**The Demand Curve Shifts**

In our previous videos, we **covered** the basics of the demand curve. Now we get to **dive** **into** what happens when the demand curve **shifts** **due to** **increases** or **decreases** in market demand. Remember that ***a demand curve is a function which shows the quantity demanded at different prices***. And ***the quantity demanded is the quantity that buyers are willing and able to purchase at a particular price.*** We said last time that an increase in demand means a **shifting out** of the demand curve, a movement toward the **northeast** away from the **origin**.

 Now let's look at that more **closely**. ***An increase in demand means there's a greater quantity demanded at every price.*** For example, on the old demand curve at a price of $25, people were willing and able to **purchase** 70 units. On the new demand curve at that same price of $25, people are now willing and able to purchase 80 units. An increase in demand is a greater quantity demanded at the same price.

We can also read an increase in demand using the **vertical method**. What that means is that in every quantity there is a greater willingness to pay for that quantity. For example, for the 70th unit, people were willing to pay $25 for that unit. Now with the new demand curve, people are willing to pay $50 for that unit. That's a greater willingness to pay for the same quantity and this is what an increase in demand means.

To **review** because this is important, ***an increase in demand means an increase in the quantity demanded at every price***, or equivalently it means an ***increase in the maximum willingness to pay for a given quantity.*** What would cause an increase in demand? The answer is ***anything that increases the quantity demanded at a given price or that which increases the maximum willingness to pay for a given quantity.*** **For instance**, can you think of some factors which would make consumers willing to pay more for a good? Can you think of a factor which would make consumers want a greater quantity at a **fixed** price? Those are the types of factors which are going to shift the demand curve.

Now in a minute I'm going to give you a list of such **possible** **factors** but I don't want you to **memorize** this list. **Instead** I want you to understand what an increase in demand means. If you understand then you'll always be able to **recreate** such a list **on the fly**. Now, here are some examples of important demand shifters. For instance, changes in **income** and changes in **population**. Can you see through our example how an increase in income might cause people to be willing to pay more for a given quantity of a good? Or might cause them to want more of that good at a **particular** price? How about changes in population? More people might increase the quantity demanded at a particular price because there are more **potential** customers. **Fewer** people in the world could decrease the quantity demanded.

How about some other factors which might shift demand curves? Well, there are prices of **substitutes**, prices of **complements**, **expectations**, and **changes in taste**. These are all a little bit **trickier** but I'll go through them all in a moment. I just wanted for now to give you **a sense** of some of the other things which might also shift market demand. **Of course** everything I've said about an increase in demand applies just the same but in **reverse** for a decrease in demand. A decrease in demand is a shift **inwards** of the curve toward the origin. It again could be read in two ways. It means that in any given price there is less quantity demanded at that price. **Similarly**, for any given quantity there is a lower willingness to pay for the same quantity.

***A decrease in demand means a decrease in the quantity demanded at every given price*** or equivalently a ***decrease in the maximum willingness to pay for each given quantity.*** What might cause a decrease in demand? Again I'm going to **belabor** this point a little bit but a decrease in demand is anything that decreases the quantity demanded at a given price or that decreases the maximum willingness to pay for a given quantity. If you **keep in mind** that is what a decrease in demand means then you'll always be able to **come up** with factors which would decrease market demand.

Let's look in more **detail** at some of the demand shifters beginning with **income**. The effect of changes income on demand depends on the **nature** of the good in question. For most goods, when your income goes up you demand more of that good. **Imagine** that you're a poor student right now but soon you'll **graduate** and get a **high paying job**. When you get that high paying job, when your income goes up, you're probably going to demand more automobiles, more housing, and more fine dining. These are all called normal goods because the demand for them goes up when incomes go up. And of course the demand for them goes down when incomes go down.

There are also goods however for which when your income goes up your demand for them actually goes down. Again when I was a poor student for instance, I actually sometimes went to McDonald's to buy a cheeseburger because it was cheap. When my income went up later I ate at McDonald's less often and ate at better restaurants which of course cost more. I haven't actually eaten at McDonald's for many years. ***An inferior good is one which when your income goes up the demand for it goes down and vice versa***. For instance think about soup. Soup is a cheap and easy meal. So during a **recession**, the demand for soup may well go up. During **boom** times, the demand for soup may well go down.

 Now let's **test** your **knowledge**. I **suggest** you get a pencil and also a piece of paper**. Put down** two demand curves. Now we're going to think about the demand for hamburger helper and we're going to think about it in two different **situations**, **namely** during a **boom** and during a **recession**. Here's our demand for hamburger helper. What is going to happen to this demand when the economy goes into a boom, when people's incomes go up? Now draw the new demand curve? What's that new demand curve going to **look like?** In a boom, the demand for hamburger helper is going to **decrease** because hamburger helper is an **inferior good** so we get a decrease in demand.

What about in a recession? Of course in a recession we get the **opposite**. In a recession, when incomes are going down the demand for hamburger helper is going up. Here's another demand shifter, **namely** **population**. As the population of an economy changes, the number of potential buyers of a particular good also changes. For instance, what happens to the demand for **diapers** in Russia as birth rates **drop**? Well, that demand is going to decrease. In the United States, as you probably know the baby **boomers** are getting **older** so having many more **elderly** individuals in the population. Which products will increase in demand as the American population gets older?

Well, think about that for a moment. Here are a few possible examples. As the number of elderly in the United States goes up we would **expect** an increase in the demand for **cancer** drugs for instance. **Indeed** as the population has gotten older, **pharmaceutical** firms have invested more in research and development for producing drugs for elder people. We expect also as people get older, the demand for **retirement** **communities** goes up, perhaps even the demand for golf. How would we do this on the demand curve? Well, use an old demand curve but as the population gets older the demand for these products, **cancer drugs,** retirement communities and **golf equipment,** well that goes up so this curve shifts away from the origin and up to the right.

 Here's another demand shifter, the price of substitutes. ***Two goods are substitutes if an increase in the price of one good leads to an increase in demand for the other good as well.*** For example, suppose that the price of Nike shoes goes up. Well, that is going to increase the demand for Reebok shoes and **vice versa**. Suppose instead that the price of Nike shoes goes down, that is going to decrease the demand for Reeboks as people **switch** from Reeboks to the now cheaper good, Nike.

Another example. What happens to the demand for iTunes if songs on Spotify, a **competitor**, become cheaper? If Spotify is cheaper that's going to decrease the demand for iTunes. Another important demand shifter is the price of **complements**. ***Complements are goods which tend to go together well.*** Think for instance if hotdogs and hotdog buns. Technically, two goods are complements if an increase in the price of one of those goods leads to a decrease in the demand for the other. Suppose for instance that the price of hotdogs goes up, that means fewer people are going to buy hotdogs. That means that demand for hotdog buns is going to decrease **as well** and vice versa **of course**. Again if the price of hotdog buns goes down, people are going to want to buy more buns. But then they're also going to want to buy more of the complement of hotdogs. So the demand for hotdogs will go up when the price of the complement hotdog buns goes down.

Here's another example. What happens to the demand for **sport utility** **vehicles** when gasoline gets more expensive? Cars in gasoline or sport utility vehicles on gasoline, they're complements. When you want one, you also want the other. So if gasoline gets more expensive, that is going to decrease the demand for sport utility vehicles. Another important demand shifter is **expectations**. It can be expectations of events or of prices. In particular, if people expect the price of a good to be higher in the future, that is going to tend to increase demand today.

Consumers will **adjust** their current spending in **anticipation** of what is going to happen to future prices in order to obtain the lowest possible price by buying more today. For example, imagine you hear there's going to be a **hurricane**. If the **hurricane** **hits** you expect the price of batteries is going to **go way up** or **perhaps** it's going to be very **difficult** to even get any batteries at all. That's going to increase the demand for batteries today.

Something in the future, that is this expectation of a future event can change the demand today. Similarly, if people expect that the price of the Xbox 360 is going to **drop** right before Christmas, well then sales in November **will go down**. Apple has to deal with this problem all of the time. Each time people expect a new iPhone model, they stop buying the **current** **version** of the iPhone. So Apple doesn't want anyone to know when a new iPhone is going to be **coming out** because **otherwise** in **the mean time,** the sales of the current product will drop.

**Taste** is an **important** demand shifter and tastes change all the time. Tastes differ **among** consumers and they also differ **overtime** because of **seasonal** changes or **fashion** or **fads**. For instance, what happens to the demand for **boots** in October? What happens to the demand for **swimsuits** in June? What happens to the demand for **sunscreen** during the summer? What happens when everyone things that **the Atkins diet** is going to **cause** them to lose weight?

Let's take a closer look at that one. The Atkins diet if you **recall** was a diet which said that **carbohydrates** make you fat so the way to **lose weight** was to consume more **protein**, more **red meat** **in particular**. What do you think was the effect of the Atkins diet on the demand for red meat? It increased that demand. What about the effect of the diet on the demand for bread? It decreased the demand for bread. By the way, Atkins later had a **heart attack** and after he had this heart attack, the demand for the Atkins diet went down so these two factors went into reverse.

The final point for this lecture is a terminological one and this will become more **clear** after we've **covered** more of supply. I'll come back to that but for now I just want to give you **a heads up**. **Unfortunately**, economists sometimes use similar words for different **concepts**. In particular, a change in **the quantity demanded is not the same as a change in demand**. ***A change in the quantity demanded is about a movement along a fixed demand curve due to a change in price.***

 For instance, as you **recall**, we can say that at a price of $10, the quantity demanded is 200. When the price changes and we move along this curve, so then when the price falls to $5 we see that the quantity demanded is 450 units. That's a change in quantity demanded. It's a movement along this fixed curve as we just saw. A change in demand is a non-price **induced** change. **It's a shift of the entire demand curve.** A change in demand such as an increase in demand is again a shift in this curve. So keep these two **differences** in mind. ***Change in quantity demanded is a movement along a curve due to changes in price.*** **A change in demand is a shift of the entire demand curve due to changes in income or population or taste or any of the other factors other than price that we've talked about.** **Anyway**, those are the points for now on demand curves. Thanks. If you want to test yourself, click Practice Questions or if you're ready to move on, just click Next Video.