

## OUTLINE — September 10, 2018

- Model of Supply and Demand, continued
  - Supply
  - Equilibrium
  - Change of Equilibrium
  - Adjustment Process
- The Price Mechanism

*Laptops closed; Cell phones silenced & put away*  
*PS1 due at beginning of section today/tomorrow*

*Announcements sent by e-mail*  
*Extra handouts: in racks outside 532 Evans*

Supply    Equilibrium    Change of Equilibrium    Price Mechanism

## Supply

- For a particular product, what quantity will be offered for sale at each of many prices?
  - Individual firm supply
  - Market supply

Supply    Equilibrium    Change of Equilibrium    Price Mechanism

## Again, need more information

- Define market precisely
  - product characteristics
  - time period
- Make assumptions explicit
  - When I ask about response to change in price, assume
    - 1.
    - 2.
    - 3.
    - 4.
- "*Ceteris Paribus*" = "holding all else constant"

Supply    Equilibrium    Change of Equilibrium    Price Mechanism

## Supply Curve



Supply    Equilibrium    Change of Equilibrium    Price Mechanism

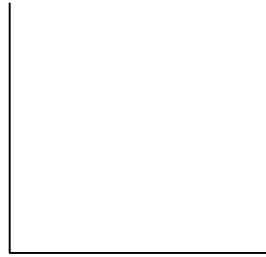
## p and $q_s$ are Directly Related

- Terminology important!
  - ✓ Supply
  - ✓ Quantity Supplied

Supply      Equilibrium      Change of Equilibrium      Price Mechanism

## Change in Input Costs

- ↑ cost of input



Supply      Equilibrium      Change of Equilibrium      Price Mechanism

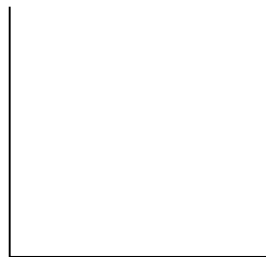
## What Shifts Supply?

- $\Delta p \Rightarrow$  *MOVE ALONG* curve
- $\Delta$  anything else  $\Rightarrow$  *SHIFT OF* curve
- What shifts Supply? Recall our assumptions!
- If any of these things change, supply shifts
  - 1.
  - 2.
  - 3.
  - 4.

Supply      Equilibrium      Change of Equilibrium      Price Mechanism

## Change in Technology

- better technology



Supply      Equilibrium      Change of Equilibrium      Price Mechanism

## Change in price of “related products”

- Substitutes in production (either – or)



- ↑ price of substitute output

Supply      Equilibrium      Change of Equilibrium      Price Mechanism

## Change in price of “related products”

- Complements in production (by-products)

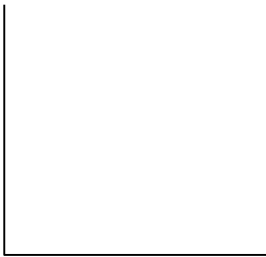


- ↑ price of complement output

Supply      Equilibrium      Change of Equilibrium      Price Mechanism

## Change in # of Sellers

- ↑ # of sellers



Supply      Equilibrium      Change of Equilibrium      Price Mechanism

## Market Equilibrium

- When price is at its equilibrium, quantity demanded equals quantity supplied
  - When  $p = p^*$ ,  $q_D = q_S$  ( $p^*$  stands for “equilibrium price”)



Supply      **Equilibrium**      Change of Equilibrium      Price Mechanism

## Adjustment Process

- If  $p < p^*$
- If  $p > p^*$

Supply      **Equilibrium**      Change of Equilibrium      Price Mechanism

## Change of Equilibrium

- $\Delta$  Demand or  $\Delta$  Supply occurs when a "ceteris paribus" assumption is violated

Demand shifters

Supply shifters

Supply      Equilibrium      **Change of Equilibrium**      Price Mechanism

## Madagascar cyclone & vanilla



Supply      Equilibrium      **Change of Equilibrium**      Price Mechanism

## CA houses



Supply      Equilibrium      **Change of Equilibrium**      Price Mechanism

## Scalped 'Hamilton' Tickets



Supply      Equilibrium      **Change of Equilibrium**      Price Mechanism

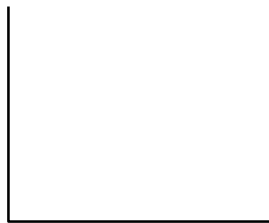
## Example: We want more Bluetooth speakers



Supply      Equilibrium      Change of Equilibrium      **Price Mechanism**

## Price Mechanism

- *Positive* economic analysis
- Determines
  - What is produced
    - "Consumer Sovereignty"
  - For whom



Supply      Equilibrium      Change of Equilibrium      **Price Mechanism**

## Bottled Water after Katrina



Supply      Equilibrium      Change of Equilibrium      **Price Mechanism**

## Fairness of distribution (equity)

- *Normative* economic analysis
- “Price-gouging”

Supply Equilibrium Change of Equilibrium **Price Mechanism**

## Bottled H<sub>2</sub>O: Utility or Ability to Pay?

- Utility
  - A measure of satisfaction we derive from consuming a good
- If I'm willing to pay \$20 and you're willing to pay \$1, do I necessarily derive more utility?

Supply Equilibrium Change of Equilibrium **Price Mechanism**

## Who gets bottles of water?

- Price rationing
- Non-price rationing

Supply Equilibrium Change of Equilibrium **Price Mechanism**