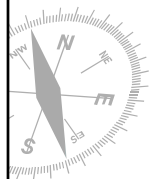


## Econ 101 – Section 5

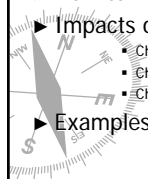


Lecture 5  
Equilibrium

January 27, 2004

## Lecture Outline

- ▶ Equilibrium
- ▶ Excess Demand
- ▶ Excess Supply
- ▶ How to find the equilibrium
- ▶ Impacts on equilibrium prices and quantities of
  - Change in Demand
  - Change in Supply
  - Change in supply and demand simultaneously
- ▶ Examples

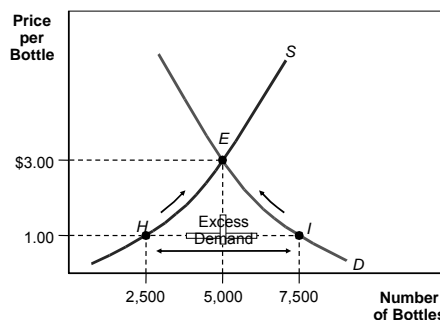


## Putting Supply and Demand Together

### *Equilibrium*

state of rest - a situation that, once achieved, will not change unless there is a change in something we have been assuming constant

## Putting Supply and Demand Together



## Putting Supply and Demand Together

### *Excess Demand*

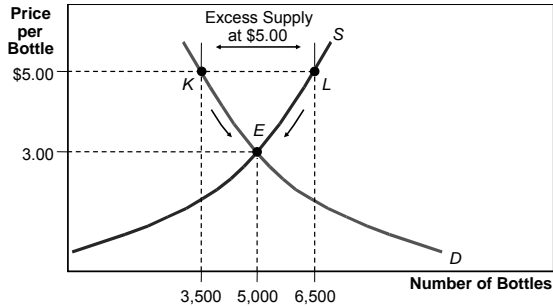
At a given price, the excess of quantity demanded over quantity supplied

## Putting Supply and Demand Together

### *Excess Supply*

At a given price, the excess of quantity supplied over quantity demanded

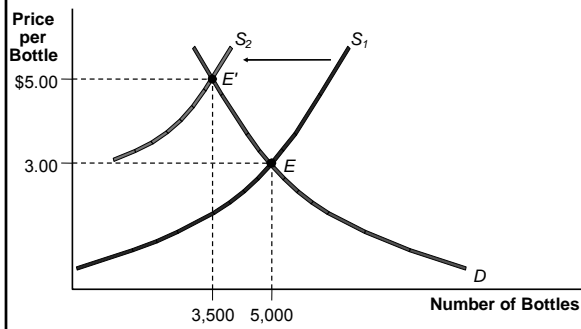
### Excess Supply and Price Adjustment



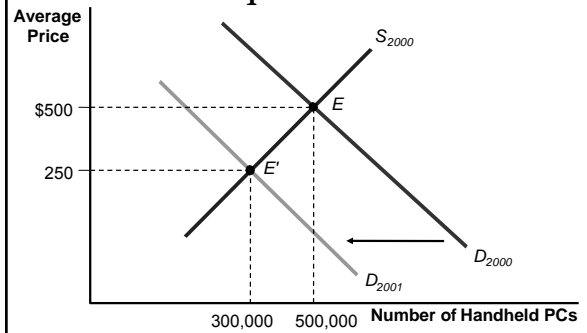
### Putting Supply and Demand Together

To find the equilibrium price and quantity in a competitive market, draw the supply and demand curves. The equilibrium is the point where the two curves intersect.

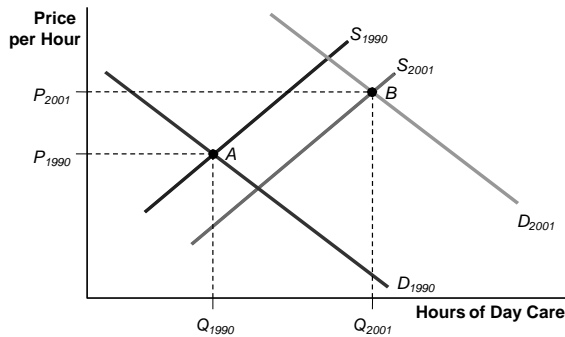
### A Shift of Supply and a New Equilibrium



### A Shift of Demand and a New Equilibrium



### Simultaneous Shifts of Supply and Demand



### Effect of Supply and Demand Shifts on Equilibrium Price and Quantity

	Increase in Demand (Rightward Shift)	No Change in Demand	Decrease in Demand (Leftward Shift)
Increase in Supply (Rightward Shift)	$P \downarrow Q \uparrow$	$P \downarrow Q \uparrow$	$P \downarrow Q \uparrow$
No Change in Supply	$P \uparrow Q \uparrow$	No change in P or Q	$P \downarrow Q \downarrow$
Decrease in Supply (Leftward Shift)	$P \uparrow Q \uparrow$	$P \uparrow Q \downarrow$	$P \uparrow Q \downarrow$

## Finding the Equilibrium mathematically

- ▶ Interested in finding the equilibrium price and quantity for Nalgene® bottles
- ▶ Supply curve is:
  - $Q_s = 2 + 1/2 * P$
- ▶ Demand curve is:
  - $Q_d = 12 - 1.5 * P$
- ▶ Now find the equilibrium price and quantity

## Steps to analyzing economic problems

- ▶ **Key Step 1 - Characterize the Market**
- ▶ **Key Step 2 - Identify the Goals and Constraints**
- ▶ **Key Step 3 - Find the Equilibrium**
- ▶ **Key Step 4 - What Happens When Things Change**

- ▶ An example of using this 4-step procedure
  - You are asked to examine the role of relaxing import restrictions for steel on the price of new cars

- ▶ **Key Step 1 - Characterize the Market**
  - Decide which market or markets best suit the problem being analyzed, and identify the buyers and sellers in the market
- ▶ **Key Step 2 - Identify the Goals and Constraints**
  - Identify the goals that the decision makers are trying to achieve, and the constraints they face in achieving those goals

- ▶ **Key Step 3 - Find the Equilibrium**
  - Describe the conditions necessary for equilibrium in the market and a method for determining that equilibrium
- ▶ **Key Step 4 - What Happens When Things Change**
  - Explore how events or government policies change the market equilibrium