ECO 313, Fall 2017, Required Homework Assignment #4
Due by Tuesday, December 5

1. Read the following 18 midterm questions and abstracts.

For #2-5, you may not select the same question/answer more than once. Nor may you select your own question/answer.

2. Briefly (one or two concise paragraphs) discuss a question/answer that illustrates a policy that contributed top the Great Recession in a way that should have been foreseeable.

3. Briefly (one or two concise paragraphs) discuss a question/answer that shows a contributing factor to the Great Recession, but which was not a forseeable result of policy.

4. Which question/answer do you find to be the most informative?

5. Which answer are you most skeptical of?

Question #1: Some have suggested that fiscal stimulus did not go far enough in the aftermath of the Great Recession. Would a larger fiscal stimulus package in the winter of 2009 have significantly have lessened the effects of the Great Recession?

Abstract: This paper will evaluate the cost-benefit analysis of a larger stimulus package and conclude that the $833 billion stimulus package would' ve benefited from restructuring to mitigate the effects of the Great Recession. Overall, the stimulus package did its primary job, to stimulate the economy in a business cycle by increasing GDP growth, decreasing the output gap, and decreasing in the unemployment rate. This paper will look at the returns both economically and evaluate their impact through modified multiplier components to see which programs exhibit the largest short-term and long-term benefits. These include education (increases long-term profitability), infrastructure (increases jobs growth and consumption), energy (decreases future costs), welfare (increases income, decreases financial strain), and the State Fiscal Stabilization Fund (prevents budget cuts and increase in taxes). To create additional funding for these programs, there would need to be a reduction in the disaster relief fund and the amount of temporary tax cuts, but still have enough funding to alter the marginal income tax rates.

Question #2: Fannie Mae and Freddie Mac remain in conservatorship. Pick a plan to remove them from this state, either one that has been put forth since 2008 or design your own and discuss if such a plan would prevent a situation similar to that of 2008.

Abstract: The plans that I chose to analyze are the Corker-Warner and Johnson-Crapo Bills, two that share many of the same features. I argue that the bills do not address all of the key issue that must be dealt with when moving the GSEs from conservatorship. The highlights of the bills include the preservation of the 30-year-fixed-rate mortgage, the implementation of a securitization platform, and the winding down of the GSEs within five years into private companies. The most prominent issues with these bills come from the nature of the FMIC, a federal regulator created to replace the role of the FHFA. It aims to play the same role as the FHFA, overseeing the affordable housing mission while acting as the safety and soundness regulator. As we have seen, this failed before when safety was overlooked. Additionally, the "risk sharing mechanism" allows investors to price their risk by guaranteeing coverage of 90% of investors losses following the first 10%. Finally, the taxpayers are no more protected than they were in the past from a potential bailout, demonstrating that these bills would not be viable options for moving out of conservatorship.

Question #3: The Securities and Exchange Commission requires that financial institutions engage in "mark to market" accounting. This implies that assets must be valued at their sale price instead of, perhaps, their expected profit stream. As a result, financial institutions may have to adjust their holdings in response to movements in asset prices (if, for example, they have to meet a capital requirement). It has been suggested that mark to market accounting contributed to the financial crisis. Research this issue and 1) provide a brief summary, and 2) provide your opinion as to what, if any, role this policy played in the financial crisis and ensuing recession.

Abstract: Based on the evidence from the SECs report and the body of discourse, it is clear that mark-to-market accounting cannot be directly blamed for inciting panic in the financial sector or having an impact on bank failures. Arguments that describe fair market valuations as dangerous or a contributing factor address whether markets can effectively and rationally set prices. However, these claims do not negate the empirical evidence that mark-to-market accounting had a small effect on the income levels of a minority of assets held by financial institutions. An efficient marking tool cannot be blamed for communicating the failures of the market, or implicated as a cause of financial downturn.

Question #4: Some economists, including John Taylor (a leading candidate to be the next Chairman of the Fed) have blamed the Fed for keeping interest rates too low for too long prior to the Great Recession. Discuss 1) whether this is valid and 2) how the current fed might think of this experience in deciding how fast to raise interest rates as part of policy normalization.

Abstract: This paper critiques the Taylor-rule developed by John Taylor, which suggests that interest rates have been too low for too long. The former Chairman of the Federal Reserve, Ben Bernanke,

argues that the Taylor-rule needs to be updated to fit the appropriate needs of current monetary state suggesting that policy responses to interest rates need to be dynamic. Bernanke claims the original model disguises the complexity of policy-making. Bernanke's updated model accurately matches the federal funds rate since the 1990s, suggesting that interest rates have not been too low for too long and Bernanke's updated model is more useful and accurate. Moving forward, Bernanke's modified Taylor-Rule should be used for policy normalization for the FOMC in regards to interest rates.

Question #5: By purchasing Treasuries, The Fed affects both level of the outstanding public national debt (excluding the part held by the Fed), and the interest rate paid on this debt. Discuss how the expansion of the Fed's balance sheet from 2007 has affected the U.S. national debt, as well as the interest payments paid on the remaining debt (and thus the budget deficit).

Abstract: The Treasury-Fed Accord of 1951 reversed the roles of the U.S Treasury department and the Federal Reserve. Now under this new law, the Fed was responsible for controlling monetary policy (the supply of money and credit) and had no control over the debt that it held, but could also buy the debt that the public didn't want. This leads to the argument of the Fed monetizing debt. Some critics argue that the Fed is essentially creating money out of "thin air" and using this liquidity to purchase U.S government debt, therefore taking it out of circulation and monetizing debt. Debt monetization is defined by Wikipedia as "... a two-step process where the government issues debt (Government bonds) to cover its spending and the central bank purchases the debt, holding it until it comes due, and leaving the system with an increased supply of money". It seems that the Federal government is guilty of doing just that, however because the Fed is planning on eventually selling back all of the government debt that it has put on its balance sheet since 2007, Fed officials argue that they are not guilty of debt monetization.

Question #6: True or False. The Fed had the ability to rescue Lehman Brothers and the Great Recession would have been less severe had they done so.

Abstract: I review the Great Recession of 2007-2009 and specifically look at the height of the Financial Panic in September 2008 when Lehman Brothers collapsed without any bailout from the government. Dividing up the question into two parts, I first find that The Fed did not have the legal authority to rescue Lehman under Section 13 of the Federal Reserve Act. This section states that the government cannot lend under emergencies if the borrower is insolvent. Numerous testimonies are discussed to prove Lehmans illiquidity and insolvency. In the second part, I find that moral hazard, bailout fatigue, and a market that was already crashing would not have reduced the severity if Lehman had been bailed out. Lehmans collapse, though detrimental to markets, brought about swift govern-

mental action to limit the crisis and reduce any further externalities. Without this emergency "panic" the government would have slowly come to a inadequate plan.

Question #7: Conventional monetary policy (lowering interest rates) is widely believed to boost aggregate demand, possibly raising both inflation and output. Does the best evidence suggest that quantitative easing had similar effects?

Abstract: Historically, during times of economic downturn or growth the Federal Reserve has employed its primary monetary policy tool and manipulated the federal funds rate. This tool proved to be ineffective in the fall of 2008 however, when short-term interest rates had virtually reached zero and the state of the economy had not changed. With the federal funds rate pushed to the zero lower bound, the Fed looked to an unconventional method of monetary policy, Quantitative Easing (QE). To determine the effectiveness of the implemented programs, this paper examines the theory behind QE, the 3-step approach including QE1, QE2 and QE3 while investigating the effects of these programs on the broader U.S. economy. As an analytical piece, this paper shows that though unconventional, Quantitative Easing policies led to the recovery of the U.S. economy including a boost in aggregate demand, a reduction in unemployment, and a slight increase in both inflation and output.

Question #8: After the collapse of Lehman Brothers, the surviving investment banks reorganized as bank holding companies allowing them to be regulated by the Federal Reserve. Detail the nature of this change and discuss whether, if such regulation existed prior to 2008, it might have ameliorated the financial crisis.

Abstract: Investment banks undeniably play an important role in the U.S. economy. When working properly, investment banks help channel the nations wealth into productive activities that create jobs and promote economic growth. When they do not work properly, however, disastrous effects on the economy may occur, which is exactly what happened during the 2008 financial crisis. In the years leading up to the Great Recession, evidence shows that the independent investment banks, Lehman Brothers, Bear Stearns, Merrill Lynch, Goldman Sachs, and Morgan Stanley, acted irresponsibly by putting its own interests ahead of the interests of its clients and communities in hopes of making more profit. By purchasing risky mortgage backed securities, particularly in the subprime mortgage market, the investment banks helped spread toxic mortgages throughout the financial system, allowing for it to collapse. If there had been more regulation around the activities of these investment banks, the financial crisis would not have been as bad.

Question #9: Mortgage default can be divided into strategic default-cases where the borrower has the ability to pay but chooses not to- and non-strategic-cases where they have no realistic ability to make their payments. How widespread was strategic default during the initial (2007-2008) wave of widespread foreclosures?

Abstract: This paper aims to determine the extent of strategic default relative to all mortgage defaults during the Great Recession. During a period when many homeowners were 'underwater', this paper finds, using data collected by an Experian & Oliver Wyman (2009) report, that strategic default peaked fourth quarter 2008 at 18% relative to all defaults. Because strategic defaulters walk away from their loan while continuing to pay other bills, this paper analyzes graphical data of national credit card debt in comparison to mortgage delinquency rates finding national credit card debt declines as mortgage delinquencies increase. Along with credit card debt, unemployment rates initially declined as delinquency rates increased, both results indicate that a fraction of defaulters had the means to make mortgage payments but chose not to. This paper concludes by providing insight into societal implications and reasoning of why borrowers may choose not to strategically default during the Great Recession.

Question #10: Commodities prices, especially oil, are often seen as a major contributor to macroeconomic fluctuations. For example, the OPEC oil embargo of 1973 is viewed as a significant cause of the subsequent economic slump that followed. Analyze the role of commodities prices in the recent recession. Did they make the situation worse or better? Also, how may oil prices affect the pace of the current recovery?

Abstract: My paper touched on different scenarios when commodity prices influenced a recession or a fluctuation in macroeconomic behavior. I used the most previous recession, and the OPEC oil embargo as my primary scenarios. I collected data relevant to the years leading up to the scenarios and touched on how commodities negatively affected the economy. I also touched on how commodity prices had positive effects on the economy though. This was mostly argued during the most previous recession where commodity prices actually made for little competition for the U.S. since the dollar value was so low, which in turn ended with high commodity prices being helpful during the rebuilding of the economy.

Question #11: Suppose that the U.S. had used a buyer pays model instead of an investor pays model for credit rating agencies through 2008. Would such a model have been viable, and might it have prevented or mitigated the financial crisis?

Abstract: This paper considers the buyer pays model as a viable alternative to the investor pays model through an analysis of the "conflict of interest" problem and the potential risk of free riding. The three forms of free riding are seen in the practices of the investors, issuers of securities, and credit rating agencies. Despite these shortcomings, the buyer pays model is argued to be the superior model when looked at through the lens of the 2008 financial crisis. An analysis of the MBS downgrades in 2007 and disparities in the timeliness of rating changes between the two models highlights the weakness of the investor pays model. Finally, an attempt is made to quantify the extent to which the "conflict of interest" problem inflated ratings, which ultimately supports the claim that the buyer pays model would have mitigated the financial crisis.

Question #12: Compare the response of the European Central Bank to that of the Federal Reserve in the aftermath of the financial crisis. Was its response more or less aggressive? And do you think this helps explain recent differences in macroeconomic performance between the U.S. and Europe?

Abstract: Two stand out. First, even though the ECB would eventually lower rates more than the Fed, it initially moved slower in doing so. Did this matter. Second, because the EU is a monetary but not a fiscal union, the ECB was much slower to begin its longer-term bond buying, Given that the EU debt crisis was acute from 2008-2012, how important was this.

One of the most important consequences of the 2008 global recession was the resulting debate over the role of monetary policy across several key financial institutions. Liquidity and deflation crises in the United States and Europe quickly exhausted standard recovery tools, forcing central banks to use aggressive, non-conventional monetary policy to spur an uptick in macroeconomic performance. Assessing the response of the Federal Reserve and the European Central Bank (ECB), this study finds striking similarities in the structure of policies instituted, with varying degrees of effectiveness based on the timing of these actions. Both central banks reached the zero lower bound on short-term rates, attempted to ground expectations through forward guidance, and spent trillions of dollars through rounds of quantitative easing–yet the ECB was slower to do so. This lack of responsiveness by the ECB stunted the recovery of European GDP and employment, relative to the United States.

Question #13: Economic inequality in the United States has been trending upwards for several decades. Did the Great Recession amplify this trend?

Abstract: One of the most significant events after 2008 is that labor's share of income, previously stable for decades, has fallen significantly. In summary, the Great Recession and the recovery paint a complicated picture for the recent changes in economic inequality. Though data from the CBO suggest a decline in income inequality over the 2007-11 period, this doesn't take into account the fact that income inequality continues to increase past 2009. Wealth inequality remains relatively constant during the the first two years of the recession, while showing signs of increase over the following few years (Forbes). Similar to the income inequality trend, consumption inequality actually

have been increasing over this period of time. This is probably is due to the fact that the income increase for the top 10%, especially the top 1%, was much more pronounced, allowing them to spend much more compared to the rest of the nation. With this, as social and transfer programs kicked in, boost in incomes for the bottom classes occurred, which created a temporary artificial decline in the economic inequalities which won't be sustainable when combating this continued trend of increasing economic inequality, thusly temporarily reducing the effects of the Great Recession. A more meaningful response to this increase in economic inequality would not be to simply increase the handouts of money that goes to the poor, but it's the investments made towards job training, education, workforce encouragement, and proper nutrition that would fuel the re-emergence of the middle class, decline in poverty and put a halt to this continued economic inequality in the future.

Question #14: The price to rent ratio is often used as a measure of bubbles. An alternate approach would be the ratio of prices to a measure of building costs? Is such a measure valid? And how has it behaved since 2000.

Abstract: I argue that building costs are a fundamental value of housing, thus price to building cost ratio is also a valid measure of housing bubbles. Using the PPI for inputs to residential construction, building costs have increased steadily since 2000. I argue that building costs and various inputs required to build homes, are what occupants pay for when renting housing. Thus, both can be used as fundamental value. I support this by showing that both rental rates, and building costs are driven by the same market fundamental; demand. Housing starts are currently much lower compared to pre-2008 levels but rental rates and building costs are higher than ever. However, price to rent and cost ratios are still much lower currently compared to 2007. Therefore, I conclude that rental rates and building costs are driven strictly by the demand for housing; allowing them both to represent the fundamental value of housing.

Question #15: Expectations of upcoming productivity growth fell dramatically during and immediately after the Great Recession. The real natural rate of interest, for example, has turned negative by some estimates. Do you believe that the Great Recession is responsible for this pessimism about productivity growth? Or is it the result of longer-term demographic factors such as an aging population?

Abstract: This midterm examines data on expected productivity growth to find an explanation for the downward revisions to this statistic both during, and immediately after, the Great Recession. The paper initially makes comparisons to prior recessionary periods to determine if there were similar reductions in expected productivity growth and to test the applicability of these reasons to the Great Recession. The findings in this section suggest that in the most recent recession for which expected

productivity growth exists, the statistic did not decline as it did during the recession in 2008. Downward revisions to GDP and growth is the next reason for a decline in expected productivity growth. Finally, the paper addresses reductions in the real natural rate of interest that came about because of downward revisions to output and inflation. The effect of an aging population on expected productivity growth is also discounted.

Question #16: Although traditional investment banks such as Lehman Brothers were over-leveraged in the run-up to the financial crisis, conglomerate banks (those that combine commercial and investment banking activities) also suffered major losses related to being overleveraged. If the Glass-Steagall barrier between commercial and investment banking had not been repealed in the 1990s, would the worst of the Financial Crisis have been averted?

Abstract: My response to this question has more to do with with showing why the legislature is irrelevant than how it altered banking practices in the early 2000s. The point that I made is that even though the banks were allowed to join into conglomerate banks, they would have been making risky bets anyways as separate investment banks and commercial banks. To illustrate this, we may simply look to the banks that did not merge. In other words, investment banks without commercial arms still leverage too aggressively and went bankrupt. While bailouts may have been easier, they still would have had to happen as it was the industry as a whole that was too big to fail. Therefor, we can see that it was obviously a more systematic problem, and not an issue with the new banking structures.

Question #17: True or false? The Fed erred by not pursuing a negative interest rates policy between 2008-2010.

Abstract: In my paper, I argued that the Federal Reserve should have pursued a negative interest rates policy between 2008-2010 in order to help stimulate the economy for the recovery of the financial crisis. The purpose of lowering interest rates was to increase output and stimulate households, rather than to save money, go out and spend it. Another purpose was to encourage banks not to hold on to excess reserves and instead to lend them out. The Federal Open Market Committee (FOMC) reached the zero lower bound on December 16, 2008, yet the recovery at this time was still struggling. The next step should have been to implement negative interest rates. With negative rates, the Fed could have avoided the large contraction in the loan market by encouraging borrowing and lending.

Question #18: How did QE, and related programs, affect the sustainability of the U.S. federal debt?

Abstract: The Federal Reserves unorthodox monetary policy of "quantitative easing" consisted of the central bank purchasing about $1.9 trillion in long-term Treasuries and other assets. One aspect of quantitative easing that should be considered when evaluating the policys legacy is what impact, if any, quantitative easing had on the sustainability of the US national debt. During QE, the Feds purchase of Treasuries decreased interest rates and made the debt more sustainable. However, as the Fed begins to return to non-crisis policies, the sale of its Treasury assets will generate upward pressure on interest rates. The sustainability of the US debt will in part depend on the rate at which the Fed chooses to unwind its balance sheet. Jerome Powell, likely the next Chairman of the Fed, is not expected to make any drastic changes to Yellens current policy of gradual unwinding.

Question #19: Do you agree with the claim that the FOMC erred by not correctly communicating in 2008-early/2009 its intention to keep the Federal Funds rate near zero for an extended period of time? What would have been the effect if it had, for example, announced that rates would stay that low for at least two years?

Abstract: The FOMC erred in engaging in vaguely worded forward guidance as its first recourse after reaching the zero lower bound. Time-based guidance, instead, would have achieved the desired effect of lowering long-term interest rates over a much briefer time horizon, a reality borne out by the speed with which the 2-Year Treasury Constant Maturity Rate dropped to near 0.25% following August of 2011. Had the FOMC announced in late 2008 or early 2009 that rates would stay at near zero for at least two years, it is likely that longer-term rates would have dropped close to the short-term rate fairly quickly and the fiscal stimulus may have been more impactful. In other words: the FOMC erred in not adequately communicating in 2008 or early 2009 its intention to keep the Federal Funds Rate near zero for an extended period of time.

Question #20: True or False? Absent the Troubled Asset Relief Program, large scale financial failures would have continued well past October 2008.

Abstract: I contend that the Troubled Asset Relief Program did in fact curb some of the damage done by the Great Recession. The Troubled Asset Relief Program (TARP) was a necessary measure in order to alleviate the market's credit timidity. The TARP has faced much opposition due to its lack of transparency and inability to effectively manage executive compensation within TARP firms, yet it spared the credit market from potential collapse. Although TARP failed in ones of its original purposes, to support struggling homeowners, it alleviated further macroeconomic disaster by restoring confidence. In addition TARP was instrumental in salvaging many of the investment banks from illiquidity and subsequently increasing consumption within a market in which consumers were rapidly losing assurance. Without TARP the financial failures of the investment sectors would have escalated and caused a longer and more severe recession.