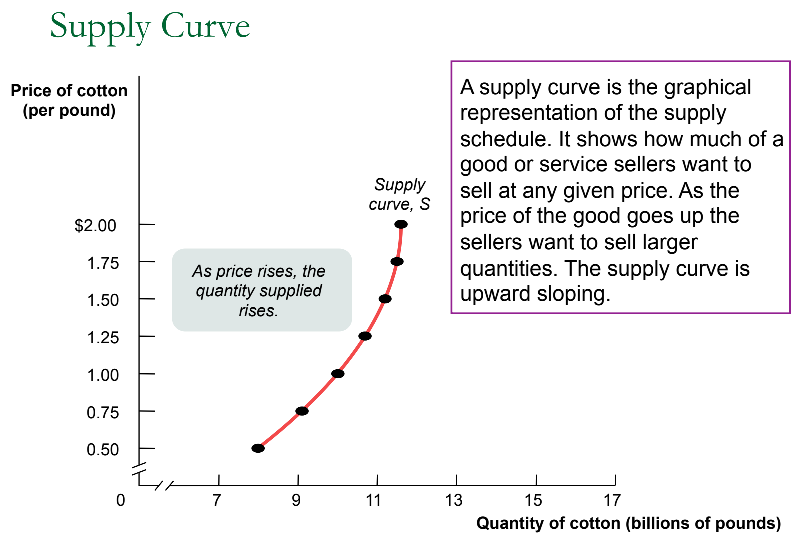

Figure 2: Supply curve

- The price at which this takes place is the *equilibrium price* or market-clearing price. We usually denote as p^*.

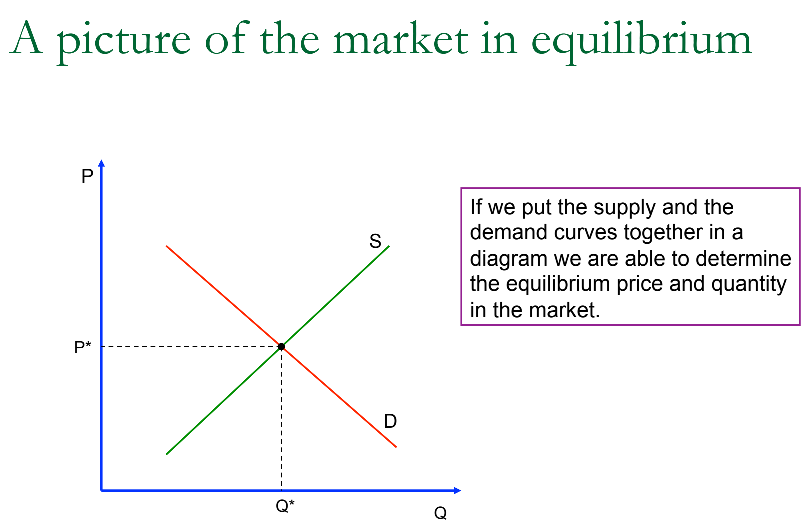

Figure 3: Demand and Supply

- Anytime that price is not an equilibrium, we will say that there is an excess of supply $(p > p^*)$ or an excess of demand $(p < p^*)$
- Shifts in demand and supply:

  1. The change in tastes means we demand more of the good for each price so the whole demand curve moves to the right. At the same time notice that we move along the supply curve. The equilibrium price and quantity increases.

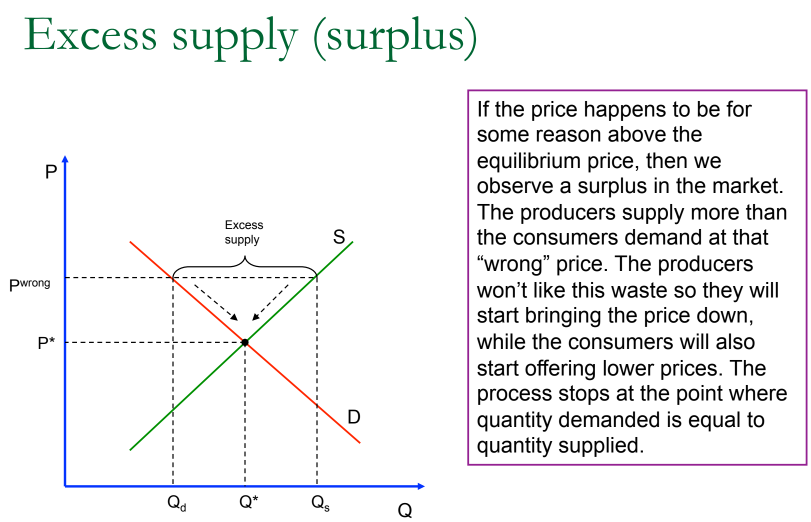

Figure 4: Excess of Supply

2. If the technology for producing the good improves, the producers can produce more goods with the same amount of effort. This means the producers can supply more of the good for each price so the whole supply curve moves to the right. At the same time notice that we move along the demand curve. The equilibrium price decreases while quantity increases.

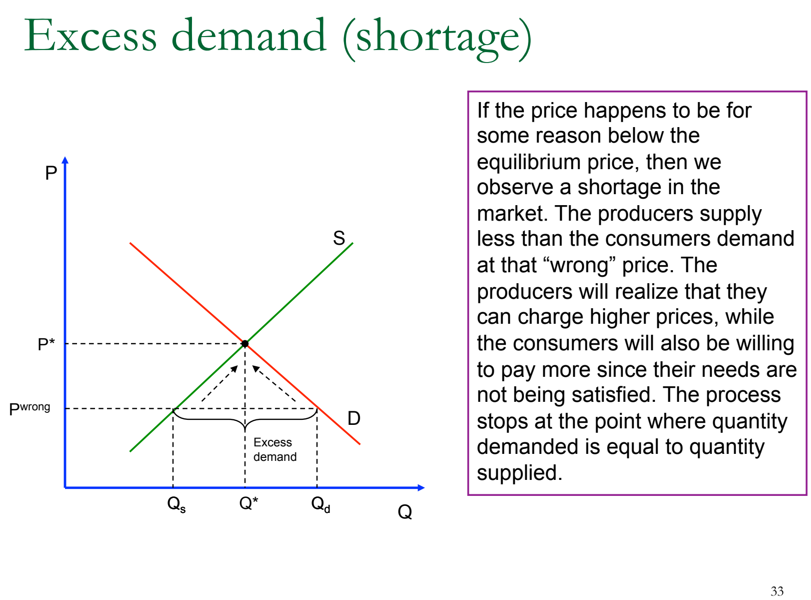

Figure 5: Excess of Demand