Microeconomics
HM207

Competitive Equilibrium Theory

Topic 2: How the market works

SUPPLY AND DEMAND TOGETHER

- *Equilibrium* refers to a situation in which the price has reached the level where quantity supplied equals quantity demanded.

SUPPLY AND DEMAND TOGETHER

- *Equilibrium Price*
  - The price that balances quantity supplied and quantity demanded.
  - On a graph, it is the price at which the supply and demand curves intersect.
- *Equilibrium Quantity*
  - The quantity supplied and the quantity demanded at the equilibrium price.
  - On a graph it is the quantity at which the supply and demand curves intersect.

SUPPLY AND DEMAND TOGETHER

Demand Schedule

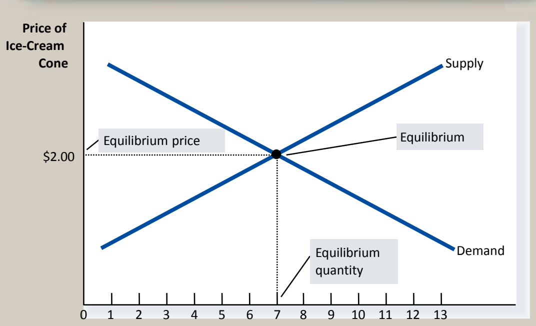
Price of Ice-Cream Cone	Market
$0.00	19
0.50	16
1.00	13
1.50	10
2.00	7
2.50	4
3.00	1

Supply Schedule

Price of Ice-Cream Cone	Market
$0.00	0
0.50	0
1.00	1
1.50	4
2.00	7
2.50	10
3.00	13

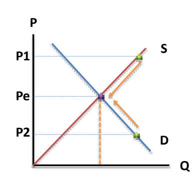
At $2.00, the quantity demanded is equal to the quantity supplied!

Figure 8 The Equilibrium of Supply and Demand

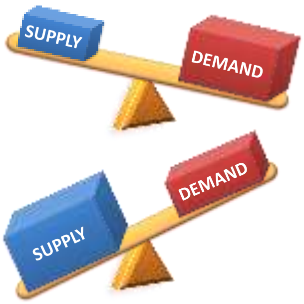


Equilibrium

- *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.



Markets Not in Equilibrium



When DEMAND ≠ SUPPLY

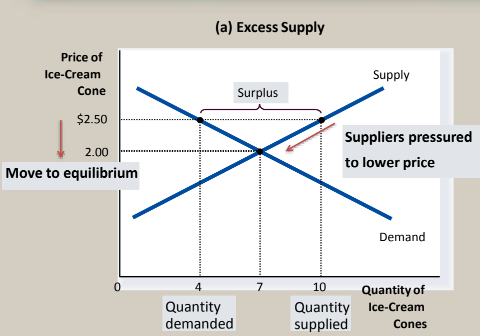
- *SURPLUS*
- *SHORTAGE*

7

Markets Not in Equilibrium

- *Surplus*
  - When price > equilibrium price, then quantity supplied > quantity demanded.
    - There is excess supply or a surplus.
    - Suppliers will lower the price to increase sales, thereby moving toward equilibrium.

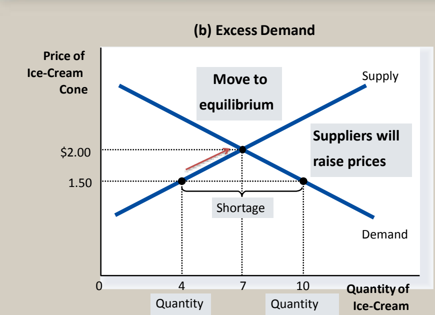
SURPLUS: Markets Not in Equilibrium



Markets Not in Equilibrium

- *Shortage*
  - When price < equilibrium price, then quantity demanded > the quantity supplied.
    - There is excess demand or a shortage.
    - Suppliers will raise the price due to too many buyers chasing too few goods, thereby moving toward equilibrium.

SHORTAGE: Markets Not in Equilibrium



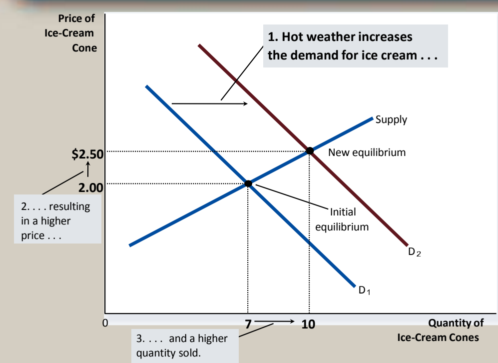
Three Steps to Analyzing Changes in Equilibrium

1. Decide whether the event shifts the supply or demand curve (or both).
2. Decide whether the curve(s) shift(s) to the left or to the right.
3. Use the supply-and-demand diagram to see how the shift affects equilibrium price and quantity.

An Example: Increase in Demand

- What's the effect of very hot weather on the equilibrium price of ice cream cones?

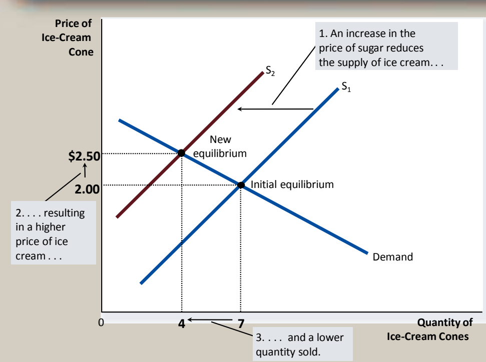
How an Increase in Demand Affects the Equilibrium



An Example: Decrease in Supply

- What's the effect of the increase in the price of sugar on the equilibrium price of ice cream cones?

How a Decrease in Supply Affects the Equilibrium



What Happens to Price and Quantity When Supply or Demand Shifts?

	No Change in Supply	An Increase in Supply	A Decrease in Supply
No Change in Demand	P same Q same	P down Q up	P up Q down
An Increase in Demand	P up Q up	P ambiguous Q up	P up Q ambiguous
A Decrease in Demand	P down Q down	P down Q ambiguous	P ambiguous Q down

Supply, Demand, & Government Policies

- In a free, unregulated market system, market forces establish equilibrium prices and exchange quantities.
- While equilibrium conditions may be efficient, it may be true that not everyone is satisfied.
- One of the roles of economists is to use their theories to assist in the development of policies.

CONTROLS ON PRICES

- Are usually enacted when policymakers believe the market price is unfair to buyers or sellers.
- Result in government-created price ceilings and floors.

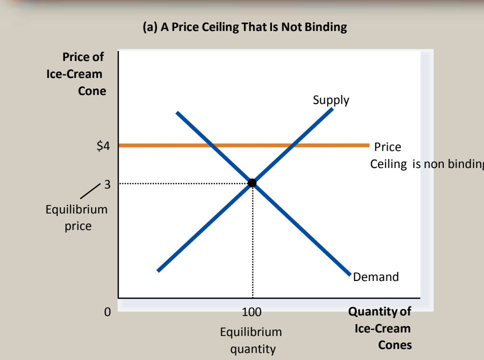
CONTROLS ON PRICES

- ***Price Ceiling***
  - A legal *maximum* on the price at which a good can be sold.
  -
- ***Price Floor***
  - A legal *minimum* on the price at which a good can be sold.

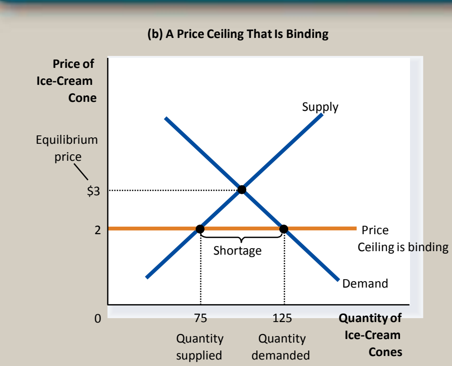
How Price Ceilings Affect Market Outcomes

- Two outcomes are possible when the government imposes a price ceiling:
  - The price ceiling *is not* binding **if set *above*** the equilibrium price.
  - The price ceiling *is* **binding if set *below*** the equilibrium price, leading to a shortage.

A Market with a Price Ceiling above Equilibrium



A Market with a Price Ceiling below Equilibrium



How Price Ceilings Affect Market Outcomes

- Effects of Price Ceilings
- A binding price ceiling creates
  - shortages because $Q_D > Q_S$.
    - Example: Gasoline shortage of the 1970s
  - nonprice rationing
    - Examples: Long lines, discrimination by sellers

CASE STUDY: Lines at the Gas Pump

- In 1973, OPEC raised the price of crude oil in world markets. Crude oil is the major input in gasoline, so the higher oil prices reduced the supply of gasoline.
- What was responsible for the long gas lines?

  - Economists blame government regulations that limited the price oil companies could charge for gasoline.

The Market for Gasoline with a Price Ceiling

(a) The Price Ceiling on Gasoline Is Not Binding

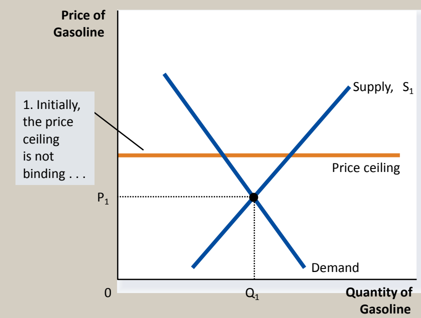
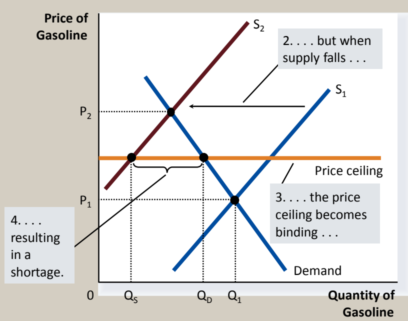


Figure 2 The Market for Gasoline with a Price Ceiling

(b) The Price Ceiling on Gasoline Is Binding

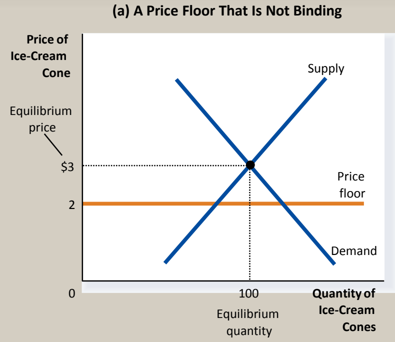


How Price Floors Affect Market Outcomes

- When the government imposes a price floor, two outcomes are possible.
- The price floor ***is not*** binding if set ***below*** the equilibrium price.
- The price floor ***is binding*** if set ***above*** the equilibrium price, leading to a surplus.

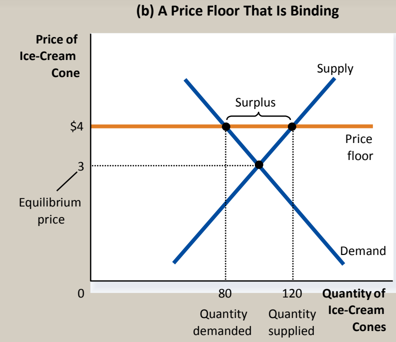
A Market with a Price Floor below Equilibrium

(a) A Price Floor That Is Not Binding



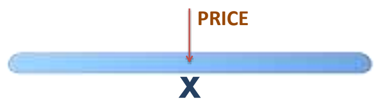
A Market with a Price Floor above Equilibrium

(b) A Price Floor That Is Binding



How Price Floors Affect Market Outcomes

- A price floor prevents supply and demand from moving toward the equilibrium price and quantity.
- When the market price hits the floor, it can fall no further, and the market price equals the floor price.



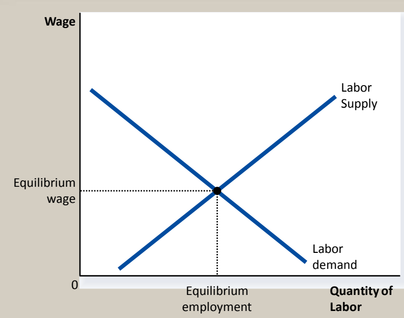
How Price Floors Affect Market Outcomes

- A binding price floor causes . . .
  - a **SURPLUS** because $Q_S > Q_D$.
  - ***NON-PRICE RATIONING***: an alternative mechanism for rationing the good, using discrimination criteria.
    - Examples: The minimum wage, agricultural price supports

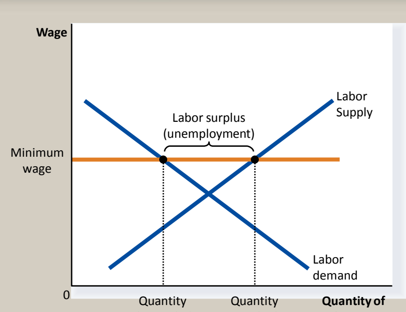
The Minimum Wage

- An important example of a price floor is the minimum wage. Minimum wage laws dictate the lowest price possible for labor that any employer may pay.

The Labor Market Equilibrium



How the Minimum Wage Affects the Labor Market



Microeconomics HM207

Next: Elasticity

Study for Tutorial

39