Connor Johnson

ECON 1110

Banking and Monetary Policy

Since its creation in 1913, the Federal Reserve has used monetary policy to create changes in the state of the US economy. By creating changes in the money supply, federal funds rate, and discount rate, the Fed targets the level of the interest and affects the aggregate demand of the economy. This can be especially helpful when the economy is in a very negative and fragile state. The stock market crash of 1987 and the great recession at the end of the 2000s were both times during which the Fed enacted large monetary policy to help bolster the economy. In both cases, the Fed used very similar policies, yet the outcomes were very different. Understanding the actions that were taken and the reactions of the economy is integral to determining what the Fed should do in response to different economic states.

On October 19, 1987, or Black Monday, the stock market went through the largest crash in its history. The Dow Jones and the S&P 500 both dropped over 20 percent in value. This crash not only caused a huge panic, but also caused the integrity of the trading systems within the stock market to be put into question. There were two big events that occurred the week before that most likely triggered this event. There was news about the SEC filed legislation for anti-takeover taxes and a higher trade deficit put downward pressure on the US dollar (Ruder). The main reasons the crash was this massive were a market that had become overvalued, computer-based trading strategies, and illiquidity. During the years leading up to the crash, the market increased in value because of an increase in demand. At the beginning of the decade the S&P 500 was at 110.90. By the middle of 1987, it had reached 329. The price-earnings ratio also saw a similar increase going from 7.39 to 21.42 (Multpl). The relationship between the two shows that the increase in value was because of an influx of new investors and speculation. This created a demand boom that drove up prices. Since the earnings of companies wasn’t behind this increase in value, the market became overvalued. A strategy that became more common during the 80s was the use of computers in making trade decisions. The two most commonly used were program trading and portfolio insurance. Program trading is consistently trading between the futures market and the underlying stocks to take advantage of a difference in prices between both markets. Portfolio insurance was used to limit risk by selling in futures markets. As the markets started to turn downward, these strategies caused people to sell what they had. Since many traders used the same approach to trading, this combined into a large sell-off that accelerated the drop in the stock market (Stewart and Hertzberg). Finally, the last major reason for the size of crash is illiquidity in the market. The two sources of illiquidity were margin calls and specialists. Margin calls were used in futures market for when an investor’s position is changed due to a change in prices. If the value of a position increased, the investor would be credited with funds and the opposite for if the position dropped. When margin calls were made, the contracts with positions that lost value were called before those that gained it. This became problematic on Black Monday. Since the price fluctuations were so large, margin calls were much larger than normal. These larger margin calls made market participation much more difficult since investors had to pay them off. Even investors with positions that increased and decreased had difficulty because they had to pay off losses before they were credited with gains. This caused the liquidity of the futures market drastically. In the stock market, a specialist is someone that works for the stock exchange and facilitates the market for a given stock. During times of high volatility, specialists buy and sell the stock to keep the price stable. Since the drop in the market was so large, many specialists were unable to find enough buyers, so they had to buy many shares. To do this, they needed to take out a loan. Since so many specialists were having this problem, it became difficult to get a loan. This made it difficult to buy and sell stocks because the specialists didn’t have the money to do so. As a result, the liquidity of stocks plummeted. The large drop in liquidity caused many people to panic sell which hurt the market even more. At the end of the day on October 19, the combination of huge sell-offs and dropping liquidity caused the future of the stock trading system to be unclear.

After Black Monday, the Fed decided to step in and help with the situation. They determined the illiquidity of the stock market was the main cause of its instability. On Tuesday, before the market opened, Alan Greenspan, the chairman of the Fed at the time said,” The Federal Reserve, consistent with its responsibilities as the Nation's central bank, affirmed today its readiness to serve as a source of liquidity to support the economic and financial system” (Bernhardt and Eckblad). Although this statement provided no policy, it was very important as it gave investors confidence. The Fed then followed this statement by lowering the federal funds rate from 7.5 percent to 7 percent. This helped by making it easier for investors to take out loans. The Fed also became the main supplier of funds by buying government securities on the open market. These policies greatly increased the liquidity of the market. At the beginning of the day on Tuesday, the DJIA went up 200 points (Stewart and Hertzberg). It seemed that the Feds involvement may bring the market out of this slump. This was short-lived as another sell-off began. Now, many specialists once again had no buyers available. At this point, specialists couldn’t do anything with the stock they held. Because of this, many stocks didn’t open Tuesday morning. With confidence low and many stocks not opening on the market, many believed that some exchanges would start closing. A saving grace came when the Major Market Index(MMI) suddenly increased by 60 points (Stewart and Hertzberg). This brought confidence back to the investors. The investors could rely on liquidity provided by the Fed to bring the stock market out of this slump. The volatility of the market plummeted as investor confidence returned. In fact, most of the market gained value on Wednesday right after going through its worst crash in history. Although the Fed didn’t directly cause the market to rebound from its crash, it provided liquidity that allowed it to bounce back once investors gained more confidence in the market.

In recent years, the Fed has used some very similar policies compared to the stock market crash. There is evidence that policies similar to the ones that saved the stock market in 1987 caused the Great Recession in 2007-09. During the early 2000s, the Fed was trying to avoid a recession and deflation. The federal funds rate was kept at a very low level. During 2003 and 2004, the rate reached a level of one percent (Effective Federal Funds). This rate was very low compared to the rates used to boost the economy in the past. The Fed was also increasing the money supply at the time to prevent deflation. This increased inflation and lowered the interest rates. When the federal funds rate was at its lowest point, the real federal funds rate was negative because inflation was increasing (Horwitz). So, borrowers would actually make money when taking out a loan. Because of these policies, the economy had a boom. There was a large amount of cheap credit available at the time. As a result, the mortgage market began to do really well. More people were able to afford houses and investors were more willing to flip houses and resell. Mortgage debt of US households increased from 61 percent of GDP in 1998 to 97 percent in 2006. Home ownership increased from 64 percent in 1994 to 69 percent in 2005. Around 40 percent of private jobs created during the early 2000s were a part of the housing market. The low interest rates created by the Fed caused a boom in the housing market that provided large support for the US economy. A boom based off monetary inflation is very unsustainable because it’s based off artificial boosts to demand. The production of the economy isn’t seeing huge gains, but it seems like it is. As a result, businesses and people overinvest their money. When the economy starts to slow down, it crashes hard (Kibbe). This was especially true during the 2000s. After housing prices began to go down in 2007, large banks became wary of exposure to subprime mortgages, Millions of people and institutions had to pay off loans that they didn’t have money. Like the situation in 1987, the entire economy began to see a problem of illiquidity. Since housing had become such a huge market, this affected the economy at whole. The US GDP fell by 4.3 percent in 2008 and unemployment rose from 5 percent to 10 percent (Weinberg). Like the 1987 crash, the market was in a very fragile state, but this time the whole economy was exposed.

Once again, the Fed stepped in to try to boost the economy. They tried to again become a source for liquidity. The federal funds rate was lowered to 2 percent in 2008 and then down to 0.2 percent in 2009. The Fed took part in open market transactions to inject money into the economy. They also created many new lending programs to provide liquidity to financial institutions. This included programs for lending to money market mutual funds and the commercial paper market as well as the introduction of the Term Asset-Backed Securities Loan Facility(TALF) which extended credit to households and businesses backed by high quality asset-backed securities (Weinberg). These programs benefited the economy and it came out of the crisis in 2009, but the recovery was still slow. Most economic crises recovered with a boom with high increases in GDP, but that was not the case. For nearly 10 years, the US economy continued to see GDP increases of around 2 percent. Why is that? How come the reactions of economy in 1987 and 2009 are very different even though the Fed used very similar monetary policy during them?

The answer to those questions is largely based on the Fed’s policies before the crises began. Comparing the 1980s and the 2000s, the federal funds rates and the interest rates were much higher in the 1980s (Effective Federal Funds). While a lower interest rate may have been beneficial in the short run, the long run effects are very harmful. According to the Solow model, savings are the source of investment in the economy. Investment doesn’t exist unless there are people saving. Since investment in capital goods is the provider of economic growth, it can be implied that savings are a source of growth for the economy. Before the recession in the 2000s, the low interest rates artificially stimulated demand and pushed people to consume more. This directly caused a drop in the saving rate. The saving rate dropped as low as 1.9 percent before the recession (Personal Saving). The decade before the recession had the lowest personal saving rate since before the 1960s. Because of this, investments became stagnant during this time (Real Gross Private Domestic Investment). With low savings before the beginning of the recession, the drop in investments was much larger than normal. It took seven years for the investments in the US economy to recover to its value before the recession. This was the longest recovery in the past 50 years. Based on the Solow model, this slow recovery was because of a low amount of savings as a result of the artificially low interest rates. Since it was such a long period of low savings, economic growth in the long ruin was hindered greatly. If it weren’t for the Feds actions in the early 2000s, the US economy would’ve been able to recover much quicker than it did.

Overall, the Federal Reserve is a very powerful central banking system. Their policy on the money supply and federal funds rate can have large effects on the state of the US economy. As seen in the two crises above, the circumstances of these policies are very important to how well they work on the economy. While the Fed can help the economy when it is in a slump by providing confidence and liquidity, it can’t provide long term growth for a stable economy. The Fed doesn’t control the production side of the economy and can’t greatly benefit it when it is already in a stable state. Thus, the Fed should only implement large monetary policy when the economy is in desperate need of it.

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