UNIVERSITY OF WESTMINSTER

The Sub-Prime Financial Crisis 2007-2009

Module: 7FNCE011W Financial Markets and Institutions

MSC Fintech with Business Analytics 2023-2024 Semester 1

Student ID: 20395827

Module Leader: Ioanna Lachana

Submission Date: 27 November 2023

Word Count: 1646 words, excluding cover page, table of contents, summary, and references.

CONTENTS

1. INTRODUCTION

The Global Financial Crisis (GFC) outbreak that officially started in August 2007 and lasted until June 2009 is widely referred to as “The Great Recession” period of modern history, triggered by the bursting of the United States housing market bubble.

This report assesses the GFC's impact on the macroeconomic environment of the United States and its global ramifications on emerging and developing economies. It examines the pre-crisis, crisis, and post-crisis phases in the US economy with analytical demonstrations of crucial indicators: GDP, unemployment rate, trade balance, house prices, mortgage rates, and the S&P Index. The report also outlines the Federal Government’s measures to revive the economy and provides recommendations to prevent a recurrence of similar crises.

2. LITERATURE REVIEW

2.1. Before the Crisis

2.1.1. Global Macroeconomic Imbalances

Before the crisis, a period of strong economic performance worldwide was marked by robust economic growth, low inflation rates, expansions in international trade and financial flows, and widespread progress across developing economies (Obstfeld & Rogoff, 2009).

Although the collapse of the US subprime mortgage housing market triggered the economic slump, researchers claim dysfunctional global imbalances[1] were inducing the crisis before it started. Countries with trade surpluses, especially China and other Asian economies, often had high saving rates and invested heavily abroad. Conversely, countries with trade deficits, particularly the United States, ran a current account deficit and needed to attract foreign capital to finance their consumption and investment. These macroeconomic imbalances manifested saving-investment

[1] Global imbalances refer to disparities in key economic indicators among different countries. For example, surpluses in exporting countries, particularly China, follow export-led growth strategies, keeping their currencies undervalued to maximise exports. Conversely, trade deficits are more substantial in countries like the US, where they have sustained trade deficits, having imports more than they export.

disparities, resulting in massive cross-border financial flows and a relaxed monetary policy in the United States (Mohan, 2009).

2.1.2. Contributors to the Crisis

Countries with trade surpluses held significant reserves in US Dollars, which were recycled into US government securities. This capital influx lowered long-term interest rates, encouraged risky lending, and contributed to a rise in local asset prices, particularly housing (Merrouche & Nier, 2010). Thus, accommodative monetary policy kept short-term interest rates low, and recycled reserves lowered long-term interest rates, specifically in the United States, leading to the growth of mortgage financing and prompted banks to pursue risky strategies for higher yields (King, 2010).

During robust economic growth with relatively low inflation, unemployment and interest rates, house prices grew strongly. Expectations that property prices would continue to rise led to reckless borrowing by households and investors, including sub-prime borrowers (borrowers with higher default risk)(Reserve Bank of Australia, n.d.).

Banks, presuming favourable market conditions, extended large volumes of risky loans without thorough borrower assessments. The lenders did not expect to bear any losses as these loans were bundled into mortgage-backed securities (MBS)[2] and collateralised debt obligations (CDOs)[3], and sold to local and foreign investors, who perceived them as low-risk assets.

Inadequate risk assessment by credit rating agencies contributed to a mispricing of risk and a false sense of security among investors regarding complex financial instruments.

Eventually, the US Federal Reserve raised interest rates to curb inflation during 2004-2006, leading to a slowdown of new credit flow into real estate. Many borrowers started to default or sell their mortgages when the existing exotic loans began to reset at much higher rates than borrowers' ability to pay, causing the housing bubble to burst (Investopedia, 2023).

---

[2] Mortgage-based securities (MBS) represent an ownership interest in a pool of residential mortgage loans. The value of MBS is sensitive to interest rate changes and the creditworthiness of the underlying mortgage borrowers.
[3] Collateralized debt obligations (CDOs) are structured finance products that pool together various types of debt, including bonds, loans, and MBS. The pooled debt is divided into different tranches with varying levels of risk and return.

2.2. During the Crisis

2.2.1. The Unfolding of GFC

Falling house prices and increasing borrower defaults, particularly in the subprime market, catalysed the crisis. Lenders and investors incurred significant losses, prompting a decline in MBS prices and creating interconnected problems globally.

Around mid-2007, the stress in the financial system surfaced and peaked when US Financial firm Lehman Brothers failed in September 2008. This event triggered global financial panic, resulting in dysfunctional markets, collapsing investor and household confidence, and pushing the US and other economies into their deepest recessions (Reserve Bank of Australia, n.d.).

2.2.2. Spillover of the Crisis to Other Countries – The Global Impact

The crisis, originating in the sub-prime markets in the USA, spilt over to the rest of the world due to the high interconnection of world markets and the international structure of the financial sector (Muradoglu, 2010). Developing countries were significantly affected by declining private capital flows, lesser remittances inflows, reduced trade, and aid (Massa, n.d.).

2.3. After the Crisis

2.3.1. Policy Responses

The United States responded to the crisis by passing the American Recovery and Reinvestment Act (2009), employing an expansionary monetary policy, facilitating bank bailouts and mergers, and striving to stimulate economic growth (Loo, n.d.).

Central banks were involved in quantitative easing methods by lowering interest, lending large amounts of money to banks and other institutions, and purchasing large amounts of financial securities to support dysfunctional markets and stimulate economic activity (Reserve Bank of Australia, n.d.).

Governments elevated spending to generate demand to support employment, guaranteed deposits to boost investors' confidence in financial institutions, acquired ownership stakes in some banks and financial firms having high-quality assets to prevent bankruptcies, and strengthened oversight of financial institutions, exemplified by implementing Basel III regulations. These regulations mandate closer risk assessments for loans and banks' use of more resilient funding sources.

3. ANALYSIS OF GLOBAL FINANCIAL CRISIS

The GFC profoundly impacted various macroeconomic variables, contributing to a severe economic downturn. This report utilises an illustrative methodology to depict the impact of the GFC at the macroeconomic level.

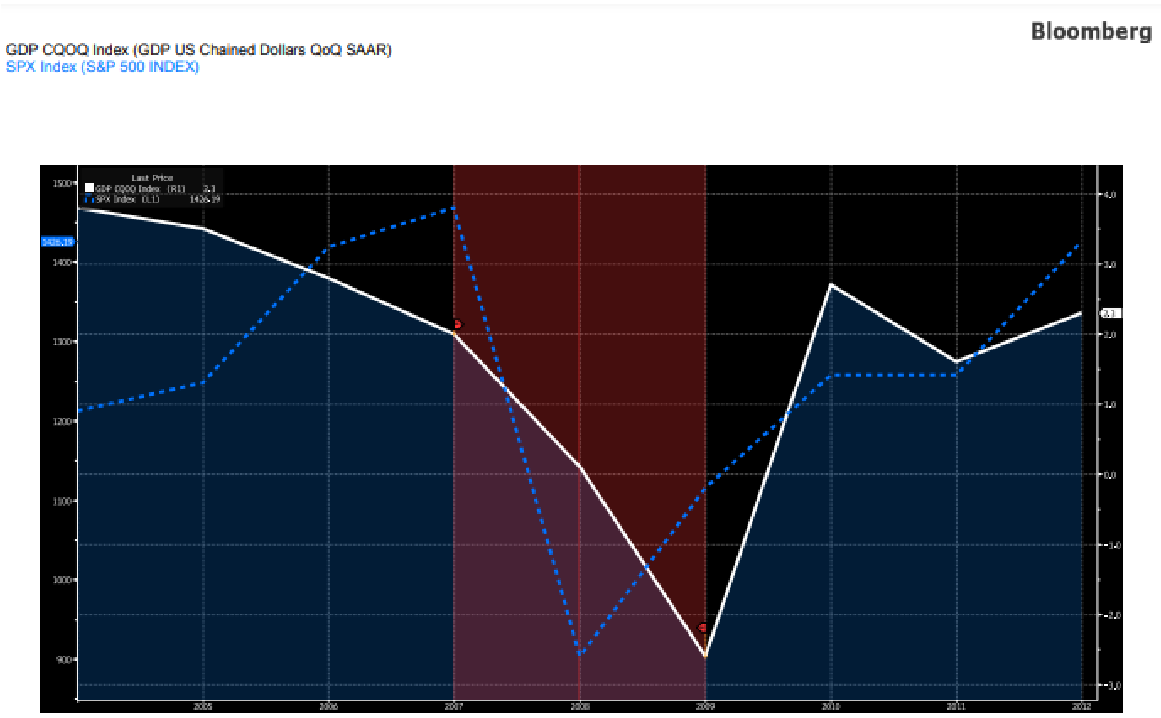
Figure 1 depicts major macroeconomic factors that got a hit during the GFC, of which this report focuses on the impact of the crisis on the Gross Domestic Product (GDP) of the United States with its stock market (SPX Index), unemployment rate (USURTOT index), trade balance (USTBTOT Index), house prices (HPI Level Index), and mortgage interest rates (USMIRATE Index) – Data source (Bloomberg, 2023).

Figure 1: Macroeconomic Variables Affected by Global Financial Crisis

3.1. GDP and S&P Index

In Figure 2, historical data of US clearly illustrates the parallel movements of the stock market index with GDP during the crisis. Despite GDP declining since 2005 before a sharp fall in 2007, the booming stock market sent misleading signals to investors about the health of the US financial market. The GDP swiftly recovered after the crisis, with the stock index regaining its pre-crisis level by 2012.

Figure 2



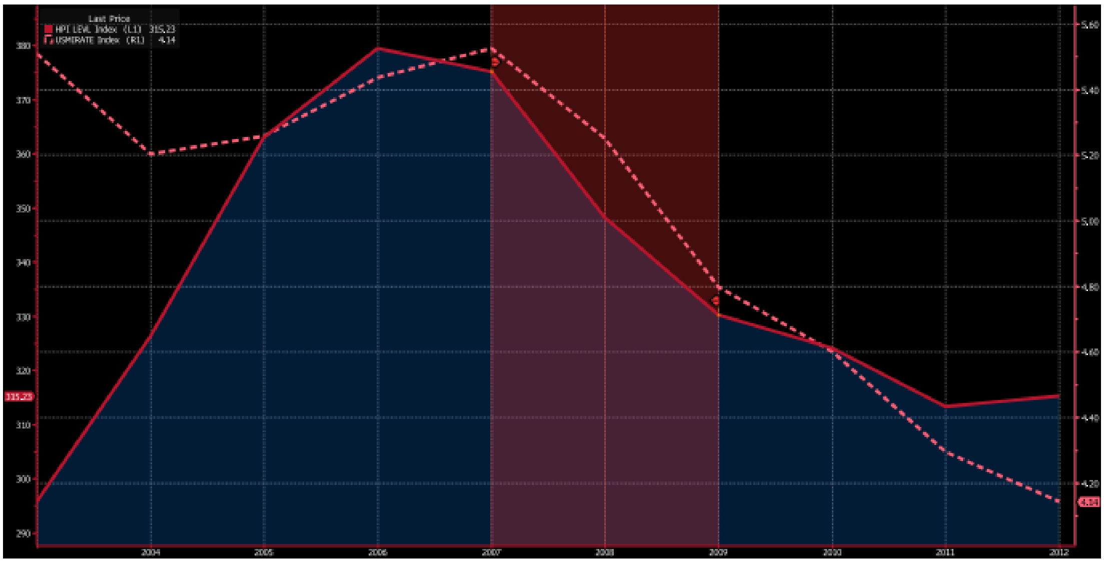
3.2. House Prices and Mortgage Interest Rate

The US housing market peaked around mid-2006, coinciding with a rising supply of new houses. The House Price Index (HPI) and the Mortgage Interest Rate Index (USMIRATE) exhibited continuous growth until the recession hit, causing considerable losses for investors and households (Figure 3). The credit markets that had financed the housing bubble instantly followed housing prices into a downturn as the crisis began unfolding in 2007.

Figure 3

Bloomberg

HPI LEVL Index (FHFA US House Price Index NSA)
USMIRATE Index (US Effective Rate of Interest on Mortgage Debt Outstanding)



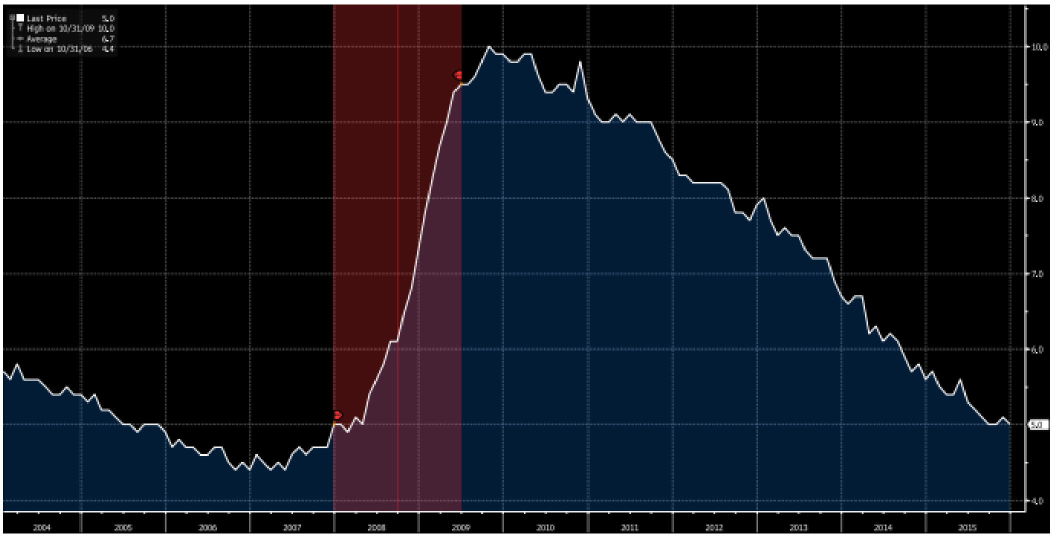
3.3. Unemployment Rate

Due to the crisis, the US unemployment rate nearly doubled from 5.7% in 2004 to almost 10% in 2010, severely impacting other macroeconomic factors such as trade,

Figure 4

Bloomberg

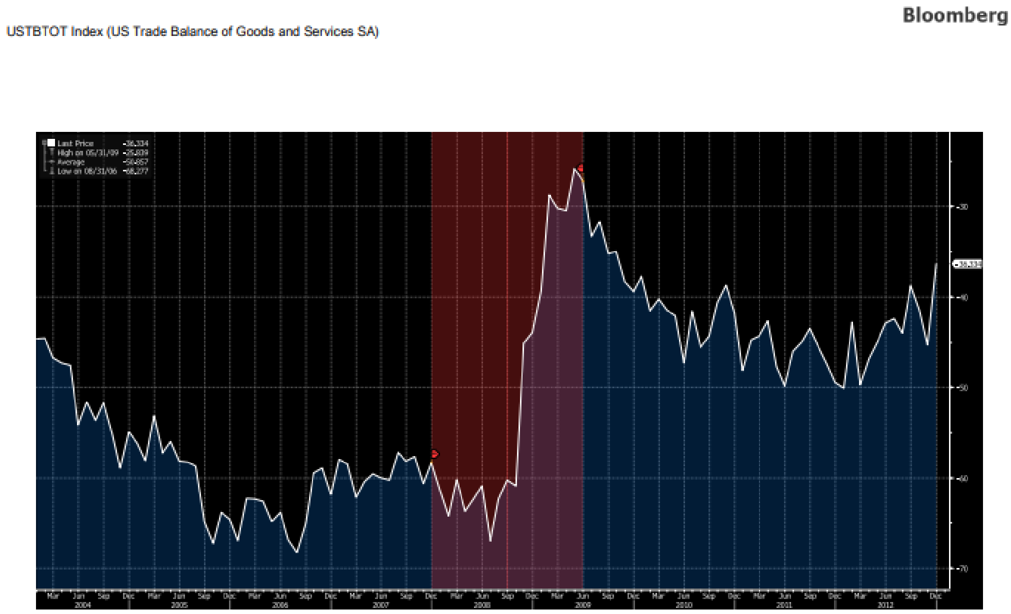
USURTOT Index (U-3 US Unemployment Rate Total in Labor Force Seasonally Adjust



investments, and demand. Although some economic factors recovered quickly after the GFC recession, the US unemployment rate returned to its pre-crisis level in 2015 (Figure 4).

3.4. Trade Balance

Figure 5



The increase in the US trade balance trend line depicts the significant decline in US imports during the crisis that directly affected the export levels of developing countries, pushing them into financial distress and recession (Figure 5).

4. GLOBAL FINANCIAL CRISIS – ONE-OFF OR RECURRENT EVENT

The GFC was a complex event with multiple contributing factors. The Financial Crisis Inquiry Commission stated in a 2011 report that “the Great Recession was avoidable”, citing several key factors that led to the downturn, including the failure on the part of the government to regulate the financial institutions from taking a risky position (Investopedia, 2023).

However, various regulatory reforms have been introduced to improve the resilience of financial institutions and markets and prevent the reoccurrence of such crises.

- ❖ Basel III: imposes stricter capital requirements on banks, introduces stress testing and enhances risk management practices.
- ❖ American Recovery and Reinvestment Act: the US Federal Government's program to stimulate the economy through monetary and fiscal policy support and provides emergency loans in quantitative easing (QE) policy.
- ❖ The Dodd-Frank Act: expands government powers to regulate the financial sector and establishes consumer protections against predatory lending.

New laws, standards, and regulations are safeguarding the financial sector. Due to stricter regulations, the US banking sector remained safe with economic uncertainty during the COVID-19 pandemic.

Nevertheless, financial systems are inherently subject to various vulnerabilities. While the circumstances may differ, there is always a risk of a financial crisis occurring in future. Striking a balance between fostering economic growth and preventing excessive risk-taking remains challenging.

5. PROFIT OPPORTUNITIES WITHIN CRISIS

Market events, especially crises, are often unpredictable and attempting to take advantage of them is speculative. However, despite the inherent risks, many investors willingly embrace them in search of higher returns. Some strategies that could have been considered advantageous during the GFC are:

- ❖ Identifying overvalued assets and strategically engaging in short selling to benefit as the market declined.
- ❖ Allocating funds to gold and precious metals as a safe-haven investment strategy during economic uncertainty.
- ❖ Establishing a well-diversified portfolio across different asset classes to spread risk. Maintaining liquid assets in a portfolio allows flexibility to seize market opportunities in downturns.
- ❖ Implementing active risk management strategies, such as setting stop-loss orders or regularly balancing the portfolio as per the market trends, could have helped limit losses during the recession.
- ❖ Timely entry and exit in the market could lead to substantial gains. However, accurately timing the market is challenging and carries high risk.

6. CONCLUSION AND RECOMMENDATIONS

The Global Financial Crisis of 2007-2009 originating from the US subprime mortgage financing and the housing market bubble bursting resulted from extensive exposure to mortgage-backed securities bundling high-risk loans.

Reckless lending led to loan defaults, leading many financial institutions to fail. The financial distress transmitted to developing economies caused significant economic downturns marked by increased unemployment, reduced trade, and heightened poverty levels.

The key lesson for investors from the GFC is that financial markets are pushed to extremes following the sentiment that high returns come with higher risk. Investors need to be vigilant of complex products. Diversification, risk management, and a long-term perspective are considered wise approaches for investors, especially during periods of market uncertainty.

REFERENCES

Bloomberg, 2023. *Bloomberg Finance L.P. - GDP US Chained Dollars QoQ SAAR.* [Online] [Accessed 24 November 2023].

Investopedia, 2023. *2008 Recession: What It Was and What Caused It.* s.l.:Dotdash Meredith Publishing Family.

King, M., 2010. *Speech at the University of Exeter.* s.l., s.n.

Loo, A., n.d. *2008-2009 Global Financial Crisis "The Great Recession".* [Online] Available at: https://corporatefinanceinstitute.com/resources/economics/2008-2009-global-financial-crisis/

Massa, I., n.d. Part 1: The effects of the global financial crisis on developing countries. *The impact of the global financial crisis: What does this tell us about state capacity and political incentives to respond to shocks and manage risks?*.

Merrouche, O. & Nier, E., 2010. *What Caused the Global Financial Crisis? — Evidence on the Drivers of Financial Imbalances 1999–2007.* s.l.:International Monetary Fund (IMF Working Paper).

Mohan, R., 2009. *Global Financial Crisis: Causes, Impact, Policy Responses and Lessons.* s.l.:Stanford - Center for International Development.

Muradoglu, G., 2010. The Banking and Financial Crisis in the UK: What is Real and What is Behavioural?. *Qualitative Research in Financial Markets,* RePec(10.1108/17554171011042353).

Obstfeld, M. & Rogoff, K., 2009. *Global Imbalances and the Financial Crisis: Products of Common Causes.* [Online] Available at: https://www.imf.org/external/np/res/seminars/2010/paris/pdf/obstfeld.pdf

Reserve Bank of Australia, n.d. *The Global Financial Crisis,* s.l.: Reserve Bank of Australia - Education.

World Bank, 2009. *Enhancing Growth and Reducing Poverty in a Volatile World, A Progress Report on the Africa Action Plan.* [Online].