Global Financial Crisis: Causes and Responses

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Abstract. This paper analyses the reasons behind the 2008 financial crisis, its effects, and the solutions proposed. based on the US's early adoption of low exchange rates and lax financing requirements, which proved popular for homes and raised home prices. Banks made the decision to use sub-prime loans and credit default swaps as a result. Both policies, however, had significant flaws. In other words, the financial crisis caused the Lehman Brothers bank to fail, a spike in global unemployment, a rise in mental health problem-related suicides, etc. To deal with the consequences of this, the country came up with two more policies: the Dodd-Frank Act and the Basel III policy, to deal with the financial crisis. Both policies have been effective in undoing some of the effects of the financial crisis. It is concluded that understanding this typical financial crisis is effective to prevent future banking crises and to address the economic problems.

Keywords: Subprime mortgage; credit default swaps; regulatory responses.

1. Introduction

According to news reports, Ben S. Bernanke, Douglas W. Diamond, and Philip H. Dybvig have already been given the 2022 Nobel Prize in Economic Sciences "for studies on banks and financial crises." [1]. Their investigation began in the first decade of the 1980s. Both Diamond and Dybvig created theoretical models during their studies to investigate the function of banks and the reasons for their susceptibility to crises. Finally, they conclude that the way the bank is structured is key to its ability to act as a delegated supervisor. As a result, the financial crisis can have several effects on people. For example, overseas capital markets have plummeted, and some investment projects may face lower returns and longer payback periods. In addition, the financial crisis may cause increased pressure on employment. Because of the slow economic growth, there may be fewer new jobs. It is therefore beneficial to study the financial crisis in order to prepare the country's response in advance. Especially in today's complex economic situation of COVID-19 and Ukraine Conflict, it is possible to solve problems in an organized manner.

Back in 2008, the US's lowered interest rates and lax lending requirements increased housing demand, which in turn raised home prices. Banks made the decision to start offering subprime loans and sell bonds secured by the loans to investment banks as a result. In addition, the investment banks worked with risk rating agencies to make the products virtually risk-free in order to attract more investors. However, as subprime mortgages can make it more difficult for borrowers who are already in financial difficulty to repay their loans. This is because the higher interest rates meant that over time the loans became more expensive and the borrower's ability to repay decreased. This led to the demise of subprime loans but was replaced by credit default swaps. An investor can trade or off-set their credit risk with another investment through a credit default swap. However, if one party defaults, it is liable as the lender for the loss of the buyer's assets. If this happened to many companies, the whole market would be in crisis. This therefore led to the events of the famous financial crisis in 2008. The financial crisis led to the collapse of Lehman Brothers Bank, a rise in world unemployment, a rise in suicide among people with mental health problems, and so on [2].

2. Causes

As loan rates declined, there was a gradual rise in demand for homes in the US real estate market, which raised prices. In order to start offering subprime loans, banks first agreed to sell bonds to investment banks. In order to optimize risk avoidance, the investment banks subsequently resold the bonds to investors and divided the recovered loans into smaller sections. Additionally, in order to make the product almost risk-free and draw in more investors, investment banks collaborate with risk rating organizations. As a result, this also contributed to the creation of sub-prime loans. However, as subprime mortgages can make it more difficult for borrowers who are already in financial difficulty to repay their loans. This is because higher interest rates mean that over time, loans become more expensive, and borrowers are less able to repay them. Credit default swaps took the place of subprime lending as a result of this. Using a financial instrument, an investor can exchange or offset their credit risk with another investment. However, as the lender is liable for the loss of the buyer's assets if one party defaults. If this happened to many companies, the whole market would be in crisis.

2.1 Monetary Policy

For much of the last decade, the US used low interest rate credit and loose lending standards to strengthen the economic recovery and help return inflation to the Federal Reserve's target. During this period, the Fed implemented monetary policy by setting the federal funds rate. In 2009, the central bank's short-term interest rate was near zero, thereby meeting its statutory targets of full employment and low inflation [3]. Additionally, the Federal Reserve has greatly boosted its direct lending. The Fed has never before given direct loans to organizations other than banks. Included in this are triple-A asset-backed securities offered to investors through TALF and secured by loans for students, cars, credit cards, and small businesses. Loans to main dealers via the 28-day TSLF and the overnight PDCF are also available [4]. As a result, the government's stimulus-motivated policies raised the price of housing and led to a bubble in the property market. At the same time, the subprime mortgage crisis as well as the sharp increase in home values were caused by the early extension of mortgage credit, notably to borrowers who had previously had trouble securing mortgages [5].

2.2 Subprime Mortgage

The United States has seen extraordinary growth as a result of rising home values and consumer expenditure. House prices increased by 124% between 1997 and 2006, while car ownership increased from 64.4% in 1994 to 69.2% in 2004 [6]. Subprime mortgages were so marketed in the US. According to James (2019), lenders frequently provide subprime mortgages to applicants with lower credit scores because they believe they have a higher-than-average chance of defaulting on the loan [7]. In addition, lenders frequently charge subprime mortgage customers substantially higher interest rates than prime mortgages, offsetting the greater risk. Additionally, the three primary sub-prime mortgage types include adjustable-rate mortgages, interest-only loans, and fixed-rate loans with terms of 40 to 50 years [8]. However, subprime mortgage also carries risks. First, subprime mortgage can make it harder for borrowers who are already in financial trouble to repay. Because higher interest rates mean loans cost more over time, borrowers are less able to pay them back. In addition, according to the Heyford (2022), subprime mortgage default has been identified as a key factor in the 2008-2009 financial crisis at the system level [8]. The subprime crisis lasted from 2007 to 2010, and as its consequences permeated the financial systems and economies of the world, it turned into a worldwide recession. Subprime mortgages have also contributed to a housing scarcity and rising home prices. Because lenders finance mortgages by aggregating them all together and selling the bundled assets to investors. As a result, there are now much more individuals who can afford a mortgage, which has caused a housing crisis.

2.3 Securitization

In the US, credit default swaps based on subprime loans were developed to reduce the chance of numerous businesses failing. A derivative known as a credit default swap (CDS) transfers the credit risk associated with a fixed income contract [9]. It is founded on the idea that an investment should be able to swap or offset their credit risk with another investor. Lenders purchase credit default swaps from investors who pay them back when one borrower defaults in return for the default risk. Additionally, there is increased interest in CDS derivatives as a result of the CDS market's explosive expansion. Over the past ten years or more, trading volumes in CDS indexes have also increased significantly. Nearly a third of the overall global credit derivatives market, or around US$6 trillion, was traded annually in the CDS index market by 2006 [10]. Furthermore, many banks have also started trading CDS index options over the counter. Hedge funds, proprietary trading desks, insurance providers, investment managers, and many more are among their clientele [10]. However, the market for credit default swaps was too fragmented, which led to the US financial crisis in 2008. Since in the event of default on the part of the borrower or the lender, the lender bears the loss of the buyer's assets. A large loss can cause a company's market capitalization to fall rapidly. If this happens to many companies at the same time and each company is not compensated for its CDS purchases, the whole market faces a crisis due to a chain reaction. Thus, this led to the economic crisis of 2008.

3. Consequences

The global economy has been significantly impacted by the financial crisis. The first impact was the breakdown of several investment banks. There were other investment banks involved, but Lehman Brothers Investment Bank was the one that suffered the most. It had debts of $600 billion, of which CDS had paid for $400 billion. Lehman Brothers Holdings, the fourth-biggest investment bank in the US, began the largest bankruptcy proceedings in US history in September 2008 as a result of American Insurance Group's inability to pay the firm's obligations. The 164-year-old company's demise was one of the main effects of the world financial crisis [11]. Additionally, this has increased unemployment overall, particularly among youths. The worst recession since the Great Depression resulted from the financial crisis that started in 2008. According to Drydakis (2015), long-term unemployment quadrupled from about 8% between 2008 and 2009 to 16% between 2010 and 2013. Minimum earnings were also lowered by more than 20% [2]. The recent global economic crisis has also led to a substantial increase in young unemployment. In 2010, the equivalent rate of young unemployment for the entire world was 13.1%, compared to 4.8% for adults [12]. Furthermore, the third impact of the financial crisis is related to people's mental health and stress. The bodily and psychological well-being of individuals in Greece was adversely affected by unemployment, according to Drydakis (2015) [2]. Through an examination of health psychology reports in Greece, the detrimental effects of unemployment on health were estimated to be as high as 0.53 percentage points. Similarly, under all circumstances, women are more adversely impacted by unemployment on the level of their physical and mental well-being than men are on the level of their overall health. Furthermore, the financial crisis has not only led to impaired mental health but also to increased suicide rates. According to Laanani et al. (2012), they used a quasi-Poisson model to model the annual suicide rate, assessing the association between unemployment and suicide in each country/region [13]. The number of suicides due to increased unemployment was estimated by controlling for gender, age, country and linear time trends, and the results highlighted that a 10% increase in unemployment was associated with an overall 0.3% increase in the suicide rate. Three countries had the most pronounced suicide rates between 2008 and 2010: the Netherlands, the United Kingdom and France. The Netherlands had a rate of 0.7%, the UK 1.9% and France 1.9%. The unemployment rate in the Netherlands was 57, in the UK it was 456 and in France it was 564 [13].

4. Responses

4.1 Dodd-Frank Act

Following the financial crisis, the government interfered in the housing market by enacting a number of laws, including the Dodd-Frank Act, a significant financial reform measure that was approved in 2010 by the Obama administration. In order to monitor different areas of the legislation and, consequently, different facets of the financial system, it established a number of new government institutions. The "Dodd-Frank Wall Street Reform and Consumer Protection Act" (2022) has a number of parts, according to Adam Hayes. The first is the Act's guarantee of financial stability, which establishes the Financial Supervisory Commission and the Clearing House as responsible for overseeing the financial stability of financial firms. The goal is to prevent these companies from failing, which would have a detrimental effect on the US economy. The establishment of the Consumer Financial Protection Bureau was the second. The Financial Protection Bureau's mission was to stop predatory lending practices and assist borrowers in understanding a mortgage's conditions when signing. The third was the Volcker Rule, the point of which was to limit the way banks invested, speculated in trading, and eliminated proprietary trading. The aim was to minimize possible conflicts of interest, as they were considered too risky. The fourth was the establishment of the Securities and Exchange Commission (SEC) Credit Rating Office, whose job it was to make sure that agencies gave accurate and useful credit ratings for the organizations, governments, and other entities they assessed. This was because the credit rating agencies had previously been accused of giving misleading and investment-friendly information. The last one is that the bill creates a whistleblower scheme programme. Specifically, people can receive between 10 and 30 per cent of the proceeds of a lawsuit settlement if they report the matter truthfully [14]. The enactment of the Dodd-Frank Act can bring a number of benefits. The first benefit is the protection of American families from unfair and prohibits abusive financial practices that infringe on fairness. Examples include raising existing interest rates or allowing consumers to exceed limits and then imposing excess fees. In addition, the bill increases transparency by making credit card rates and fees more transparent. This will allow consumers to know what they are paying for their credit cards and to compare different consumer cards. The second advantage is that by fortifying one of these regions at low expense, it fosters economic development and financial stability. This is due to the bill's increased capital requirements, which strengthen institutions' resistance to financial stress situations and crises, reduce risky regulatory infrastructure gaps, and enhance consumer security [15].

4.2 Basel III

Financial regulators modified their procedures following the 2008 global banking crisis. In response to the shortcomings in financial regulation that the 2007–2008 financial crisis highlighted, Basel III was developed. Additional regulations for leverage and liquidity are also included by Basel III. It creates a leverage ratio for so-called "global systemically important banks," which is calculated by dividing Tier 1 capital by the bank's total assets [16]. The goal is to minimize excessive and high-risk lending while ensuring that banks have enough liquidity during times of financial hardship. The Net Stable Funding (NSF) ratio is an additional liquidity-related criterion. Based on the liquidity of its assets, the maturity of its outstanding, and the degree of risk it carries, this compares the amount of stable financing that a bank has with the amount of stable funding that it requires. This requirement's goal is to encourage banks to continuously support their operations with more reliable sources of money. In addition, one of the highest priorities of the Basel Committee in designing Basel III was to improve the quality, consistency, and transparency of the regulatory capital base. furthermore, the Act provides for ensuring that the capital base of every internationally active bank is backed by a high-quality buffer. To be able to withstand a major period of financial pressure maximum of 30 days from the date, banks must retain enough stocks of elevated financial cash (HQLA). At the conclusion, a brief explanation of asset building is given [17]. Härle et al. (2010) predict that before the banks implement any mitigating measures, as from 15% which was before level, the pre-tax ROE of European banks will drop by 3.7 to 4.3 percent on average [18]. The influence of capital and finance is the major cause of the reduction in ROE. Capital quality will provide 0.8 percentage points to capital, while increasing risk-weighted assets will contribute 1.3 percentage points [18].

5. Conclusion

The focus of this report is on the events of the 2008 financial crisis, when lower interest rates and loose lending standards in the United States led to an increase in demand for housing, resulting in higher house prices. In response, banks made the decision to start offering subprime loans and offered bonds secured by the loans to investment banks. In order to draw in more investors, the investment banks also collaborated with risk assessment companies to make the products nearly risk-free. However, as subprime mortgages can make it more difficult for borrowers who are already in financial difficulty to repay their loans. This is because the higher interest rates meant that over time the loans became more expensive and the borrower's ability to repay decreased. Subprime loans were subsequently eliminated as a result, but credit default swaps took their place. A specific kind of swap called a credit default swap enables one investor to trade or off-set their credit risk with another investment. However, if one party defaults, it is liable as a lender for the loss of the buyer's assets. If this happened to many companies, the whole market would be in crisis. As a result, the financial crisis led to the collapse of the Lehman Brothers bank, a rise in world unemployment, a rise in suicides among people with mental health problems, and so on. In response to this consequence, the State has proposed two further policies. In response to this fallout, the state proposed the Dodd-Frank Act and Basel III policies to deal with the financial crisis. Both policies have been effective in undoing some of the effects of the financial crisis. Therefore, it is very effective to study financial crises. This is because one is able to learn from previous cases and thus prevent the adoption of similar policies and approaches that could lead to the country's economic prosperity.

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