

An In-Depth Analysis of the 2008 Financial Crisis

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Abstract. The financial crisis of 2008, which is a huge crisis that originated in the United States. This crisis is the most serious crisis since the Great Depression in the 1930s. It has a huge impact on the whole world. People generally call it the financial tsunami. The global economy's healthy growth has been negatively impacted by the worsening financial crisis. The governments of all nations are dealing with a serious economic crisis, which affects everyone from Wall Street to the rest of the world, the financial sector to the real economy. Then how did the financial crisis break out? What was monetary policy like then? Whether you are a finance major or not, the word subprime is stressful. So, what is subprime? What mechanism caused the financial crisis? How has the financial crisis affected the United States and the world? Why has this financial crisis had such a big impact? And how did the financial crisis end? What can people learn from this?

Keywords: Subprime mortgage; mispricing; deregulation; responses.

1. Introduction

The recipient of the 2022 Nobel Prize in Economics was revealed on October 10, 2022. For their studies on financial and banking crises, Philip H. Dybvig, Douglas W. Diamond, and Ben S. Bernanke received awards. The three men, according to Nobel authorities, have contributed to a greater understanding of how to manage financial markets and the role of banks in the economy, particularly during the financial crisis.

The new coronavirus epidemic outbreak in recent years has had a significant negative impact on the economy. A devastating blow to several catering companies, the outbreak has nearly totally shut down the traditional service sector, suspended the hotel and tourism industries, and increased losses in the transportation and catering sectors. This has had a profound effect on the country's economy. In the case of the Russia-Ukraine war, the people of the two countries involved in the war have felt a profound disaster. A large number of Ukrainian refugees have become homeless and displaced, countless lives have been trampled on, and a large number of families have lost relatives and friends. This led to more instability in global trade, fragmentation, and disintegration of some international organizations, and increased the tension of a trade war [1]. So, it needs to start studying the 2008 financial crisis and understand its cause, process, outcome, and impact on the world. This study subject is the most influential since the 21st century: the 2008 Financial Crisis.

A catastrophic event that has far-reaching consequences beyond the financial sector and often affects the broader economy and society is known as a systemic financial crisis. Such a crisis can trigger a wave of business closures, widespread unemployment, and even social and political unrest. The damage caused by a systemic financial crisis can be severe and long-lasting, affecting not only the financial institutions but also the overall economic health of a country or region. The financial sector, stock markets, companies, and consumers have all been significantly impacted by the financial crisis. The economic downturn resulting from the crisis affects cyclical industries such as real estate, automobiles, steel, cement, and chemicals. Investors suffer huge losses, and many companies struggle to operate, leading to layoffs, salary cuts, and unstable work and income [2]. The market becomes depressed, and consumption declines, except for necessities like medicine and food. The global economy has been greatly hampered by the financial crisis, and governments all over the world are currently facing severe economic challenges. The effects of the financial crisis are far-reaching, from Wall Street to the real economy, and require comprehensive measures to mitigate their impact on society and individuals.

2. Causes

The second-largest subprime mortgage provider in the U.S., New Century Financial Corporation, declared bankruptcy in April 2007, exposing the dangers of subprime mortgage bonds. By August 2007, when the Fed injected cash into the financial sector to boost confidence and the stock market was momentarily maintained, things weren't looking so awful. But, in August 2008, the two mortgage goliaths Fannie Mae and Freddie MAC saw their stock prices plummet, and financial institutions that held their bonds suffered significant losses. In 2008, a serious financial crisis started to develop. As the sole superpower at the time, the crisis hit the global financial hub as well as a few of its neighbors quickly and eventually spread to the whole financial sector.

2.1. Loose Monetary Policy

In 2006 and 2007, the Fed employed two precautionary measures: utilizing monetary policy to maintain a healthy economy and regulatory tools to handle declining mortgage conditions. By March 2008, in collaboration with the Treasury, the Fed coordinated the acquisition of Bear Stearns by JPMorgan Chase to alleviate market concerns to some extent. However, the crisis erupted in September, and at the onset of the month, the US government seized Fannie Mae and Freddie MAC, the home loan banks, followed by Lehman Brothers declaring bankruptcy. The Federal Reserve had to use emergency lending powers to rescue American International Group. The US financial crisis had an impact globally, leading to unprecedented speed and scale of overall collapse. The second approach was to utilize monetary policy to mitigate the influence of the financial crisis on the economy. The Fed began reducing interest rates from the summer of 2007 until April 2008. Nevertheless, after Lehman's collapse, the Fed failed to cut interest rates at the Federal Open Market Committee meeting, leading to credit market deterioration [3]. The Bank of England, the Bank of Canada, and others cut rates by half a percentage point. In the context of quantitative easing, "quantitative" refers to the creation of a specific amount of money, while "easing" refers to the release of pressure on banks. Lending to deposit-taking institutions, purchasing assets from banks, and purchasing government bonds on the open market are all possible uses of newly produced money by central banks.

2.2. Subprime Mortgage

Subprime loans are those given by some financial institutions to borrowers with weak moral character and low income. A two-tier market is the outcome. Individuals with bad credit had to look for loans in the subprime market because they couldn't qualify for prime loans. Both market segments offer mortgage products to consumers, although subprime mortgage interest rates are typically 2% to 3% more than prime mortgage interest rates. The subprime mortgage crisis in the U.S. in 2008 was a contributing factor in the world financial crisis. A subprime loan refers to loan products with low repayment ability and high risk. The loan institutions then package such products as mortgages and issue asset-backed securities to recover the capital in advance [4]. The subprime mortgage sector exploded during the height of the housing boom, and some borrowers who would often be regarded as insolvent took out loans to purchase homes. Many subprime borrowers, however, have been unable to repay their loans on time as a result of the U.S. housing market's sudden cooling and rising interest rates, resulting in significant losses and even bankruptcies of certain lenders. As lenders packaged subprime mortgage loans into financial investment products (sometimes referred to as subprime bonds) and marketed them to investment funds, which eventually caused the global financial crisis, some American and European investment institutions that purchased subprime mortgage products experienced significant losses.

2.3. Credit Default Swap

It is a typical product that results from credit on international bond markets. In this contract, the risk of a specific credit event occurring within a predetermined time frame is converted between the

buyer and seller. For example, the movie “The big, short”, the film is talk about the story of four men who seized an opportunity during the US financial crisis, all of them eccentric, but all of them profited from the recession while trying to prevent a global downturn. The high leverage and the requirement that the purchaser of credit protection not really own credit instruments as a reference are the sources of the risks associated with credit default trading. Due to the potential for several transactions using the same specific credit instruments as a reference for CDS, the total risk exposure may be significantly increased. In case of danger, the market will often overestimate the risk amount fearfully [5]. The third is over-the-counter trading, which lacks adequate information supervision and disclosure, so traders often don't know how many other people their counterparties have made similar trades with. As a result, every credit incident would lead to mutual suspicion among market participants who believed that their counterparties would fail because they were engaged in similar deals. And jeopardize their own company. How do credit risk swaps create risk? First, is the lack of credit concept, some enterprise leaders do not pay attention to credit management, and often do not understand the important information of customers on the transaction, it is easy to produce risks. The second is the lack of customer credit information management, which cannot accurately judge the customer credit situation, the third is the lack of information communication within the enterprise, and business personnel do not pay attention to the report of information, which reduces the customer information, not conducive to managers to judge the customer.

3. Consequences

When subprime mortgage loans were improperly invested in, Lehman Brothers, a 158-year-old investment bank that had been the fourth largest in the US by market value, incurred huge losses. This led to Lehman filing for bankruptcy after failed negotiations in the southern district of New York, triggering a global financial crisis that caused huge turmoil in credit markets. The fallout from this crisis caused many to lose money, with even Wall Street giants Goldman Sachs and Morgan Stanley getting mired in it. The subprime mortgage crisis had been ongoing for around ten months, following the emergence of the problem in February 2007, and Countrywide's bankruptcy filing in December of that year. Creditors had expected the Fed to provide aid and continued to invest in risky products. However, the Fed ultimately chose to let Lehman Brothers go, allowing it to become a negative example for the rest of the market to learn from. The Fed chose Lehman because it was large enough to be powerful but not big enough to cause the entire financial system to collapse, unlike Fannie and Freddie or AIG. Lehman also saw the biggest loss and the highest percentage of venture capital investment. The US-based subprime crisis had worldwide repercussions, and Lehman Brothers' demise signaled a further escalation of the crisis as more sizable financial institutions encountered difficulties [6]. The top investment banks, which were the foundation of Wall Street, went under in an instant, signaling the official transformation of the subprime crisis into a major worldwide financial catastrophe. Despite the Treasury and Federal Reserve helping to save Bear Stearns, they refused to bail out Lehman Brothers, with some later criticizing this decision. Federal officials had previously bailed out troubled institutions such as Fannie Mae, Freddie MAC, and Bear Stearns, but did not do the same for Lehman. Some believed that the Lehman Brothers' bankruptcy was largely self-inflicted, with the institution investing heavily in the overheated property market and borrowing heavily to increase returns. An important lesson from the financial crisis that led to this incident is that competition among lenders fosters both innovation and a high degree of instability.

4. Regulatory Responses

4.1. Dodd-Frank Act

After the Great Depression, a key piece of financial regulation called the Dodd-Frank Act has been implemented. It contains seven major provisions with the objective of enhancing financial stability, regulating financial institutions that offer consumer financial products and services, and bringing

unregulated derivatives within the scope of regulation. The Act also limits banks' proprietary and risky derivatives trading, sets up a new resolution mechanism, gives the Federal Reserve greater regulatory responsibilities, and monitors executive compensation to prevent excessive risk-taking.

The Act established the Financial Stability Oversight Council, tasked with identifying financial institutions that represent a systemic risk to the market and imposing regulatory restrictions on those firms [7]. Also, a Consumer Financial Protection Agency was established to oversee banks that provide credit cards and other consumer financial services, as well as consumer financial products. In addition, the Act brought previously uncontrolled over-the-counter derivatives markets under its purview by mandating that the majority of derivatives be traded on exchanges via third-party clearing. Financial institutions are forced to spin off their riskiest derivatives into affiliates while maintaining swaps in order to restrict banks' proprietary and hazardous derivatives trading.

The Act also establishes a new resolution process under the control of the Federal Deposit Insurance Corporation to require major financial institutions to foreseeably take on their own risk so that taxpayer bailouts be avoided in the event of their failure. The Act increases the Fed's regulatory obligations while also subjecting it to further scrutiny. The Fed's open-market operations, low-interest loans, and emergency loans to banks will all be subject to audit and oversight by the Government Accountability Office in order to implement interest-rate plans. The Act also provides guidelines to the Federal Reserve for monitoring executive compensation to prevent excessive risk-taking by firms. The Dodd-Frank Act's primary goal is to increase financial stability and protect consumers, setting a new standard for global financial regulatory reform.

4.2. Basel III

Basel III, a framework for bank capital and risk management, contains a number of measures, including minimum capital requirements, countercyclical capital buffers, treatment of credit risk mitigation strategies, and recommendations for default loss rates and exposure [8]. Risk-based capital standards for banks are established by the Basel Committee, one of the four permanent committees of the Bank for International Settlements. It is made up of national bank regulators. The Basel Accords, which are the main regulatory standards for bank capital and risk management, to set the minimum capital requirements for credit risk, were first issued in 1988. Over time, the Basel Committee updated the Accords to include risk-based capital requirements based on market risk and operational risk [9]. In order to provide more risk-based capital requirements that are consistent with the risk's banks confront, the Basel Accords were once again updated in 2004. The three pillars of the Accords—minimum risk capital requirements, capital adequacy regulation, and market control of internal evaluation procedures—support its structure. The capital of banks is split into two groups: the core capital, which consists of equity capital and public reserves, and the subsidiary capital, which consists of non-public reserves and debt capital instruments. The Basel Committee requires that both the core and total capital adequacy ratios be 6% and 8%, respectively [10].

5. Conclusion

The 2022 Nobel Prize in Economics goes to three American economists, Ben S. Bernanke, Ben S. Bernanke, and Philip H. Dybvig, whose work has laid the foundation for modern banking research since the 1980s. Their analysis has important practical significance in regulating the financial market and coping with the financial crisis. These research theories have long been included in economics textbooks and are long-verified classical economic models. Their research results have been widely promoted and applied in the economic and financial practices of the United States and have achieved real financial governance effects. They have found a new way for governments around the world to give full play to the financial functions of banks and the role of monetary policy in stimulating and contracting the economy and made important contributions to global financial stability and healthy and sustainable economic growth. In particular, since the 2008 financial crisis, economists have had a clearer understanding of the liquidity crisis, and central banks have eased the financial crisis by

releasing liquidity in the process of coping with the economic impact brought by the COVID-19 pandemic, which is closely related to the research of the three economists. It can be seen that the theoretical views and practices of the three economists have exerted strong influence and penetration in the global financial economy, bringing good news to global financial and economic governance.

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