Soham Shewale Professor Carl Walsh Econ 105, Topics in Macroeconomics May 10, 2020

Combating Crises: Evaluating the Federal Reserve's Response to 2008 Financial Crisis and 2020 Covid-19 Crisis

### Introduction:

In the last 15 years, there have been two "once in a lifetime" financial crisis events. The first being the 2008 housing market crash and the other is the recent Covid-19 crisis in 2020. The financial crisis of 2008 was a recession defined by unethical lending practices for profit through mortgage back securities and collateralized debt obligations. The Covid-19 crisis came from the virus Covid-19, the result of trying to flatten the healthcare curve and preventing the spread of the virus. Throughout this paper, we look at the background, how the Fed responded, and compare and contrast the responses to see the effect it has on our current situation.

# Background:

Before diving into the Fed's response, we have to answer the question of "What happened?" for both of these crises. This allows us to see why the Fed did what they did. Let's start with the 2008 financial crisis. It started with the gaining popularity of mortgage backed securities (MBS), bundles of multiple mortgages that investors can buy to get mortgage payment as a return. These MBS were financially stable at first. As more and more investors demanded MBS, the banks needed to meet the demand with more mortgages. The banks then lent money to individuals who wouldn't be able to pay their mortgages through subprime mortgages and predatory lending practices. These weak mortgages were then added into the MBS pool and given good bond ratings because of the historic safety of the MBS. Financial institutions then expanded into selling collateralized debt obligations (CDO); the simple definition is that they are like MBS but with loans, securities, and other CDOS. All this created a housing bubble, and when people were suddenly unable to pay their mortgages, it popped. People defaulted on their mortgage rates and the banks were unable to collect their payments. Moreover, credit default swaps (CDS), bets that the CDOs would fail, were sold. This created a system that was based on people betting on bets, and once the mortgages collapsed, so did the entire system. The aftermath of this was multiple banks having to be bailed out, merged into other banks, or just declare bankruptcy. Many people lost their job, houses, and livelihood.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> CrashCourse, The 2008 Financial Crisis: Crash Course Economics #12, YouTube, Oct 21, 2015, https://www.youtube.com/watch?v=GPOv72Awo68&t=465s

The Covid Crisis came through the infectious disease, Covid-19. The disease originated in Wuhan, China, and has been spreading throughout the world. The disease is a virus, and results in mild to severe illness and in some cases death. People with respiratory issues and the elderly are especially at risk. In order to slow the spread of Covid-19, nations around the world have taken lockdown procedures. This includes quarantining people, halting non-essential businesses, and improving funding to healthcare institutions. The response by the United States of America can be described as unprepared. Since President Trump took office, his office has made funding cuts to major institutions and programs that specialize in disease readiness and preparation. In May 2020, President Trump announced a state of emergency and introduced safety measures to prevent the spread of Covid-19.<sup>2</sup> The response varied state to state, with some states encouraging harsh lockdown procedures and others having lax procedures. In many lockdown procedures, states had to force the temporary shutdown of non-essential businesses, including small businesses. This causes many people to be currently unemployed, with the current unemployment rate to be 14.7%.<sup>3</sup>

In both of these crises, we have similar issues already. A notable one being the high unemployment rate and the adverse conditions that come with it. In both, we see a cause and effect relation to having high unemployment. In 2008, it was caused by the financial crash and in 2020 it's caused by enforcement of lockdown procedures. Businesses had to close down due to liquidity issues in both crises, which led to high rates of unemployment. Because less people are working, people change their outlook on the future, causing them to save in the short term rather than spend. Also, output decreases. All these together cause a contraction in the economy.

## Federal Reserve Responses:

One of the Federal Reserve's main functions is to be the lender of last resort. In financial crises, this function is put to use greatly. This function helps the Fed create a game plan consisting of expanding the availability of funds to stabilize the economy.

During 2008, the Fed was proactive in preventing the collapse of the financial sector and took some unorthodox approaches to saving it. The first action they took was to reduce the federal funds rate to 0% to encourage banks to lend to each other in a time of crisis. This ensures that the banks remain liquid in the short term and have enough cash to stay afloat. Also, the Fed lowered the discount window rate and extended the maturity on loans from it. The discount window is the mechanism that the Fed uses to provide banks with liquidity; it makes sure that banks get the funding they need. A problem with the discount window is the low participation of banks using it. Using the discount window sends a signal to investors and others that the bank is

<sup>&</sup>lt;sup>2</sup> Collins, Christopher and Gagnon, Joseph, "A timeline of central bank responses to the COVID-19 pandemic," March 30, 2020,

https://www.piie.com/blogs/realtime-economic-issues-watch/timeline-central-bank-responses-covid-19-pandemic

<sup>&</sup>lt;sup>3</sup> Ryan Goodman and Danielle Schulkin, https://www.justsecurity.org/69650/timeline-of-the-coronavirus-pandemic-and-u-s-response/

not financially sound, so banks prefer avoiding the discount window if possible.<sup>4</sup> Another tool used by the Fed is quantitative easing in the form of asset buy-back programs. The Fed bought large amounts of mortgage back securities, long term treasuries, and other assets. There were 3 different quantitative easing programs where the government bought up to \$4.5 trillion worth of assets in total.<sup>5</sup> This program was used to lower long term interest rates at the expense of short term rates. However, since the Fed cut short term rates, it mitigated that concern. At the start of the crisis, funding markets were threatened, as many were lacking liquidity. The Fed opened the Term Auction Facility. This program auctioned off 28 day and 84 day loans, allowing for the distribution of liquidity and term credit.<sup>6</sup> Another program set up to address the problem of liquidity was the Primary Dealer Credit Facility, where primary dealers, the largest financial institutions, had access to overnight loans. This was to ensure that the firms had enough liquidity to handle day to day operations. The Term Securities Lending Facility allowed the Fed to auction week long loans to primary lenders. 8 Many banks ended up merging with other banks, and the Fed played a role in brokering these deals. A famous example is JPMorgan Chase and Bear Stearns, where the Fed acted as a broker in the merger. Additionally Congress approved the Troubled Assets Relief Program, allowing the US government to purchase up to \$700 billion of toxic assets from financial institutions. The US government only used \$431 billion and was later expanded to help the automotive industry and homeowners.<sup>9</sup>

The Fed had a similar response to the Covid-19 crisis in 2020. Jay Powell, the chairman of the Fed, states that the Fed is "not going to be in a hurry" to raise interest rates. This use of forward guidance creates a set expectation that the public can have about the Fed's future action. <sup>10</sup> However, this is more powerful in theory since central banks are not 100% credible. Moreover, the Fed has supported financial institutions by reinstalling 2008 crisis era programs. The Fed engaged in quantitative easing again by increasing the assets on their balance sheets, purchasing

<sup>&</sup>lt;sup>4</sup> Bernanke, Ben S., "The Federal Reserve's Response to the Financial Crisis," lecture at George Washington University, Mar 20, 2012, https://www.youtube.com/watch?v=E3fFg8XIS0k

<sup>&</sup>lt;sup>5</sup> Schulze, Elizabeth, "The Fed launched QE nine years ago — these four charts show its impact," Nov 17, 2020,

https://www.cnbc.com/2017/11/24/the-fed-launched-qe-nine-years-ago--these-four-charts-show-its-impact .html#:~:text=The%20Fed%20launched%20quantitative%20easing,%24900%20billion%20to%20%244.5 %20trillion.

<sup>&</sup>lt;sup>6</sup> BOARD OF GOVERNORS of the FEDERAL RESERVE SYSTEM,

<sup>&</sup>quot;https://www.federalreserve.gov/regreform/reform-taf.htm"

<sup>&</sup>lt;sup>7</sup> BOARD OF GOVERNORS of the FEDERAL RESERVE SYSTEM,

<sup>&</sup>quot;https://www.federalreserve.gov/regreform/reform-pdcf.htm"

<sup>&</sup>lt;sup>8</sup> BOARD OF GOVERNORS of the FEDERAL RESERVE SYSTEM,

<sup>&</sup>quot;https://www.federalreserve.gov/monetarypolicy/tslf.htm"

<sup>&</sup>lt;sup>9</sup> US Department of Treasury,

<sup>&</sup>quot;https://www.treasury.gov/initiatives/financial-stability/TARP-Programs/Pages/default.aspx"

<sup>&</sup>lt;sup>10</sup> Powell, Jerome, Interview on economic recovery from the coronavirus pandemic, 60 Minutes, May 17, 2020.

https://www.cbsnews.com/news/full-transcript-fed-chair-jerome-powell-60-minutes-interview-economic-rec overy-from-coronavirus-pandemic/

\$500 billion in longer-term Treasury securities and \$200 billion in agency mortgage-backed securities. Reinstating the Primary Dealer Credit Facility (PDCF), the Fed offers a .25 percent interest rate on short term loans (90 days) to primary dealers. Another program is the Money Market Mutual Funds Liquidity. In the beginning of the Covid outbreak, money market funds had a run, and to combat this run, banks sold securities. However, these securities proved hard to sell, so the Fed is assisting with this. Moreover, the Fed increased its repo operations and is offering \$1 trillion in short term lending. The Fed also engaged in lowering the federal funds rate to encourage banks to loan to each other. The federal funds rate has been cut to .25, which makes the banks cut their interest rate to the same amount. This also lowers the long term interest rates on loans such as mortgages, auto loans, and other loans. The Fed also extended the discount window maturity to 90 days instead of overnight and lowered the interest rate to .25. This is aimed at providing banks with the short term capital they need to sustain operations. Also, the Fed loosened restrictions on banks by allowing banks to spend their reserves in order to promote lending. The Fed started providing assistance to corporations and businesses. Through the Primary and Secondary Market Corporate Credit Facilities, the Fed can buy new and old corporate bonds and provide loans directly to corporations. The Fed expanded the amount of money they will provide to corporations to be \$750 billion. Another program to help corporations is the Commercial Paper Funding Facility, which allows the Fed to buy commercial paper, essentially handing out money to corporations to fund day to day operations. In addition to large corporations, the Fed has expanded and created new programs aimed at providing credit to mid-sized and small businesses. Municipal and state governments were having a tough time borrowing money while also battling Covid. The Fed is providing loans through the Municipal Liquidity Facility, making it easier for municipalities, counties, and cities. Also, the Fed has supported international governments by making US dollars available to them through swaps. This affects mainly countries with established swap lines to the Fed, but the Fed is also providing swaps to nations without a line through a new repo facility called Foreign and International Monetary Authorities (FIMA).<sup>11</sup> An important and historical act is the Coronavirus Aid, Relief, and Economic Security (CARES) Act, passed by congress and approved by President Trump. The CARES act does two important new things, the first is to offer individuals a one-time stipend based on their income, and the other is loan service to small businesses. The amount allocated to individuals is near \$500 billion and the amount allocated for small businesses is \$377 billion, the whole CARES act cost \$2 trillion. 12 Congress is considering another aid package in the future if this crisis continues.

<sup>-</sup>

<sup>&</sup>lt;sup>11</sup> Cheng, Jeffre; Skidmore, Dave; and Wessel, David, "What's the Fed doing in response to the COVID-19 crisis? What more could it do?" June 4, 2020,

https://www.brookings.edu/research/fed-response-to-covid19/

<sup>&</sup>lt;sup>12</sup> Snell, Kelsey, "What's Inside The Senate's \$2 Trillion Coronavirus Aid Package," March 26, 2020, https://www.npr.org/2020/03/26/821457551/whats-inside-the-senate-s-2-trillion-coronavirus-aid-package

### Analysis:

Essentially, what we see is that the 2008 crisis is a "testing ground" for policies that were implemented for the 2020 Covid-19 crisis. We see the Fed follow suit with the same policies that were offered in 2008 and apply them again in 2020, just at a much larger scale. The Fed revitalized some of the same programs, but added new ones to reach different markets and industries. The role of being the lender of last resort is put to the test. The Fed engaged heavily in expansionary policy, flooding the financial system with as much cash as they can. The problems are the same, with high unemployment and lack of short term funding threatening businesses and the economy as a whole. The Fed combated both by promoting unorthodox methods. One of these methods is quantitative easing, which was new in 2008 and used again in 2020 due to its success. The combination of these policies helped the Fed bounce back from the shocks of the 2008 crisis. We can only hope that these results are the same. The success of the Fed's response in 2020 will cement the methods taken in both as proven responses.

Although these crises essentially had the same response, the question of how they appeared is vastly different. It demonstrates that a financial crisis can happen through multiple facets of American society and is not limited to just the financial sector. Covid-19 started off as a healthcare crisis, but evolved to become not only an economic crisis but also a political one. The stock market crash of 2008 started off as a financial crisis then became a point of political contention. This demonstrates the interconnectedness of the different aspects of our society, and a crisis in one is not limited in its own sector. One key distinction is that the current rate of unemployment is at 14.7%, nearly twice that of the 2008 crisis. This calls into question the sheer magnitude of the current crisis. Hopefuls believe that this shock is temporary and can be quickly reverted; however, pandemics can prove to have lasting impacts. Historically, pandemics have lowered the real interest rate in European countries and increased real wages. These come as a trade off for the multiple lives that are lost during the years of the pandemic. Although the response by the Fed is essentially the same, there are some key differences. One of these being the Fed opening loans and liquidity to small businesses and individuals. The 2008 financial crisis didn't have a direct impact on small businesses and individuals while the 2020 Covid-19 crisis does. The lockdown procedures caused many small businesses deemed non-essential to be temporarily shut down, leading many to need short term liquidity in order to make up for the lack of revenue. The response by both the Fed and Congress certainly helps small businesses, but the question is if the response can sustain small businesses throughout the lockdown and what more will the Fed do. The difference of helping small businesses and individuals is further represented by the difference in government response in Congress's response, where the CARES act offers funds to help small businesses and a stipend to individuals, both which were not done by TARPS, providing those who have been affected by lockdown negatively with short term cash. While the 2008 crisis was significant, the Fed's response ultimately helped spur the economy back to what it was. An important distinction is that the Covid-19 crisis is still ongoing, and the economy can only be fixed after the slowdown or eradication of Covid-19.

Another important idea I would like to address is the current tradeoff between flattening the healthcare curve and improving economic growth by loosening lockdown procedures. In 2008, there was no tradeoff between improving the economy and American lives; however, we do see one in 2020. In the short term, fueling economic growth and lower unemployment equals loosening restrictions on the lockdowns. 13 This can lead to a second wave of Covid-19 resulting in more people dying and further economic contraction. Now, the job of the government is to find an equilibrium; one where there can be enough lockdown procedure to keep the healthcare curve at a manageable level and enough economic activity to not doom us in the long term. The question then turns into what is the role of the Fed in this tradeoff? It is in my opinion that the ideal solution is the Fed and the government "playing both sides" of the tradeoff, where both can sustain economic stability by continuing its lending practices and provide individuals with a financial incentive to obey lockdown procedures. A problem that seems to be American, is disobeying the government. We see individuals disregard stay at home orders and engage in large assemblies. This has the potential to cause the second wave of Covid-19 and put further stress on the Fed, financial institutions, and small businesses. The question now is if the Fed prepared for a second wave and what more can the Fed do?

### Conclusion:

2008 shook the world by the collapse of the financial system, which everyone failed to predict. The Fed stepped in to save the financial system by engaging in expansionary policy to help the financial institutions stay solvent. Through quantitative easing, making money easy to borrow, and helping out businesses, the Fed was able to come back from the worst financial crisis since the Great Depression, Then 2020 came and along with it Covid-19. We saw the same problems as in the 2008 financial crisis, so we employed the same tactics to combat it. However, unemployment was greater, leading to more expansive policies targeting multiple facets of society. As we continue through the Covid-19 crisis, we ask what more the Fed can do to ensure economic stability and maybe even impact society?

<sup>&</sup>lt;sup>13</sup> Gourinchas, Pierre-Olivier, "Flattening the Pandemic and RecessionCurves," March 13, 2020