How Ben Bernanke and the Federal Reserve evolved during the 2007-2008 financial crisis

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Abstract

This paper will present Ben Bernanke's perspective on the 2007-2008 Financial Crisis, as related in his book *The Courage to Act*.

Ben S. Bernanke won the Nobel prize for economics in 2022, mainly based on his work on financial crises throughout his life. We were fortunate to have had his contributions during 2007-2008, and we are fortunate to have his perspectives today.

This paper will examine Ben Bernanke as an economist but it will focus on 4 specific themes found in *The Courage to Act.*

1. Should the Fed be transparent and speak in plain English ?
2. What are the capabilities and limitations of the Fed ?
3. Can economic crises be modelled ?
4. What is the primary concern, inflation or employment ?

This paper will discuss his view on these topics. And it will discuss the institutions and events that paint the picture of the 2007-8 subprime crisis.

A note about references. This paper is based on the *The Courage to Act* however some internet sources were used and are marked by footnotes.

Quick Recap of the 2007-2008 Financial Crisis

Prior to August 2007, there was general acceptance that there was a housing bubble, and there was a problem behind subprime mortgages, but the feeling was the inevitable correction would be routine.

As late as July 2007, Fortune magazine described the economy as the "greatest economic boon ever"

The first dramatic indication of the scale and scope of the collapse probably would be on August 9, 2007 when BNP Paribas barred investors from drawing money from a mortgage fund because in its words there was a "complete evaporation of liquidity" in the underlying securities.

Also in August, Bear Stearns had a conduit hedge fund, backed by mortgages, that was troubled. Since it was a SPV (Special Purpose Vehicle) with a separate entity from the investment banks balance sheet, Bear Stearns could have let it fail with little risk to the bank. Bear, however, tried to save it by injecting $1.6 Billion into the fund. By September, the fund had failed and Bear had lost nearly $4 Billion.

By September, the Fed and Treasury and FDIC all recognized a panic, specifically a bank run within the system itself. The Federal Reserve took some steps, if only baby steps, to inject money, buy bad debt and assist troubled borrowers.

By March 2008, Bear Stearns was so distressed, they could no longer borrow on the repo market. The Fed and Treasury engineered the safe unwinding of Bear into JP Morgan Chase.

By September 2008, Lehman Brothers was bought out by Barclays, Merrill Lynch was bought out by Bank of America, and Wachovia was bought by Wells Fargo.

AIG and Fannie Mae and Freddie Mac were “rescued” by the government .

Washington Mutual filed for bankruptcy. It was the largest bank failure in U.S. history.

This month also saw the introduction of TARP (Troubled Asset Relief Program) the massive 700 billion dollar set of measures to strengthen the financial sector.

While these headlines have become an iconic 13 month stretch in what we call the Subprime or Credit crisis, there is a greater timeline that incorporate the causes and the after-effects.[1]

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[1] (1992-2018 The US Financial Crisis, 2018)

Should the Fed be transparent and speak in plain English ?

Considering the power of the Federal Reserve to effect the markets, its not surprising the governors would be non committal in their communications. Indeed, there are anecdotes where markets seemed to have reacted skittishly to some perception of what the Fed might be thinking.

The term *Fed speak* was coined after George Orwell's newspeak. The term was used since the 1970s, and the most unclear of all the governors was Bernanke's predecessor, Alan Greenspan.

He was so known for his confusing speech, it became something of a joke, and a new term was coined, *Greenspeak*. Greenspan once described it as purposeful obfuscation.[2]

The book organized its narrative around this point. On page 70, Greenspan is quoted from a 1987 testimony to the Senate, "If I seem unduly clear to you, you must have misunderstood what I said".

Some suggest that Greenspan may have had a natural tendency to speak in riddles.

As just one example, "The members of the Board of Governors and the Reserve Bank presidents foresee an implicit strengthening of activity after the current rebalancing is over, although the central tendency of their individual forecasts for real GDP still shows a substantial slowdown, on balance, for the year as a whole."

One thing the Federal Reserve rarely did prior to Bernanke, was publicize what their intentions were. But Bernanke had a different philosophy.

On page 77, in quotes, Bernanke says "The success of monetary policy depends more on how well the central bank communicates its plans and objective than on any other single factor."

When Bernanke took over however, he discovered there was an inherent sensitivity to the fact that the 7 board members and the 12 regional heads that make up the FOMC have an extraordinary amount of power.[3]

Indeed, at Bernanke's first testimony as chairman to the Joint Economic Committee, he made some plain English statements about the Feds thinking. The FED had just raised the target rate for the 15th consecutive time, each time at 25 basis points. Bernanke suggested that the Fed may be flexible to consider not raising rates for a quarter or 2, and then decide to raise them again.

Immediately after this testimony, long term yields fell, implying that relative to other chairmen, Bernanke's suggestion sounded like a dramatic cessation of rate increases even though it was meant to be a prudent assessment.

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[2] Fedspeak - Wikipedia

[3] federal-reserve-holds-power-beyond-what-we-can-imagine

Bernanke continues his story that when he tried to explain to a CNBC reporter (off the record no less) that his comments were misconstrued, the stock market responded the next day by falling and long term yields rose.

He recounts a big debate in the board over a single word from their August 2007 post-meeting statement.

A different kind of misstep took place in December 2007. The board agreed to act aggressively to the ongoing crisis by doing 4 things: A 25 basis point rate cut, a liberalized discount window, TAF and a currency swap line with Europe. The problem was the statement undersold the details of the last two, as some of the logistics remained to be ironed out. The market interpreted the rate cut and the discount window change as being not nearly enough. Again the perception was the Federal Reserve had too much influence on the stock market.

Despite the known hypersensitivity of the markets to the words of the Federal Reserve, Bernanke continued to practice in plain speak. Specifically he believed the Federal Reserve should explicitly state what the inflation target was (2% or a little higher to provide some cushion). Bernanke initiated a permanent shift on this point.

Today, the Federal Reserve is quite clear about its intentions and how it operates. Its web site is professional and well delineated. All FOMC press conferences are available on the You Tube Federal Reserve channel.

If the markets once distrusted the Fed, it may have been a result of an ongoing iteration where the markets overreacted and the Fed retreated in its transparency, causing a cycle.

What are the Capabilities and Limitations of the Fed ?

Its difficult to discuss Ben Bernanke and his role without looking at what the Fed does exactly.

The Federal Reserve is mostly know for raising and cutting rates, and this is advertised as the Target Rate. In reality, the Target Rate is not a real rate.

What usually happens is the Federal Open Market Committee meets every 45 days, and they decide to target the Fed Funds rate to be at a certain point. The Fed Funds Market is a supervised function of banks lending overnight funds to each other.

The target is not a mandate. Instead it achieved as the Fed simply injects or pulls money out of the system. If they sell $80 Billion in bonds (at prices too good to turn down !) then banks will need to raise capital that very day to buy it, and the increased demand will drive up interest rates.

There are 3 components to the "Fed"… the Federal Reserve, FOMC, and the regional banks, all have distinct capabilities as it pertains to monetary policy. By contrast, Congress and the Treasury Department have direct capabilities in regards to Fiscal policy. To be clear, when it comes to regulating mortgagers, or administering tax cuts, the Fed is powerless.

Thus everything the Fed does, is done with at least some coordination with other institutions. I noticed the word *negotiate* is used repeatedly in reference to how he works with these organizations.

The book includes events with the following : the Treasury Department, FDIC, Office of Thrift Supervision, European Central Bank, Senate Banking committee, and many, many more, including the banks themselves.

To that point, we can highlight some very relevant limitations. Bernanke notes in the summer of 2007, he was unable to gain proper insight to woes of Bear Stearns. The important data he needed was confidential and otherwise regulated by the SEC.

The Fed is supposed to inured from political pressures. Nonetheless, we can see that Bernanke was very sensitive to criticism. A common backlash is that the Fed rewards banks and ignores the common man. After the Fed helped engineer the bail out of Bear Stearns, Senator Dodd is quoted "The committee … needs to address whether the Fed or any set of policy makers should have such broad emergency authority". One gets the sense that the Fed is weakened by controversy, not just in its direct powers, but also in its ability to gain cooperation from other, more political, entities.

An interesting anecdote from January 2008, after some very bad market news, they decided on a between-meeting cut of 75 basis points, the market "read panic" in this, and had a major sell-off, not the reaction the Fed wanted. Then days later, news came out that SocGen had a rogue trader which ultimately caused a lot of the disruption that the Fed had misread. This, after an entire year, in which the Fed had underestimated the depths of the financial instability.

Its also fair to point out, that some Fed actions, have little effect. After much debate about liberalizing the discount window, they finally did so in August 2008. The discount window is a place where commercial banks (which are unable to borrow in the Fed Funds market), borrow at a very high rate. It exists for emergency purposes only. In August 2008, they slashed the rate and allowed investment banks to borrow there. A few did for a week, but in the end, there was little effect.

So the Fed is not all powerful, and its typical methods – loans, repos, buying and selling bonds— are blunt and difficult to assess. Its intuitive that raising rates can "cool" an overheated economy, but the appearance of influence on the stock market, for example, is a good case to use this power sparingly.

But the Federal Reserve has the authority to create, modify or dissolve targeted monetary facilities, and this is where the role of central banks and regulatory agencies is critical.

Here are some relevant examples from 2007-2008 alone.

Term Auction Facility

Established in December 2007. : (a series of 28 day loans targeted by need)

Primary Dealer Credit Facility

Established in March 2008, in response to strains in the triparty repo market. Primary Dealers are the 20 or so banks that act as counterparty to the Fed's open market operations. The PDCF thus provided emergency liquidity to Primary Dealers, just like the discount window does for depository institutions.

Term Security Lending Facility

Established in March of 2008. It allowed dealers to exchange their eligible collateral (suspect MBS) Treasuries. The TSLF was dissolved in 2010.

Here are some smaller actions that the Fed has taken.

Adjusting the rules of the discount window.

In March 2008, the Federal Reserve extended the maturity of the discount window from 30 to 90 days and they lowered the rate to just 25 basis points higher than Fed Target Rate. Historically the discount rate would be 100 basis points (or 1 percent) higher than the Target Rate. The discount window has a lot of rules. It allows commercial banks to borrow (at a high rate) in situations when they are unable to borrow through normal means.

Invoke section 13(13) of the Federal Reserve Act

In July 2008, this emergency power enabled the Fed to lend to Fannie Mae and Freddie Mac, 2 non-banks

Relax section 23A of the Federal Reserve Act

In Sept 2008, the Federal Reserve liberalized the restrictions on dealers to lend to their affiliates

Invoke Section 13(3) of the Federal Reserve Act

This is another emergency power invoked in March 2008 , and enabled TSLF to lend to primary dealers.

Currency swaps with other central banks

In March 2008, the Fed and the ECB established a swap line of USD and EUR. This was primarily done to establish USD liquidity in European banks.

Above lists specific actions of the Federal Reserve. It is worth reiterating the point that Federal Reserve does not act alone. Bernanke, in his speeches, always emphasizes the ever-present relationships with other organizations within the US and without.

A good example of this is the Troubled Asset Relief Program. TARP was a Treasury program established in October 2008, and signed into law by President George Bush. It was perhaps the most aggressive action after the worst moment of the crisis. This program did many things and involved many agencies. Perhaps the most prominent of its tasks was buying toxic assets outright.

Can Financial crises be modelled ?

The second chapter of ***The Courage To Act***, provides a background to how Bernanke's economic philosophy evolved. The Great Depression was the most studied economic collapse and probably over emphasized in terms of predicting future busts.

Bernanke intermixes his personal life -- growing up – with some of the great economists and their ideas (giving the reader the sense that he evolved on the outdated ideas of the past. The chapter lightly veils the notion that the pending subprime crisis was unprecedented.

Indeed if we look at some notable financial crises, its hard to find any similarities

March 2020	- Black swan event (COVID fears)
March 2008	- Panic. Liquidity issues.
May 2000	- Dot Com Speculation Bubble.
October 1987	- Panic. New Global Order. Asset Bubble.
November 1929	- Panic. Immature Banking System. Asset Bubble.

In all of these cases, the issues were granular and different.

In Bernanke's book, he makes just a few references to prior economists and the schools of thought they would represent. Indeed, it is difficult to classify economic theory without treading through overlaps, although some try [4]

He does note that the gold standard and other old philosophies were born in an age without the massive global and digital financial structures we have today, and economic thought has evolved along with the modern age.

The Great Depression was perhaps the most studied of all financial busts. The intuitive perspective, was that it was driven by speculative excess. Milton and Friedman's perspective, which focused on money supply, he says, was eye-opening. Bernanke argues that the gold standard and deflation is what caused the depression to be so long and bad. The book, in this case, does not do a good job explaining why deflation is bad, but there are good explanations out there.[5] Deflation hurts the merchants make a profit, yes, but it also shows that demand is in downward cycle, due to failing industry and unemployment.

[4] Cheat Sheet For Schools of Economics

[5] Why deflation is worse

In 1983, Bernanke wrote a paper, arguing that much of the Great Depression was caused by non-monetary factors, such as fear-driven banks runs.[6] (I found interesting his point that countries with just a few big commercial banks are better protected).

Bernanke does do a good job explaining the problem with economic models. There simply isn't enough data on crises which are fortunately rare. In 2007, efforts were made to incorporate data from smaller crises in other advanced nations. If there is a common thread in previous crises, its that they are difficult to recognize until its too late. At the time of the Russian debt defaults of 1998, the Fed forecasters predicted significant impact to the United States. They were mistaken.

[6] Non-Monetary Effects of the Financial Crisis in the Propagation of the Great Depression

What is the primary concern, inflation or employment ?

The Federal Reserve was created in 1913, but the stagflation of the 1970s led to the Federal Reserve act of 1977. Section 2A explicitly defines the monetary objective as maximum employment, stable prices, and moderate long term interest rates.[7] Since inflation and interest rates tend to move together, the 3 objectives are often referred to as a dual mandate…control inflation and optimize employment. Very often.

Generally, Fed actions are prioritizing one over the other. When the Fed wants to curb inflation, it raises rates, economic growth is curbed, unemployment rises. This paper has previously discussed targeted monetary policies, and the view on both inflation and employment is no different.

Current chairman Jerome Powell clarified the definition of maximum employment both formally and in strategy statements to address the employment needs of specific communities.[8]

So which of these mandates does Bernanke lean towards ?

In the book, he certainly discussed inflation more. He explicitly stated that he preferred an inflation rate of 3-4%, higher than most central banks who aim for a 2% rate. His reasoning was deflation was too vicious a cycle to toy with. He mentions A Monetary History of the United States, co-authored by Milton Friedman and Anna Schwartz. It was that work, he says that convinced him that deflation was the major cause of the depression.

Prior to his chairmanship, Bernanke advocated a proactive and creative Fed. The Fed could cut long term rates in various ways, such as managing mortgage rates.

Milton Friedman coined the term “helicopter money” to describe targeted cash injections, and Ben Bernanke gained the moniker “Helicopter Ben” . In a 2002 speech, Bernanke discussed how the government could always “print money” as a way of warding off deflation. This led to a lot of criticism of Bernanke[9]

The supposed synergy between inflation and employment is not very direct, and may be more appropriate for normal times. In the 2007-8 crisis, rates were slashed but inflation was gradually lower, and employment remained stable. Eventually by the Fall of 2008, the broader economy collapsed and we began a period of both high unemployment and moderate deflation.

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[7] Section 2A of the Federal Reserve Act
[8] Brookings Institute : How the Fed defines Maximum Employment
[9] Forbes: Dont Trust Ben on Helicopter Money

Conclusion

While researching for this paper, there is a risk to see things in vacuum of a few years, as if inflation targeting or transparency did not exist prior to Ben Bernanke's term as chairman of the Fed. It may be that Ben Bernanke, himself, when working on The Courage To Act, saw these things in a vacuum.

Having said that, Bernanke comes across to me as a person who is easily accessible and understood, and there is plenty of material out there, including presentations he made while he was the chairman.[10]

I believe one of the great contributions of Ben Bernanke is that he has taught the public and the markets to trust the Federal Reserve. If we look at how the current Fed Chairman, Jerome Powell, speaks, it seems the market has gotten used to plain-English, and the Fed can speak frankly about the future without the controversy.[11] I would suggest a lot of the market "hyper-sensitivity" Bernanke noted in his opening months as chairman, was the result of the historic aloofness of the Fed.

In regards to economic modeling, it is clear to me that both Fiscal and Monetary policy can seem at times like punching at the winds. Markets can be opaque and emotional. The failure of the liberalized discount window, is described in terms of bank stubbornness. Banks just don't want to use the discount window. I don't believe generic modelling works to dictate specific reactions, but I would think it would be useful.

On the other hand, when there is credible information, and enough justification, targeted programs such as TARP or TAF can be both safe and successful and I believe they were.

If I find any fault with Bernanke, it would be the lack of attention paid to employment rates and the quality of employment in the United States. I agree with recent comments of the current chair that there are specific areas of job growth that the Fed can target.

The most notable the thing I learned researching this paper, was that the power of the Federal Reserve is not a generic control of money supply but a targeted one. The real power of the Fed is in the anecdotes. The hard work and long hours of negotiation and synergy that drove the salvation of Bear Stearns into the arms of JP Morgan is an example. So are the special programs like TSLF. These powers are real and important. Ideally they wouldn't be used, but if there is a crisis, we are glad that the Federal Reserve has these powers.

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[10] Chairman Bernake's Lecture Series

[11] Powell sees pain ahead