Bell Work

How are prices set?
Essential Question: How are prices set?

- Seller?
- Both Buyer and Seller?
- Buyer?
TOM'S SHELL

Self Serve

Cash or Credit

Regular: 172.9

Plus: ARM 9

Premium: LEG 9
Setting an Economy’s Price System

- To understand how a nation’s economy functions it is important to understand the nation’s price system.
- The forces that determine price are called the forces of supply and demand.
- The place where these two forces meet is called the marketplace.
Marketplace

- Marketplace is a mechanism that brings together buyers and sellers of a particular good and service to establish a market or retail price
  - Stock market sets stock prices
  - NASDAQ is an “electronic” marketplace
  - Commodities market sets price of corn, wheat, etc.
Demand

- **Demand** is a schedule which shows the various amounts of a product that consumers are **willing and able** to buy at each **price** during a **specified time period**- OTBE.

- e.g. Swimming suits have a different **price** and **quantity demanded** in summer vs. winter
Law of Demand

- Law of Demand says that as the price of an item decreases, the quantity demanded will increase; and, as the price of an item increases, the quantity demanded will decrease.
- The quantity demanded varies inversely with the price.
Demand Curve

Demand Curve is a line graph that shows the amount of a product that will be purchased at each price; it shows an inverse relationship and is always downsloping.
Remember:

- A change along the curve indicates a change in price and a change in quantity demanded.

- A change of the curve (right or left) indicates an across the board change in demand.
What’s this “across the board” stuff have we been talking about?

What on earth does we mean?
Aggregate (Market) Demand

• What events would increase or decrease the aggregate or market demand for goods and services “across the board”

• At every price range – generic Shaw’s brand ice cream to Ben and Jerry’s premium brand!
Demand-Shifts to the right or left

Increase in demand- shift to the RIGHT

Decrease in demand- shift to the LEFT

Graphing Changes in Market Demand
An increase or decrease in market demand can cause the entire demand curve to shift to the right or the left. The original market demand for Jasmine’s tacos is shown by the dark purple demand curve labeled $D_1$. The light purple curves labeled $D_2$ and $D_3$ represent changes in demand.

- Follow the dashed lines from Points $A$ and $B$ to the x-axis. Note that the quantity demanded at Point $B$ and every other point on $D_2$ has decreased by 10 tacos.
- Do the same for Points $A$ and $C$. What change in demand do you see between $D_1$ and $D_3$?

### Market Demand Schedule

<table>
<thead>
<tr>
<th>Price (per taco)</th>
<th>Decreased Market Demand</th>
<th>Original Market Demand</th>
<th>Increased Market Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.50</td>
<td>35</td>
<td>45</td>
<td>55</td>
</tr>
<tr>
<td>1.00</td>
<td>27</td>
<td>37</td>
<td>47</td>
</tr>
<tr>
<td>1.50</td>
<td>20</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>2.00</td>
<td>13</td>
<td>23</td>
<td>33</td>
</tr>
<tr>
<td>2.50</td>
<td>7</td>
<td>17</td>
<td>27</td>
</tr>
<tr>
<td>3.00</td>
<td>3</td>
<td>13</td>
<td>23</td>
</tr>
</tbody>
</table>

### Market Demand Curves

- Decreased market demand
- Original market demand
- Increased market demand

- Increase in demand
- Decrease in demand

---

This diagram illustrates how changes in market demand affect the demand curve, showing the shifts from $D_1$ to $D_2$ and $D_3$.
1. Seasonality

- More lemonade will be demanded
- More bathing suits will be demanded
- More sun tan lotion will be demanded
2. Trends

- Advertising creates trends
- Gap
  - Everybody in vests!
  - Everybody in leather
  - Everybody in stripes
- Some advertising can decrease demand
  - SUV = Terrorism
3. Change in Income

- A raise in income will increase demand for superior goods (Rolex) and decrease demand for inferior goods (Timex watch).
- Conversely, a decrease in income will increase demand for inferior goods (Timex) and decrease demand for superior goods (Rolex).
4. Expectations

- If the Farmer’s Almanac forecasts a cold winter people may demand more snow tires and rock salt.
5. Price of Related Goods

- Substitute Goods
  - A rise in the price of one (e.g. butter) may increase the demand for the substitute (margarine)
  - This is a direct relationship

- Complementary Goods
  - An increase in the price of one good (e.g. cameras) will decrease the demand for the complementary good (film/memory cards).
  - This is an inverse relationship
6. Demographics

- Number and Kinds of Buyers in the Market can change demand
- Baby Boomers are getting ready to retire
- Increased Demand for:
  - More housing in Florida and Arizona
  - Assisted Living Complexes
  - Walkers
  - Wheelchairs
Supply

Supply is a schedule which shows the amounts of a good or service a producer is willing and able to make available at each price during a specified time period.

Law of Supply states that the quantity of a commodity supplied varies directly with its price: the number of goods and services offered for sale increases as the price increases.
Supply Curve

- Supply Curve will always be upsloping.
A change along the curve indicates a change in price and a change in quantity supplied.

A change of the curve (right or left) indicates an across the board change in supply.
Equilibrium Price

- Equilibrium Price (also called the Market price) is the price at which goods and services may actually be bought and sold.
- Equilibrium Price is where quantity demanded is equal to the quantity supplied.
Equilibrium Price
Just as there are events that can cause demand “across the board” - at every price level to change....there are also events that can cause supply “across the board” - at every price level - to change!
Determinants of Supply

What could cause a huge increase or decrease in supply across the board (and a change in price is not a factor!)

- Resource prices (raw materials)
- Technology (produce more products faster & more efficiently)
- Taxes
- Subsidies (Gov’t grants)
- Expectations
- Number of Sellers in the Market
How much coffee can you drink?

- One cup, two, three, four?
- How does Dunkin Donuts get you to buy more coffee after lunch?
They offer you a deal...buy a large coffee, get a free muffin or donut

Dunkin Donuts knows ALL about the Principle of Diminishing Marginal Utility !!!
Principle of Marginal Utility

- **Utility** is the measure of satisfaction that one gets from the use of a good or service.
- **Marginal Utility** is the degree of satisfaction a consumer gets from each *additional* purchase of a product (marginal in economics means “additional”).
- **Principle of Diminishing Marginal Utility** explains spending patterns of customers and states that each additional purchase of a product or service by a given customer will be less satisfying than the previous purchase.
Elasticity of Demand

- Elasticity of Demand describes the percentage change in quantity demanded that follows a price change.
Elasticity of Demand

Demand is elastic if a rise in price results in a large drop in demand and demand is inelastic if a rise in price results in a relatively small or no drop in demand.
Steak: Elastic or Inelastic?

- Elastic
- Why? People as a whole can do without steak and will substitute chicken or other protein for expensive steak.
Milk: Elastic or Inelastic?

- Inelastic
- Why?
- The population as a whole can do without steak....but can not do as easily without milk...especially families with children
Gasoline: Elastic or Inelastic?
What Products are Subject to Elastic Demand?

- **Luxury Items** – Most customers want luxuries and will consider buying them if price drops.
- **If Price Represents a Large Portion of Family Income**
  - A person will be more responsive to change in price when an item that takes up more income.
- **Availability of Substitute Items**
  - e.g. Steak/chicken
- **Durable Goods**
  - Computers, cars, washers, dryers will be in greater demand if the price drops.
Perfectly Elastic Demand Curve

- Refers to a situation where a small or very small price reduction causes buyers to increase purchases from 0 to all they can get.
- E.g. Foreign currency (FX Market)
- Miniscule changes in currency exchange rate would prompt FX brokers to buy (or sell!) large amounts of money.
What Products are Subject to “Inelastic Demand”? 

- Necessities (milk, gasoline)
- Drugs
  - Legal (heart medicine, antibiotics)
  - Illegal (heroin, cocaine)
- Products with no good substitute
  - insulin, cancer drugs, etc.
  - salt in Middle Ages (preservative)
Perfectly Inelastic Demand Curve

- Refers to a situation where no change takes place in Quantity demanded as a result of a change in price
  - Examples:
    - Diabetic – insulin
    - Addict - heroin
Why is Elasticity of Demand Important?

- What happens if a florist increases the price of roses 400% in October? Will sales go up or down?
  - A. Probably, down

- What happens if a florist increases the price of roses on February 14th? Will sales go down or up?
  - A. Probably up (OTBE!) Why? Frantic husbands and boyfriends will pay exorbitant prices for a dozen roses on Valentine’s Day – if they know what’s good for them!!
Elasticity of Supply

- Like Demand, Supply is subject to elasticity
- If a change in price produces only a small change in supply, it is said to be inelastic
- What goods are subject to supply elasticity?
  - Manufactured goods are more subject to elasticity of supply than goods produced by nature
  - Skateboard manufacturers can get employees to produce more skateboards, but farmers can’t force cows to produce more milk or trees to grow faster
Market Disequilibrium

- Price Ceilings and Price Floors cause market disequilibrium because they disrupt the natural dynamics of the marketplace (supply and demand)
Price Floors:

- Price floor are prices below which it is illegal to buy or sell.
  - Federal Min Wage = $7.25/hr
  - RI State Min Wage = $7.40/hr
- Dilemma: Some argue that minimum wage laws disrupt the equilibrium in the market and actually increase unemployment.
  - Why? Left to the forces of supply and demand more workers would be hired at LOWER wages, decreasing unemployment.

McDonald’s Worker and other fast food workers generally earn minimum wage.
States with minimum wage rates higher than the Federal

States with no minimum wage law

States with minimum wage rates the same as the Federal

States with minimum wage rates lower than the Federal

American Samoa has special minimum wage rates
Price Ceilings:

- Prices above which it is illegal to buy or sell
- Examples:
  - Rent controlled apartment buildings in cities
  - Certain goods and services during emergencies.
- Dilemma: Since rents are frozen, many landlords cannot keep up with the rising costs of maintenance – which have not been frozen!
- They stand in the way of market forces of supply and demand.