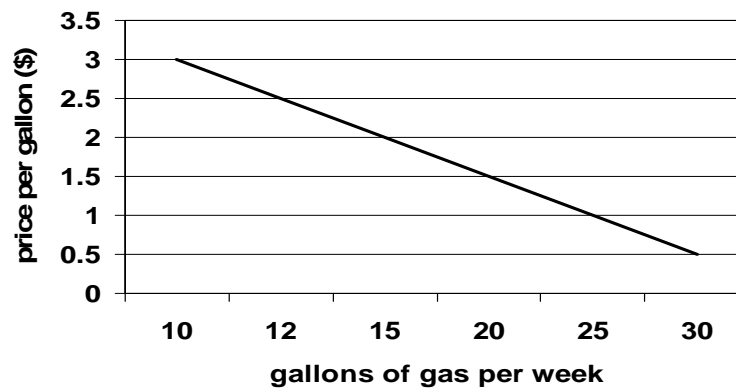


Lecture 2: Buying

I. We buy things because they help us live and make us happy. Economists use a catch-all term, utility, to mean the benefit we get from buying something.

II. Most of us "want" or "need" more than we can afford. In economics, we bring "want" and "need" together with what things cost us and talk about "demand". "Demand" shows how much of something we purchase at a given price. Remember, price equals price per unit, like price per gallon of gasoline, or price per hamburger.

What economists think almost always happens, is that people buy more of something when its price is lower, and people buy less of something when its price is higher. This is illustrated with a "demand curve".



Exception: People may buy more at a higher price if they think the price will go even higher in the future (houses today?)

Can think of the demand curve as a comparison of benefits and costs. At \$2 per gallon, Joe buys 20 gallons of gas a week. He doesn't buy 21 gallons because the 21st gallon is worth less to him than \$2.00, given what else he could buy with \$2.00 (maybe a cheeseburger and fries). So the demand curve shows that the "marginal utility" of an additional unit of something falls the more units you are already using. So for Joe, the marginal utility of the 21st gallon of gasoline is less than the marginal utility of the 16th gallon of gasoline. (Note: marginal utility is just the increase in your utility from buying and consuming another unit of something.)

As another example of "marginal utility", think of your summer break from school. The first day or two you were really excited and enjoyed the days. By the time summer was almost over, you were perhaps bored and ready to go back to school.

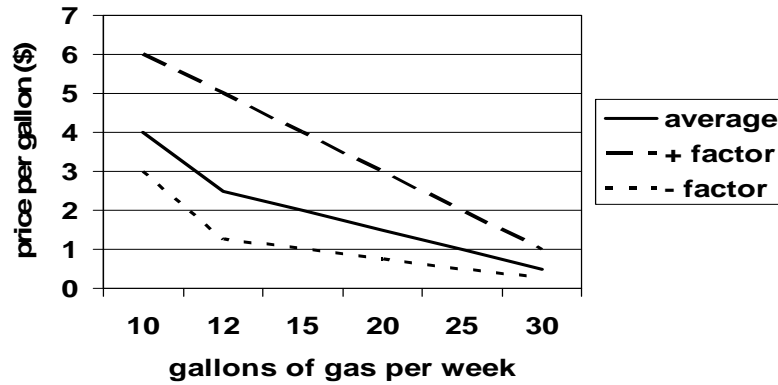
III. Other factors affect how much of something we buy:

1. Income: people with more income usually purchase more, at any price, than people with less income - if they do, the product is called a "normal good" If people with higher income purchase less than people with lower income, the product is called an "inferior good." Examples might be second hand clothes, fast food, and inexpensive vehicles.

Implication for business: diversifying for expansions and recessions

2. Price of substitutes: if the price of something else that can meet the same need drops, less of the product being examined at any price will be bought.
Example: if Pepsi and Coke are substitutes, and the price of Pepsi falls and the price of Coke stays the same, more Pepsi will be purchased and less Coke will be bought. Likewise, if the price of the substitute increases and the price of the product examined doesn't, more of the product being examined will be purchased.
3. Price of complements: complements are two products that people like to use together (bacon and eggs, coffee and cream, burgers and french fries). If the price of one of the complements changes, purchases of the other will change too even if its price hasn't. So, if bacon and eggs are complements and the price of bacon increases even though egg prices remain the same, less eggs will be bought. Similarly, if bacon prices fall, more eggs are bought.
4. Preferences: a "catch-all" factor. Refers to influences on purchases and use that aren't based on prices and income. Things like advertising, peer-pressure, health concerns. This is the reason celebrities are used to endorse products. It's the reason beef purchases fall if cases of "mad cow" disease are discovered.

The figure below shows how the demand curve changes for "+ factors", like higher income, an increase in the price of substitutes, a reduction in the price of complements, or an increase in preferences for the product. Also, the change in the demand curve is noted for "- factors", like lower income, a decrease in the price of substitutes, an increase in the price of complements, or a decrease in preferences for the product.



IV. Purchasing Power of Dollars

1. Dollars decline in purchasing power over time as prices rise.
2. So to compare past dollar amounts to current dollar amounts, an adjustment must be made.
3. We generally choose to keep the current dollar amounts (today, 2009) the same and adjust past dollar amounts to find their current (2009) purchasing power equivalent.
4. Formula to bring past dollar amounts to their 2009 purchasing power equivalent - call this *real* 2009 dollars:

$$\text{Past \$ amount in year Y} \times \frac{\text{CPI in 2009}}{\text{CPI in Yr. Y}} = \text{2009 \$ equivalent}$$

For the CPI (Consumer Price Index) values, go to www.bls.gov. Table is updated each month.

5. Example: Beth earned \$35,000 in 1997. In terms of purchasing power dollars in November 2008, what was the equivalent value? (Use annual CPI value for 1997)

$$\$35,000 \times \frac{212.4}{160.5} = \$46,318$$

V. The Life Cycle of Borrowing and Saving

1. Borrowing and saving are ways of transferring income to a point in time different than when the income was earned. This allows spending and earning to be done at different times.

For most households, net borrowing is done when the household is young, so the household can "live above its current means" and afford things like a home, furniture, vehicles, etc. when those items are most valuable to the household. So it is very usual for young families to have high debt loads

Conversely, net saving usually occurs when households reach middle age. Debt loads are reduced and saving is increased, particularly for retirement needs. If middle and older aged household have very high debt loads, they likely have a problem.

2. In deciding whether to borrow, compare benefits and costs. Benefit is being able to enjoy the product or service earlier than if waited to pay with cash. Cost is the interest rate you must pay. Also, because future dollars are worth less than current dollars, you will repay many more dollars than you borrowed. The original amount of the loan you pay back is called the "principal". The rest is called "interest". Loans where each payment is the same in dollar amount, and each payment is part principal and part interest are called "amortized loans".

3. In borrowing, all interest rates aren't created equal. Some borrowing is given "favorable" treatment by the government because the interest you pay on the loan is deductible for income taxes. To see what this means, you must know your "tax bracket" or "tax rate" (more on this later). So, if your tax bracket is 30%, and the interest rate on the loan is 6%, the "after-tax interest rate" is only:
 $6\% - (.3 \times 6\%) = 4.2\%$

4. To see your financial status, look at:
assets: value of what you own
liabilities: value of what you owe
net worth: assets - liabilities

5. Resolving debt problems

It's like dieting - households with debt problems need to restrain spending by using a budget (similar to restraining eating!) while at the same time working to pay down on existing debt (similar to exercising)

Sign that have too much debt, especially if you're middle age or older: 20% rule - you have a debt problem if more than 20% of take-home pay (disposable income) goes for debt payments, other than debt on your main residence

Getting out of debt - how long it will take, and how much will you need to pay - see table and example in *Everyday Economics*, pp. 66-67.