ECO 313, Fall 2019, Homework Assignment #6
Due by Thursday, December 5

1. Read the following 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 commenters have accused the Fed of keeping interest rates ”too low for too long” prior to the Financial Crisis of 2008. Currently, the Federal Funds Rate is under 2%. Given current levels of inflation and unemployment, are interest rates exceptionally low by historical standards and is there a risk that Fed policy could again lead to excessive debt levels that threaten macroeconomic stability?

Abstract: Interest rates in the United States are historically low, inflation levels are below the Feds 2% target rate, and we are essentially at full employment. Having low interest rates, low inflation, and low unemployment is potentially threatening to the Feds use of monetary policy to control the economy during a recession. Low interest rates represent cheap money. When money is cheap, its a good time to take on or consolidate debt. However, if interest rates were to suddenly rise, those who could no longer pay off their debt are in trouble. If the interest rates are kept low and we enter another recession, the central bank doesnt have much room to lean on their economic policy to stimulate the economy leaving financial systems vulnerable. The Fed would have to rely on large amounts of government spending to boost the economy resulting in excessive debt levels that could threaten macroeconomic stability.

Question #2: The Troubled Asset Relief Program was among the most significant policy responses to the Great Recession. What is the state of expert opinion on the program's effectiveness and what is your own opinion?

Abstract: The Troubled Asset Relief Program is widely seen as a success, with most experts agreeing that the bailout effectively stimulated markets, reduced negative outcomes from the housing market crash, and generated profit for the federal government. At the time of the bailout, many economists such as John Taylor, Joseph Stiglitz, and hundreds of economists who signed a petition to revisit TARP before passing it believed it would do more harm than good. They cited increased moral hazard, the reaction of stock markets to the legislation, and distrust in financial institutions as reasons why TARP would be ineffective. As the effect of the legislation developed, it became clear that TARP had an overall positive effect on the state of the American economy during a time of crisis by preventing the failure of AIG, unfreezing credit markets, and funding banks and other financial institutions during a time when they severely need it.

Question #3: Quantitative easing refers to a Central Bank's purchases of assets even after its target interest rate has neared its effective lower bound. Why might this work to stimulate a depressed economy and does the evidence suggest that the Federal Reserve's quantitative easing programs were successful?

Abstract: Quantitative easing encourages investment and spending in the economy by raising the money supply and allowing banks to have more liquidity. Banks can lend for lower rates, so more people can borrow money to buy houses or start businesses. Ideally, investment would rise and so would growth, along with reduced unemployment. An unintended consequence of the various rounds of QE was the dramatic increase of excess bank reserves, which skyrocketed as a result of banks holding the majority of the Feds money as a buffer. Reserves rose to $2.7 trillion at its peak in 2014 and currently is around $1.3 trillion. The first round of QE done by the Fed in late 2008 was successful in stimulating the economy and likely prevented a deflation crisis similar to the Great Depression. The ensuing rounds of QE had less of a noticeable effect on the economy, though excess bank reserves continued to rise, adding to the buffer and encouraging people to be less risk-averse. Even though the economy bounced back in the years following the Great Recession, it is difficult to identify QE as the driving force.

Question #4: When the FOMC lowered interest rates to near zero in late 2008, financial markets expected rates to remain so low for only a few months. What would have been the consequences if the FOMC had said that it expected rates to remain near zero for a longer period of time and should they have done so in retrospect?

Abstact: There is little consensus among economists as to the forward guidance policy the Fed chose to follow in late 2008. The Fed led markets to believe that interests rates would remain at the zero-lower bound for only a few months. The Fed's guidance, or lack thereof, altered the response from

markets and arguably slowed economic recovery. This paper discusses the potential implications of forward guidance which was viewed as one of the Fed's best tools in preparing markets for interest rate hikes and drops. Both the possible benefits and downfalls of forward guidance are explained in an attempt to highlight the Fed's potential effectiveness on the market. This paper calls into question whether or not clear and effective communication will always be more beneficial than ambiguity when it comes to the Feds forward guidance policy.

Question #5:Did the collapse of Lehman Brothers make the financial crisis worse? Or did it merely determine the timing of what was an inevitable crisis?

Abstract: Through research, I found that had Lehman Brothers not been allowed to fail, the risky practices of large banks would have inevitably continued until eventually some other bank was allowed to collapse. Additionally, the political atmosphere that the Lehman collapse created allowed for the politically unpopular TARP act to pass through congress and support the economy from further turmoil. Through looking econometrically at Kenneth Ayotte & David A. Skeel, Jr's paper "Bankruptcy or Bailout?", we see evidence that the bankruptcy of Lehman Brothers had similar, rather than significantly worse, impacts on markets as the AIG bailout. This further supports the idea that while Lehman's collapse caused negative impacts on the overall economy, these impacts were unavoidable regardless of how the Fed chose to intervene with the bank's bankruptcy claim, leading to the conclusion that the collapse of Lehman Brothers absolutely worsened the economic condition of the time. However, while the collapse did affect economic conditions negatively, the recession wasn't ultimately worse than the counterfactual of Lehman Brothers not failing.

Question #6: 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 foreclosures?

Abstract: I found that there were three main models used to model mortgage defaults. The first, says that people will default once they have negative equity (owe more on their house than it is worth). The second, that negative equity is needed to default but also the person has to have a major life event (divorce, job loss, job movement, etc) occur in concert with negative equity in order to default. The third, allows for both conditions of the previous models in order to balance both strategic default and non-strategic default. We find that strategic default is extremely rare. In fact, people who have over 200% negative equity only defaulted 10% of the time, which is extremely low given their situation. The reasons proposed for this is that people like owning homes, defaulting may have a social stigma, and defaulting could affect a person's credit for life (to name a few).

Question #7: The GSEs were created to facilitate credit in the prime mortgage market and barriers were created to prevent them from engaging in widespread sub-prime lending. Did the GSE's lending and investment decisions prior to 2008 deviate from their mission and, if so, could better regulation of the GSEs have prevented the housing bubble?

Abstract: It is clear that Fannie Mae and Freddie Mac have had a substantial impact on home ownership within the United States since 1938, but whether they can be blamed for the housing crisis and subsequent recession is unclear. In this paper, I analyze the lending and investment practices of the GSEs leading to the housing bubble. Through this analysis, I find that while Fannie Mae and Freddie Mac helped inflate the housing bubble, the true blame should be on the private sector. The GSEs were simply trying to follow their mandate and attempting to maximize profits. Through the flawed creation of these companies and poor regulation, the government set up an environment incentivizing risky behavior. In addition, the private sector supplied the subprime mortgage backed securities, which eventually led to the housing bust. Better regulation of the GSEs could have helped, but not prevented the housing crisis.

Question #8: The Troubled Asset Relief Program was among the most significant policy responses to the Great Recession. What is the state of expert opinion on the program's effectiveness and what is your own opinion?

Abstract: The TARP commonly referred to as "the bank bailout," emerged as a solution to mitigate the public's fear of entering a subsequent recession. The initial proposal sparked uncertainty amongst economists as they worried about its fairness, its ambiguity, and its long-term effects. On September 29, 2008, the skepticism held out, and the HOR rejected the proposal. In response, stocks fell by eight percentage points, further deepening the financial crisis. An intervention was imperative, so on October 1, the TARP was passed. Of the proposed purchase of $700B worth of "troubled assets," the Treasury bought $478B in bank non-voting stocks with the anticipation of reselling once the economy had recovered. They forced many banks' to accept equity in exchange for forging the debt that banks had owed. Initially, this increased budget deficit, but in the long term, they were able to profit. It became more of an issue of moral hazard and risk rather than debt. Many argue that without the intervention, the U.S.s economic situation would have been significantly worse than it was. The implementation of the TARP led to no more major financial failures, and cut unemployment in 2011 by 2.2 points and increased GDP by 4.2%. That said, it is evident that the bank bailout correlates with an increase in job creation, which allowed stimulation to the economy. Nevertheless, the program was very effective at preventing the already horrible recession from growing even worse. In the end, policymakers must put longer-term policies like deficit reduction on hold until a sustainable expansion

of the economy is underway.

Question #9: What were the costs and benefits of the U.S. government (meant to include the Federal Reserve) bailing out AIG? Was doing so the correct decision?

Abstract: In September of 2008, the Federal Reserve provided a bailout package to the American Insurance Group including a two year $85 million dollar loan and in exchange received 79.9% of A.I.Gs equity and the right to replace management. I contend that the Federal Reserve made the correct decision in bailing out AIG. I find that it was advantageous overall for the US macroeconomy. First, it saved millions of people who rely on AIG for insurance, and second, it avoided a potentially large negative shock to larger financial institutions who were exposed to AIG when the financial market was already fragile. However, there are two main costs to consider. First, it's possible that the public suffered a "socialized loss" from the bailout and it cost millions of dollars more to save AIG than expected. Second, it created a moral hazard issue that may be exploited by financial institutions in the future.

Question #10: The price to rent ratio is often used as a measure of bubbles in the housing market. 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: Rapid house price appreciation over the last five years has caused an increased concern and speculation for another bubble in the housing market. Analysis of the housing market has found that substantial increases in house prices may be attributed to rising homebuilding costs, rather than the mortgage crisis in the previous recession. Rising labor and construction costs have rapidly increased the prices of houses since the great recession, creating a deviation from their fundamental value. Though I will argue, the ratio of overall building costs to house prices remains stable thus, rising labor and construction costs are not valid measures to assess a bubble in the housing market. Instead, the house price deviations are more indicative of a supply shortage of houses for sale.

Question #11: The dramatic rise and fall of housing prices around the financial crisis is now seen by almost all observers as a speculative bubble. Stock prices also exhibited a dramatic decline around the financial crisis. Was this bubble behavior? Or can it be explained by changing economic fundamentals?

Abstract: The dramatic decline in stock prices surrounding the financial crisis was a result of a series of events that led to the failure of large companies in the United States and the housing bubble bursting including unemployment rates increasing, and consumer confidence declining. While the decline in

stock prices may have propelled the economy into the recession in 2008, this decrease in stock prices was due to the housing crisis as well as other economic fundamentals. As the housing bubble burst, it affected banks and financial institutions who were betting on the continued increase in home prices, which in turn, caused stocks to lose value. Lower economic activity, credit risk, as well as other economic outcomes due to the recession were not good for equities, and led to a rapid decline in stock prices.

Question #12: 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 nancial crisis?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 lessened the effects of the Great Recession?

Abstract: I argued that a larger fiscal stimulus package would have been successful in mitigating the harms of the Great Recession. I argued that both the marginal propensity to consume and the multiplier implied that the stimulus would have resulted in a significant injection of money into the economy and that enough of that would not be saved to drive consumption up. I finally discussed the potential tradeoff with an increase in federal debt levels. On this front, I sided with a paper from Business Economics that indicated that the increase in debt was rather marginal. The general line was that tax revenues were increased by GDP levels being kept from dipping significantly worse than it did. Between the evidence that stimulus money would have notably increased consumption and the idea that debt would have increased by nearly the same amount without stimulus, it was reasonably straightforward to claim that a larger stimulus would have been good.

Question #13: 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).

Abstract: As required by the Securities and Exchange Commission, mark to market accounting determines the market value of equity for financial institutions. Banks determine the total worth of their assets through ‘price discoveries’ based off of the current market conditions. This means that their balance sheet of assets (bonds, stocks, MBSs, CDOs) is reflective of what a consumer would buy or sell that day. Mark to market accounting allows for more transparency than mark to model accounting and more accuracy than historical cost accounting. This tool of measurement

places people who own stocks and bonds from financial institutions as price makers, which removes any institutionalized control over the market. This form of accounting played a significant role in the financial crisis and ensuing recession, as by these standards, bank equity was lower due to current demand. Due to the depreciation of Residential CDOs and MBSs, there were many ‘fire sales’ which were made out of desperation. These sales were often not reflective of the true value of the asset and impacted financial institutions portfolios, which led to major losses reflected on paper.

Question #14: Since the aftermath of the Financial Crisis, the Fed has paid interest on excess reserves. Discuss the costs and benefits of this policy and argue why it was, or was not, a wise policy choice for the Fed to pursue.

Abstract: Paying interest on excess reserves was a good policy choice for the Fed, as it allowed them to increase their balance sheet to provide liquidity without losing control over the target fed funds rate. Critics of the policy argue that it was just a massive giveaway to large financial institutions, and that it would discourage them from lending. However, it was a necessary step to keep the economy from worsening even more at the onset of the financial crisis in 2008. With the IOER not rising above 0.25% until 2015, it is unlikely this policy deterred many loans. If this crisis was one of liquidity, this was the correct policy to pursue, as it increased excess reserves by trillions while giving the fed a new tool to smoothly implement monetary policy.

Question #15: How did the conventional monetary response of the European Central Bank differ from that of the Federal Reserve. More importantly, did the ECB’s policy response contribute to the slower recovery that followed the Great Recession in the Eurozone relative to the U.S.?

Abstract: The Federal Reserve and the European Central Bank both took different actions in the buildup to the 2008 financial crisis due to a differing view on economic pressures. While the Federal Reserve began to focus on liquidity and financial stability after threats to the credit market appeared, the ECB remained fixated on inflation for far too long. By the time Lehman Brothers had collapsed in September 2008, the Federal Reserve had cut rates at 8 times for a total of 225bps while the European Central Bank had actually raised rates by 25bps. This immediate response by the Federal Reserve help to ensure a smoother and quicker recovery of the U.S. economy as compared to the European Central Bank and the Eurozone.

Question #16: 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 Great Recession. Did they make the situation worse or better?

Abstract: In this paper, I analyse the effect that commodity prices had on the Great Recession. I explore the literature around "financialization" to better understand how dramatic changes in commodity prices during the recession were passed through to the real economy and contributed to the severity of the economic downturn. Additionally, I look into the literature surrounding the impact of increased food prices on low income households to better understand the effects that increasing commodity prices have on individuals. I find that prior to the recession, prices for many common commodities seemed to be speculative bubbles, and when they popped in the beginning of the recession, they led to worsening economic conditions through the collapse of synthetic financial assets tied to their values.

Question #17: The Great Recession changed the way that the Federal Reserve implements monetary policy, introducing new tools such as reverse-repo loans and interest on excess reserves and de-emphasizing traditional open market operations as a means of controlling interest rates.

Abstract: The Fed has changed its monetary policy tools since the Great Recession. One of those tools is Interest in Excess Reserves, IOER, which the Fed has raised to hold reserves for financial institutions. The underlying purpose of the IOER is to create a buffer in case of an economic downturn. The second tool is reverse-repo loans, which the Fed uses to increase their balance sheet and its purpose is to create stability in the lending market. Such tool feeds into that buffer which the IOER maintains. That takes me to the third tool, through which reverse-repo loans is conducted, which is the open market operations. It has been a tool the Fed used since before the Great Recession, and it is supposed to control the Federal Funds Rate which is the interest rate the Fed has on its reserves. Those tools are focused around the Fed reserves, its balance sheet, and the federal funds rate.

Question #17: The three credit rating agencies are widely perceived as having contributed the the credit bubble that preceded the Great Recession. How have policy makers responded to their role (e.g. Dodd Frank or other regulatory reforms) and do you think that these reforms substantially reduce the risk of a future financial crisis.

Abstract: Policymakers responded to the contribution of the credit rating agencies to the credit bubble that led to the Great Recession by implementing regulatory reforms. The initiative of Dodd-Frank created new regulations and stricter oversight of the activities of the credit rating agencies. Through this act, the Securities and Exchange Commission (SEC) wanted to "increase transparency and improve the integrity of credit ratings". Credit rating agencies are now required to publicize their rating methodology but this does not change the rating agencies' incentives or behavior. Studies have found that credit rating agencies respond to regulatory pressure by issuing lower, less informative corporate bond ratings to protect reputation. Furthermore, regulatory implementation has not proved to reduce the risk of future financial crisis due to the lack of enforcement.