

The Global Financial Crisis and Its Impact on Banking Risk Management

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Abstract. This paper explores the significance of researching the financial collapse in light of the present pandemic and the uncertain economic climate of the Russian-Ukrainian conflict. This paper examines the causes, methods, and repercussions of the most significant financial crisis of 2008 as the focus of our study. This raises the question of whether there is a need for more regulation of the banking industry in order to enhance its ability to respond to future financial crises. Unrestricted lending policies and blind economic expansion strategies have been found to expose financial institutions to larger dangers. The examination of the three regulatory agreements demonstrates that the importance of a robust regulatory framework to increase the financial system's stability cannot be overstated. While the global onset of a financial crisis is a low-probability event, it is of the utmost importance that the regulation of financial institutions constantly adapts to new difficulties and uncertainties in light of shifting economic and geopolitical conditions.

Keywords: 2008 financial crisis; subprime mortgages; regulatory response.

1. Introduction

Ben Bernanke, Douglas W. Diamond, and Philip H. Dybvig were given the 2022 Sveriges Riksbank Prize in Economics in honor of Alfred Nobel for their "research on banking and financial crises" [1]. Their findings have substantial practical implications for financial market regulation and crisis response. Diamond and Dybvig constructed theoretical models to investigate the function of banks and their susceptibility to financial crises. Diamond (1984) illustrates that "the way banks are formed is critical to their capacity to operate as delegated supervisors". Moreover, Bernanke emphasizes that the Great Depression was so severe since bank failures broke credit relationships, so rendering the decline in the availability of credit irreversible in terms of economic growth. And it contradicted the belief held by earlier economists during the Great Depression that bank failures were a consequence of economic downturns. Therefore, understanding of the function of banks in the economy, especially during the financial crisis, has been considerably enhanced by the research of three economists on the banking industry. Specifically, a steadily improving regulatory environment for banks, hence decreasing the potential that the financial industry will experience another severe economic catastrophe. While, in light of the complex economic situation of COVID-19 and the Ukraine Conflict, the majority of nations continue to face the issue of high inflation, substantial fiscal deficits, and macroeconomic imbalances as a result of a politically polarized environment [2]. Potential triggers for the next global economic turbulence include a fall in global economic growth and productive capacity together with a high ratio of public to private debt. Thus, it is implausible to ignore the occurrence of a financial crisis considering this evidence of economic recession. Beginning with the collapse of Lehman Brothers, the fourth-largest investment bank in the United States, the financial crisis of 2008 has been unparalleled in its scope. The vast disparity between the demand for payments for financial goods and the availability of money from a multitude of financial organizations constitutes one of the most general explanations for this situation. The immediate cause was the subprime mortgage crisis, which was precipitated by the excessive and essentially uncacheable development of financial derivatives by the U.S. banking industry. As a result of the financial crisis, many large financial institutions and investment banks went bankrupt, public trust in the banking system plummeted, unemployment skyrocketed, housing prices crashed, foreclosures skyrocketed, personal property shrank, the global economy entered a severe recession, and GDP growth slowed dramatically. It is not a stretch to claim that implications persist even now [3]. This

article will examine the most consequential financial crisis of 2008 in order to draw conclusions about the function of banks in the modern economy and society, as well as provide an explanation for the causes of bank failures and the prolonged nature of financial crises.

2. Causes

In 2008, the world was rocked by a financial crisis that was multifaceted, with far-reaching impacts and a contagious quality. The rise of the housing market and the proliferation of potentially dangerous mortgage products were both aided by the Federal Reserve's easy monetary policy, which made borrowing money cheap and easy. Subprime mortgages, which made it simple for people with bad credit to get mortgages, were a major contributor to the crisis. As a result, financial institutions that had invested in mortgage-backed securities suffered enormous losses due to credit default swaps. These converging events culminated in a perfect storm that ultimately brought down the housing market and caused the collapse of numerous financial institutions, sparking a global economic catastrophe.

2.1 Loose Monetary Policy

The government's efforts to stimulate the economy by raising home prices inevitably result in a real estate bubble. To spur economic activity and pull their economies out of the crisis, central banks throughout the world loosened monetary policy between 2007 and 2009, with the Federal Reserve leading the way by lowering the federal fund's short-term rate to near zero. Nonetheless, the depth of the recession meant that even record-low short-term interest rates weren't enough to revive investment and output growth [4]. In part because of the Fed's efforts to keep interest rates low, more people were able to take out mortgages, which in turn increased housing demand. A housing bubble formed as a result of the sharp increase in home prices. The main reason for this is that most borrowers with poor credit scores were attracted to subprime mortgages because of the introductory low-interest rates offered at the beginning of the mortgage's term during the Great Recession. After securing the loans, many people began purchasing lavish properties. The problem was that these borrowers frequently fell behind on their mortgage payments. The bubble started to implode as housing prices reached unsustainable highs. As a result, there was a spike in foreclosures, and the initial decline in house-value-linked securities contributed to the spread of the financial crisis in 2008. Loss of faith in the banking system and the economy was a major cause of the financial crisis that began after the housing bubble burst in 2008. But it's also true that the Federal Reserve's monetary policy wasn't the main cause of the subprime crisis. There were several contributing causes, including the widespread distribution of subprime mortgages, the proliferation of sophisticated financial instruments, and the absence of government oversight of the financial markets.

2.2 Subprime Mortgage

To add insult to injury, the subprime mortgage industry also contributed significantly to the economic collapse of 2008. Lenders lowered their requirements at the turn of the century, leading to a surge in the subprime credit sector. Moreover, 20% of all new loans in 2006 were considered as subprime loans [5]. When lenders take on a heightened risk of default or delayed payments, they are said to be engaging in subprime lending. Simultaneously, a market for mortgage-backed securities is established through the sale of bundles of subprime mortgages to investors. This kind of investing dispersed the danger associated with subprime mortgages among numerous parties, but it also made it more challenging to evaluate the overall danger posed by the assets. Due to the simultaneous default of many subprime loan owners and the declining value of the underlying securities, several banks were forced to close as a result of the financial crisis that began with the decline of the housing market. The crisis in subprime mortgages spread like wildfire. Loss of faith in the financial markets began with the subprime mortgage industry and expanded to other parts of the financial system. Furthermore, in the context of the subprime market collapse, CDS spreads of global banks became significantly

more sensitive to the complete spectrum of economic and financial variables, and as these variables deteriorated, the knock-on effects extended broader and deeper [6]. Credit default swaps also posed a serious threat to the many banks that held subprime mortgage-backed securities.

2.3 Securitization

During the 2008 financial crisis, credit default swaps were widely employed, but the absence of monitoring and regulation contributed to the accumulation of financial risk and ultimately to the financial disaster. A credit default swap is a financial product used to hedge against the risk of a bond or loan defaulting and is effectively a kind of insurance within a financial derivative. The buyer of a credit default swap pays a premium to the seller, who pledges to compensate the buyer in the case of a borrower default. Long before the current crisis, CDS had been frequently utilized. However, its controversial nature stems from the fact that it permits investors to wager on the creditworthiness of firms and nations, which can magnify losses in the case of a default. Particularly during the financial crisis, CDS allowed investors to take on a substantial amount of credit risk that was not properly understood and accounted for, without having to hold the underlying assets. According to survey data from the Bank for International Settlements (BIS), the total value of credit default swap contracts providing insurance against default at the end of 2008 was around USD 41 trillion [7]. When the value of the underlying assets (mortgage-backed securities) dropped, the owner's losses were again amplified by the enormous number of CDS on these assets. This, combined with the fact that CDS contracts are exchanged privately between the parties over the counter, leads to a lack of transparency in the market and makes it difficult for people to appropriately gauge the level of risk in the system, leading to severe market volatility. There are also substantial secondary consequences on the CDS market. The bankruptcy of one financial institution may lead to the failure of other institutions that underwrite or purchase CDS from that institution, which amplifies the systemic risk that CDS poses to the financial system in general.

3. Consequences

A financial debacle precipitated by the collapse of the US real estate market was further fanned by reckless lending practices and the emergence of complicated financial products such as mortgage-backed securities. The knock-on effects have had a long and far-reaching impact on society, with individuals, governments and organizations rarely immune. One of the most immediate repercussions was the failure of major financial firms including Lehman Brothers, Bear Stearns and AIG, which dramatically impacted the public's trust in the financial system and government institutions. The freezing of credit markets made it impossible for firms and individuals to obtain loans and the decline in economic activity led to a severe recession in many nations. According to the International Monetary Fund, the crisis led to a global recession, with the world economy falling by 0.1% in 2009. The severe economic recession caused a considerable decline in GDP, which resulted in firms being compelled to lay off people and lead to an increase in the unemployment rate. The stock markets crashed, resulting in the loss of several hundreds of millions of dollars' worth of wealth. In the US alone, unemployment soared from 4.7% in December 2007 to a peak of 10% in October 2009. The impact of this crisis on the housing market has been extraordinary. The housing market, which had been flourishing because of a combination of low-interest rates and easy borrowing, rapidly evaporated like a bubble as a result of the financial crisis [8]. According to the US Census Bureau, the homeownership rate in the US decreased from a peak of 69.2% in 2004 to 63.4% in 2016.

In addition to its impact on individual enterprises, the financial crisis exposed vulnerabilities in the financial system and prompted questions about regulation and responsibility. Numerous scholarly papers believe that the crisis was the result of deregulation and lax regulation, which allowed banks and other financial organizations to take excessive risks. As a response, governments around the world have enacted new regulatory requirements and supervision mechanisms, including the Dodd-Frank Wall Street Reform and Consumer Protection Act in the United States and the Basel III

framework for the effects of the financial crisis on a longer time scale are still being felt in the modern day [9]. The long-term ramifications of the financial crisis are still being felt today. In the following section, this paper will focus on the continuous adaptation and adjustment of regulatory actions in the aftermath of the crisis.

Several holes in the regulatory structure overseeing the international financial system were revealed during the 2008 financial crisis. Numerous nations have altered their regulatory and supervisory structures as a result of the crisis to forestall a recurrence of the same problem. Excessive risk-taking by financial institutions, a lack of transparency, and lax supervision from regulatory agencies were some of the root causes of the crisis, which were intended to be addressed by these new regulations.

4. Regulatory Responses

The 2008 financial crisis was a significant event that led to major changes in the regulation of the financial system. Governments and international organizations recognized the need to strengthen oversight and improve risk management practices to prevent a similar crisis from happening again in the future. The regulatory responses implemented at both national and international levels were designed to increase transparency, reduce risks, and promote financial stability.

4.1 Dodd-Frank Act

The Dodd-Frank Act introduced massive reforms to the US financial system and is widely regarded as one of the most significant regulatory developments in finance in recent history. The Act was passed in large part to establish a new regulatory agency with stricter oversight and regulatory powers over the financial sector. While the Consumer Financial Protection Bureau was established to safeguard individuals from exploitative lending practices, the Financial Stability Oversight Council was established to detect and monitor systemic vulnerabilities in the financial system. The Volcker Rule, which forbids banks from engaging in certain types of speculative transactions, is one of the new rules introduced in the bill to reduce the excessive risk-taking of financial institutions. The measure would require financial institutions to provide more information about their financial activities and eliminate information asymmetry in order to improve transparency. The law also includes novel provisions to control the trading of derivatives. In order to increase transparency and decrease counterparty risk, most derivatives transactions are now required to be conducted on a regulated exchange or electronic trading platform. As a result, banks will have to be more transparent with authorities about their derivatives positions and activities. New restrictions are introduced in the Dodd-Frank Act to deal with the problem of "too big to fail" organizations. These are financial institutions that are so enormous and interconnected that their failure would have catastrophic effects on the economy. The Act mandates that these institutions create strategies to avoid insolvency and set up a fund to cover the costs of any potential insolvencies in the future. Dodd-Frank has, however, been divisive, with some suggesting that undue restrictions on financial firms would be a bad thing. A rise in legal and regulatory fines under Dodd-Frank, for instance, might have an adverse effect on credit rating quality [10]. On the other hand, advocates of change say that regulatory reform is essential to halt a recurrence of the financial crisis and safeguard consumers. Overall, the discussion on how much regulation is necessary to avert another financial crisis is still in its early stages.

4.2 Basel III

The Basel Committee for Banking Supervision (BCBS) designed Basel III as a global regulatory framework for banks after the 2008 financial crisis. By bolstering capital adequacy, boosting risk management and oversight, and encouraging openness and disclosure, the plan hopes to make the financial system more robust and secure. Using five criteria in mind, the Basel Agreement will be evaluated. A greater outlay of starting funds is the primary factor. Higher amounts of high-quality capital to absorb losses in times of stress is a major aspect of Basel III. Now, banks must have a

capital buffer of 2.5% of their risk-weighted assets, and the minimum capital requirement has increased to 10.5%. To put it another way, under the new Basel III framework, banks will need to have more capital on hand. With more capital on hand, bank failures would be less likely, and the economy would be less vulnerable to the effects of financial shocks; this was the thinking behind the mandate [9].

To guarantee that banks have enough cash on hand to meet their commitments even in times of extreme financial hardship, Basel III also included liquidity criteria. Banks must meet the LCR standard, which mandates that they have on hand enough high-quality liquid assets to cover their net cash outflows for the following 30 days. As their short-term funding needs can't always be predicted, banks need to have a stockpile of liquid assets that can be quickly converted into cash. As a safety measure, the leverage ratio limits a bank's exposure to its most risky financing source during times of stress: its short-term deposits. The leverage ratio is an important aspect of Basel III since it evaluates a bank's capital in relation to its total assets without taking risk into account. If a bank's leverage ratio is 3%, it means that for every \$1 in assets, the bank must have \$3 in capital. A clear and concise indicator of a bank's health, the leverage ratio serves as a safeguard against overextension of credit by financial institutions [11]. To mitigate the risk that a bank's counterparty may fail to fulfill its contractual obligations, Basel III also established a new standard for managing counterparty credit risk. Derivative exposures necessitate that banks keep more capital on hand since they enable parties to exchange payments dependent on the value of the underlying asset. Derivative exposures pose a greater risk of loss to banks because of their complexity and difficulty in valuation, which is why they must comply with this regulation. In conclusion, Basel III instituted new disclosure standards for banks with the intention of increasing openness and market discipline. So that investors and regulators could better gauge a bank's financial health, greater transparency on risk management techniques, such as capital and liquidity levels, was mandated. The argument for this mandate is that increased openness will allow market players to make better-informed decisions.

5. Conclusion

The 2008 financial crisis was a watershed moment with far-reaching effects on the global economy. It is clear from the research that loose lending criteria, a lack of oversight, and the growth of dangerous financial products are extremely problematic. Many people lost their jobs, homes were foreclosed upon, and the economy suffered greatly as a result of the crisis. The paper focuses mostly on how financial markets affect the economy and how vital it is to have a solid regulatory structure to keep them stable. Having a reliable financial system is more crucial than ever in light of the recent COVID-19 pandemic. Financial institutions play a crucial role in maintaining market liquidity and stability when epidemics strike and disrupt economic activity. Capital injections, loan guarantees, and interest rate reductions are just some of the policy measures that governments and central banks have put into place to aid banks and forestall financial turmoil. Such failures are avoidable if banks are regulated and supervised properly. Risky bank behavior can be discouraged through regulations that mandate sufficient capital buffers, sound risk management procedures, and enough oversight. Furthermore, policies that encourage transparency and accountability among financial institutions can increase market discipline. The 2022 Nobel Prize in Economic Sciences was shared among three economists whose work has contributed to our understanding of the behavior of financial markets. This was done in recognition of the significance of the financial crisis and the necessity for future research in the field of finance. A stable and sustainable financial system must be fostered through decisions and policies that are informed by the findings of academic research as people continue to navigate the evolving economic landscape.

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