



# SUPPLY AND DEMAND PART I

Supply always comes on the heels of demand.  
-Robert Collier



# START AT THE BEGINNING

The material in this presentation builds on the material in the Core Concepts presentations. If you have not already looked at that material, please do so now!



# MARKET PARTICIPANTS

Millions of people participate directly or indirectly in the US economy.





# MAXIMIZING BEHAVIOR

- ▣ Consumers maximize their utility (satisfaction) given limited resources.
- ▣ Businesses try to maximize profits by using resources efficiently in producing goods.
- ▣ Government maximizes the general welfare of society.



# MAXIMIZING BEHAVIOR

The basic goals of utility maximization, profit maximization and welfare maximization explain most market activity.

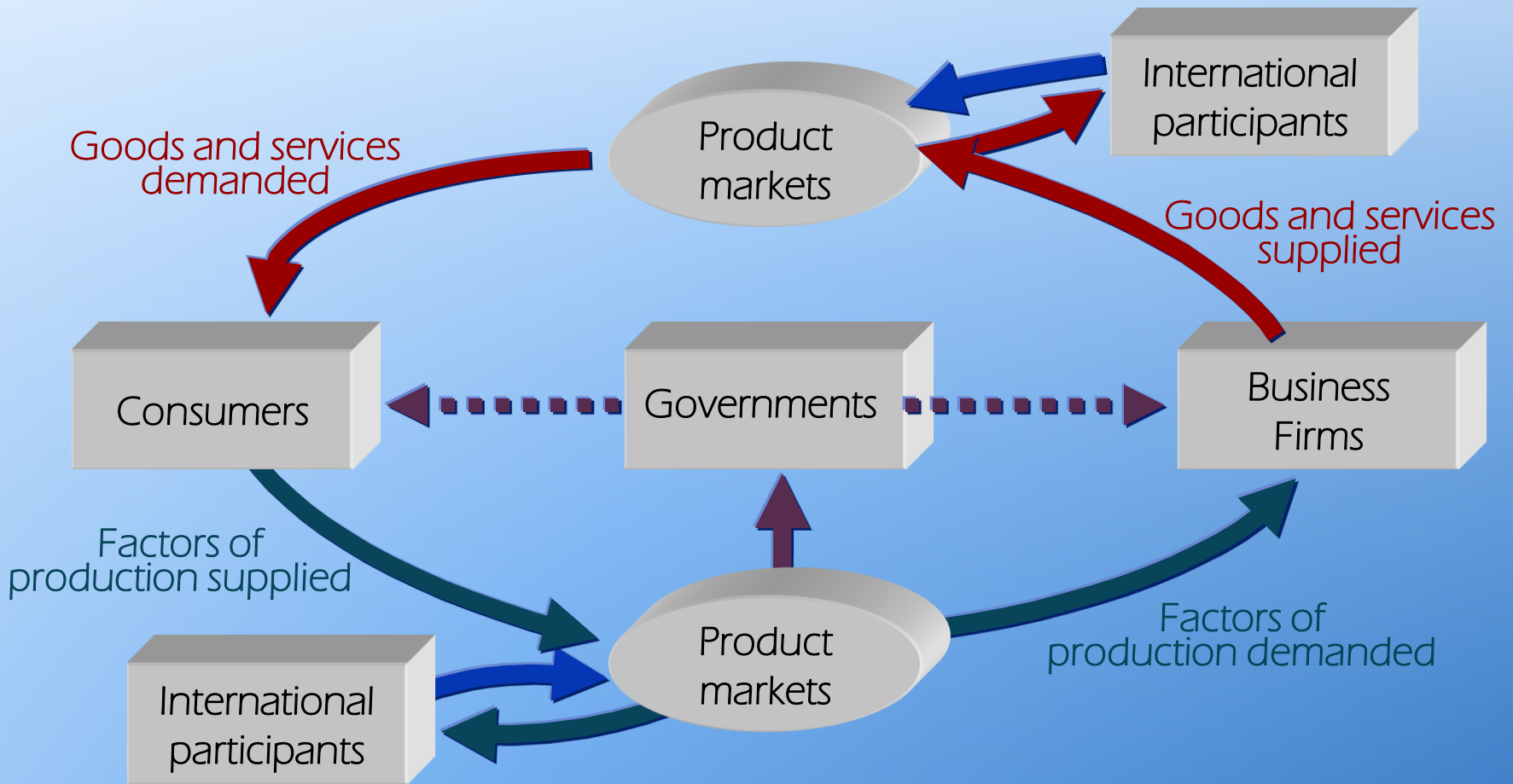


# SPECIALIZATION AND EXCHANGE

- Our economic interactions with others are essential for two reasons.
  - our absolute inability as individuals to produce all the things we need or desire ... Few, if any, of us are able to make tires to go on our cars.
  - the limited amount of time, energy and resources we have for producing those things that we *can* make for ourselves ... Even if you are an excellent seamstress, it's unlikely you have the time, energy and resources to make all of your family's clothes.



# DIAGRAM: THE CIRCULAR FLOW





# LOCATING MARKETS

A market exists wherever and whenever there is an arrangement in which buyers and sellers interact to determine the price and quantity of the goods and services exchanged.







# PARTICIPANTS

- ▣ Four different groups participate in the economy:
  - ▣ Consumers
  - ▣ Business firms
  - ▣ Government
  - ▣ Foreigners



# THE TWO MARKETS

- *Factor markets* are any place where factors of production (e.g., land, labor, capital) are bought and sold.
- *Product Markets* are any place where finished goods and services (products) are bought and sold.



# DOLLARS AND EXCHANGE

Every market transaction involves an exchange of dollars for goods (in product markets) or for resources (in factor markets).



# SELLERS AND BUYERS: SUPPLY AND DEMAND

- There must be a buyer and a seller in every market transaction.
  - The seller is on the *supply* side of the market.
  - The buyer is on the *demand* side of the market.



# SUPPLY

*Supply* is the *ability* and *willingness* to sell (produce) specific quantities of a good at alternative prices in a given time period, *ceteris paribus*.



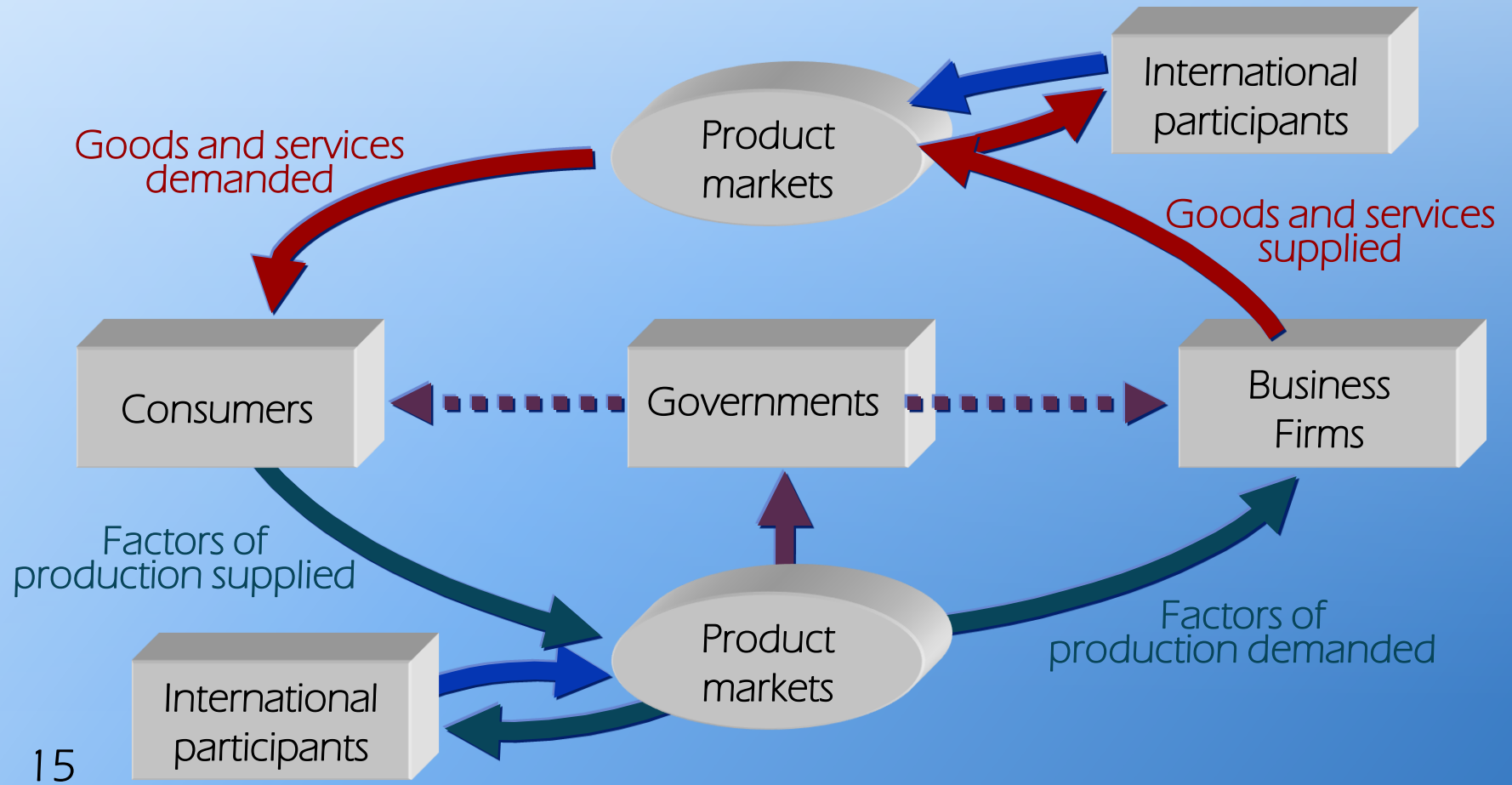
# DEMAND

*Demand* is the *ability* and *willingness* to buy specific quantities of a good at alternative prices in a given time period, *ceteris paribus*.



# DIAGRAM: THE CIRCULAR FLOW

Now that you know the terms, look at the market's circular flow once again.





# THE LAW OF DEMAND

Let's look at the market's dynamics in more detail, starting with demand.

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There is an inverse relationship between the price of a good and the quantity buyers are willing to purchase in a defined time period, *ceteris paribus*.

In other words, all other things being equal, the higher the price of a product, the lower the demand.





# INDIVIDUAL DEMAND

- A demand exists only if someone is **willing** (wants the good) and is **able** to pay for a good (can financially afford the cost).
- If you really, really want a Mercedes but can't afford one, there is no demand. If you can afford a Mercedes but don't want one, there is no demand. A demand exists only if you really want one and can afford to buy one.
- When people purchase a product there is an opportunity cost.
  - *Opportunity cost* is the most desired goods or services that are forgone in order to obtain something else.



# OPPORTUNITY COST

What you really wanted to do last night  
was sleep!

You had an unfinished term paper due  
today and you stayed up all night to  
finish it.

The opportunity cost of your completed  
term paper is a night's sleep.



# DEMAND SCHEDULE

A *demand schedule* is a table showing the quantities of a good a consumer is willing and able to buy at alternative prices in a given time period, *ceteris paribus*.

A *market demand schedule* is a table that lists the quantity of a good all consumers in a market will buy at each different price.



# INDIVIDUAL DEMAND

A *demand curve* is a curve describing the quantities of a good a consumer is willing and able to buy at alternative prices in a given time period, *ceteris paribus*.

Demand curves have a negative slope because at higher prices buyers will buy fewer products and at lower prices they will buy more products.

A *market demand curve* is a curve describing the quantities of a good all consumers in a market will buy at each different price.

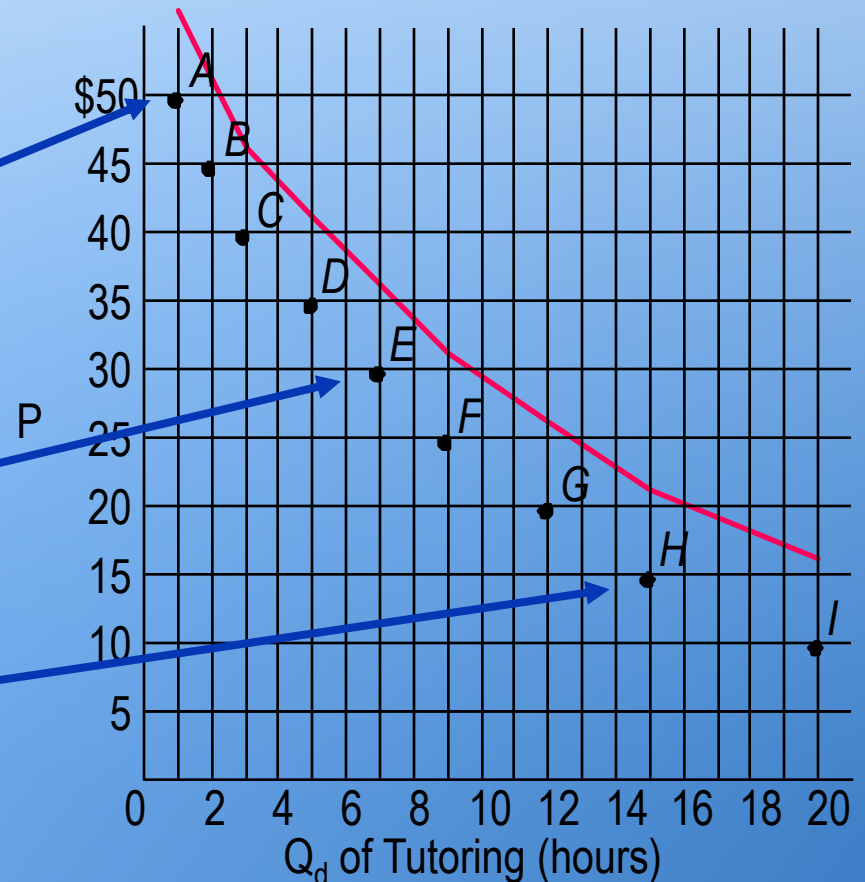


# TABLE AND CHART: DEMAND SCHEDULE AND DEMAND CURVE

Demand curves and demand schedules show the same information in different formats.

## Demand Schedule

Price	Quantity Demanded
\$50	1
45	2
40	3
35	5
30	7
25	9
20	12
15	15
10	20





# INDIVIDUAL DEMAND

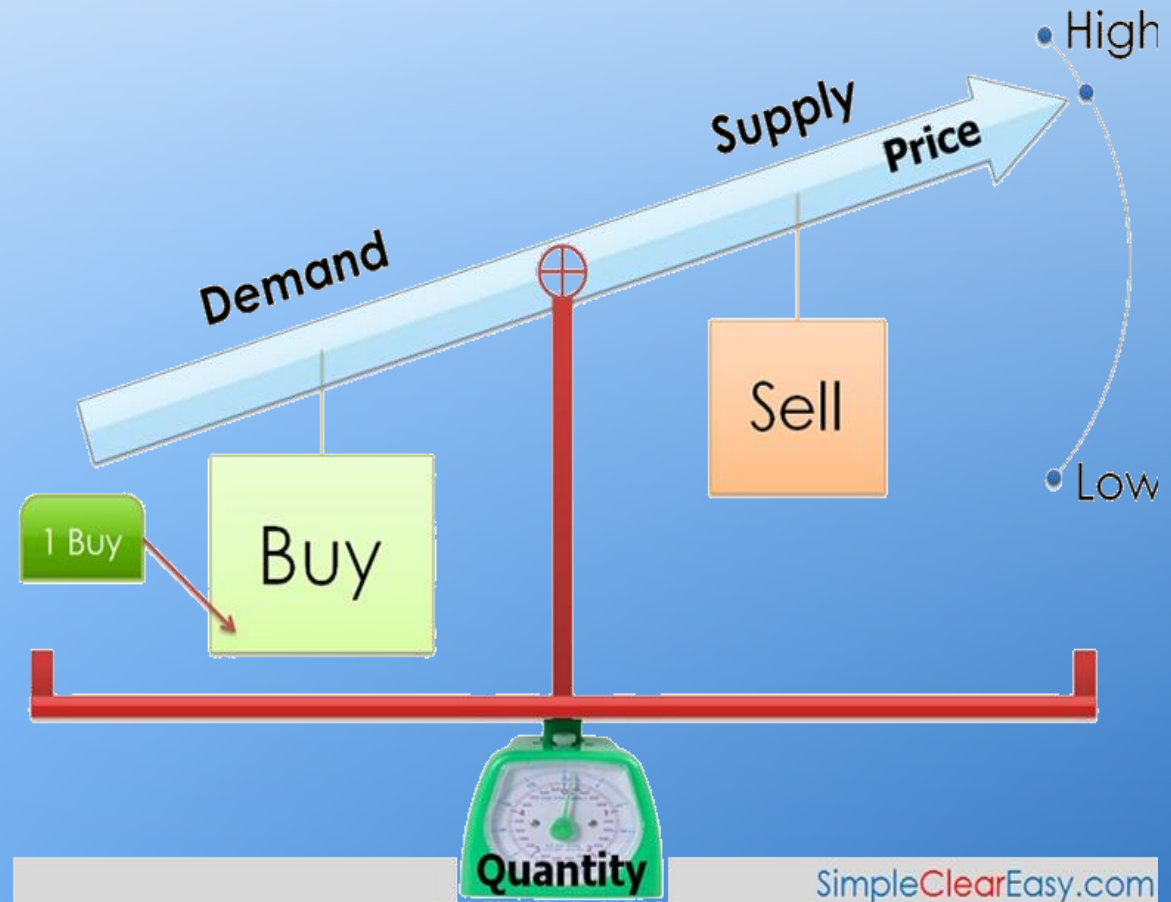
*Demand* is an expression of consumer buying intentions – of a willingness to buy, not a statement of actual purchases.

Remember, to be considered on the demand curve, a consumer must be both **willing** and **able** to buy.



# DIAGRAM: INDIVIDUAL DEMAND

According to the *law of demand*, the quantity of a good demanded in a given time period increases as its price falls, *ceteris paribus*.





# DETERMINANTS OF DEMAND

Determinants of market demand (those things that can cause an increase or decrease in demand) include:

1. **Number of buyers** – can change for a number of reasons: road construction, population changes, weather, etc ... an increase in buyers creates an increase in demand
2. **Preferences** – The goods and services buyers most desire will lead to an increase in demand.
3. **Income (Y) normal goods** – As buyers' incomes (Y) increase, they tend to buy more normal goods rather than inferior goods. If income increases, demand for normal goods increases.
4. **Income (Y) inferior goods** – As buyers' incomes increase, demand for inferior goods decreases.





# DETERMINANTS OF DEMAND

5. **Prices (P) of related products: substitutes** — If a product's price begins to increase, the demand for similar but less expensive products (substitutes) will increase.
6. **Prices (P) of related products: compliments** – as a product's price increases, the demand for that product and for its compliments decreases. (Why buy creamer if you can't afford coffee?)
7. **Expected future prices (EFP) by buyer** — If buyers expect prices to rise in the future, they will buy now, increasing demand (the stock market, for example).
8. **Expected future income (EFY) by buyer** – If buyers expect their incomes to decrease in the future, demand will decrease.



# OTHER GOODS

- **Substitute goods** substitute for each other.
  - When the price of good x (beef) rises, the demand for good y (chicken) increases, *ceteris paribus*.
- **Complementary goods** are frequently consumed in combination.
  - When the price of good x (coffee) rises, the demand for good y (creamer) falls, *ceteris paribus*.



# SHIFTS IN DEMAND

- The determinants of demand can and do change.
- A *shift in demand* is a change in the quantity demanded at every given price.



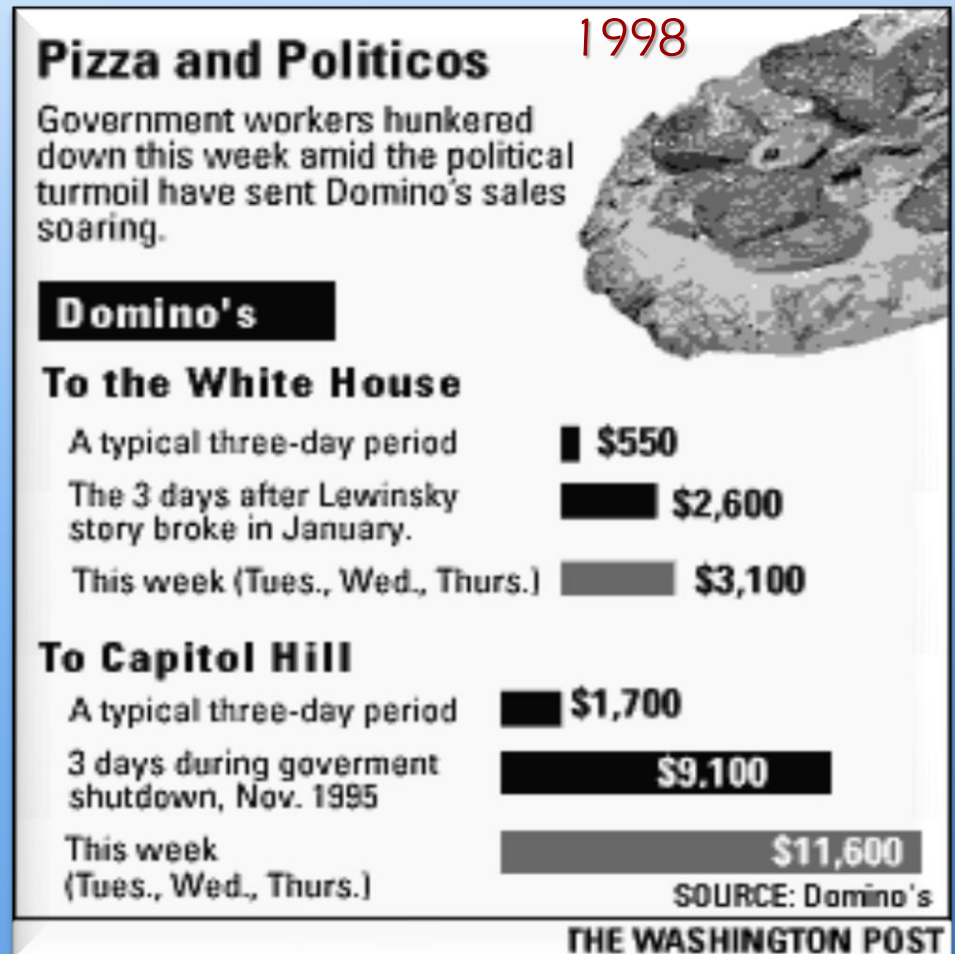
# SHIFTS IN DEMAND

- Excess Demand
  - *shortage* – a situation in which quantity demanded is greater than quantity supplied
- Search Costs – the financial and opportunity costs consumers pay when searching for a good or service
- A Fall in Demand
  - When demand falls, suppliers respond by cutting prices and a new market equilibrium is found. .



# PIZZA AND POLITICS

Demand-for-pizza shifts occurred at the Clinton White House whenever a political crisis erupted.





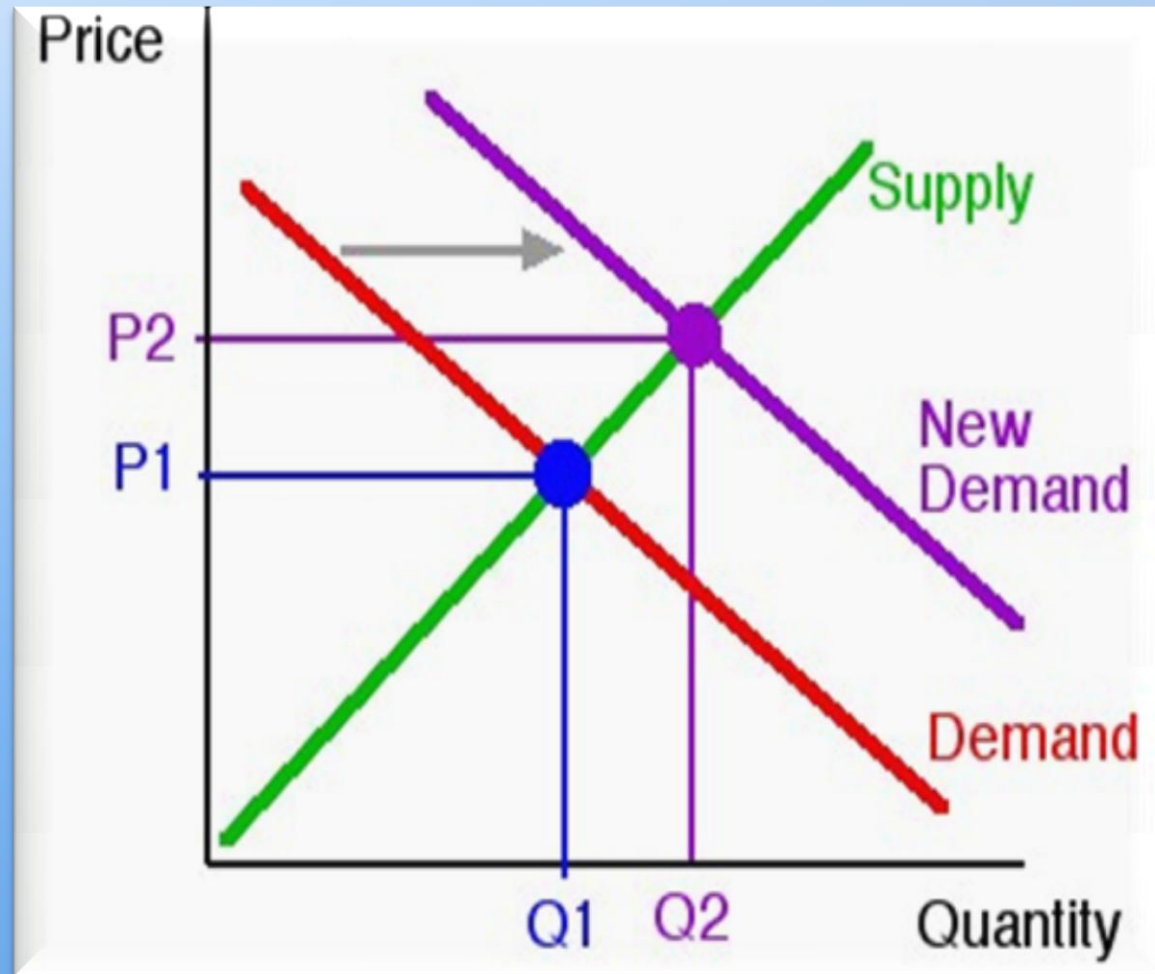
# SHIFT DUE TO INCREASE IN DEMAND

- Demand can increase (moving the demand curve to the right) if
  - **income** of buyer is increased (not true for "inferior goods")
  - **substitutes** become more expensive or less available
  - **complements** become less expensive or more available
  - **number of buyers** increases (due to population changes)
  - **fads, fashions, tastes and attitudes** make the good more popular
  - **Information** (advertising, etc) increases desire for the good
  - changes in the buyer's environment (weather, time of year, laws) makes the **good more desirable** to buyer
  - buyer **expects higher future prices** for the good
- When demand increases for one of these reasons, it will move the equilibrium and increase the price and the quantity supplied.



# CHART: SHIFT DUE TO INCREASE IN DEMAND

The original equilibrium (green supply and red demand) occurs at price  $P_1$  and quantity  $Q_1$ . As the demand curve moves (to the purple curve), the equilibrium price increases to  $P_2$  and the quantity increases to  $Q_2$ . The buyer buys more of the good, but must pay a higher price to get it.





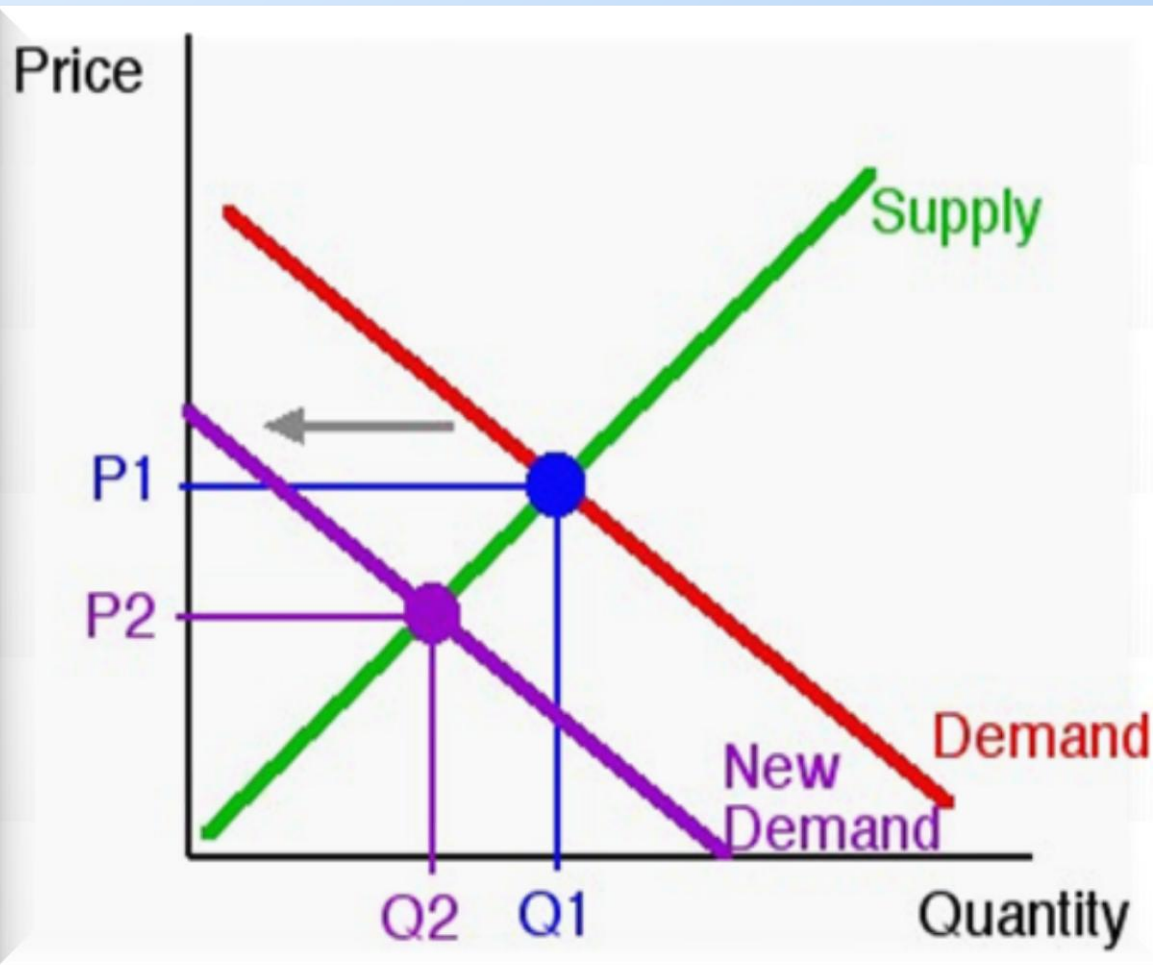
# SHIFT DUE TO DECREASE IN DEMAND

- Demand can decrease (moving the demand curve to the left) if
  - **income** of buyer is decreased (not true for "inferior goods")
  - **substitutes** become less expensive or more available
  - **complements** become more expensive or less available
  - **number of buyers** decreases (due to population changes)
  - **fads, fashions, tastes and attitudes** make the good less popular
  - **information** about the good decreases desire for the good
  - changes in the buyer's environment (weather, time of year, laws) makes the good **less desirable** to buyer
  - buyer **expects lower future prices** for the good
- When demand decreases for one of these reasons, it will move the equilibrium point and decrease both the price and quantity supplied





# CHART: SHIFT DUE TO DECREASE IN DEMAND



The original equilibrium (green supply and red demand) occurs at price  $P_1$  and quantity  $Q_1$ . As the demand curve moves (to the purple curve), the equilibrium price decreases to  $P_2$  and the quantity to  $Q_2$ . The buyer buys less of the good and pays a lower price to get it.



# MOVEMENTS VS. SHIFTS

- ▣ *Changes in quantity demanded* – movements along a demand curve, in response to price changes for that good ... This is movement up or down one demand curve in response to prices changes.
- ▣ *Changes in demand* – shifts of the demand curve due to changes in the determinants of demand ... This is a shift of the entire curve to a new position.



# MOVEMENTS VS. SHIFTS

QUANTITY DEMANDED ( $Q_d$ )	DEMAND (D)
the quantity of a good or service that will be demanded at a specific price	a schedule (table) of quantities of goods & services that will be purchased at various prices, at a specified time, may also be shown in graphical form as a demand curve
a point on the curve	the entire curve, many quantity demanded points strung together
changes in $Q_d$ are due to one variable – price	changes in demand can come from many variables – the determinants of demand
a change in $Q_d$ is shown as <i>movement along the curve</i>	a change in demand is shown as a shift of the entire curve to the left or right



# CONTINUED IN *SUPPLY & DEMAND PART II*