

# The Financial Crisis of 2007–08: Causes, Consequences, and Implications

Baoheng Huang\*

College of Humanities, Arts, and Social Sciences, University of California, Riverside, Riverside, California

\*Corresponding author: bhuan082@ucr.edu

**Abstract.** This research topic is mainly about the financial crisis. The author first proposed the reasons for the financial crisis. Due to the negligence of bank management policies, it will be easier for people to get loans. The real estate industry is a good example of what is brought up. People's financial situation is not strong enough to afford the loan amount. The global financial industry also collapsed as a result. The bankruptcy and debt incident of Lehman Brothers was one of the causes of the financial crisis. The Fed's Monetary Policy is one of the ways to prevent the second occurrence of the financial crisis. There are also many policies and methods in the financial or banking industry to help people avoid the second occurrence of the financial crisis in the future. This paper mentioned some measures and policies that the government has changed after the financial crisis. The reform of the banking system after the financial crisis, COVID-19 has not caused the same damage to the global economy as the 2008 financial crisis.

**Keywords:** Subprime mortgage; credit default swap; the Dodd-Frank Act; Basel III.

## 1. Introduction

The financial crisis of the 2007-08 had a significant impact on the US economy, triggering domino effects on the rest of the global financial stability. Economic experts often disagree on what precisely led to the 2007/08 economic crisis. However, they at least agree on several factors that led to the economic meltdown. Earlier, anticipating a slight economic downturn, the Federal Reserve (the Fed) had slashed its interest rate more than ten times reducing the federal funds rate from 6.5% on May 2000 to 1.75% in December 2001 [1]. That drastic drop prompted banks to issue loans to high-risk borrowers at higher interest rates but still make available consumer credit at a lower prime rate. The resulting interest rates prompted a surge in the acquisition of long-lasting consumer items, particularly homes. This led to excessive anticipation in the real estate market, increasing the property prices to considerably high levels in the late 1990s, and essentially causing a bubble in the market.

In the 1980s, the US government had relaxed financial regulations, which in turn allowed financial institutions to provide subprime mortgages with innovative financial instruments like short-term borrowings and adjustable interest rates. These rates are set at low levels for an introductory period before floating, typically in tandem with the federal funds rate. They created conditions that enabled subprime borrowers to circumvent paying high mortgage as long as property prices rose; doing so would allow them to either refinance their mortgages at lower interest rates or credit against the equity in their homes [1]. Banks could take back the collateral, sell it for greater than what was owed on the loan, and pocket the difference. This is why many financial institutions engaged in subprime mortgage: it was a highly profitable venture. As a result, many financial institutions marketed subprime loans assertively to individuals with low credit scores or few securities, despite the fact that the banks had ample reason to believe that the borrowers could not finance to repay the mortgages and were frequently misinformed about the risks associated with the loans.

Financial institutions would then bundle together thousands of subprime mortgages and less risky borrowers through securitization. This practice enabled them to refinance and resell them as bonds in capital markets to other financial institutions and investors, leading to the expansion of subprime lending practices. Mortgage-backed securities are bonds that are principally collateralized by mortgages and give investors a claim on a portion of the interest and principal collected from borrowers [2]. Selling mortgage-backed securities encouraged financial institutions to improve their

liquidity and minimize their exposure to less secure loans by selling subprime mortgages. Similarly, mortgage-backed securities stimulated banks and investors to invest in subprime loans as a way of bolstering profitability and diversifying their portfolios. Mortgage-backed securities surged to prominence as home prices continued their rapid ascent through the early 2000s, driving up their prices on capital markets.

Consequently, Ben Bernanke, Douglas Diamond, and Philip Dybvig played a key role mitigating the risk of financial crises. Their contributions to economics were significant in dealing with the 2007/8 aftermath. In particular, the Diamond-Dybvig model demonstrated the functions of banks in society, including ways in which uncertainty could potentially trigger a financial crisis, and subsequent economic recession. This model also showed ways in which governments can play a central role in reducing potential vulnerability through effective bank regulatory systems. As the head of the US Federal Reserve, Bernanke played a key role in stimulating the national economy in the wake of the 2007/8 crisis. His research underscores the value of evidence-driven banking policy and demonstrated that the Great Recession could have been averted had the US central bank printed money to avert the shortage of cash, which was largely responsible for the banking crisis and subsequent economic downturn [3]. These contributions have had a significant effect on managing socioeconomic disruptions attributable to the COVID-19 pandemic.

## 2. Causes

In addition, the financial crisis of 2008 can be directly attributed to the widespread deregulatory efforts in the banking sector. This made it easier to provide low-cost, arbitrarily issued mortgage-backed securities to speculative investors with poor credit scores. People were eager to take advantage of the low interest rates and easy qualification standards offered by mortgage lenders because of the rapidly increasing value of residential real estate. The result was an explosion in the housing market. Borrowers' financial flexibility was severely tested when the Federal Reserve hiked bond yields in 2004 and mortgage payments jumped accordingly. This caused the bubble to pop in 2007 [4]. Since mortgage loans were intertwined with other financial instruments such as commodities, credit default swaps, and hedge funds, the collapse of the real estate market had a domino effect on the US financial system. The US influence on the global financial sector nearly brought down other countries' financial systems. As a result, the U.S. government had to create massive bail-out schemes to save the "too big to fail" banking firms.

### 2.1 The Fed's Monetary Policy

In accordance with the Federal Reserve Act of 1913, all banks and other financial institutions must keep a certain amount of their customers' deposits in reserve at all times. Reserve requirements have been an important part of putting monetary policy into action. A combination of reserve needs and reserve scarcity drove growing demands for deposits. In the event that a bank was running low on reserves, it would borrow the funds from other financial institutions in the form of overnight loans. Raising the federal funds rate has a domino effect on interest rates across the economy, lowering economic output and price inflation by diminishing consumer and business expenditure. In response to the COVID-19 outbreak, the Fed used all of the tools at its disposal to keep credit flowing to consumers and companies. This entailed the use of both common and unusual implements. To encourage borrowing through the discount window, the federal funds rate target range was lowered to near zero, while the discount rate was lowered and the repayment period for loans was extended. As for unconventional measures, the Fed bought a lot of Bonds and federal mortgage-backed securities and expanded the scope of its temporary credit facility beyond that which had been put in place before the crisis a decade ago. By maintaining a steady supply of credit to consumers, firms, organizations, and governments at all levels, these instruments are meant to bolster the execution of monetary policy and contribute to a more secure financial system.

## 2.2 Subprime Mortgage

A subprime mortgage is a loan with interest rates higher than the prime rate, targeted toward borrowers who otherwise wouldn't qualify for such low-interest financing. Borrowers that fall into the subprime category typically have poor credit scores or other warning signs that they are likely to default on their debt payments and have been denied loans from more mainstream lenders [4]. The prime rate constitutes the interest rates charges between commercial banks to satisfy the requirements set by the Fed's Open Market Committee. The fact that any bank or credit union may potentially provide a loan at subprime rates does not mean that all of them would. Borrowers who have problems receiving low interest rates from traditional sources may find these alternative lenders to be a blessing in disguise, allowing them to have access to finance for purposes such as investment, business expansion, or home purchase.

Predatory lending, which includes subprime lenders, is defined as the practice of offering loans to applicants at extremely high interest rates in order to trap them in a cycle of debt or raise the likelihood of default. Subprime loans typically have higher interest rates than conventional loans; nevertheless, if the borrowed funds will be used to pay off high-interest obligations like credit cards, or if the borrower has no other credit options, a subprime loan may be the best alternative. After the US real estate market reached its critical threshold in late 2007, the economic meltdown of 2007-08 and the accompanying Great Recession (2007-09) were precipitated, in large part due to the extensive usage of subprime mortgages and their securitization. As the value of their homes stopped rising, many subprime borrowers were stuck with mortgage payments they couldn't afford and a home they couldn't sell [4]. Banks and other lenders became more hesitant to extend credit to high-risk customers as the number of loan defaults and home foreclosures across the country reached historic highs. Since then subprime mortgages have become less popular in the financial market across the US.

## 2.3 Credit Default Swap

CDS represents one of the main ways for investors to hedge against credit risk, which is a type of financial derivative. In this arrangement, the lender purchases CDS from another investor who then reimburses the lender for any losses incurred as a result of the borrower's default [5]. CDS functions similarly to an insurance policy in that it provides protection against the risk of a hypothetical adverse event affecting an investment. Like insurance policy premiums, CDS require periodic payments to keep them in effect. When a lender is anxious about a borrower defaulting on a loan, they may use a CDS to hedge against such possibility. Investors can purchase credit default swaps to reduce their exposure to defaults on underlying assets.

Prior to the Financial Crisis of 2007-2008, they were widely employed to lower the dangers of investing in mortgage-backed securities and fixed income products. JP Morgan's Blythe Master first came up with the CDS instruments in 1994 but their popularity in the financial market grew in the early 2000s [5]. The CDS derivative was one of the hard hit financial derivatives throughout the 2007/8 financial crisis, where it lost more than half of its value to nearly \$25.5 trillion by the end of 2012. Credit swaps were unregulated and the ambiguity surrounding such practices became a top priority among regulators.

## 3. Consequences

One of the key features of a recession is the reduction of economic output. With labor as a vital component of economic growth alongside capital, it is only natural that joblessness would increase in tandem with a fall in output as businesses would have less need for workers. There is a well-established economic argument that defines the correlation between job growth and product output [6]. A reduction of one percent in the unemployment figures requires economic growth of a factor of two beyond the rate at which it would otherwise increase [7]. When economic contractions outperform recovery, the end product triggers a vicious cycle in an economy.

The initial round of layoffs at the onset of a recession reduces demand. When the economy weakens, people tend to save more money. If consumers reduce their spending, businesses will have less of a need to produce items and might even reduce the number of services they provide [6]. The downside is that when businesses produce fewer goods and provide fewer services, they have a smaller need for personnel and are more likely to lay off some workers. When people lose their jobs, they often have to make sacrifices in other areas of their lives, including their spending. This pattern will persist until the economy improves.

Even while the negative feedback loop loses momentum after a while, the 2008 crisis had already done significant damage to the economy and the workforce. For example, people who lose their employment during a recession, particularly a severe one, have a far higher probability of remaining unemployed for an extended period of time and will have a more challenging time finding new work later on [7]. This was true during the 2008 financial crisis, whereby only about a third to a half of those who had lost their employment resumed their full-time jobs at the beginning of 2010 [8].

By the mid-2000s, Lehman Brothers had accumulated substantial possessions in mortgage-backed securities, making it one of the banks to hold the majority of mortgage-backed securities and collateral debt obligations by 2007 as the housing boom reached its peak in the financial sector. For Lehman Brothers, the cherry on top was the company's 2003 foray into the lending businesses. The firm had bought a number of financial institutions, including some that specialized in making the subprime mortgages promoted by the US government such as BNC Mortgage and Aurora Loan Services. Thus, Lehman Brothers was one of the hard-hit banks when the housing market bubble started to bust in August 2007. In that same month, the bank closed down its BNC division and laid off 1,200 employees in the mortgage department. The shares of Lehman Brothers fell by around 77% in the first week of September 2008 [9]. The rising credit default swaps on Lehman's debt and the withdrawal of large hedge investment managers both served as warning signs that financiers were fleeing. The 15th of September was the breaking point, after a failed buyout rescue efforts by the Bank of America and Barclays Bank. When Lehman Brothers declared bankruptcy, its stock price immediately dropped by a further 93 percent. In the end, Lehman Brothers' \$619 billion in liabilities became the biggest bankruptcy corporate filing in US history [9]. The fall of Lehman Brothers triggered a chain reaction of financial calamities that snowballed into the 2008 economic crisis. Whereas the US government was quick to bailout some of the financial institutions, questions remain as to why the Lehman was left to fail without any intervention [9]. There are several possible explanations, but one common one is that Lehman's debt was simply too large for its assets to even come close to covering.

## 4. Changes

In the wake of the 2008 crisis, the absence of robust financial regulation and oversight was a painful lesson that prompted significant regulatory changes in the financial sector. Globally, the International Basel Committee proposed a series of reforms on the banking regulations and standards by December 2009 [10]. The G-20 later in November 2010 endorsed these collective reforms or Basel III but individual nations were left to implement and enforce these reforms within the existing domestic regulatory framework.

### 4.1 The Dodd-Frank Act

In the US, Congress ratified the Dodd-Frank Act of 2010, which imposes tight liquidity and capital requirements for financial institutions with assets exceeding \$50 million. The Act also introduced additional limitations on the compensation system in the banking sector. In response to insufficient regulatory oversights, the Dodd-Frank Act mandated the creation of the Financial Stability Oversight Council, which includes the Fed and other institutions; whose primary goal was to coordinate the regulation of strategically important banks [11]. This body holds the power to subdivide large financial institutions susceptible to liquidity issues due to their size. The legislation also established

the Orderly Liquidation Fund which was designed to support liquidation with financial assistance to large banks that are at risk or facing financial difficulties [10]. These reforms have not been without challenges as the initially envision framework was weakened through a series of lobbying during its development.

For now, the long-term effects of these changes on the financial sector remain to be seen. More than ninety sections of the Dodd-Frank Act call for rules to be drafted by the SEC has been granted discretionary rulemaking authority over dozens more. Yet, the SEC has completed rulemaking for 67 provisions of the Act as of early 2019 [11]. Some of these adoptions include a platform that empowers and protects whistle-blowers who inform authorities on security law violations, investors' ability to influence executive compensation, and increased openness in the swap funds and hedge fund investments.

#### **4.2 Basel III**

Under the Third Basel Accord, banks are mandated to keep larger reserves or countercyclical capital buffers. These reserves act as a sort of emergency fund in case the bank runs into hard times. During times of economic growth, banks may be required to maintain larger capital buffers, typically between 0% and 2.5% of their risk-weighted assets [11]. Because of this, they will be better prepared financially for times of economic downturns, such as a recession, when losses are likely to be higher.

Besides, Basel III set additional liquidity regulations. The liquidity coverage ratio is a measure of a bank's preparedness to withstand a severe liquidity crisis that lasts for 30 consecutive calendar days. Banks are required to diversify their investment portfolios and ensure that they hold high-quality liquidity assets that can be changed to cash swiftly, with no or minimal depreciation [10]. The net stable funding ratio is another liquidity-related provision introduced by Basel III; it measures how much stable financing a bank has available relative to how much stable funding is required to maintain liquidity, asset risk profile, and other liabilities. The purpose of this regulation is to encourage financial institutions to diversify their portfolios and move away from heavy reliance on cheap, readily available short-term wholesale funding and instead put those funds to use in supporting core business operations.

Briefly, Basel III is the third and most recent installment of the internationally-recognized banking reform agreement referred to as the Basel Accords. This framework was a product of collaborative endeavors between the Basel Committee on Banking Supervision in Switzerland and other central banks in other nations throughout the world, including the US Federal Reserve. Some of the regulatory flaws of Basel I and Basel II were exposed during the 2008 financial crisis [11]. As such, the regulatory framework within Basel III tries to previous loopholes in the finance sector to avert the collapse of financial markets and better manage financial instability during economic contraction. It is worth noting that the deadline for the full adoption of Basel III is set for 2028.

### **5. Conclusion**

In the aftermath of the 2008 financial crisis, several steps were taken to both alleviate the acute and chaotic situation and lessen the possibility of a similar situation occurring again. Both were highly influential. The rapid aid mitigated the home market collapse to some degree. Since then, multiple regulatory controls and client interests have been put in place, making today's real estate and financial markets much more secure and stable. More could have been done to help homeowners during the crisis, and more needs to be done to ensure that families have access to affordable, sustainable housing both now and in the future. One of the most important takeaways from analyzing the reactions to the recession must be the significance of housing to individuals and the country's financial stability. It is crucial to protect the fundamental progress that has been accomplished after the crisis, despite proposals to modify or repeal the changes that were undertaken. Most crucially, major chances to promote a resilient and affordable property market that benefits households, communities, and the financial sector remain untapped because of outstanding critical concerns.

The significance of being held accountable is a key takeaway from the recent financial meltdowns. The goal of financial legislation is to keep the banking system stable and to safeguard investors and savers. Having regulations in place is essential to banking regulation, but so is making sure those rules are followed and monitored. Lack of proper oversight of the financial sector can be detrimental to the banking system's integrity and economic growth prospects. For this reason, it is crucial to have robust banking reforms in place to ensure the safety of the entire banking system and the protection of individuals in the event that something does go wrong. From the lessons of the economic meltdown, people may learn how crucial it is to the well-being of households and society as a whole to have access to cheap, long-term home loans. While emergency measures were taken, their success and public backing suffered because not enough aid was provided to individuals in need. Lessons learned from the 2008 financial crisis played a central role in mitigating widespread financial instability in the wake of the COVID-19 pandemic.

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