- 1. Machlup, Fritz. "Why Economists Disagree." *Proceedings of the American Philosophical Society* 109 (Feb. 18, 1965): 1-7. http://www.jstor.org/stable/985773
- a. This 50+ year old article does an excellent job of explaining why economists disagree. List the four causes of disagreement cited in the article. For each, briefly define the cause or illustrate it with an example.
- b. Two economists can disagree, sometimes strongly. The best of economists do not resort to *ad hominem* arguments in these disagreements, recognizing that they are using different models. What three things characterize an economic model? Drawing on the four causes of disagreement listed in the article, which characteristics of economic models create the disagreements between economists?
- c. What is the difference between "positive economic analysis" and "normative economic analysis"? Which causes of disagreement between economists are part of positive analysis? Which are part of normative analysis? Can disagreements in the normative realm be resolved? Discuss with the members of your group.

- "How to Understand the Economic Impact of Transport Networks," by Ejaz Ghani. World Economic Forum, 23 Jul 2015.
 https://www.weforum.org/agenda/2015/07/how-to-understand-the-economic-impact-of-transport-networks/
- a. What transportation project was studied by the author? What was the finding? Highlight and define any terms or phrases anyone in your group does not initially understand.
- b. In addition to transportation networks, what are other factors that can foster economic growth through productivity? Draw a PPF that illustrates the effect of productivity change on an economy. Did you draw symmetric or asymmetric growth? Defend your choice to your group members.
- c. Look at factors your group members listed in part (b). If you were a policy maker trying to encourage growth in a developing country, which factor would you focus on? Why? Would your answer be different if you faced budget constraints? Why? In your group, settle on one policy that the group would support and be prepared to defend your choice to your classmates.

- 3. "How Innovation Amplifies the Benefits of Free Trade," by Rose Jacobs. *Chicago Booth Review*, 17 July 2018. http://review.chicagobooth.edu/economics/2018/article/how-innovation-amplifies-benefits-free-trade
- a. What is the full name of "Chicago Booth"? (You won't find the answer in the article but will need to google it.) What data did Hsieh, Klenow and Nath examine what countries, what years, what relationship?
- b. The usual model of the gains from trade was presented in lecture and in the textbook. The article refers to it as showing a "one-time shock to the economy." But Hsieh, Klenow and Nath argue that innovation can follow increased trade. Using the PPF graph, show the two effects separately: [1] the "one-time shock" associated with increased trade, and then [2] the long-term gains associated with innovation. According to the article, which economy in a trading partnership will benefit the most from the gains associated with innovation: high productivity countries such as the U.S. or their trading partners?
- c. The article suggests that trading-partner countries which benefit disproportionately from gains associated with innovation should contribute money to the US (which is where the innovation takes place). Suppose it were possible to implement such a policy. Discuss with other members of your group where those funds should be applied as payments to US companies conducting the research and development (R&D), as payments for government-funded research at universities or in private companies, as payments to US workers who lose their jobs as a result of innovation and trade, or in some fourth way that you specify. Together decide on one proposal that all four members of your group agree to. Make a bulleted list of the pros and cons for your group's proposal.

4.	"Economics Has Failed America," by Daniel Altman. Foreign Policy, May 19, 2016.
	http://foreignpolicy.com/2016/05/19/economics-has-failed-america-globalization-trade/

- a. Which textbooks does the author cite in his article? In each case, how much do the authors write in their books about the costs of specialization and trade?
- b. First, write out the argument about the existence of gains from trade. ("If we assume this ____ and this ____, then we can conclude that there are gains from trade"). Then, write out an argument that points out the costs of specialization and trade. Now, identify which parts of your two arguments are examples of "positive" economic analysis and which parts of "normative" economic analysis. If you identified aspects of your arguments that were normative, revise your argument until it is completely positive economic analysis and not normative.
- c. Some estimates are that more than 25 percent of all college students take a Principles of Economics class (http://www.jstor.org/stable/1183192). Nearly all of those Principles courses teach the gains from trade. Relatively few teach about the costs of specialization and trade. How do you think what is taught in economics principles courses affects the public policies that our elected officials enact?

- "How Trump's Tariffs on Mexico are Taking Jobs from U.S. Workers," by Erica Werner & Kevin Sieff.
 Washington Post, July 18, 2018.
 https://www.washingtonnest.com/business/ocenemy/trumps_tariffs_on_movies_are saying layoff.
 - https://www.washingtonpost.com/business/economy/trumps-tariffs-on-mexico-are-causing-layoffs-in-the-united-states/2018/07/18/03ec1e74-8473-11e8-9e80-403a221946a7 story.html
- a. What is the company discussed in the article? What do they produce? Where are they located? What is the primary input to their production process? Where is that input produced? Why are Trump's tariffs relevant to this U.S. based company?
- b. Drawing on the article, sketch two models of supply and demand for nails, one for each of the following events described in the article.
 - The construction industry booms
 - The cost of steel, an input in the production of nails, increases 25 percent Based on your sketches, what is the combined effect of these two events on the price of nails? On the quantity of nails sold?

Aha! One of those last two questions is unanswerable without additional information. Which question has an ambiguous answer? Now look back at the article and find the factual answer to the question you can't definitively answer. According to the article, what is the combined effect of these two events on the price of nails? On the quantity of nails sold? What can you now say about which of the two effects above had a larger effect on Mid Continent Nail Corp?

c. Mid-Continent is owned by Deacero, a Mexican company. There are many companies in the U.S. that are similarly multinational – located in the United States but owned by individuals outside of the U.S. If the goal of tariffs is to protect U.S. jobs, does it matter whether the company's ownership is domestic or international? Should the goal of policy be protecting U.S. jobs or U.S. owners of companies? Defend your position. Be sure you explicitly state what your ultimate goal is: growth, equity, stability, or efficiency.

- 6a. "In Praise of Price Gouging," by John Stossel. Posted at *Townhall.com*, September 7, 2005. http://www.townhall.com/columnists/JohnStossel/2005/09/07/in_praise_of_price_gouging
- 6b. "Dear Harvard Prof: Your \$2,500 Ticket for 'Hamilton' Doesn't Mean Price-gouging Is a Good Thing," by Michael Hiltzik. Los Angeles Times, October 24, 2016.

 http://www.latimes.com/business/hiltzik/la-fi-hiltzik-price-gouging-20161024-snap-story.html

Note the date of the Stossel article: it was written in 2005, one week after Hurricane Katrina hit.

- a. Stossel begins with a (hypothetical) story of someone paying \$20 for a bottle of water. Use a supply and demand graph to illustrate how the equilibrium price of a bottle of water might have risen, post-Katrina in New Orleans, from \$1 to \$20 a bottle. Is the increase in price of a bottle of water a result of a change in demand, change in supply, or both? In the case of the Hamilton tickets, is the increase in the price of a ticket to \$2,500 the result of a change in demand, change in supply, or both?
- b. When the price of a bottle of water rises to \$20, Stossel claims "water goes to those who really need it." Do you agree? Use economic terms and concepts to explain why you think water does (or does not) therefore go to those who really need it.
 - Would your analysis be any different if you were analyzing the \$2,500 ticket to Hamilton instead of bottles of water following a hurricane?
- c. Laws against price gouging in the wake of a natural disaster might create a market disequilibrium. What non-price mechanism to allocate the desired goods would you and your group members argue in favor of? What is your argument?

- 7. https://www.ispot.tv/ad/dfET/ross-yes-for-less or https://ispot.tv/a/dfET (Ross Stores, TV Commercial, "Yes for Less", views 8/9/2018)
- a. Pull up the video on a laptop (ok to use laptops today) or other device and watch it together a couple of times. What store is being advertised? What do they sell? What are the customers in the ad responding to?
- b. What is the definition of "consumer surplus"? Explain how the ad illustrates the concept of consumer surplus. Do you think the ad is also illustrating the idea that demand curves slope down? Why or why not? Be sure everyone in your group agrees on your answers.
- c. Not all consumer product companies will draw in customers by emphasizing consumer surplus in their advertising. In your group, come up with some principles that would guide which sorts of companies should and should not emphasize consumer surplus in their marketing.

- "How Chicken Wings Explain Metro's Looming Ridership Problems," by Martine Powers. Washington Post, April 13, 2017.
 https://www.washingtonpost.com/news/dr-gridlock/wp/2017/04/13/how-chicken-wings-explain-metros-looming-ridership-problems/
- a. Who is Daniel Lin? What concept is he illustrating with the example of chicken wings?
- b. The Metro in DC is very similar to our Bart system, with the fare dependent upon the distance traveled. The one difference between the two systems is that the Metro charges higher fares during commute time than it does during "off-peak" time.
 - Based on the three factors that affect price elasticity of demand, what would you argue are the likely short-run and long-run effects of an increase in DC Metro fares? In what case(s) should the Metro increase fares? Do you need to make a distinction between "peak" and "off-peak" times?
- c. You are hired to analyze the effect on total revenue of a proposed increase in fares at Bart. With your group, make a list of what data you would gather and over what time period in order to determine the effect on total revenue.

- 9. "Under Pressure from Uber, Taxi Medallion Prices are Plummeting," by Josh Barro, *New York Times:* The Upshot, November 27, 2014. http://nyti.ms/1Fx7ook
- a. What is Uber? How do you get an Uber ride? How do you pay for it? What is a taxi medallion? What has happened to prices of taxi medallions in New York and in Boston?
- b. Use the model of supply and demand to illustrate (separately) the markets for Uber rides and for taxi rides. Distinguish between a run-of-the-mill weekday and a time (such as Halloween) when demand is very high. What is the effect of Uber on profit for taxi drivers? Do your results help explain what is happening to prices of taxi medallions?
 - Draw graphs that show the market for taxi rides and the cost and revenue curves for a typical taxi driver. Suppose the market begins in long-run equilibrium. Now show the effect on the taxi ride market and on a typical taxi driver of the introduction of Uber into that locale. What is the short-run effect on the typical taxi driver? What is the short-run effect on the price of taxi rides? What are the long-run effects on the taxi market and on the typical taxi driver?
- c. Some localities ban Uber and Lyft. (See https://www.cntraveler.com/story/where-uber-is-banned-around-the-world for a recent list.) Others allow the services to operate. With your group members, construct a list of the reasons for and against allowing Uber and Lyft to operate in an area, keeping in mind economic principles. Under what (if any) circumstances does your group recommend banning Uber and Lyft?

- 10. "What's Wrong with Airbnb?," by Frances Woolley, *Worthwhile Canadian Initiative*, July 15, 2016. http://worthwhile.typepad.com/worthwhile_canadian_initi/2016/07/whats-wrong-with-airbnb.html
- a. Woolley distinguishes between the long-term and short-term rental accommodation markets. Describe each of those markets. Which is the market for hotel rooms? Which is the market for apartments? Who are the buyers? Who are the sellers?
- b. The author shows the market for apartments as a monopolistically competitive market. What are the characteristics of monopolistic competition? Are they satisfied by this market?

Replicate the graphs in the article, being sure you understand why you are drawing things the way you are.

- Before Airbnb, show in separate graphs the equilibrium for the short-term (hotel)
 accommodation market and the equilibrium for the long-term (apartment)
 accommodation market. Be sure everyone in your group can explain why the equilibrium,
 profit-maximizing price will be higher for hotel rooms than for apartments.
- Now in each of those two graphs, show the effect of Airbnb's expansion. Why might the demand for apartments become less elastic as the author suggests?
- There are no average cost curves in the graphs in the article. Assume that the markets both began in long-run equilibrium. What is the effect of the expansion of Airbnb on the profit of the typical hotel owner? Of the typical apartment landlord?
- c. Many communities, especially in popular areas like New York City and the San Francisco Bay Area, are moving to ban or limit Airbnb rentals, arguing that Airbnb rentals are driving up apartment rents for full-time residents. Do you think Airbnb rentals should be allowed in Berkeley? Discuss with your group members.

- 11a. "Is It Time To Ban Computers From Classrooms?," by Tania Lombrozo, *NPR.org*, July 11, 2016. http://www.npr.org/sections/13.7/2016/07/11/485490818/is-it-time-to-ban-computers-from-classrooms
- 11b. "Even Just the Presence of a Phone or Laptop in Class Can Push Down Grades, Study Finds," by David Nield. Science Alert, July 28, 2018.

 https://www.sciencealert.com/phones-in-lectures-can-hurt-grades-even-when-not-used
- a. As cited in the two articles, what are the problems with the use of electronic gadgets (laptops, smart phones, etc.) in class? What did Professors Mueller and Oppenheimer find in their research comparing taking notes by hand with taking notes on a laptop? What did the Rutgers University researchers find when comparing performance on final exams on material covered with versus without student classroom access to gadgets?
- b. In the language of economics, describe the negative externality created when a student uses the laptop, cell phone, or other electronic gadget during class. Draw a graph that depicts the market-equilibrium and social optimal quantity of laptops in class.
- c. Is it possible to institute a policy that brings the use of laptops, phones, and other electronic gadgets to the social optimum? Does the banning of all electronic gadgets produce the socially optimal quantity of electronic gadgets in class? Discuss with your group members.

- 12. "Information Asymmetry: Secrets and Agents," *The Economist*, July 23, 2016, http://www.economist.com/node/21702428/print
- a. What is the example that Prof. Akerlof used to introduce the concept of information asymmetries? (Don't just state the product; go through the entire example and be sure everyone in your group understands it.)
- b. What is signalling? Why is signalling more difficult in labor markets in the state of Washington? What is screening? How does it affect markets beset by asymmetric information?
- c. Consider the market that is "admissions to college." The colleges and universities are the buyers. The prospective students are the sellers. Describe the information asymmetries that affect this market.

Some private high schools are considering dropping grades altogether (see for instance https://www.insidehighered.com/news/2017/05/10/top-private-high-schools-start-campaign-kill-traditional-transcripts-and-change or https://www.washingtonpost.com/opinions/why-getting-rid-of-grades-would-help-rich-students--and-hurt-poor-ones/2017/05/11/b038f90c-3683-11e7-b4ee-434b6d506b37_story.html). If college admission officers did not consider high school grades, would this increase or decrease the information asymmetries in college admissions? Why?

Together with your group members, identify 1 or 2 strategies you think colleges and universities should take to lower the asymmetries. Be ready to defend your choice(s) to your classmates.

- 13a. "Striking it Richer: The Evolution of Top Incomes in the United States", updated June 2016, by Emmanuel Saez, June 30, 2016. http://eml.berkeley.edu/~saez/saez-UStopincomes-2015.pdf
- 13b. "Economic Growth in the United States: A Tale of Two Countries," by Thomas Piketty, Emmanuel Saez, and Gabriel Zucman. Washington Center for Equitable Growth blog, December 6, 2016. http://equitablegrowth.org/research-analysis/economic-growth-in-the-united-states-a-tale-of-two-co-untries/
- a. Use the article by Prof. Saez to answer these questions. For each answer, cite the page or figure # where you found the answer. (Note that the pagination is odd with the first page as page 0.)
 - What is the source of Professor Saez's data?
 - How much did real average income per family increase in 2015? What was the rate of change for the top 1%? For the bottom 99%? Did inequality increase or decrease in 2015 relative to 2014?
 - From 2009-2015, by how much did average income per family grow? What was the increase for the top 1%? For the bottom 99%?
 - From 2007-2009, by how much did average income per family decrease? What was the decrease for the top 1%? For the bottom 99%?
 - Approximately what % of income did the top 1% receive in 1998? In 2007? In 2015?
 - What was the dollar cutoff in 2015 for the top 1%? The top 5%? The top 10%

Based on that last set of answers, would you say a family in the U.S. earning \$150,000 per year is earning a "middle class" income?

- b. Using the second article by Piketty, Saez, and Zucman, answer these questions. Which group received the most income growth, 1980-2014? What is the effect on income inequality? (Based on Figure 1), have tax policies helped or hurt the households in the bottom 50 percent of the income distribution? How does Figure 2 illustrate increased inequality? Defend your answers with your group members.
- c. Piketty, Saez, and Zucman suggest four policies that could increase the pretax income of the households in the bottom 50 percent of the income distribution. With your group members, come to consensus and rank these four policies from 1 (most important to implement) to 4 (least important to implement). Defend your ranking. Make note of which parts of your defense are based on economic principles and which parts are non-economic. Be ready to defend your ranking to your classmates.

- 14. "What Will Cause the Next Recession? A Look at the 3 Most Likely Possibilities," by Neil Irwin. *New York Times*, August 2, 2018. https://nyti.ms/2NYXnf6
- a. According to the article, how old is the current expansion? What does the author cite as the three most likely possibilities for triggering the next recession?
- b. Economies go through cycles. Draw a graph that shows the cycles of the economy, labeling each of the following:
 - recession
 - recovery
 - peak
 - trough
 - expansion

Be sure you have labeled your axes. On our graph, where is the US economy today? What is the author suggesting the graph will look like over the next few years?

c. We are just at the beginning of studying macroeconomics. There are probably terms and relationships in this article that you don't yet understand. Go through the article and highlight those things you don't yet understand. Confer with your group members who might be able to help explain some of the terms or relationships you highlighted. After your conversation with your group, make a list of the terms or relationships you all still do not understand. Over the rest of the semester, check off the items as you learn about them. If by November 28 there are still areas of misunderstanding or bafflement, take those questions to office hours!

- 15. "5 Ways GDP Gets it Totally Wrong as a Measure of our Success," by David Pilling. *World Economic Forum*, January 17, 2018. https://www.weforum.org/agenda/2018/01/gdp-frog-matchbox-david-pilling-growth-delusion/
- a. What is the definition of GDP? What does it mean to say "GDP is a measure of income, not of wealth"? What does the author think are the problems with using GDP as the sole indicator of economic conditions?
- b. Describe two events from the past (for any country, actual, not made up) that have impacted living standards but are not well measured by GDP. Try to come up with one event for which living standards rose more than GDP would indicate, and one event for which living standards rose less than GDP would indicate.
- c. In the United States, it can seem that every policy is judged against one standard: does it increase GDP? How might economic policy change if policymakers used a different standard, or additional standards? What do you think those additional or different standards should be? Discuss with members of your group. Be explicit about what assumptions you are making.

- 16. "Workers Hardest Hit by Recession Are Joining in Recovery," by Nelson Schwartz and Ben Casselman. New York Times, August 3, 2018. https://nyti.ms/208JoDO
- a. What group of workers does the article focus on? What has happened to the unemployment rate for that group? Using the chart on the second page, what was the approximate ratio of the unemployment rates for workers without a high school diploma to workers with at least a bachelor's degree at the peak of the recession, and now?
- b. The article mentions that as employment opportunities improve for low-skill workers, some people are brought back into the labor force. Explain why it is possible to simultaneously see an increase in employment and an increase in the unemployment rate.
- c. We think of policy makers as having a goal for the aggregate civilian unemployment rate. For instance, the goal may be to have an unemployment rate of 5 percent, or 4.5 percent, or 4 percent. But if the aggregate unemployment rate is 4.5 percent, then some subgroups of the economy will have an unemployment rate that is above 4.5 percent. (Here, remember the data that were presented in lecture. Consider not just differences by educational attainment but also by race, gender, and other factors.) With your group members, grapple with this question: should we have a goal of "the unemployment rate should fall to x" when achieving that goal means that some sub-groups will have an unemployment rate <x and other groups will have an unemployment rate >x?

- 17. "Wealth Inequality and the Marginal Propensity to Consume," by Nick Bunker, Washington Center for Equitable Growth, December 17, 2014.

 http://equitablegrowth.org/news/wealth-inequality-marginal-propensity-consume/
- a. What is the definition of "marginal propensity to consume"? Express the definition in words and in mathematical terms. Be sure everyone in your group agrees on the mathematical expression. Check with the group next to you to be sure they too agree.
- b. According to the study by Chris Carroll et al cited in the article by Bunker, does the value of the mpc depend upon the amount of wealth a family has? Does it depend on the type of wealth the family has? Be specific.
 - The concepts in the article can be expressed with the slope of the consumption function. Draw a graph that illustrates the concept in the article.
- c. You are an economist advising policy makers. They want to implement a tax cut that will have the largest possible effect on GDP. Based on the Bunker article, whose taxes should be cut and why? How well does your recommendation align with the Trump Tax Cut that was passed by Congress and signed into law in December 2017?

- 18. "More Services Means Longer Recoveries," by Martha L. Olney and Aaron Pacitti, *The Berkeley Blog,* May 2, 2013. http://blogs.berkeley.edu/2013/05/02/more-services-means-longer-recoveries/ Full paper available at http://onlinelibrary.wiley.com/doi/10.1111/ecin.12467/full
- a. Economies produce, broadly, goods, services, and structures (buildings). What has happened to the share of output that is services over the last several decades? What has happened to the length of business cycles over that same period?
- b. According to Olney and Pacitti, why does a rise in the service share of an economy lead to longer recoveries? Can you think of other reasons why a rise in services might be correlated with longer economic recoveries?
- c. If the longer recoveries are the consequence of the rise of services, are there public policies we can propose that would hasten economic recovery? Are there costs to imposing those policies? Should we propose and enact such policies?

- 19. "Loss of Steel Jobs Lingers in Fairfield," (Transcript) NPR Weekend Edition Saturday, June 10, 2017. http://www.npr.org/2017/06/10/532350843/loss-of-steel-jobs-lingers-in-fairfield
- a. Beyond the layoffs of U.S. Steel workers, what other sectors of the economy were affected by the closing of U.S. Steel? Highlight each mention of other affected sector(s) in the article. Draw a diagram that shows each sector that was affected and how they are linked to each other.
- b. Define the concept of the multiplier. Connect your diagram in part (a) with the concept. If the article had continued with each and every job loss experienced in the Fairfield, Alabama area, what industries do you think would have been represented in the additional rounds of the multiplier process?
- c. When people are laid off and their disposable income falls, they have two choices:
 - continue to spend the same amount, paying for goods and services by draining their assets (withdrawing savings, for instance) or accumulating liabilities (charging credit cards, for instance), or
 - cut spending, perhaps as much as dollar for dollar with the loss of income
 The more laid-off families borrow, the smaller is the multiplier. The more laid-off families cut
 spending, the larger is the multiplier and thus the greater the damage of "one layoff" to a whole
 town. Is it good for laid-off people to borrow and maintain their spending? Discuss with your group
 members. (It's a normative question. Start by stating a goal.)

- 20. "Yen Strengthens on Growing Risk Aversion," by Tom Finn. *Reuters*, August 7, 2018. https://uk.reuters.com/article/uk-global-forex/retaliatory-tariffs-by-china-boost-dollar-weaken-yuan-idUKKBN1KT03J
- a. The article was published on August 7, 2018. According to the article, what were the then-recent movements in the exchange rates between
 - Japanese yen and US dollar
 - Russian ruble and US dollar
 - Turkish lira and US dollar
 - Chinese yuan and US dollar
 - British pound (referred to in the article as simply "sterling") and US dollar
 - New Zealand dollar ("kiwi") and US dollar

In each case, be sure you use both the terminology of rising/falling/weakening/strengthening and also the US dollar price of 1 unit of the non-US currency.

b. The article mentions "risk aversion" as one factor driving exchange rates. More broadly, we often describe exchange rates as being driven by two factors: greed and fear. Greed refers to chasing the best rate of return on wealth on a global stage, as measured in part by differences in domestic rates of return. Fear refers to wishing to avoid holding one's wealth in a currency that is likely to suffer future loss. "Risk aversion" here refers largely to this idea of fear.

Many global wealth managers have been holding emerging economy currencies in their wealth portfolios. But with the current uncertainty in global economies and the ongoing threat of a US-induced trade war, wealth managers increasingly fear a future fall of those currencies vis-à-vis the US dollar. What is the effect of their rising fear on the dollar price of those currencies? With your group members, draw the relevant graph.

c. Is a stronger dollar good for the US economy? Discuss with your group members. Be sure to make your goal(s) explicit.

- 21. "How Powerful are Fiscal Multipliers in Recessions?," by Alan Auerbach and Yuriy Gorodnichenko, NBER Reporter 2015 Number 2: Research Summary, 2015. http://www.nber.org/reporter/2015number2/auerbach.html
- a. According to the article, what happens to the size of the government spending multiplier over the course of the business cycle? When is it large? When is it small?
- b. There are two possible reasons that the size of the government spending multiplier may vary over the course of the business cycle.
 - Consumer spending responds more to changes in income in a downturn than in an expansion
 - In a downturn, monetary authorities do not raise interest rates which would otherwise cause investment spending to fall just as government spending was increasing

Let's consider the first of those two possibilities. If consumer spending responds more to changes in income in a downturn than in an expansion, why and how does this impact the size of the multiplier? Explain your answer in words and with mathematical terms.

c. Use the production possibilities frontier model, with the types of output divided into [1] government goods and services and [2] all other goods and services. Show the effect of increasing the production of government goods and services. Does it matter whether or not you begin on, versus inside, the production possibilities frontier? Relate this analysis to this article.

- 22. "Federal Funds and Interest on Reserves," Federal Reserve Bank of New York,

 https://www.newyorkfed.org/aboutthefed/fedpoint/fed15.html and "FAQs about Interest on Reserves and the Implementation of Monetary Policy," Federal Reserve Bank of New York,

 https://www.newyorkfed.org/markets/ior_faq.html
- a. Define each of the following:
 - FFER (aka, FFR)
 - IOER
 - FOMC

When did the Fed start paying interest on reserves?

- b. How does the New York Fed facilitate changes in the FFR? Is the Fed a party to transactions in the federal funds market? Use a graph to show the effect of increasing bank reserve balances on the FFR. Be sure everyone in your group can draw and explain the graph.
 - After November 2008, who became the primary sellers of federal funds?
- c. With your group members, make a list of unanswered questions you have about Federal Reserve monetary policy. (Some questions that start to go on the list will be answered satisfactorily by someone else in the group, so those questions do not remain on a list of "our group's unanswered questions.") Once your group has your list of unanswered questions, form a group of 8 with another group. Some of the questions on your list will be answered satisfactorily by someone in that other group, so those questions do not remain on your list of "our group's unanswered questions." After meeting in a group of 8 (or more if time and the room permit), post the remaining unanswered questions to Piazza. Be sure to search first to see if anyone else has already posted your question. If the question is already posted, you can add a follow up, or just click "good question." Check out the questions others have posted and post answers to those you can answer.

23. "Fed Holds Interest Rates Steady but, Defying Trump, Signals Increases to Come," by Jim Tankersley. New York Times, August 1, 2018. https://nyti.ms/203kwgO

NOTE: The article was written on July 31, 2018; you are reading it in November 2018. Did the Fed increase interest rates in its September meeting? What about the November 7/8 meeting? Check the news or go straight to the source:

https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm

- a. According to the article, what is the Fed's current policy with regard to interest rates? What factors did the Federal Open Market Committee take into account in making their decision about rates at the July 31/August 1 meeting?
- b. The Fed is guided by a "dual mandate." What does that mean? Use the concept of the Phillips curve to illustrate the tension the Fed faces between addressing unemployment and inflation.
 - Everyone members of the Fed and other economists alike has been surprised by the sluggish wage growth in light of the historically low unemployment rate. Where in the article is this relationship between unemployment and wage inflation discussed? How is this connected to the slope of the Phillips curve?
- c. Which part of the dual mandate do you think the Fed should emphasize? Why?

- 24. "Federal Reserve Press Release: FOMC July 31-August 1, 2018 Meeting." *Board of Governors of the Federal Reserve*. August 1, 2018. https://www.federalreserve.gov/monetarypolicy/files/monetary20180801a1.pdf
- a. What decision did the FOMC make at its July 31/August 1 meeting? What was their rationale?
- b. Go online to find the statement from the November 7-8, 2018 FOMC meeting. (http://www.federalreserve.gov/monetarypolicy/fomccalendars.htm) What are the differences between the FOMC statements of August 2018 and November 2018?
- c. Do you think the Fed should be aggressive in removing the monetary stimulus and raising interest rates? Or should the Fed move slowly? What do you think the Fed will do at their December 18-19 meeting? With your group members, discuss your answers.