

The Global Credit Crisis of 2008: Causes and Responses

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Abstract. Since the COVID-19 pandemic began in 2018, the world has been suffering. Most obviously, the coronavirus killed millions of people and severely disrupted People's Daily lives. Beyond that, one of the most important effects is the enormous damage to the global economy. Unfortunately, 2021 saw the Russia-Ukraine incident, which seriously hurt the European economy and led to great challenges for the global economy. People grew less confident in the economy and began to hoard gold. In the process of global economic development, there have been many financial crises, the financial crisis in August 2008 is undoubtedly the biggest impact on the global financial market since 1929, and the impact is even worse than that of the Great Depression. The crisis was caused by a housing bubble and misleading economic policies such as the Federal Reserve's monetary policy, subprime mortgages, and CDS. Large financial institutions failed in droves, including Lehman Brothers. The causes and effects of the financial crisis are discussed in this article. The study concludes by discussing the significance of the issue and a variety of measures to stop such occurrences in the future. To ensure steady development of the global economy, especially in light of the ongoing effects of the COVID-19 epidemic and the conflict in Ukraine, this paper must draw lessons from the previous financial crisis and enhance government intervention of the financial system through policy adjustments.

Keywords: 2008 financial crisis; COVID-19 pandemic; Ukraine conflict; prevention measures.

1. Introduction

Ben S. Bernanke, Douglas W. Diamond, and Philip H. Dybvig were jointly given the 2022 Nobel Prize in Economics "for research on banks and financial crises." From the research we can find out the 2008 financial crisis caused a serious global recession. When we go back 2008, it can find most of the banks or financial service companies did not have a forecast about what will happened, most people did not realize the Government's policy with the motivation of stimulating economy increases the price of houses, leading to the bubble of real estate market. Fortunately, the international monetary, fiscal, and financial policies have been active and complementary. Without these unique advantages, the panic of 2008 financial crisis could have continued to intensify, more large financial service companies would go into liquidation and the entire global financial system could have been put at a more serious risk [1]. But, what happened in America still resulted in hundreds of billions of dollars' worth of lost output, reduced salaries, millions of unemployed people, trillions of dollars' worth of lost capital, and tens of thousands of foreclosed homes [2]. Manufacturing and exports both drastically decreased, which resulted in employment losses. The value of investors' assets decreased as a result of the stock market drop.

Back to today, due to the impact of the new crown epidemic and the Ukrainian-Russian War, the international economy has been severely affected. According to World Bank data, the GDP growth rate has declined since 2018, and there was also a sharp decline in 2020 when the conflict in Ukraine began, resulting in a negative GDP growth rate. In 2009, during the height of the global financial crisis, humanity last experienced negative growth. Furthermore, the crisis in Russia and Ukraine is currently having a significant effect on European stock markets. Russian recognition of two Ukrainian entities as autonomous territories on February 21, 2022, caused considerable negative anomalous returns on European stock markets [3]. Additionally, the adverse stock price reaction lasts for some time following the incident. We can't be sure it won't be an international effect, which means that the next financial crisis will start, which is a situation that no one wants to see. That's why doing research on the 2008 financial crisis is so important.

2. Causes

Prior to the 2008 financial crisis, the US government continued to infuse money into the financial system to boost market confidence. As a result, the US stock market remained strong, which contributed to the expansion of the US housing bubble. Unfortunately, in August 2008, Fannie Mae and Freddie MAC's stock values plummeted, resulting in significant losses for the financial institutions that owned these bonds. The Federal Reserve and the US Treasury were compelled to assume ownership of the bonds. However, the flawed housing policies implemented by the US government are the primary drivers of the issue. Second, misusing financial derivatives lengthens the flow of financial transactions and promotes speculation. The issue affected a large number of banking institutions in the US, and the subprime crisis was far worse than anticipated. From the subprime mortgage crisis in the United States, which ultimately developed into a world's economic disaster.

2.1. Monetary Policy

Before 2008 financial crisis government's policy with the motivation of stimulating economy increases the price of houses, leading to the bubble of real estate market. The banks keep selling housing credit to their customers and the people that time were willing to brought them because government keep giving them confidence. The credit conditions are low, and it leads to the massive release of credit funds and the accumulation of credit risks, which increases the monetary liquidity of the US economy, benefited the market in the short term, leads to the rise of housing prices, creates speculation, and the economic prosperity becomes a fake fantasy. For both the lenders and their customers, credit repayment risk is calculated under the assumption that house prices will rise but inevitably fall if prices exceed intrinsic value.

There are some serious risks. First, low conditions for people borrow money will lead to credit risks, when there are so many people unwilling or unable to pay the money back to lenders, it is hard for the lenders to take their money back. Secondly, if the lenders cannot recovery their credit funds, they must lend more in order to keep running. But Lending institutions only have limited credit funds and cannot continue to lend in large amounts. With the depletion of speculative purchasing power and the decline of housing prices, the failure of real estate speculation began to show, the backflow of credit to real estate became a national problem, and the most important credit risk appeared in the credit risk, followed by market failure [4].

2.2. Subprime Mortgages

Subprime mortgages are housing loans made to families with poor incomes, low levels of education, and little financial literacy. Low personal credit rating ratings are a good way to sum up its key traits. Personal credit scores are graded on a scale of exceptional (750-850 points), good (660-749 points), fair (620-659 points), bad (350-619 points), and not good OK by the credit rating agency FICO in the United States (less than 350 points). Most subprime borrowers have credit ratings below 620, making them ineligible for traditional mortgages. Before the crisis, the scale of mortgage loans in the United States was about \$10 trillion, and the subprime mortgage loans reached about \$1.5 trillion, which had the material conditions to form a crisis [5]. Then, without any personal capital investment Under this circumstance, the bank cannot share the risk with the lender, and its potential moral hazard is obvious. Because of the borrower's excessively high loan repayment to income ratio, it has a low income, a little amount of income available after loan payback, and a weak capacity for risk tolerance.

About 90% of subprime mortgages are adjustable-rate mortgages; about 30% are interest-only monthly payments with a final lump sum mortgage or refinancing. This type of mortgage is tempting to start with a light loan repayment burden but accumulates a heavy debt burden. Because many people cannot or refuse to repay, the subprime mortgage loan company needs to allocate more reserves on the one hand, and on the other hand, it has to repurchase the subprime mortgage loans sold to the bank according to the prior agreement, which makes the company's Profits drop rapidly to

losses. Since the outbreak of the crisis, more than 30 subprime loan companies, including New Century Financial Corporation, have closed down and are on the verge of bankruptcy. At the same time, Blythe Masters, an employee of JP Morgan bank, created the credit default swap, also called CDS.

2.3. Credit Default Swaps

How do CDS work? CDS sellers would take the risk of a fixed income product for example, credit and loans, and charge a certain premium. The higher the risk, the higher the price. In 2008 because of the great amount of low standard credit in USA. The CDS in 2004 was worth about \$6 trillion, and by the end of 2007, the market's value had soared to more than \$60 trillion [6]. The truth that CDS are utilized for hedging explains this. The financial crisis was significantly spread thanks in large part to CDS. The first result is to conceal the true risk-taker. Credit default swaps are invisible on financial firms' balance sheets. Since of this, investors' confidence in the product declines because they are unable to gauge the real risk that financial institutions are taking. The market for interbank financing is a significant one that has been impacted. Because they are unsure if they are exposed to significant risk, banks are hesitant to lend to other banks. Therefore, banks are not able to borrow in order to satisfy their liquidity requirements. The second result is that they bind CDS sellers together so tightly that if one fails, it will have an impact on the others since they trade CDSs with one another [6]. This means that if this huge economic bubble bursts, the results will be unsustainable for the U.S. economy. Unfortunately, poor policies by US regulators at the time led to the near collapse of the system.

3. Consequences

First, the 2008 financial crisis led to a large number of banks being taken over by the government and the failure of some financial and commercial giants. One of the most famous was Lehman Brothers. Lehman Brothers, the fourth-largest financial institution in the world at the time, filed for Chapter 11 bankruptcy protection on September 15, 2008, so declaring bankruptcy. As a commercial giant with such a large asset base. The reason for its collapse can be summarized as follow. The regulators and the management department did not introduce measures to prevent the collapse of the real estate bubble but chose to tamper with the data to restore the confidence of investors. a collapse of Lehman Brothers Money market funds were significantly impacted by Lehman's filing for bankruptcy. The Primary Fund, which has \$62 billion in assets, declared on September 16, 2008 that it had to halt redemptions for 7 days after its shares' net asset value dropped below \$1 due to losses on its \$785 million position in Lehman Brothers debt [7].

Not only Lehman Brothers, but also US Home Mortgage Investment Corporation (US comp) and New Century Financial Corporation, a significant provider of subprime mortgages, filed for bankruptcy. The global economy is severely hurt in this unfavorable environment. Generally speaking, stock markets and gold prices can be used as a reference when gauging the prosperity of the world economy. The S&P 500 index, which went through a severe recession from 2008 to 2009, intuitively reflects the effects of the 2008 financial crisis on the banking sector. The change of S&P 500 index is obvious. On May 11, 2008, the stock began a downward trend (\$1425.75), and on September 14, the sharp decline began and bottomed out on March 1, 2009, when the stock price dropped to \$687.75 per share. The change of gold price happened that almost the same time. In contrast to stocks, the World Gold Index rose sharply between September 7, 2008 and February 15, 2009, from 760.75 to 1001.20. Generally, when people are not confident about the economy, they buy gold in large quantities, and the price of gold goes up. This evidence shows that, after the crisis happened, the global economy experienced recession, people lost confidence to the stock market.

The financial crisis has had a negative influence on financial markets, but it has also clearly affected how residents live their lives, as evidenced by the high unemployment rate. Juan Somavia, Director-General of the ILO, forecast that the 2008 financial crisis will cause an increase in worldwide unemployment of 20 million people by the end of 2009, from 190 million in 2007. Table 1 below

(Source: IMF Economic Outlook) make the case vividly. The international trade had a sharp and globally fall after the crisis happened, huge number of companies were taken over by the government, millions of people lost their jobs [8].

Table 1. Impact of 2008 crisis on different sectors of G-7 Economies

Section of economy	Percentage of change
GDP	-4.40%
Manufacturing	-20.20%
Exports	-16.80%
Stock market	-44.90%
Unemployment Rate	9.20%
Inflation rate	1%

4. Changes

4.1. Dodd-Frank Act

On June 17, 2009, the Obama administration officially unveiled its comprehensive financial regulatory reform plan. As known as “Dodd-Frank Act”. The precursors of this act date back to the 1930s, when President Roosevelt and the New Deal Congress passed the Securities Acts of 1933 and 1934, as well as banking reforms that broke up Wall Street's giant banks and established deposit insurance for the first time. It emphasized that no investor would ever again invest in an unregulated market, and no ordinary American would ever lose his life savings when a bank failed [9].

Two key objectives of the Dodd-Frank Act. The first is to reduce risk in the financial markets by developing a completely new regulatory framework. Second, to lessen the dangers associated with the collapse of significant financial institutions. The protection of consumers is the main goal of these two principles. Dodd-Frank established a completely new regulatory framework for financial institutions and instruments in the modern financial environment. Derivatives are the major instruments in discussion. Simply put, a derivative is a contract between two parties to a transaction, whose value is depending on changes in interest rates, currencies, or virtually any other price, or the occurrence of any specific event. For example, to protect against higher gasoline prices leading to higher costs, airlines can sign derivative contracts to hedge their losses from higher gasoline prices. Moreover, to achieve the second objective, the Act introduced the Dodd-Frank resolution rule. This rule can be summarized as a new bankruptcy rule. If authorities determine that a systemically important financial institution has defaulted or is about to default, they can petition the federal court in Washington, DC, to appoint the FDIC as receiver to take over and liquidate the institution. to stop institutions from failing so that many investors won't be able to receive their money back as a result [10].

4.2. Basel III

Following the 2008 global banking crisis, bank authorities have reevaluated their policies. The Basel Committee, which is made up of representatives from 27 national banks and central banks, released Basel III in 2010 as a reaction to the financial crisis of 2007–2008. Basel II did not play an effective role in the global financial crisis until then. Basel III, drawing on lessons learned from the 2008 financial crisis, foresaw financial crises by raising capital adequacy and liquidity, and by regulating each bank individually, and by introducing special regulations for systemically important banks. The idea of supervision still revolves around micro-supervision, but macro-prudential supervision has now been included. To increase regulatory effectiveness, macroeconomic impact analysis can be used to calibrate the important variables governing capital and liquidity regulation [11]. According to Hannoun, the deputy general manager of the Bank for International Settlements, Basel III mixes micro and macro approaches to supervision. A risk management framework that takes into account the entire banking industry as well as just one particular bank [12].

Compared to the previous Basel I and II, Basel III and a series of major breakthroughs. For example, capital retention buffers and countercyclical capital were introduced to cope with fluctuations in the business cycle. In order to decrease regulatory capital's tendency to engage in arbitrage, the severity of securities trading monitoring is enhanced [13]. In conclusion, this set of reform initiatives will do everything in its power to prevent a recurrence of the global financial crisis by redefining banking regulations from both a micro- and a macroprudential standpoint.

5. Conclusion

This paper looks at the causes of the financial crisis, why it was so severe, some of the changes and progress that have been made since the crisis, and finally what we can learn from it, and what warnings it has for people. Asset price bubbles, new financial inventions that concealed hazards, like subprime loans and CDS, corporations that disregarded risk management protocols, like Lehman Brothers, and regulators who failed to act swiftly enough to prohibit them from engaging in excessively profitable conduct were the main causes of the financial crisis of 2008. In fact, before 2008, mankind had already experienced similar financial crises many times. Unfortunately, few people seriously considered the possibility of this happening again. The first lesson that people can learn from the 2008 financial crisis is the importance of government control, even in countries with market economy systems, the government should strengthen the control of financial markets, because there is enough evidence that the general public, Managers, including many large companies, are easily confused by the immediate benefits, and do not think about the logic and potential risks behind such huge profits. Secondly, just as the Basel Accords are constantly improving, from Basel Accord I to Basel Accord II, and finally to today's Basel Accord III, no system and rules are perfect, and all banks must face different economic conditions. Sufficient adaptability to the environment and the changing international situation. Especially now with COVID-19 and the war in Ukraine. Finally, we should realize that in modern society, the world is a whole, as long as it is part of the global trade chain, no country can be immune to it. Although the 2008 financial crisis occurred in the United States, most countries in the world have been affected.

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