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Subprime Credit Crisis: Cause, Consequence & Response

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Abstract: The 2008 financial crisis had significant impacts on the global economy, leading to the collapse of several large financial institutions, massive government bailouts, and a global recession that lasted for several years. This paper discusses the causes and consequences of the crisis, highlighting the importance of understanding the mechanisms that underlie financial crises and the role that banks and financial institutions play in them. The recent Nobel Prize in Economics, given to the research of systematic risk and the role of banks in financial crises, is also covered in this essay. The crisis was brought on by a number of causes, including loose monetary policy, a housing bubble, and the growing use of sophisticated financial derivatives. The collapse of the subprime mortgage market, the high level of unemployment, and the collapse of many large companies and banks were among the consequences of the crisis. The paper underscores the importance of continued research into the causes and mechanisms of financial crises.

Keywords: subprime mortgage, securitization, regulatory responses

1. Introduction

The global economy was significantly affected by the 2008 financial crisis, which resulted in the failure of numerous major financial institutions, massive government bailouts, and a protracted worldwide recession. The crisis highlighted the importance of understanding the mechanisms that underlie financial crises and the role that banks and financial institutions play in them. Ben Bernanke, Douglas Diamond, and Philip Dybvig received the 2022 Nobel Prize in Economics recently for their research on the concept of systemic risk and the role of banks in financial crises [1]. Their research sheds new light on how systemic risk can cause financial crises and how banks can exacerbate them through their lending practices. Systematic risk refers to the risk that the failure of one financial institution or sector can spread to other institutions or sectors and potentially lead to a broader economic crisis. When a few sizable financial institutions failed in the 2008 financial crisis, it had a cascading effect that damaged the whole financial system. The study by Ben Bernanke, Douglas Diamond, and Philip Dybvig emphasizes how crucial it is to comprehend how banks magnify systematic risk. They argue that banks' interconnectivity through financial markets can lead to the spread of risks throughout the system, even if individual banks seem to be well-capitalized and financially sound. Their study also emphasizes how critical it is to comprehend the incentives that influence bank activity and how those incentives may increase systemic risk.

Understanding the causes and mechanisms of financial crises is crucial for policymakers and economists alike. By understanding how systemic risk can cause financial crises and how banks can

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exacerbate them, policymakers can develop better regulatory frameworks that promote financial stability and prevent future crises. Economists can also use this research to develop more accurate models of the economy that consider the role of systemic risk and the behavior of banks in driving economic growth and stability. Understanding the origins of the financial crisis and systematic risk is also crucial for individual investors and consumers [2]. When financial crises occur, they can have a significant impact on people's savings, investments, and job prospects. By understanding the risks associated with investing in certain financial products and the potential for financial crises to occur, individuals can make better-informed decisions about their finances and protect themselves from the worst effects of a crisis.

Furthermore, the research of Ben Bernanke, Douglas Diamond, and Philip Dybvig underscores the importance of continued research into the causes and mechanisms of financial crises. Financial markets and institutions are constantly evolving, and policymakers and economists need to stay ahead of these changes to prevent future crises. Research into the role of banks and systemic risk in financial crises can help inform better regulatory frameworks and economic policies that promote financial stability and mitigate the risk of future crises.

2. Causes

Due to a number of causes, including lax monetary policy, a housing bubble, and the widespread use of sophisticated financial products, the global financial crisis of 2008 resulted in a severe economic depression. The main cause of a financial crisis is often an accumulation of various factors that lead to the widespread collapse of financial markets and institutions. The 2008 financial crisis was no exception.

2.1. Loose Monetary Policy

Loose monetary policy and low-interest rates can lead to an increase in borrowing, which can fuel a housing bubble. In turn, this can lead to a widespread collapse of the housing market, causing significant losses for both lenders and borrowers. The Fed intentionally kept interest rates low in the years prior to the financial crisis of 2008 in order to promote economic growth. As a result, borrowing rose, and the US home market experienced a bubble.

The housing bubble that occurred in the mid-2000s was fueled by a combination of low-interest rates, relaxed lending standards, and speculation. Lenders relaxed their lending standards and started offering subprime mortgages to borrowers with low credit scores and a high debt-to-income ratio. Since the interest rates on these subprime mortgages were frequently adjustable, the monthly payment for the borrower could eventually rise significantly. Many borrowers took out loans that they could not afford in the long term, hoping that the value of their homes would continue to increase, allowing them to refinance or sell their homes for a profit. When the housing bubble burst in 2006-2007, it led to widespread foreclosures, financial losses, and a sharp decline in the value of mortgage-backed securities [3]. Due to the drop in housing values, many borrowers had mortgages that were worth less than their properties were actually worth. Due to the large number of defaulting borrowers, lenders and investors who owned mortgage-backed securities suffered huge losses.

2.2. Subprime Mortgages

Subprime mortgages were a key factor in the 2008 financial crisis. Subprime loans are given to borrowers that don't match typical lending criteria, such as those who have a high debt-to-income ratio or a low credit score. It allowed individuals with poor credit scores or high debt-to-income ratios to purchase homes they could not afford. Due to the increased risk of default, these loans frequently have higher interest rates and fees. However, lenders frequently packaged these loans into securities

backed by mortgages and sold them to investors. The value of these assets fell, resulting in major losses for investors and financial institutions as many subprime borrowers started to fail on their debts. These loans carried high-interest rates and fees, making them more expensive than traditional mortgages. Subprime borrowers often did not fully understand the terms of their loans, including the possibility of increasing monthly payments or the risks associated with adjustable-rate mortgages.

Lenders bundled these subprime mortgages into securities and sold them to investors, often with high credit ratings, who were searching for higher yields. These mortgage-backed securities were highly leveraged, meaning they were purchased with borrowed money, making them vulnerable to declines in housing prices. Many subprime borrowers discovered they owed more on their homes than they were worth as housing prices started to fall, which caused a sharp rise in defaults and bankruptcy. The collapse of the subprime mortgage market had ripple effects throughout the financial system. As the value of mortgage-backed securities plummeted, financial institutions holding these securities faced significant losses. The losses extended beyond subprime lenders to other financial institutions that had invested in these securities, including banks, hedge funds, and insurance companies. Investors found it challenging to evaluate the risks they were taking on due to the complexity and lack of transparency of these assets, which resulted in a decline in faith in the financial system.

The 2008 financial crisis prompted significant changes in the regulation of the financial industry. The Dodd-Frank Wall Street Reform and Consumer Protection Act was passed in 2010 with the intention of improving the financial sector's accountability and transparency [4]. Increased capital requirements and the creation of the CFPB were just two of the new rules that the legislation imposed on financial firms. These modifications were made in an effort to stop the hazardous lending and investing methods that caused the subprime mortgage crisis. With respect to subprime mortgages, high-risk lending and investing practices resulted in a large number of defaults and foreclosures, considerable losses for investors, and a decline in investor confidence. While significant regulatory changes have been made since the crisis, it remains important to monitor the practices of the financial industry to prevent a repeat of these events in the future.

2.3. Credit Default Swaps

A type of financial instrument known as a CDS enables investors to hedge against the possibility of a loan or investment defaulting [5]. However, CDS were frequently used as speculative instruments in the years prior to the 2008 financial crisis, with investors buying and selling them without owning the underlying security. This led to a massive market for CDS, which was poorly regulated and often involved high-risk transactions. The CDS market saw a sharp increase in trading volume during the subprime crisis in 2008. According to data from the Bank for International Settlements, the CDS market grew from $6 trillion in 2004 to $57 trillion in June 2008 (as measured by notional principal). Although CDS helped financial institutions diversify their risks to some extent, the lack of transparency and regulation in the CDS market made it an unmanageable factor in the financial system once the subprime crisis broke out, further exacerbating the turmoil in the financial markets. The 2008 financial crisis was largely caused by the investment banking sector. Investment banks played a significant role in the development and marketing of sophisticated financial instruments like mortgage-backed securities. Investment banks such as Lehman Brothers and Bear Stearns invested heavily in the housing market, using leverage to amplify their returns. When the housing market collapsed, these investments turned sour, and investment banks suffered significant losses. In response to the crisis, the investment banking industry took a number of measures, including increased regulatory oversight, changes in lending practices, and the use of government bailout funds. A number of the systemic problems that contributed to the financial crisis were addressed with the

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passage of new regulations. The law created new regulatory agencies, increased capital requirements for banks, and imposed restrictions on risky trading activities.

3. Consequences

One of the most significant economic occurrences in contemporary history was the financial crisis of 2008. It was an international occurrence that significantly affected practically all facets of the global economy. The demise of many big businesses and banks was one of the most important effects of the 2008 financial crisis. This was primarily due to the subprime mortgage crisis, which caused many homeowners to default on their loans, leading to a collapse in the housing market. As a result, many financial institutions that had invested heavily in these loans suffered significant losses, ultimately leading to their collapse. One such example is the Lehman Brothers bankruptcy [6]. Lehman Brothers was a leading global investment bank, and its collapse sent shockwaves through the financial industry, causing widespread panic and uncertainty. Another significant consequence of the 2008 financial crisis was the high level of unemployment that it caused. As many businesses and financial institutions went bankrupt, they were forced to lay off workers, causing the unemployment rate to skyrocket. This was particularly true in industries that were heavily affected by the crisis, such as construction and finance. Many people lost their jobs, and the job market remained weak for several years after the crisis.

The 2008 financial crisis was also significantly influenced by foreign investment. Many foreign investors had invested heavily in the US housing market, particularly in mortgage-backed securities. When the housing market collapsed, these investors suffered significant losses, which had a ripple effect throughout the global economy. As a result, many countries experienced a recession, and some even had to seek international financial aid to avoid collapse. The 2008 financial crisis also had significant social, political, and economic consequences. The crisis caused widespread anger and distrust in the financial industry, which many people blamed for causing the crisis [7]. This led to increased scrutiny of the financial industry, as well as calls for increased regulation to prevent a similar crisis from happening again. The crisis also had a significant impact on politics, as many politicians made it a key issue in their campaigns. Additionally, it led to the collapse of many large companies and banks, high levels of unemployment, and a global recession. Additionally, it emphasized the significance of foreign investment to the world economy and raised awareness of the financial sector. While the economy has largely recovered from the crisis, its effects are still being felt today, and it serves as a reminder of the fragility of the global financial system.

4. Responses

4.1. Governmental Intervention

The financial crisis of 2008 had far-reaching consequences that led governments worldwide to take action to prevent similar crises from happening again. The US government took a number of steps to address the crisis' underlying causes and put in place protections to stop similar financial crises in the future. The Dodd-Frank Wall Street Reform and Consumer Protection Act's passage was one of the most important legislative actions.

When President Obama signed the Dodd-Frank Act into law in 2010, the US financial system underwent significant changes. The act's main objective was to promote financial sector accountability and openness while safeguarding consumers from unfair business practices. The CFPB, an organization responsible with protecting consumers from unfair, misleading, and abusive activities in the financial sector, was established as one of the main provisions of the Dodd-Frank Act [8]. The establishment of the Volcker Rule, which forbids banks from undertaking certain sorts of speculative investments using their own capital, was another crucial element of the Dodd-Frank Act. In addition,

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the act established the Financial Stability Oversight Council, which keeps track of financial system risks and spots new dangers to financial stability. The Dodd-Frank Act had a substantial, both positive and negative, impact on the financial industry and the overall economy. The legislation has increased transparency and oversight of financial institutions and has held them accountable for their actions. It has also imposed stricter regulations on the trading of derivatives and established new capital and liquidity requirements for financial institutions, which have made the system more stable.

However, the Dodd-Frank Act has also been met with criticism from some who argue that it has stifled economic growth and lending. Critics point out that some banks have had to limit their lending activities due to the increased regulatory burdens imposed by the act. There have also been concerns about the complexity of the act's regulations and the cost of compliance, which can disproportionately affect small and mid-sized financial institutions. The Dodd-Frank Act had a substantial, both positive and negative, impact on the financial industry and the overall economy. They also argue that the act has helped to protect consumers from abusive financial practices, such as predatory lending and discriminatory lending practices. The act has brought about changes to the financial sector that have been necessary for promoting stability and protecting consumers from future crises. An important piece of legislation that significantly affected the US financial sector was the Dodd-Frank Act. The legislation aimed to increase transparency, accountability, and consumer protection while also preventing future financial crises. While the act has faced criticism, it has also brought about changes that have made the financial system more stable and transparent, and it has protected consumers from abusive financial practices.

4.2. Banking Regulation

The Basel III Accord was established as a result of a review of banking regulations worldwide following the global financial crisis of 2008. The Basel III Accord is a set of international banking regulations that aimed to strengthen the banking sector's resilience to financial shocks and improve risk management practices. The agreement is an upgrade over Basel II, which was unveiled in 2004. The major goal of the Basel III Accord is to make sure that banks have enough capital to absorb losses during difficult economic times [9]. Increased capital and liquidity requirements were among the new standards that the agreement imposed on banks. Banks are now required to maintain a certain level of liquidity to ensure that they can meet their obligations during stressful periods and keep larger levels of capital to withstand losses.

The LCR, which mandates banks to maintain a certain amount of HQLA to cover their net cash withdrawals for 30 days during stressful periods, is one of the fundamental elements of the Basel III Accord [10]. By taking this action, banks are guaranteed access to enough money to meet their obligations under pressure. The LCR also includes stress testing to assess how well banks can cope with potential adverse scenarios. In order to ensure that banks maintain a stable funding profile, the Basel III Accord also introduced the NSFR [11]. The NSFR mandates that banks maintain a stable funding ratio of at least 100%, i.e., sufficient stable funding to cover all of their long-term obligations. This measure helps to prevent banks from relying too heavily on short-term funding, which can be volatile during times of stress.

The COVID-19 pandemic highlighted the importance of capital adequacy for banks. The pandemic led to significant economic disruptions, which put pressure on banks' balance sheets. Many banks were required to increase their provisions for loan losses and maintain higher levels of capital to absorb losses. A significant statistic for determining a bank's resilience to the crisis is the CAR, which compares a bank's capital to its risk-weighted assets [12]. In order to make sure that banks have enough capital and liquidity to withstand losses during periods of economic crisis, the Basel III Accord has imposed a number of new requirements. The accord has helped to strengthen the banking sector's resilience to financial shocks and improve risk management practices. While there have been

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concerns that the Basel III Accord has limited economic growth and lending, the regulations are essential for ensuring the stability of the banking sector and preventing future financial crises.

5. Conclusion

The financial crisis of 2008 highlighted the importance of understanding the mechanisms that underlie financial crises and the role that banks and financial institutions play in them. The work of Ben Bernanke, Douglas Diamond, and Philip Dybvig on the subject of systemic risk and the role of banks in financial crises highlights the significance of ongoing investigation into the triggers and processes of financial crises. The regulatory environment for banks and financial institutions has undergone major changes as a result of the response to the 2008 financial crisis. Two key pieces of legislation that have worked to improve the financial sector's openness, accountability, and stability are the Dodd-Frank Act and the Basel III Accord. Liquidity management and capital adequacy have become crucial aspects of risk management for banks.

The COVID-19 crisis has highlighted the ongoing importance of maintaining sufficient levels of capital and liquidity to withstand periods of economic stress. As financial markets and institutions continue to evolve, policymakers and economists must continue to stay ahead of these changes and develop new regulatory frameworks that promote financial stability and mitigate systemic risks. Additionally, regulators should work closely with financial institutions to ensure that they are complying with regulatory requirements and addressing any issues that may arise. Policymakers may support long-term sustainable economic growth and ensure the stability of the financial system by continuing to take a proactive and forward-looking approach to financial regulation.

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