

Back in the Classroom: Micro View

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Fiscal & Monetary Policy

- Fiscal and monetary policy changes are used to affect behavior of the market.
 - $Y = C + I + G + X - M$
 - $Y = C + S + T$
- Contagion – companies and economies are so intertwined that losses spread quickly.
 - Willingness to sacrifice a firm to save the others.
 - Trying to keep the losses from the middle class.

How does the current economic situation affect me?

- Consumption is about 66% to 70% of the U.S. economy.
- Much of consumption is inelastic.
 - Food
 - Gasoline
 - Utilities
- For consumers to change consumption patterns, they must believe that the current situation will last and that they have the ability to change the patterns.

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Time

- Consumers alter consumption patterns slowly.
- Difficult to make major changes.
- Sell old car and buy new car.
 - But if no one wants gas hogs, who will buy the old car?
Supply of gas hogs is up but with low demand, price falls.
 - Are you willing to take the loss on the value of the old car?
 - At what gasoline price does it become worthwhile to sell gas hog and buy new car and incur the loss?
 - What does the gas mileage need to be for me to have enough savings from the new car to replace the loss from the sale of the old car?

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Substituting Vehicles

- 2008 Toyota Camry LE has a base price of \$21,000. The hybrid version has a base price of \$25,200.
 - Is the hybrid worth the extra \$4,200?
- Normal assumption is 2/3 in town driving and 1/3 highway driving.
 - The regular LE gets 21 mpg in town and 31 mpg on the highway for an average of 24.3 mpg.
 - The hybrid LE gets 33 mpg in town and 34 mpg on the highway for an average of 33.3 mpg.
- Normal assumption is 15,000 miles per year.
 - Regular LE will use 617 gallons ($15,000/24.3$).
 - Hybrid LE will use 450 gallons ($15,000/33.3$).

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Is the Hybrid worth it?

- The Hybrid costs \$4,200 more but will save 167 gallons per year based on assumptions.
 - \$4,200 divided by 167 is \$25.15.
 - \$4,200 divided by \$4 for a gallon is 1,050 gallons. 1,050 divided by 167 is 6.3 years.
 - \$4,200 divided by \$10 for a gallon is 420 gallons. 420 divided by 167 is 2.5 years.
- The cost advantage is not clear to consumers.

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Substituting a smaller car

- Let's assume a household has a 2005 Ford Expedition.
 - A 2008 Expedition has a base cost of \$36,000.
 - The 2005 has a value of about \$14,000 to \$16,000.
 - In 3 years, the car depreciated by over 50%.
- The Expedition gets 12 mpg in town and 18 mpg on the highway for an average of 14 mpg.
 - 15,000 miles divided by 14 is 1,071 gallons.
- The household is considering buying a Ford Focus.
 - The 2008 Focus has a base cost of \$16,000.
 - The 2005 Focus has a value of about \$10,000.
 - The Focus gets 24 mpg in town and 33 mpg on the highway for an average of 27 mpg.
 - 15,000 miles divided by 27 mpg is 556 gallons.

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Is it worth the trade?

- 1,071 annual gallons or 556 gallons? Close to twice as many gallons used.
 - Sell the Expedition for \$14,000 to \$16,000 and buy the Focus.
- What if the household is *underwater* on the Expedition?
 - Common problem in the U.S. is that the household owes more on the car than it is worth in the market.
- As people start to sell Expeditions and buy Focuses, the price of the Expeditions will fall and the prices of Focuses will increase.
 - First mover advantage.
- Are households willing to sell an asset that they bought for \$36,000 that is still a good vehicle and holds a lot of stuff for a small car that doesn't have the space?

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Edmunds.com

- Edmunds for price data.
- Has “true cost to own” and “fuel costs.”
- Price of new and used cars.
- Resale value.
- Price of options.
- Can search by zip code.

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Gas Prices

- Gasbuddy.com
 - Texasgasprices.com
 - Dallasgasprices.com
 - Current prices at various gas stations.
- MSN Autos
 - <http://autos.msn.com/everyday/gasstations.aspx?zip=&src=Netx>
 - Gas prices from 90,000 gas stations. Updated daily.

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Competitive Markets

- Have students track prices at various stations.
- Which has the lowest price? Which has the highest price?
 - Near the interstate.
 - Near the mall.
 - Near various sections of town.
- Students can see how the price differs based on:
 - Location.
 - Socio-economic factors.
 - Days of the week.
 - Times of the day.
- How do the prices differ based on the number of competitors in the area?
- What creates a comparative advantage in the retail gas industry?

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Global Gas Prices

- Norway - \$10.09
- United Kingdom - \$9.31
- China - \$2.73
- Iran - \$0.50
- Venezuela - \$0.12
- Source: CNBC, June 6, 2008.

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Transmission of Prices

- Oil prices rise → increase the use of ethanol → increased demand for corn → increase in the cost of food → potential world food crisis.
- Tortilla prices have jumped in Mexico. Estimates for the increase during the summer 2008 is 15% to 50%.
 - Expected to increase Mexico's inflation rate.
 - Contagion effect. My taco is more expensive because oil prices are higher and the dollar depreciated.
- White bread has jumped from \$1.05 to \$1.28 from 2006 to 2008.
 - Bread is up 14.1% since last year.
 - Wheat prices have more than doubled this year.

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Household Consumption

- How do households spend?
- <http://www.bls.gov/cex/2006/share/age.pdf>
- Food - 12.7% (7.1% at home and 5.6% away from home)
- Alcohol - 1%
- Housing - 33.8% (Shelter - 20%, Utilities - 7%, Housekeeping supplies - 1.3%, Household furnishings and equipment - 3.5%)
- Apparel - 3.9%
- Transportation - 17.6%

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Household Consumption

- Health care – 5.7%
- Entertainment – 4.9%
- Personal care and services – 1.2%
- Reading – 0.2%
- Education – 1.8%
- Tobacco – 0.7%
- Charity – 3.9%
- Personal Insurance and Pensions – 10.9%
- Miscellaneous – 1.7%

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Where is the waste?

- Where can households cut back? The big categories are housing, food and transportation.
- Housing prices have fallen.
 - Houses are assets along with the expenses associated with a house.
 - Based on the wealth effect, households will spend less.
- Food prices are up.
 - Eat less. Eat out less.
- Gas prices are up.
 - Drive less. Switch to a more fuel-efficient car.

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Consumption Substitution

- Have your students each survey 5 to 10 people about their spending habits.
 - Are they cutting back?
 - If so, how?
 - Don't let them answer, "drive less." Instead, make them be specific such as "I only go to Wal-Mart once a week instead of twice a week."
 - See if anyone has not done something (visit mother, go to church, etc.) because of fuel prices.

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Food Substitution

- Ask if they think food prices have risen.
 - If so, which foods in particular. Again, don't let them answer "dairy." "Milk" or "eggs" is a better answer.
- Ask how many times the family normally goes out to eat.
 - Is the family going out to eat any less?
 - Is the family altering their restaurants? (McDonalds instead of Outback or a buffet place instead of a bistro).
- Do they think the food price increases are temporary or permanent?

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What is needed to make a change?

- What has to happen for the household to make a change?
- How quickly can they make a change?
- Many people are willing to make a change but what are the alternatives for electricity, transportation, and food?
- Are the price changes temporary or permanent?
 - We make long-run decisions based on permanent changes and short-run decisions on temporary changes.

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Sales tax versus homeownership

- Using the State of Texas website, compare the homeownership rates and sales tax revenue for cities or counties in Texas.
- Normal results is that areas with higher homeownership rates have not have a large decrease in sales tax revenue. Areas with lower rates have had a decrease in sales tax revenue.
- This activity examines who is hurt first by a slowdown in the economy.
- <http://www.window.state.tx.us/taxinfo/allocsum/compsu.html>
- <http://quickfacts.census.gov/qfd/>

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Who cuts back first?

- What other characteristics about the country other than homeownership rates help to explain the results?
- Include unemployment rates and see if this helps explain differences.

	Homeownership Rate	One year change in sales tax revenue
Flower Mound	92.9%	+6.09%
Richardson	64.4%	-4.39%
Cottle County	71.6%	-5.51%
Armstrong County	78.9%	+5.96%
Texas Average	63.8%	+4.91%

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Conclusion

- Consumer theory tells us that households will change but they have to see a reason to change.
- Households buy new technology every year or so – they see the difference in HD versus analog.
- Do they see the energy savings from a new washing machine?
- Is the problem an economics problem or an engineering problem?
 - Significantly higher gas mileage in a new car.
 - More efficient options to buy.
 - It has to exist for me to buy it.

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Thanks Again!



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