

## SUPPLY AND DEMAND

-Economic model of price determination in a market economy

**DEMAND:** "effective demand" - willingness *and* ability to pay for a good

-Willingness: subjective preferences

-Ability: *real* income

### DEMAND FUNCTION

-Isolate only the most important factors on demand

$Q_x = f(P_x, \text{Pref.}, P_y, I, P_x^e)$ , where

$Q_x$  is quantity of X demanded; Pref is preference for X;  $P_x$  and  $P_y$  are the prices of goods X and Y; I is income; and  $P_x^e$  is expected price of x.

We simplify this into a 2-D relationship:

**DEMAND CURVE:**  $Q_x = f(P_x; \text{Pref.}, P_y, I, P_x^e)$ , where ; means "given values of the variables on right" - the "other things"

**Law of Demand:** relationship between  $P_x$  and  $Q_x$  when "other things," (Pref.,  $P_y$ , I,  $P_x^e$ ), don't change

-other things being equal, there is an **inverse relationship** between  $P_x$  and  $Q_x$

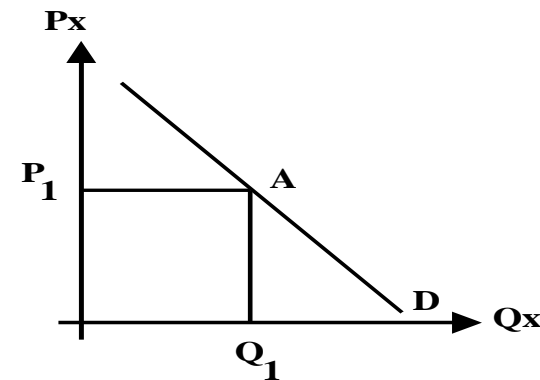
- if  $P_x$  rises,  $Q_x$  falls (other things equal)

- if  $P_x$  falls,  $Q_x$  rises (other things equal)

**Inverse Relationship:** variables move in opposite directions - when graphed - downward sloping line

Point A: **Quantity Demanded**

Curve: **Demand**

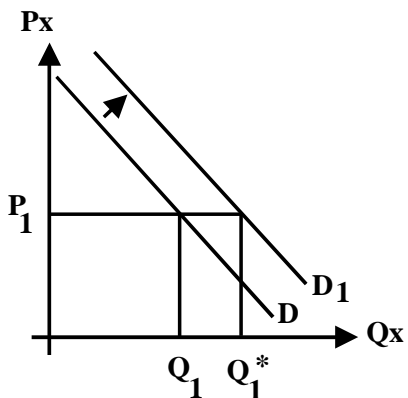


If  $P_x$  changes, *move along an existing curve*

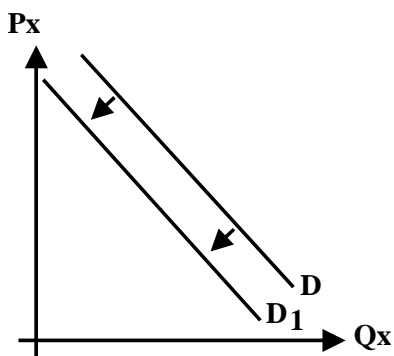
\**change in quantity demanded* (no shift of curve)\*

The "other things" define the location of the curve (they define the vertical intercept)  
 -when these change, the curve shifts(new intercept) called a *change in demand*

**Increase in Demand:** outward shift in demand  
 - for any  $P_x$ , (such as  $P_1$ ) there is now a larger  $Q_x$



**Decrease in Demand:** inward shift of curve (smaller  $Q_x$  for any  $P_x$ )



## CHANGES IN DEMAND

**Preference for X:** improved preference, maybe the result of advertising, increases the demand for X  
 - makes curve steeper  $\Rightarrow$  less of a commodity

**Income:** *generally*, income and Q move in same direction, but not always

**normal good:** income and demand move in same direction (same as overall economy)

- as I rises (recovery/growth spurt), D rises

- as I falls (recession/slow growth), D falls

**inferior good:** income and demand move in opposite directions (opposite of overall economy)

- as I rises (recovery/growth spurt), D *falls*

- as I falls (recession/slow growth), D *rises*

examples: used items; repair shops; generic items

**Prices of Related Goods:** ( $P_y$ )

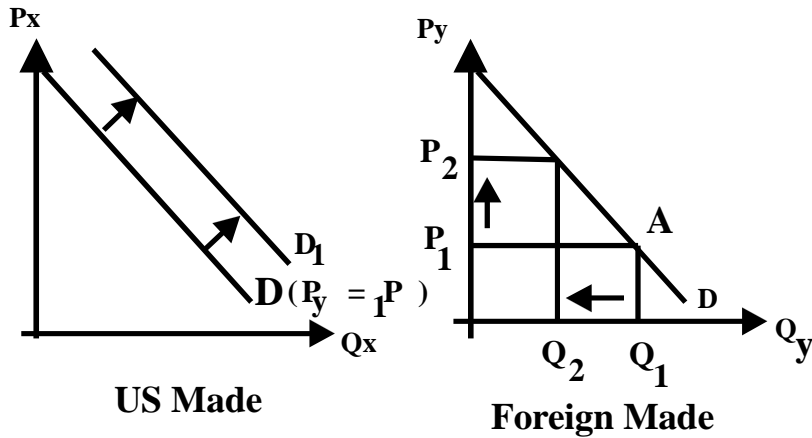
**Substitutes:** goods that compete (different brands)

**Complements:** goods that must be used together

- the price of a related good Y defines the location of the demand curve for X

## How does dollar depreciation affect the demand for US made goods?

Substitute Goods: X= US made; Y= foreign made  
 - If (say) the US dollar depreciates internationally (\$ has *less* value compared to other currencies), imports into US - more expensive ( $P_y$  rises)



As  $P_y$  rises,  $Q_y$  falls, since none of its “other things” has changed. As X is substituted for Y, and, since  $P_y$  is an “other thing” the *demand for X rises*

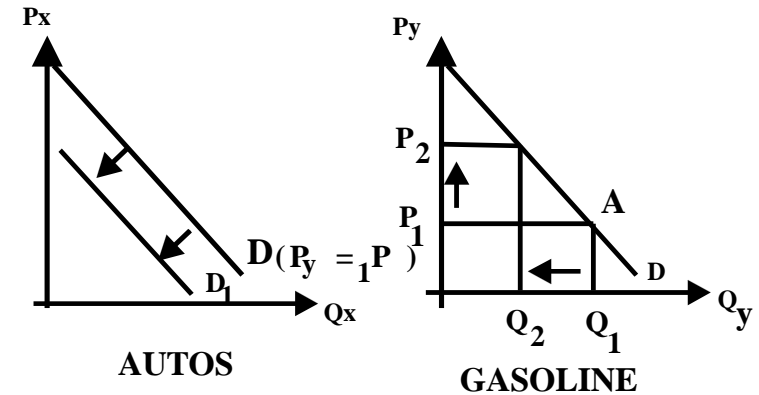
Benefit: higher production/employment in the US

Substitutes: consumption moves in *opposite* directions - but quantity demanded and demand

## How does an increase in the price of gasoline affect sales of autos?

Autos and gasoline are complementary goods  
 Let X = autos and Y = gasoline

- If the price of gasoline rises, the quantity demanded for gasoline falls, since only its price has changed. BUT: the demand for autos falls since "other things" are different  $\Rightarrow$  new auto demand, which assumes price  $P_2$  for gas, is higher



Complements: consumption moves in *same* direction (demand and quantity demanded)  
 - true also for stocks and stock prices

*As the demand for a good falls, the demand for all of its complements declines as well*

**Assume a decline in auto sales. What other industries are (indirectly) affected?**

A fall in auto sales lowers demand for:

-steel, plastics, electronics, tires, etc.

- This illustrates how a slump in demand for "big ticket items" (Durable Goods) can snowball, possibly causing a recession
- this is why these products are **CYCLICAL**, they fluctuate more than overall economy
- the complements may be produced in different parts of the country, so weakness starting in one part of country spreads throughout nation
- Durable goods – leading economic indicator

**SUPPLY**

- Analyzed in same way as demand

**SUPPLY FUNCTION:**

- Isolate only the most important factors on supply

- Based on **profit = (total revenue – total cost)**

$$Q_x^S = f(P_x, \text{Costs}, P_y), \text{ where}$$

$Q_x^S$  is quantity of X supplied; Costs is production costs; and  $P_y$  is price of other goods produced

Costs - includes both (variable) input costs and the effect of technology on production

We simplify this into a 2-D relationship:

**SUPPLY CURVE:**  $Q_x^S = f(P_x; \text{Costs}, P_y)$ , where ; means "given values of the variables on right" - the "other things"

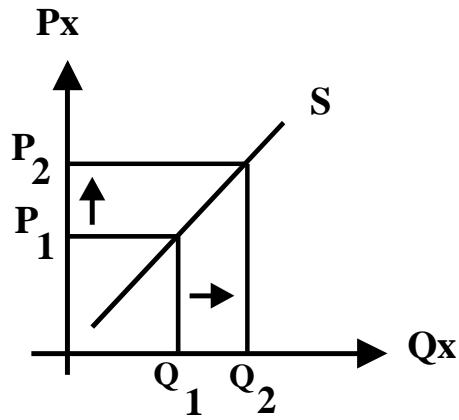
**Law of Supply:** relationship between  $P_x$  and  $Q_x^S$  when "other things," (Costs,  $P_y$ ) don't change

- other things being equal, there is a **direct relationship** between  $P_x$  and  $Q_x^S$

- if  $P_x$  rises,  $Q_x^S$  rises (other things equal)

- if  $P_x$  falls,  $Q_x^S$  falls (other things equal)

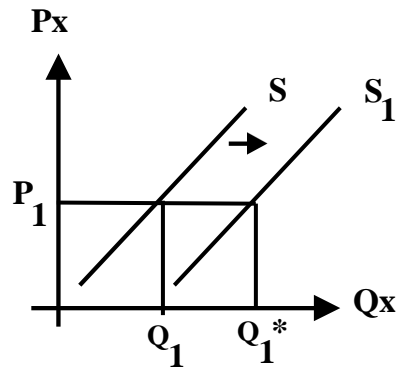
**Direct (positive) Relationship:** variables move in same direction - when graphed - upward sloping



Point: **Quantity Supplied** - Curve: **SUPPLY**

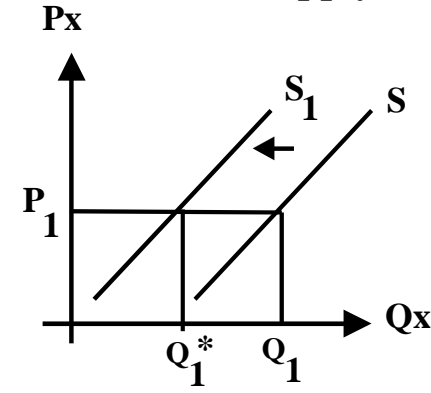
**Increase in Supply:** greater quantity supplied for each price

- *OUTWARD* shift of supply curve



**Decrease in Supply:** smaller quantity supplied for each price

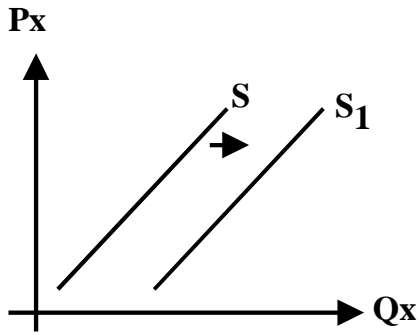
- *LEFTWARD* shift of supply curve



## CHANGES IN SUPPLY

**Costs of Production:** if production costs fall - decline in wages or raw material costs, or improved technology

other things equal, production *more profitable* - brings about increase in supply (outward shift)



**Prices of Related Outputs:** often firms produce more than one good (ex: gas & home heating oil)  
 The prices of products determine their profitability.  
 If  $P_y$  changes, given  $P_x$ , the *relative* profitability of X changes

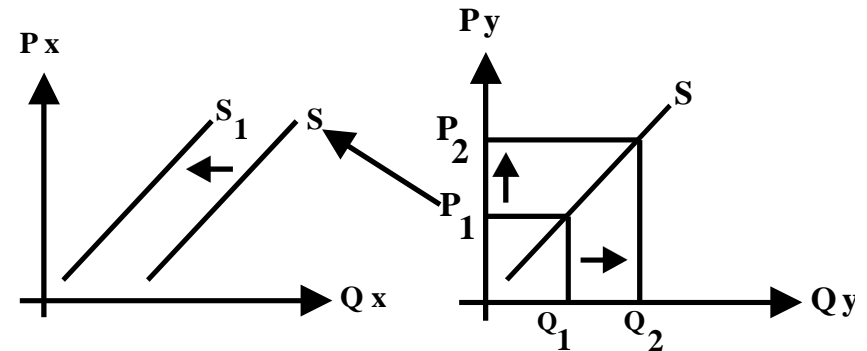
- the allocation of inputs moves towards the relatively more profitable output, away from relatively less profitable good
- as input allocations change, so does production of EACH good

Total Inputs	
X	Y

If  $P_y$  rises, given  $P_x$  and costs (other things equal), *Y is now relatively more profitable* - inputs shift from X to Y to raise profit

Total Inputs	
X	Y

As inputs in Y rise: Y production increases  
 As inputs in X fall: X production falls, *BUT does supply or quantity supplied change?*  
 (Mechanically this will work the same way as prices of related goods in demand)



- as  $P_y$  rises,  $Q_y^S$  rises (*not supply*)

- this changes the "other things" for X, causing a *decrease in the supply for X*

### APPLICATION:

A severe winter raises demand and price of home heating oil (Y). What happens to gas (X) prices?

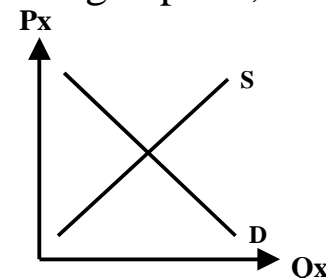
As refining capacity shifts from gasoline to home heating oil to raise profitability, there is a fall in the *supply* of gasoline. This (we will see next) raises the price per gallon of gasoline.

## MARKET EQUILIBRIUM

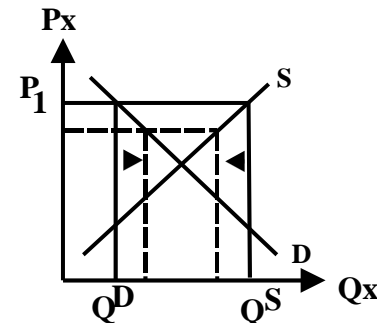
To see where the market ends up, put supply and demand together  $\Rightarrow$  **interaction of buyers/sellers**

### Potential Problem:

- buyers prefer "low" price, this raises real income
- sellers prefer "high" price, raises profit



Q: How do we arrive at equilibrium?



At "high" price of  $P_1$ ,  $Q^S$  exceeds  $Q^D$   
 - causes a surplus (excess supply) at this price

⇒ *inventories are above desired levels*

Competition among sellers - they try to reduce their larger-than-desired inventories

What happens next?

### (1) Price Adjustment Mechanism

competition among sellers (to unload inventories)

forces price to fall

- as price falls,  $Q^S$  falls and  $Q^D$  rises (see graph)

⇒ smaller surplus

- price keeps falling until surplus gone and inventories return to desired level

⇒  $P_1$  - *too high to be sustained*

**EQUILIBRIUM** - sustainable level of activity

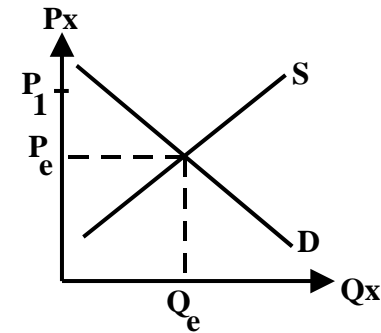
⇒ no incentive to change from it

both buyers/sellers able to get what they want

requires:  $Q^D = Q^S$  **MARKET CLEARING**

- in equilibrium, no shortage/no surplus

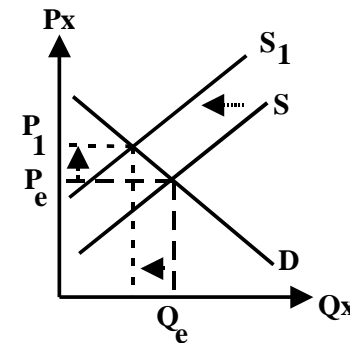
There is one price at which market clears, the **equilibrium price** ( $P_e$ ). Quantity at this price is **equilibrium quantity** ( $Q_e$ )



If  $P_x > P_e$ , price is "too high" - get surplus

### (2) Quantity-Adjustment Mechanism

- firms don't always rush to lower price when have a surplus
- often firms cut back production to eliminate unwanted inventories
- causes declines in production and employment
- $P_1$  is now sustainable (new equilibrium)



This indicates that *prices rise faster than they fall*  
- the quantity decrease here  $\Rightarrow$  equilibrium at higher price (formerly unsustainable)

$\Rightarrow$  less employment, less output, unemployment

### • MACRO ISSUES

Exercise: what happens when price below  $P_e$ ?

### Equilibrium Price is not a constant

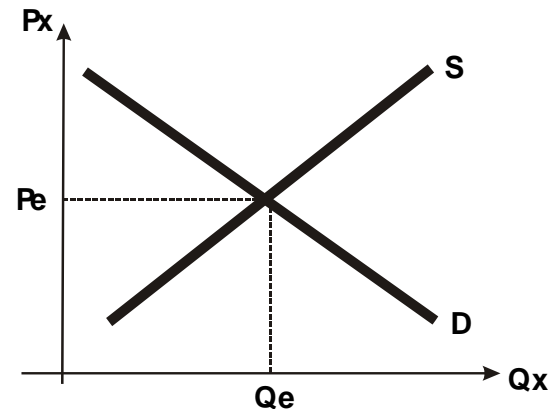
- It is "conditional" - depends on "other things" of both supply and demand
- If "other things" change, one or both curves shift, bringing a new equilibrium

### Often, the *characteristics* of a product change in the movement to the new equilibrium

- If  $P > P_e$ , as price falls, "standard" features or size of the item might rise
- If  $P < P_e$ , as price rises, "standard" features or size might decrease

## CHANGES IN EQUILIBRIUM: Procedure for Analyzing Changes

1. Create a graph with an initial equilibrium (draw Supply, Demand, and the initial equilibrium price and quantity)

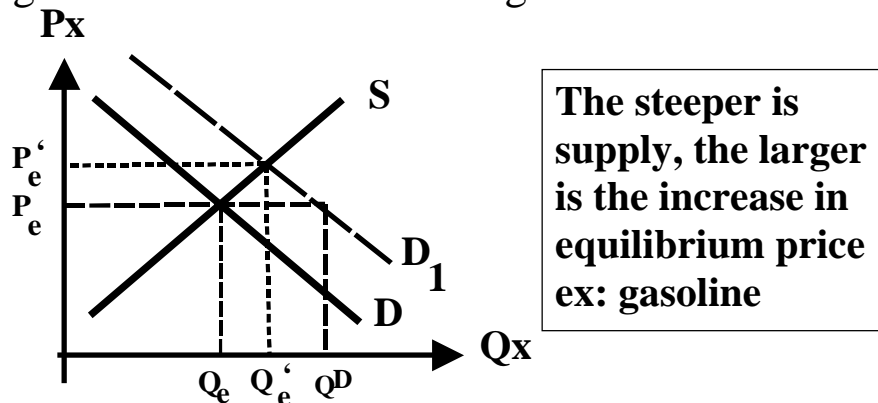


2. Introduce the change(s) into the original graph and include arrows, etc. to track changes.
3. *If there is more than one change, track the effect of each separately*, then determine what ultimately happens. Sometimes, the final outcome in either  $P$  or  $Q$  involves conflicting changes. In those cases, the change is said to be *indeterminate*.

**(1) Trace the effect of economic growth**

Growth  $\Rightarrow$  rise in the *demand* for normal goods

Higher income: an "other thing" in demand



- Causes demand SHIFT - increase if normal good
- Adjustment: at old  $P_e$ ,  $Q^D > Q^S$ , is a shortage
- Competition among buyers causes price to rise to new equilibrium (where shortage is eliminated)

**Higher Demand:**  $\uparrow P_e, \uparrow Q_e$

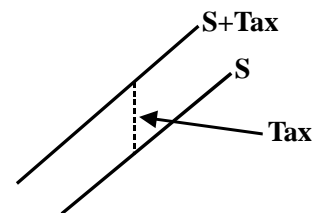
**Supply - CONSTANT - its other things - same**  
**- greater production  $\Rightarrow$  rise in quantity supplied**

As long as prices are perfectly flexible, shortages are only *temporary* (normal market adjustment)

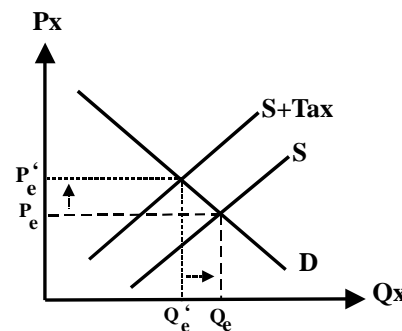
**(2) If the costs of production rise (ex: tax on business), do firms pass this onto consumers?**

TAX  $\Rightarrow$  increase in costs to firms

- *per-unit taxes* cause vertical upward shift of  $S$



- at any  $Q$ , vertical distance between these is tax



As long as demand is downward sloping,  $P_e$  rises by *less* than the tax  $\Rightarrow$  firms generally can't pass on all cost increases to consumers

**Q: When does  $P_e$  rise by amount of cost increase?**

**A: When demand is vertical (perfectly inelastic)**

**Q: Assuming costs of production rise due to higher input costs, how much will  $P_e$  rise?**

**A:** This depends on the percentage of total costs the higher-priced input accounts for.

- *The more intensively the higher-priced input is used, the greater will be the increase in marginal cost and the farther left will supply shift*

- *Other things being equal, this leads to larger prices increases*

(exercise: draw this in a graph)

**Q: Will price always rise when input costs rise?**

**A:** No. This also depends on how well the overall economy is performing. Other things are *not* always equal – demand might also be changing.

- In a recession, demand is lower. So, either price will not rise (constant or falling in extreme cases), or rise by less than otherwise

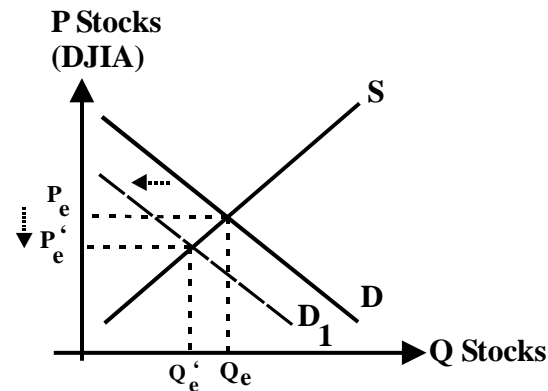
(exercise: draw this combination in a graph)

- In recessions, firms are less able to pass on cost increases to consumers. Check out product characteristics then (ex: smaller dinners, side orders now optional, or product size shrinks)

(3) How do rising interest rates affect stock prices?

- Rising interest rates make CD's and other interest earning (i.e., fixed income) assets *relatively* more attractive as investments than stocks
- CD's & Bonds - *substitutes* for stocks

Higher interest rates  $\Rightarrow$  lower *demand* for stocks, causing stock prices to fall



**“Rising interest rates are a head wind for the stock market.” This explains generally poor stock market performance when the Fed tightens.**

Recall: Higher expected inflation  $\Rightarrow$  higher *nominal* interest rates, now see:

$\Rightarrow$  **Causes stock prices to fall (stock sell off)**

#### (4) Bonds – Bond Prices and Interest Rates

Bond – fixed (nominal) income asset. Has a face value (ex: \$1,000), a stated interest rate (ex: 5%), and a duration until maturity (ex: 10 years). Owners receive income each year + the face value at maturity:

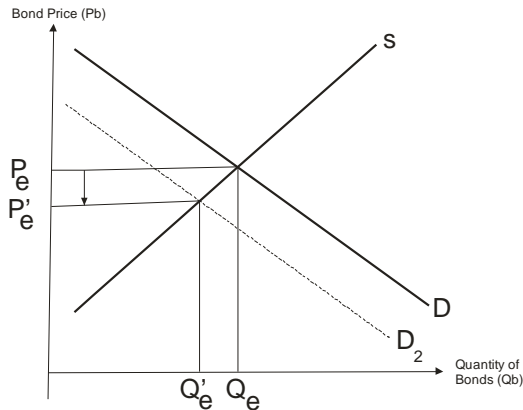
$$\begin{aligned} \text{Annual income} &= \text{stated interest rate} \times \text{face value} \\ &= .05 \times \$1,000 = \underline{\$50} \text{ (our example)} \end{aligned}$$

- This is a fixed nominal value

At maturity – get the (nominal) face value of the bond

Often, bonds are not held to maturity, but sold in secondary markets. *The prices of bonds there are determined by supply and demand.*

If interest rates rise (the *relative* return for this bond falls), it becomes less attractive to purchasers



- Result: a decrease in demand for that bond and a lower price – *a capital loss for the existing holder*

And, *the purchaser gets a higher-than-stated yield*

Assume bond price falls from \$1,000 to \$950. Given the fixed income of \$50, the yield for the purchaser is:  $\$50/\$950 = \underline{5.26\%}$

Generalizing this (with simplification) to all bonds:

$$\text{Interest rate} = \text{interest income/bond price}$$

Bond prices and interest rates are *inversely* related

In reality, as interest rates rise, bond demand falls and bond supply rises (holders sell off some bond holdings)  
Exercise: draw these two changes in the above graph

- If you have a bond mutual fund when interest rates are rising, its net asset value falls, lowering your return.

Forget about the 5-year, 3-year, and 1-year returns!

- This is like owning a Hummer when gas prices rise

**Q:** What causes interest rates to rise?

**A:** **Good economic news (more rapid growth) and/or higher expected inflation**

## (41/2) Interest Rates and Stock Prices (again)

Bonds become relatively more attractive when interest rates are expected to *fall* (ex: a slowing economy or lower expected inflation translate into lower rates and higher bond prices – try telling that to a senior citizen!)

Assume the economy is expected to slow in the future (and no inflation worries):

Stocks: expected future profit falls, making stocks relatively less attractive, *lowering* their demand

Bonds: this lowers expected future inflation making bonds relatively more attractive, *raising* their demand

⇒ bond for stock substitution

**Result: lower stock prices AND lower interest rates**

(which reflects higher bond prices)

- This makes bonds a recession hedge, their higher demand called a “**flight to safety**”

**All of this becomes less obvious when both growth and inflation are expected to change**

Ex: oil prices rise enough to bring recession fears. This generally causes a bond market rally which lowers interest rates, as it is believed that weakness or recession will lower inflation



## Another application to the stock market: SUPPORT AND RESISTANCE

You *should* buy “low” and sell “high”

- Add imperfect information and emotions and often the *opposite* occurs

Stocks often trade within ranges:

- Lower end: **SUPPORT** – a price where the stock is viewed as being a “bargain.” When price hits this level, buyers jump in (buying pressure (demand) exceeds selling pressure (supply)), and price *rises*
- Higher end: **RESISTANCE** – a high price where the stock is viewed as being overpriced and its price likely to fall. Here, sellers jump in (selling pressure (supply) exceeds buying pressure (demand)), and price *falls*
- Ideally, you should buy at or close to support. When you add emotions, and people often buy close to resistance (they falsely assume the price will keep going up)
- Ideally, you should sell at or close to resistance. Often people do the opposite

## Actual graph of Wal-Mart’s stock (WMT)



Resistance – at \$57.70

Support – around \$52

### RULES:

1. **NEVER** buy a stock when it is close to resistance (unless you have some relevant information on it)
2. **NEVER** sell a stock at close to the support price (unless you have some information to justify this)
3. **Your reward-risk ratio should be about 3 to 1 or better.** Above, in November (at \$56.50) the potential reward was \$1/share, the risk was \$4/share. **YOU SHOULD WAIT** until the stock breaks through prior resistance before buying it.

## SUMMARY OF EQUILIBRIUM CHANGES

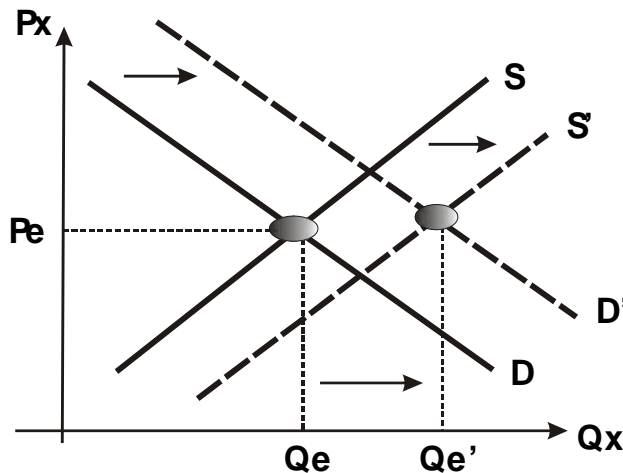
	$P_e$	$Q_e$
<b>Higher Demand</b>	+	+
<b>Lower Demand</b>	-	-
<b>Higher Supply</b>	-	+
<b>Lower Supply</b>	+	-

Assume income rises (normal good) at the same time there is a technological improvement in producing X. What happens to price and quantity of X?

Analyze each change separately

Higher Income (by itself)  $\Rightarrow \uparrow D$  causing  $\uparrow P_e$  and  $\uparrow Q_e$

Higher Supply (by itself)  $\Rightarrow \uparrow S$  causing  $\downarrow P_e$  and  $\uparrow Q_e$



- Both changes raise  $Q_e$ , so  $Q_e$  rises
- Each change has a *different* effect on  $P_e$ , so we can't say what happens to  $P_e$  unless we have more information (which shift is larger) – the change in  $P_e$  is *indeterminate*

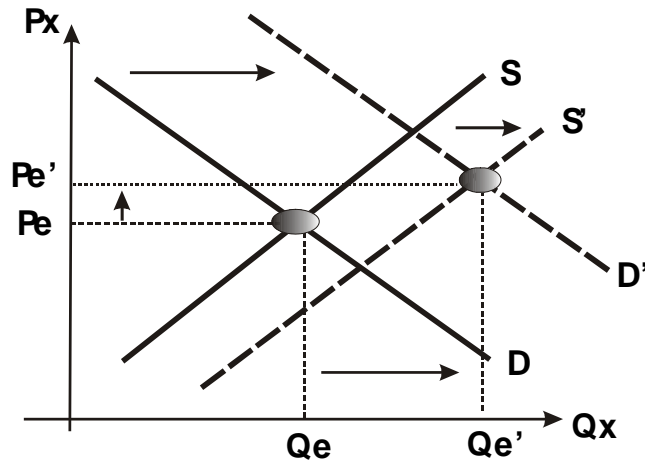
**APPLICATION:** The California Energy Crisis

1. In the 1990s, California's economy experienced rapid economic growth at the same time its population was rising significantly  $\Rightarrow$  **large  $\uparrow D$  for electricity**
2. During the 1990s, very little electric generation capacity was added (NIMBY, etc.)  $\Rightarrow$  **small  $\uparrow S$  of electricity**

Knowing the magnitude of shifts allows us to eliminate the indeterminacy above.

- The large  $\uparrow D$  means the rise in price it causes will dominate the lower price caused by  $\uparrow S$

## Practice Questions



**Even worse:** California set a **price ceiling** at the original  $P_e$ . Show how this led to shortages of electricity

**Price ceiling** – *maximum* price that can be charged

- If this “locks out”  $P_e$ , problems will occur. Here, at old  $P_e$ ,  $Q^d$  (based on new D)  $>$   $Q^s \Rightarrow$  **Shortage**

### Exercise:

What happens to  $P_e$  and  $Q_e$  when *both* curves shift? Graph the four possibilities to see this. When can we *not* say what happens to equilibrium price or quantity (is indeterminate)?

According to the law of supply, if the price of electric ranges increased, everything else held constant,

- A) the supply of electric ranges would increase.
- B) the demand for gas ranges would decrease.
- C) the quantity supplied of electric ranges would rise.
- D) the demand for electric ranges would increase.
- E) the supply of electric ranges would decrease.

Which of the following will *not* cause the demand for ice cream to change?

- A) A change in seasons.
- B) A change in consumer preferences.
- C) A change in consumer incomes.
- D) A change in the price of ice cream.
- E) A change in population size.

Assume the price per pound of coffee goes from \$6.00 to \$12.00 due to weather conditions that destroyed half the coffee crop. Which of the following is *not* likely to occur?

- A) the demand for tea shifts outward.
- B) some people will be very sleepy in the mornings.
- C) the demand for Coffee Mate shifts inward.
- D) the demand for coffee makers shifts inward.
- E) movement down along the demand curve for coffee.

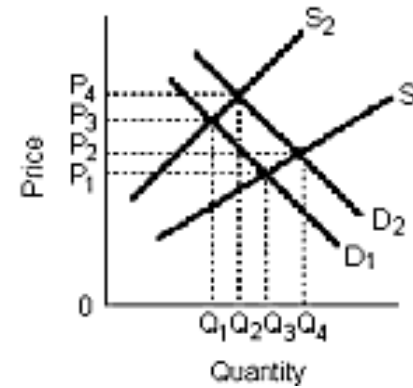
Price per Loaf	Quantity Demanded	Quantity Supplied
5	30	102
4	48	84
3	66	66
2	84	48
1	102	30

Beginning with equilibrium in the table above, an increase in price of \$1 would

- A) lead to an increase in demand.
- B) cause a surplus of 36.
- C) cause a shortage of 72.
- D) cause a surplus of 72.
- E) cause a shortage of 36.

If supply and demand for a good both decrease:

- A) Equilibrium price will rise, but we cannot say for sure what will happen to equilibrium quantity.
- B) Equilibrium quantity will fall, but we cannot say for sure what will happen to equilibrium price.
- C) Equilibrium price and equilibrium quantity both fall.
- D) Equilibrium price will fall, but we cannot say for sure what will happen to equilibrium quantity.
- E) Equilibrium quantity will rise, but we cannot say for sure what will happen to equilibrium price.



In the figure above, which of the following is true, if  $D1$  and  $S1$  are the original supply and demand curves and  $D2$  and  $S2$  are the new curves?

- A) The original equilibrium quantity was  $Q1$ .
- B) The new equilibrium quantity is  $Q4$ .
- C) Supply has decreased.
- D) Demand has decreased.
- E) Supply has increased.

If farmers believe that it is more profitable to produce wheat than corn, we can expect

- A) the supply of corn to decrease.
- B) the quantity demanded of wheat to decrease.
- C) the price of wheat to rise.
- D) the demand for wheat to increase.
- E) the supply of corn to increase.

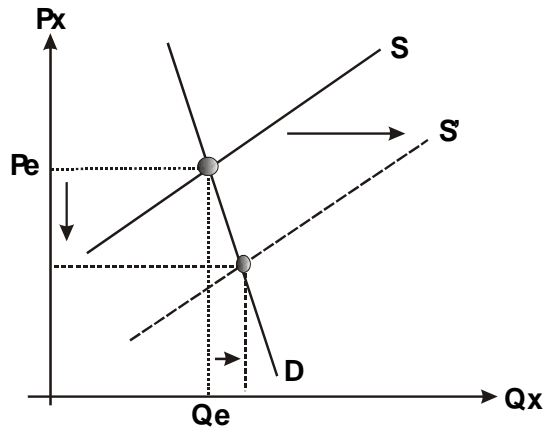
## APPLICATION QUESTIONS

### 1. Is a "bumper crop" good for farmers?

- A bumper crop is a large crop that results from excellent weather and almost no loss due to factors such as bug infestations, etc.
- Ironically, a bumper crop is *bad* for farmers

Demand for food – very steep

Bumper crop  $\Rightarrow$  **large**  $\uparrow$  **S**



**BUMPER CROP RESULT:** **large**  $\downarrow$  **P<sub>e</sub>**

**GAIN** – more output sold

**LOSS** – lower price for each bushel sold

- Total revenue might end up being *lower*

**PROBLEM:** *price will fall below the cost of production for the higher cost farmers  $\Rightarrow$  losses*

**Q:** Who are the higher cost farmers?

**A:** Family (small) farmers. Some of them might end up going out of business – after generations of family ownership of their land

**OUTCOME:** What is best for the individual producer is not necessarily what is best for all producers

**Agriculture:** Government intervenes to stop losses to farmers or the loss of family farms

Ex: (1) Price supports

(2) Subsidies that limit production

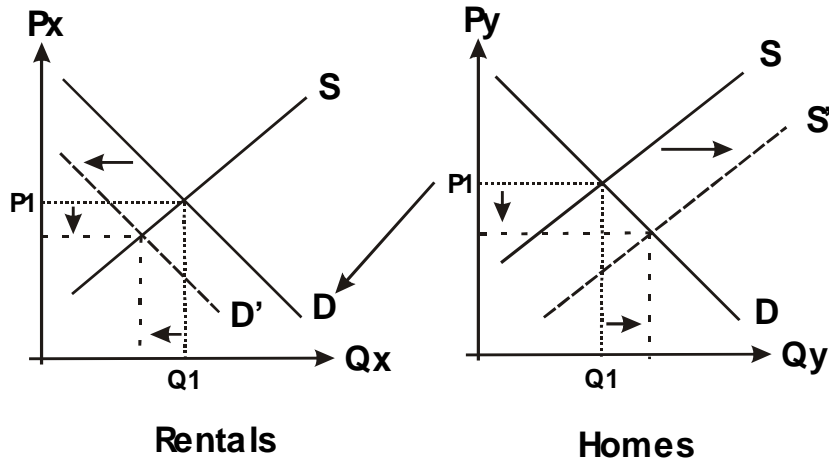
**APPLICATION:** OPEC and Production

Each country has incentive to produce more, so at given price, raise its oil income

- Other things are *not* equal. If all do this, get large rise in supply and lower prices
- To avoid this, OPEC manages supply with country production quotas

## 2. How does new home construction in a town affect rents in that town?

- New homes and rentals are *substitutes in demand*



Cheaper Homes  
 $\Rightarrow \downarrow D$  rentals  
 $\downarrow P_e$  and  $\downarrow Q_e$

New Home  
 Construction  
 $\Rightarrow \uparrow S$  homes  
 $\downarrow P_e$  and  $\uparrow Q_e$

- Towns/cities with much new home construction tend to have affordable rents
- With little new home construction, high rents

## 3. How do imports into the US affect product prices in the short-run? In the long-run?

Imports  $\Rightarrow \uparrow S$  causing  $\downarrow P_e$  and  $\uparrow Q_e$

- This allows consumption to exceed domestic production (from PPC) [**DRAW THIS**]

As  $\downarrow P_e$ , price will fall below costs of production for *some* domestic producers, causing them to fail

- Profit tends to fall, economic loss might occur

High cost producers (domestic) – will lose \$

- To stay in business, they must *lower costs*

Since some producers will go out of business, must distinguish short-run from long-run supply

**Short-run:** The original  $\uparrow S$  and  $\downarrow P_e$

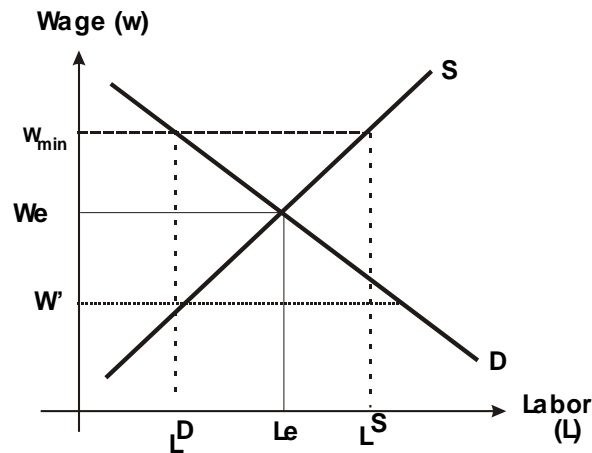
**Long-run:** As some firms go out of business, supply *falls* ( $\downarrow$  # producers)  $\Rightarrow$  price rises from where it fell to (*less competition now*) – this allows the remaining firms to survive

**4. The minimum wage is an example of a "price floor." What problems can price floors create with the workings of markets?**

**Price floor** – the minimum price that can be legally charged (*can* charge at or above this)

⇒ No problems as long as can legally reach  $P_e$

Ex: minimum wage or farm price supports



- If  $W < W_e$ , a shortage of labor will cause wages to rise back to  $W_e$
- If  $W > W_e$ , a surplus of labor results

When  $W_{\min} > W_e$ , the wage *cannot legally* fall to its equilibrium value. The resulting surplus of labor is unemployment or *underemployment* (Note: the government will *only* set  $W_{\min}$  above  $W_e$  in an attempt to increase incomes)

Consider:

1. Workers base their labor supply decisions on the **real** wage offered.
2. If the nominal minimum wage remains constant, it *falls in real terms* each year by the rate of inflation
3. This is occurring in Rhode Island, leading to an “effective” minimum wage of about \$7.50/hour.

Labor demand is related to productivity. If the labor force can receive more and better labor market skills, the resulting rise in productivity will raise labor demand, making the minimum wage less of a problem.  
- Related to “No child left behind”

**5. What can cause mortgage interest rates to rise at the same time that the cost of mortgage money to banks falls?**

Rephrase this:

**Q:** If the costs of production fall, is it possible for price to rise?

**A:** Falling production costs represent  $\uparrow S$ , which by itself, lowers price.

- If demand is rising at the same time, *and* the demand shift is *larger* than  $\uparrow S$ , equilibrium price will rise (see the graph for the California Energy Shortage example for this)

Here, this would be a *dramatic rise in applications for mortgages*. This extra “traffic” will result in higher mortgage rates, even though the cost of the mortgage money to banks has fallen.