SUPPLY AND DEMAND

Why does the price of Nike shoes fall when the price of Adidas shoes fall? Why do Best Buy and Target increase or decrease their prices for an item you really want? Why is it that consumers buy more of something when it's on sale?

In this presentation, you will learn why most people respond the same way when buying goods and services. You will also find out why sellers or producers make the decisions to charge the prices that you pay for their products.

Demand and Rising Prices

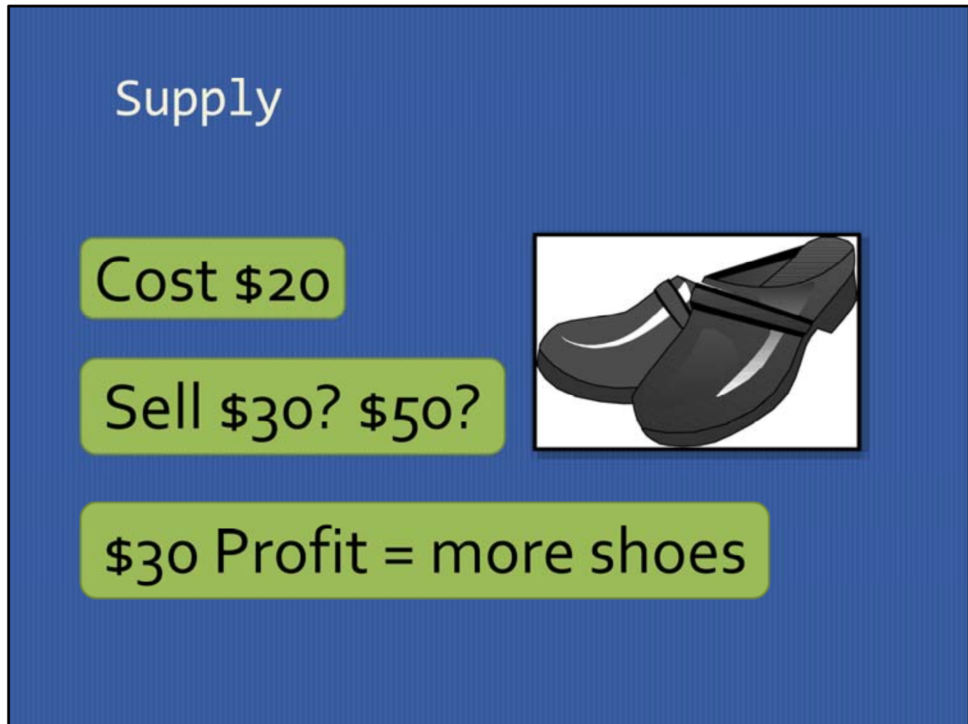
Think a moment about when Nintendo introduced the Wii. More people wanted it than the stores had for sale. Another way to say this is that the demand for the Wii was greater than the supply. When demand for something is much greater than the supply, the price goes up because some people will pay more than the original price just so they can be the first to get one.

The supply of something is how many or how much of that thing is available, and demand is how much people want it. If you, or someone you know, bought a Wii, or an iPhone, or some other hot product right when it came out, you know how the price is a player in the game of supply and demand. Chances are good you've also been a player in this game at some point, and you either decided to pay more for something that's in short supply because everybody else wanted it, or you waited until the demand went down and the supply increased so that you paid less. Or, perhaps you decided to be one of the people who stood in line for hours, bought that iPhone at the standard price, and then sold it on eBay for a profit to someone else who couldn't wait!

It’s pretty easy to see why things go up in price. Why would they go down?

Let's look at a hypothetical example using the Wii. Why is it one day, you can't get one no matter how much you're willing to spend, and all of sudden, it's on sale? Suppose that Best Buy ordered one million Wiis because there were so many customers begging to buy one, but Nintendo was out of stock and couldn't ship them any. One day, Nintendo finally catches up with its orders and ships them all.

Suddenly there are Wiis on every shelf, and you can get them anywhere; the shortage is over. In fact, there are more on the shelves than there are people who want to buy them. Best Buy has already paid Nintendo for the Wiis and must decide how long they can afford to keep them on the shelf. What's their solution? Lower the price so that some people who were hesitant to originally buy one decide to finally get one! Although Best Buy makes less, or even no profit, by selling at the lower price, they still get the money back that they paid Nintendo for the Wiis. If they wait too long, and the supply continues to grow and Target runs a sale, Best Buy might even have to sell them below the cost they paid for the Wiis, and they lose money.



Let’s talk about supply. Say you own a company that makes shoes. How many pairs of shoes do you think you should make? Ten? Fifty? One hundred? Suppose you live in a very small town, and you are the only shoe company for miles. If it costs you twenty dollars to produce a pair of shoes, how motivated would you be if you are selling them for thirty dollars? What about if you sold them for fifty dollars? Would you be more motivated?

Since you would be making a thirty-dollar profit if you sold them at fifty dollars, three times the profit if you sold them at thirty dollars, chances are good you’d make more shoes if they sold at the higher price.

The law of supply, therefore, says that if the price of a product goes up, the supply of that product will also go up.

Demand

Demand -
How much you want the product and your ability to pay for it.

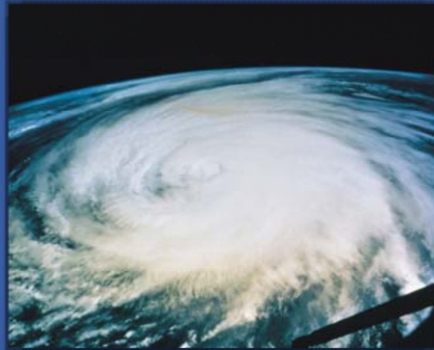
$30 -> $50 Sell fewer shoes

Higher price = lower demand

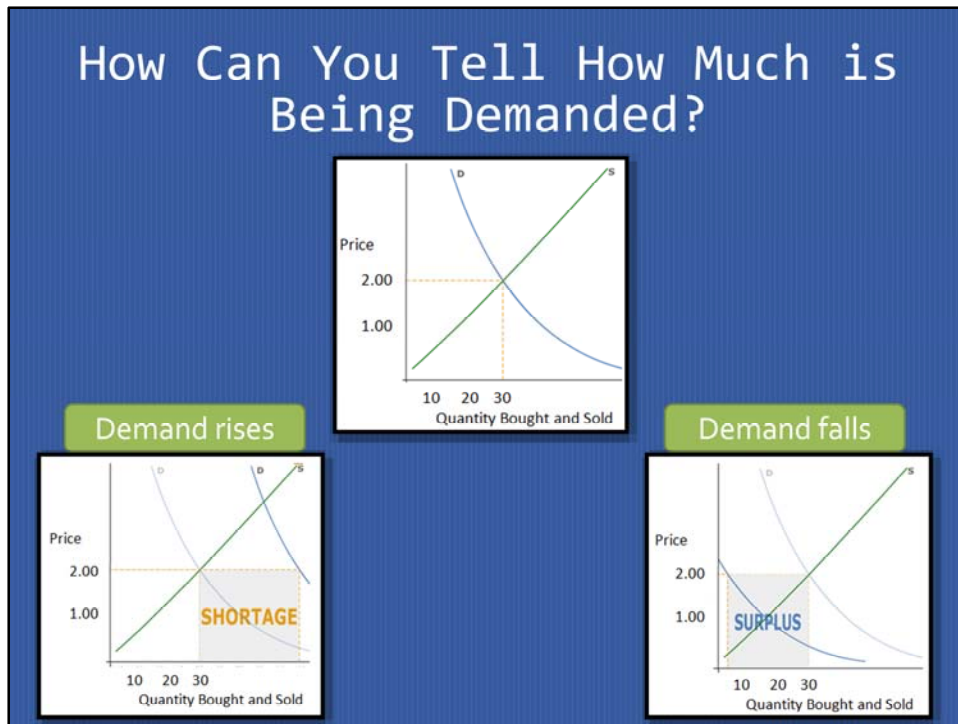
Now, let’s take a look at demand. What is demand? It is how much you want the product and your ability to pay for it. Let’s assume you want to buy the shoes in the previous example. If the producer increases the price from thirty dollars to fifty dollars, are you still going to buy them?

The law of demand states that price and demand are opposing. What does this really mean? The higher the price of a product, the lower the demand or the fewer the people who want to buy the product.

Are There Exceptions to the Laws of Supply and Demand?



There are some exceptions to the basic supply and demand laws. Think about the last time you knew that a bad storm or hurricane was likely to hit your area. Did you or your parents run out to get batteries, water, or gas? When unexpected events such as these happen, the demand for certain products will go up no matter what the price. Producers can't keep some products on the shelves, even if they raise the prices.



As you learned, the law of demand states that if the price of a good or service increases, the quantity demanded will fall. Think of recent trips you may have taken to Wal-Mart, Target, or the grocery store. If you see an item that you normally buy is at a lower price or on sale, you tend to buy more of it.

To illustrate the relationship between a good's price and the quantity that consumers are willing to buy at that price, economists use demand curves. As you can see on the demand curve here, there is only one price where supply and demand meet. So, there is only one price where the quantity supplied and the quantity demanded are in balance. On our example curve, this is where the price is two dollars and the quantity demanded is at thirty. Select the graphics to see how the intersecting point changes.

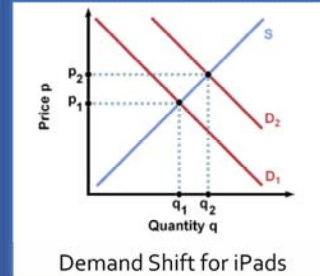
What happens to change the supply and demand curves? If this graph represents the supply and demand for a six pack of Pepsi, what do you think would happen to the demand curve if Coca-Cola lowered their prices? Since Coca-Cola is considered a substitute for Pepsi, the demand for Pepsi would probably decrease and the demand curve for Pepsi would shift to the left.

Let's practice.

Answer the following questions based on the graph above.
What is the price and quantity if demand falls by five units?
What is the price and quantity if demand falls by ten units?

Movements vs. Shifts

Change in Demand for iPads



Demand Shift for iPads

There is only one reason for a change in the quantity demanded -- a change in the price of the actual good or service.

Available substitutes and income changes cause a shift in the total demand for a product or service.

What's the difference between a change in demand and the quantity demanded?
A change in the quantity demanded is a movement along the demand curve. The key words here are quantity demanded. This is due to a change in the price of the good that is demanded.

For example, let's say that the Apple iPad is 500 dollars. If the price of the iPad increases, fewer iPads will probably be demanded, since the price has increased. The quantity demanded, therefore, moves along the demand curve to the left, resulting in a new quantity demanded.

You now know about movement along the demand curve. Remember, there is only one reason for a change in the quantity demanded -- a change in the price of the actual good or service. Now, let's take a look at how the demand curve can shift.

In order for the demand curve to shift, it must be affected by consumers' incomes and other similar products or services that are available. A shift changes the entire demand. Think about this. You go to the store for some snack items. You like both Doritos and Fritos. Doritos are three dollars a bag, and Fritos are on sale for two dollars for the same sized bag. Which one will you buy? The demand for Doritos may decrease due to the substitute, Fritos -- a similar product that is less expensive.

Now, think about your paycheck. If you are working a part-time job, you might have some extra spending money. However, if you decide to quit your part-time job and focus on your school work, you will not have that extra income to spend on certain products anymore. When your income falls, the demand for products or services falls, regardless of the price of the product or service. Available substitutes and income changes cause a shift in the total demand for a product or service.

Remember:
A change in quantity demanded equals movement along the demand curve.
A change in demand equals a shift in the demand curve.

Change in Supply due to increase in iTunes' costs			
Price	Quantity Demanded	Initial Quantity Supplied	New Quantity Supplied
$4.00	10	60	30
$3.00	20	40	20
$2.00	30	30	10
$1.00	40	10	0

- Technological advances that increase product efficiency.
- Sellers expect prices to increase, they may decrease the amount they buy in order to buy more later for a higher price.

We have looked at what happens to demand, but what about supply? The law of supply states that as the price of a good or service rises, the quantity supplied will rise.

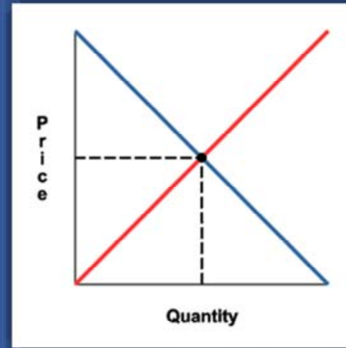
Take a look at information in the table above for the quantity of iTunes songs supplied. You can see that you get forty songs for thirty dollars. Remember, the law of supply states that as price increases, the quantity supplied will also increase. Just like on the demand curve, a price change causes movement along the supply curve.

The graph shows a shift in the supply curve. What causes a shift in supply?

- The supply of a good may decrease if the price of another good increases.
- More sellers of a good in the marketplace results in more supply, which shifts the curve to the right.
- Technological advances that increase product efficiency cause the supply curve to shift to the right.
- If sellers expect prices to increase, they may decrease the amount they buy in order to buy more later for a higher price, causing a shift to the left in the supply curve.

You might ask, why sellers would wait to buy more at a higher price? When the price of a product rises, the seller has more potential to earn a better profit when selling the product to a consumer; therefore, the seller makes more money off of the product.

Equilibrium Price



When the amount that consumers demand and the amount that producers supply meet, the economy is said to be at an equilibrium. Both sellers and buyers are happy with the price and quantity of goods. Basically, this is the most efficient way to allocate goods, since the amount of goods being supplied and the amount demanded are equal. This is called the equilibrium price. At equilibrium, everyone involved should be satisfied because you, as the consumer, are getting everything that you want, and producers are selling all the goods they have produced. If you have been watching the price of something that you really want fluctuate, this is a result of consumers and producers trying to constantly achieve an equilibrium between supply and demand.

Elasticity of Supply and Demand

Price changes, demand changes – demand is elastic

Small change in price, big change in demand, highly elastic.

Factors that increase elasticity

1. Alternatives?
2. Income to spend
3. Degree of necessity

What do you think happens to the quantity of a product that is demanded when the price changes? Think about the iPod for a moment. If the price of iPods changes and the availability and the quantity of iPods change quite a bit, we say that the demand for the iPod is elastic. If a slight change in price, either an increase or a decrease, leads to a sharp adjustment in the quantity demanded or supplied, the good is thought to be highly elastic.

There are several factors that contribute to the elasticity of supply and demand:

1. Availability of Substitutes or Alternatives
   Think about the iPod again. Are there any other alternatives for listening to your music? What about MP3 players or cell phones? The greater the number of alternatives or substitutes, the greater the elasticity in demand. If the iPod increases fifty dollars in price, you could instead buy an MP3 player or use your cell phone to listen to your music and download pictures.
2. Amount of Income Available to Spend
   Think about the money you set aside to spend on food, drinks, or snacks. If your favorite snack or drink increases from one dollar to two dollars, but your income does not change, you may have less money to spend on that specific good. If you were buying four drinks a month at one dollar each, now you can buy only two drinks a month. As a consumer, the amount supplied that you are demanding is less and more elastic due to the price change.
3. Degree of Necessity
   Again, think of the iPod or another electronic device you may own. Is this item really a necessity? Most items that are considered luxuries have greater elasticity. Why? Because you do not need them to function in your everyday life. However, think about water for a moment. If the price that the water company charges increases, are you going to stop taking showers or drinking water? Of course not. Therefore, the price change for water would be inelastic, since it would be considered a necessity, and the amount demanded does not change dramatically as the price changes.

You might be thinking that if demand for a product is extremely high, then the price could keep increasing quite a bit before consumers would stop buying the product. Though the prices can change to meet equilibrium for supply and demand, the government can actually regulate a price for a particular good.

Think for a moment about a very popular city such as New York City. If the city is experiencing a population growth, those people are going to need a place to live. The price for apartments and other housing could become very high due to the increased demand and the limited supply. Prices could increase to the point that people could not afford to live in the city near their jobs. In this case, the local government may intervene to ensure that the people would have affordable places to live by setting a price ceiling, a maximum price that landlords could charge to rent apartments.

On the flip side, governments can also set price floors. Consider the following examples:

Price for agriculture – Depending on the weather and other factors that can't be controlled, farmers may have an abundance of crops that might possibly drive prices down. If this is the case, the price for a crop might be so low that farmers can't even pay their bills, much less make a profit. To prevent this from happening, the government will intervene and set a price floor, a minimum price for that particular crop, to guarantee that farmers will make a certain amount of money. Price floors are more common than price ceilings.

Minimum Wage – This is another price floor set by the government. Minimum wage guarantees that workers are paid a certain amount of money per hour. Why is this needed? If there are a limited number of jobs and a surplus of individuals competing for the jobs, individuals might be willing to accept a lower wage to get the job. Ultimately, if companies could pay an extremely low amount to workers, the workers may not be able to earn enough money to live. Therefore, the government sets the minimum wage.