BATHMUN

Conference 2025

G20 Study Guide

Formulating a Global Response to the 2008 Financial Crisis

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Message from the Dais

Hello delegates, and welcome to the G20!
First we'd love to thank you for both choosing to attend BathMUN 2025 and picking our committee. The Chairs and secretariat have put a great amount of effort trying to make this conference the best it can be, and we sincerely hope you enjoy it.

In this study guide you'll find a summary of our debate topic (the Global financial crisis) as well as the topics and ideas we expect to be debated. The content here is meant to guide and inform your independent research on the subject. Engage with it however you wish, it's not mandatory to read the whole thing. If you want to skim through it and just watch "The Big Short" the Thursday before the conference, you're more than welcome to do so. We recommend you familiarise yourselves with the rules of procedure of this conference, though we will cover them during the sessions. Given the economic focus of the debate and the level of the committee we've tried to provide a great breadth of detail to allow everyone to be on the same footing come the debate, no matter their background in economics.

We chose to cover the 2008 Global Financial Crisis due to its monumental impact on the modern world. The response and consequences of the Financial crisis have acted as a throughline through the various international and national crises of the 21st century. Its impact was seen not only in the abstract realm of finance but by regular people globally. Millions lost their homes, life savings and economic footing. Arguably had the international community not acted as it did, millions more would have suffered the same fate. Yet due partially to its apparent complexity it is underrepresented in public political discourse. The issues that lead to the crisis go beyond 'greedy bankers' or other simplifications, yet are the focus of public discourse on the subject. The real issues warrant proper discourse, and through the forum of model UN we hope to unpack those tensions in a debating format that is above all really fun.

Borja and Radhika
G20 Chairs

Chair Introduction

Borja Morrow Leguina
Co-Chair

Hi, I'm Borja, a Masters student studying Modern History at Kings College London. I have nearly 4years of Model UN experience covering almost all aspects of the hobby. I've participated in (too) many conferences, attending Bathmun twice. Prior to Kings I was a Neuroscience student at Exeter university where I was President and Conference officer of Exeter's model united nations society. This will be my first time charing at an actual conference, so I can't wait to see how you all tackle this topic.

Radhika Mitra
Co-Chair

Hello! I'm Radhika, a 2nd-year student studying Economics & Politics at the University of Bristol. I've been participating in Model UN Conferences since middle-school, and am now the Vice-President of Bristol's Model United Nations Society. I chaired at BrisMUN earlier this year, and will be serving as Secretary General at BrisMUN 2026. I'm excited to see how you approach the Financial Crisis as the G20!

Introduction to the Committee

The G20 acts as the premier forum by which major players in the global economy come together to discuss and cooperate on international economic crises and issues. It was formed in 1999 by the members of the G7 as a means to broaden financial cooperation beyond the primarily Western G7 members. Its initial structure was a yearly meeting of the 19 member states and the European Union's chief finance ministers. Early meetings discussed the foundations of sustainable growth in the global economy as well as reform of other multinational organisations such as the IMF or World Bank. In 2008, as fears of a Global Financial crisis grew, the summit took greater importance. It was agreed that member leaders would begin attending the summits as a means to further the credibility of the G20's aims and objectives. The organisation possesses no permanent chair or secretariat but instead has a rotating Presidency held by the host nation of the summit. Beyond the 19 member nations and the EU, other nations and organisations tend to be in attendance. Host nations tend to invite relevant observers, while Spain holds the position of being a permanent observer. Representatives from the African Union (made a member in 2023), World Bank, WTO, UN and others tend to be invited as observers.

The summit, which this debate will be emulating is the 2009 summit. Held in London on the 2nd of April 2009, it shaped the long term global response to the 2008 financial crisis. Its agenda hoped to cooperatively address the wider response to the crisis and formulate future resilience mechanisms.

2009 G20 Summit leaders photo By Korea.net

Specialised Rules of Procedure

G20, as a summit separate from the UN and has additional rules of procedure beyond those used by BathMUN 2025 (LIMUN 2025 ROP). These are listed below:

- As delegates are representing historical world leaders, it is appropriate to use personal pronouns in their speeches(e.g I believe.....).Nevertheless delegates should clearly express their historic national position and not their own.
- The objective of the summit is not to vote on a draft resolution, as with most UN committees, but a Declaration. This document will reflect the opinions and agreed directives of member states but should follow typical draft resolution formatting. It requires a voting consensus of the 19 member states and the EU.
- All decisions on procedural matters require a simple majority of present delegates.

Delegates should aim to base their speeches, position papers and Declarations on information that would reasonably have been available on the 2nd of April 2009. Academic resources made after this date are completely valid tools, as long as the information referenced is of events before our set date.

Topic Introduction

Timeline

9th Aug, 1995
Netscape is publicly listed, proving the IPO strategy which would define the Dot-com bubble.

26th Sep, 1999
G20 is formed following a G7 Washington meeting.

12th Nov, 1999
The Financial Services Modernization Act is passed and brings about deregulation of the Banking and financial sector.

10th March, 2000
Stock market hits all time peaks, marking the height of the dot-com bubble.

14th March, 2000
Tech stocks lose 25% from peaks, and the Dot-com bubble bursts.

9th Oct, 2002
Following a nearly 80% drop in tech stocks, the stock market begins growing once again.

2002-2007
Low interest rates, underperforming government bonds and the stock market propel market investment into US housing.

Q2, 2006
Peak housing price, particularly in bubbly areas such as LA and Miami.

Q1-2, 2007
Housing prices fell as mortgage default rates increased. Creating losses in the housing securities market.

17th Sep, 2007
Northern Rock in the UK sees the first bank run in nearly a century.

Q1-2, 2007
Housing prices and mortgage defaults keep getting worse as losses become unsustainable for many banks.

16th March, 2008
Bear Stearns is bought out by JPMorgan at 6% of its peak evaluation.

15th Sep 2008
Lehman Brothers files for Chapter 11 Bankruptcy.

16th Sep 2008
American International Group is bailed out and placed under governmental ownership.

Q3-4 2008
Peak losses are seen as losses expanded beyond the banking sector into the regular economy.

3rd Oct 2008
Emergency Economic Stabilization Act is passed, creating a $700 billion relief fund.

10th October 2008
A G7 meeting of finance ministers states the gravity of the situation and the need for multilateralism.

14th-15th Nov 2008
The First G20 Leaders summit is held in Washington DC, agreeing on a common approach to stabilise the crisis in the short term.

2nd April 2009
London G20 Leaders summit is held.

Key Terminology

Global Financial Crisis (GFC)
The worldwide downturn in the global economy due to turbulence in the United States' housing market.

G20
A forum of the world's topmost economies and financial institutions reflecting about 85% of the world's GDP. Established in 1999, the onset of the financial crisis elevated the forum to a meeting of the leaders of each member state.

Central Bank
The main financial institution of a given nation, tasked with managing a nation or markets money supply, interest rates and fiscal stability. The US central bank is called the Federal Reserve (FED).

Mortgage
A loan taken for the purposes of purchasing a property. Failure to pay one's mortgage loan, and so the pre-emptive ending of the mortgage is called a default.

Securitisation
The bundling of loans, such as mortgages, into larger, tradable financial instruments.

Liquidity
Available cash and or easily convertible assets held by an individual or financial entity.

Leverage
Borrowing money with the intent of investing it and so, hopefully, increasing return potential.

Bond
A contractualised form of debt where investors lend money to a government, company or institution in return for full repayment after a set timeframe. Profit is theoretically made through regular interest payments (coupons) to the bondholder until the bond's maturity.

Residential Mortgage Backed Securities (RMBS)
A securities product derived from the bundling of mortgages. Mortgages are separated into tranches (asset groupings) based on common perceived risks of loan default.

Collateralised Debt Obligations (CDOs)
A securities product constructed of tranches of other Securities, such as multiple RMBS, to create a more tailored tradable financial product.

Credit Default Swaps (CDS)

A form of contractual insurance where securities holders pay monthly premiums on their securities holdings in exchange for coverage of default induced losses within the securities.

Current Situation

Influence of the Dot-com bubble

On the 26th of December 1991, the Soviet Union collapsed, and with it fell a political and economic ideology which had dominated the 20th century. While ideological bulwarks remained, their communist economic structures had long been relegated, replaced with more "western" economies with strong government manipulation. Pundits of the time were filled with a rejuvenated enthusiasm for free-market liberal economic policies, classically championed by the USA and much of the developed world. Harvard Professor, Francis Fukuyama, famously stated in his now infamous book "The End of History and the Last Man", that ideological disputes were a thing of the past. He argued Western Liberal Democracy had been proven as the final form of human government (Wigmore, 2021b). It is in this environment of naive optimism about the state of the world that the groundwork for the Dot-com bubble and the 2008 financial crisis would be laid.

Since the 80s, the US political system had broadly legislated to deregulate much of the financial sector. Income tax rates, particularly for corporate entities and high earners, had seen broad reductions. Taxes on high earners gradually decreased from 70% in 1980 to 39.6% by 2000 (Wigmore, 2021, pp 9-33). Corporate Income tax was cut from 46% to 34% in the 1986 Tax Reform Act, and remained at that rate through subsequent Republican and Democrat administrations. American post-Cold War growth was excellent, averaging at 4% annually. As a consequence, much of American society, particularly those with the largest incomes, had increasingly greater levels of disposable income (Wigmore, 2021, pp 9-23).

This came as a technological revolution seemed to be taking hold. In 1991, Berners-Lee released the World Wide Web to the public. Unintuitive and technically demanding, mass adoption wouldn't really be seen until the release of Mosaic, the first web browser. Yet from this prototype, it was clear, the internet would fundamentally alter most aspects of regular and corporate life. While the nature of this revolution was still unclear, many within the global financial sector wished to financially capitalise on it.

Like any technological advancement, how society and business were to change remained highly uncertain. Making the right bets could secure companies and investors a place in the internet economy. Making the wrong bets or missing the trend altogether risked economic relegation. Lest they be the horse-drawn carriage company during the advent of the car. The economic and psychological forces driving investor sentiment during the 1995-2001 period would lead to a massive inflation of the US stock market, one driven by technological hype and economic optimism. Much of the growth was of unprofitable technology start-ups, which in many cases would prove to have no place in the future internet economy. This period is now termed the Dot-com bubble.

Venture capital firms (VCs), privately finance start-ups, hoping to buy equity in high-growth potential companies. As a business model, it comes with a high degree of risk, with only 1 in 10 companies making a profit for the VC (Valliere and Peterson, 2004). During the late 90s, the high-tech sector was seen by VCs as immensely lucrative. Investors, largely unfamiliar with the sector and much of its technology, driven by immense market hype, pumped great deals of capital into fledgling tech start-ups (Valliere and Peterson, 2004, pp 15-22). VCs competed greatly with each other to invest in the best internet companies, fearing missing out on the technology boom (Valliere and Peterson, 2004). Once invested, VCs would help companies go public, frequently within years of being set up and before the companies made any real profits (Valliere and Peterson, 2004). This immense investor demand led to larger valuations and lower risk perception for a litany of technology companies compared to what might be seen in more rational market periods.

The frontrunner for this strategy was Netscape in 1995. Listing at $28 a share, it rose to $75 on its first day. Within 3 months, it had risen to $170 a share, all while losing millions and having a user base of 10 million people. Its success showed real money could be made from technology listings (Quinn and Turner, 2020, 152-156). Each subsequent successful IPO would validate the market's hype, as their stock growth was thought to reflect the immense future revenues following greater mass adoption (Valliere and Peterson, 2004). Those that failed were perceived by many not representative of an inflated market, but a failure with the individual company to pre-empt the nature of the internet economy (Valliere and Peterson, 2004).

Initial listings tended to undervalue their stock to entice initial investors, making them think they were buying into the company at a discount. Market buzz inflated the stock price. High first day stock growth became big news, publicising the stock further, and securing a consistent price rise through the next few months (Quinn and Turner, 2020, 154-156). It got to a point where simply adding ".com" to the company name would, on average, inflate its stock by 74%.

Netscape's original team posed for a photo at the Illinois computer science department. Taken by Andy Freeberg, derived from a blog post by Brian Mccullough at the internethistoricalpodcast.com.

Stock market investment, due to the growth of 24-hour financial news channels and the economic boom of the 90s, increasingly came from non-traditional sources. Regular Americans, with limited financial and technological knowledge, invested heavily in the 'big technology stocks', fueling market inflation (Quinn and Turner, 2020, pp159-161). Generally, regular people invested in companies that sounded good, were frequently in the news or were recommended by TV financial gurus.

All these factors resulted in generational stock growth. From 1990 to 2000, the Tech heavy Nasdaq index fund (a collection of tech stocks) had risen by 1,055% (Quinn and Turner, 2020, pg 159). The top 500 US listed stocks had risen by 353%, all of this driven by a large portion of unproven and yet unprofitable companies. Throughout this period, many market watchdogs commented with alarm at the state of the market. The head of the Federal Reserve, Alan Greenspan, famously remarked in 1996 that the rise in asset value seemed to arise from a level of "Irrational exuberance". Many pointed to the excessive price-to-earnings ratio, at an all time peak of 45. This is the degree to which a company's valuation is above its actual earnings; generally, investors look to maintain around 20.

This degree of overvaluation was argued to reflect the generational growth potential of the Dot-com bubble era companies. The previous stock market average price to earnings peak was 33 during the eve of the great depression (Quinn and Turner, 2020, pg 159). Infamously, Jim Cramer (now a famous TV finance personality) commented on concerns of overvaluations, arguing critics were 'making something psychological [Price to earnings ratio] into something scientific, and that is WRONG!' (Quinn and Turner, 2020, pp 157-162).

Photos of TV finance personality and investor Jim Cramer. The left most picture is a 1998 portrait at the offices of the online publication TheStreet.com taken by Karjean Levine(property of Getty Images). Second photo is a still from his CNBS show where he dismissed concerns about Bear Stearns 8 days before its collapse in 2007. Taken from the Guardians "Cramer gets a Run for his money" by Katie Allen.

Despite dramatic stock market losses, the wider economic impact of the bubble was rather limited (Wigmore, 2021, pp 25-33). US GDP growth remained positive throughout the early 2000s despite a limited 8 month recession. Much of this can be attributed to the makeup of those affected. Stock market capital investment was primarily from wealthy individuals who could either stomach the losses or, due to low interest rates, borrow their way out of financial difficulty. Banks, which held the majority of consumer capital, only held 4% of their portfolio in the stock market. Their losses were nothing compared to those of the future Housing Crisis. Consumer spending remained high, offsetting the technology sector's slowdown (Wigmore, 2021, pp 25-33). Global effects were limited to countries such as Germany, whose banks were highly invested in the American tech sector. While many of the companies affected by the crash would in time prove to be unreflective of the digital economy, others, like Amazon, would emerge from the crash and eventually surpass their dot-com market peaks. The bubble's economic impact has been argued to be more pronounced in the long term, influencing Government and market policy that would, in many ways, create the 2008 financial crisis.

In response to the turmoil, the Federal Reserve slashed interest rates on its debt, making holding its debt less valuable due to investors. Yearly bond yields, the money made by bond holders, went from an average of 6.75% to 1.75% (Wigmore, 2021b). Safe central bank debt became unattractive to investors. The Bush administration, in response to the recession, instigated wide-ranging deregulation of the financial sector, hoping to promote economic growth. 9/11 and the subsequent military interventions in Iraq and Afghanistan, as well as further tax cuts, ended the era of budget surplus maintained during President Clinton's term (Wigmore, 2021b). With this, government bonds were seen as riskier and less attractive of an investment. In the 2 years following the Dot.com bubble, the investment areas which had driven the 90s financial sector growth had been irrevocably changed. The stock market, Fed and Government bonds were seen as too risky or insufficiently profitable. The markets were looking for a new investment sector, one perceived as less uncertain. Overvalued and risky investments in the US housing sector would fill that void and usher in an economic calamity.

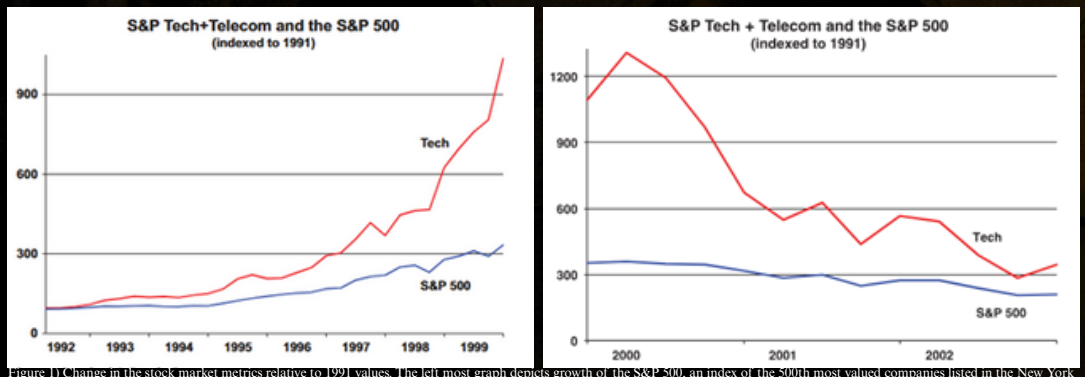

Figure 1) Change in the stock market metrics relative to 1991 values. The left most graph depicts growth of the S&P 500, an index of the 500th most valued companies listed in the New York stock exchange, and listed companies within the tech and telecom sector during the 90s. Growth is relative to the 1991 peak of $417.09, and displays the rapid growth during the dot-com bubble. The right most graph depicts these same metrics though through the 2000-2002 period which saw mass asset deflation. Figures are taken from (Wigmore, 2021b).

Interim period 2002-2006

While the fallout of the Dotcom bubble and the subsequent slowdown of the global high tech sector was minimal compared to what would come next, it drove a dramatic change in the financial sector. Securities describe a financial product that packages debt into a buyable asset, where regular debt payments by normal people are paid to investors of the securities, as opposed to the initial institution that issued the debt.

Unattractive government bonds and lacklustre stock market growth created a major wealth re-distribution, towards real estate assets and securities (Wigmore, 2021b, pg 35). By the crisis, the size of alternative US investments such as real estate, real estate related securities and corporate debt totalled $7.7 trillion (Wigmore, 2021b, pg 34). The newly elected Bush administration kept and doubled down on the pro-market policy platform carried out by both President Reagan and President Clinton.

Two major regulatory changes, introduced at the end of the Clinton era and implemented through this period, would influence this market redistribution. The Services Modernisation Act of 1999 acted to repeal the Glass Steagall Act. A Great Depression era legislation, which mandated the separation of investment banks and commercial banks as distinct corporate entities (Takiff, 2010, pg420). Its removal allowed for the conglomeration of financial institutions into 'too big to fail' entities. Were they to fail, their capacity to crash the US economy would likely necessitate taxpayer funded bailouts (Takiff, 2010, pg420). The merger of these two banking systems also merged two distinct cultures of risk. Commercial banks, possessing regular people's money, require a greater degree of risk aversion in investment practices. Investment banks, by their requirement for higher returns, had a higher tolerance for risk in their investments. When merged, critics have argued that commercial banks were wrongly influenced to accept greater risk within their investments. The Commodities Futures Modernisation Act protected various securities like CDOs and RMBS from regulation (Takiff, 2010, pg 420). As will be made apparent, the miscalculation of risk in poorly regulated housing related securities markets would act as a major influence on the Financial Crisis.

House Democrats and Republicans lead a press conference on the amended Services Modernisation Act of 1999. Taken by Douglas Graham and derived from The Federal Reserves History webpage.

Low interest rates, and so returns on government and central bank US bonds, made such bonds unattractive investments. The Federal Reserve hoped that through low interest rates, they could stabilise the economy by promoting investment into growth assets outside government debt, while making debt cheaper. For the most part, this worked; companies took large amounts of leverage (debt) to grow and or cover dot.com related losses.Spured by readily available debt company mergers and acquisitions grew by 40%, flooding the bond market with corporate debt (Wigmore, 2021d). These bonds were disproportionately rated bb or junk, meaning they were thought to have a high risk of default (the company declaring it is unable to pay back its debt).

Low interest rates not only promoted debt taking in the corporate sector but also allowed commercial banks to take out more debt to loan to regular Americans. This was predominantly done through the provision of mortgages, loans to assist in the purchasing of homes. This rise in housing-related debt translated to a booming housing market, which saw a 40% rise in housing prices between 2000-2007 (Wigmore, 2021d). 42% of these new sales were for second homes, either for personal use or as an investment (Wigmore, 2021d).

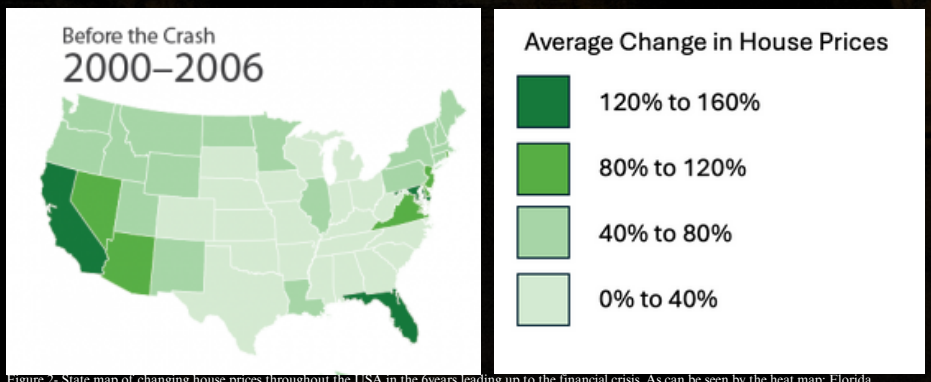

Figure 2- State map of changing house prices throughout the USA in the 6years leading up to the financial crisis. As can be seen by the heat map; Florida, California and coastal areas of New England saw the most traumatic price inflation. Graph is based on data by the Federal Housing Finance agency and designed by DesignandGeography.com

US mortgages are divided into 3 types depending on the nature of the house buyer. Prime mortgages are issued to individuals with strong credit, regular, consistent income, and who are unlikely to default on their mortgage. Alternative (Alt) mortgages describe clients who might not fit typical criteria due to self-employment or fluctuating incomes, and so could potentially incur greater default risks. Subprime mortgages are those given to clients with low credit scores, and due to higher default risks, tend to come with harsher stipulations for paying back housing debt (Fleury, 2025). Lower interest rates meant banks could issue greater rates of risky loans, as they could borrow more money to shield against possible losses.

Alternative and subprime loans doubled from 30% to 60% of the mortgage market by 2007 (Wigmore, 2021d). Government sponsored enterprises Fannie Mae and Freddie Mac played a large role in this change. As charter companies, they are privately owned enterprises that follow objectives set by the US Congress. Fannie Mae and Freddie Mac, as housing charters, were directed to increase home ownership (Wigmore, 2021d). More than financial, there was a political desire by both parties to increase home ownership in lower-income households, and so a push for greater charter investment into Alt and Subprime mortgages (Wigmore, 2021d). While housing prices rose nationwide, bubbly areas such as Florida and Los Angeles saw the most dramatic price inflation. The market was well aware of the potential risks associated with growth in the subprime mortgage market, yet both governments and financial enterprises thought the diversification of risk through securitisation instruments could reduce exposure (Duca, 2013). In other words, the collating of debt into larger financial frameworks was thought by market agents to reduce the risk imposed by individual bad loans, making up an increasingly larger portion of the market. Such frameworks would also allow financial institutions to invest in the mortgage market beyond the issuing of mortgages. A prospect highly attractive to various financial institutions, whose need for 8% annual returns could not be easily satisfied in traditional investment sectors.

Securitisation is the process by which various assets are pooled and repackaged into interest producing securities. Securities as assets include Stocks, private bonds, options and futures. By 2007, 80% of debt related securities were based in some way on mortgages (Wigmore, 2021d). The most popular edifice by which to group housing debt was the Residential Mortgaged Backed Security (RMBS). RMBS issuers buy up and pool thousands of mortgages, dividing the assets into tranches based on their different risk profiles. Upper tranches are theoretically made of the safest Prime mortgages, while lower tranches would include the riskiest subprime mortgages. Monthly mortgage payments are paid out to investors in the RMBS, with upper tranches being paid out first. In principle, mortgage defaults should only affect lower tranche holders, whose losses insulate upper tranches (Fleury, 2025). Risk averse institutions, such as pensions, by investing in upper tranches could earn greater returns than they would by investing in bonds of similar risk ratings, while investment agents could earn greater yields from the comparably riskier lower tranches, confident that in theory, losses could be stabilised by the underlying house value (Fleury, 2025).

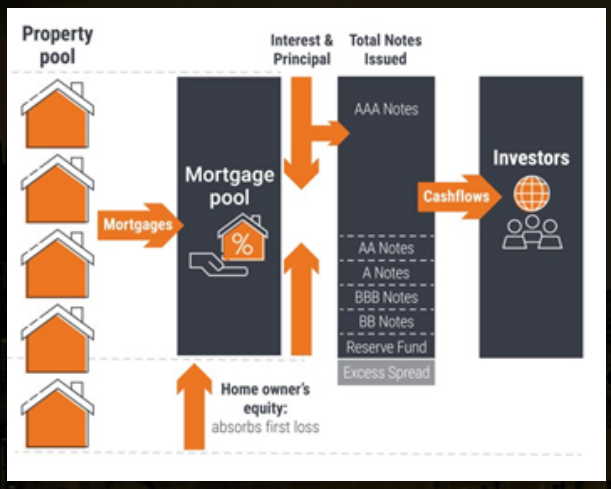

Figure 3 - Composition and structure of Residual Mortgage Backed Securities (RBMS). Above is a simplified diagram illustrating the composition and structure of the main security which underlined the mortgage asset bubble. Pooled mortgages create regular cash flow through monthly payments which are distributed to Investors of the RMBS. With a tranche structure of ownership, AAA note holders receive profits first, then in order of tranche rating. Lower tranches due to greater risk ,as stomach default related losses, derive greater profits than higher tranches. Diagram is lifted from (Fleury, 2025).

Collectivised Debt Obligation (CDO) followed the same tranche structure of RMBS, though are made up of a more diversified pool of RMBS, mortgages and other forms of debt (Wojtowicz, 2014, pp 1-3). By collating other types securities, CDOs were thought to allow for greater diversification and risk management. CDO squared describes CDOs made up of the selected tranches of other CDOs, allowing for a more tailored investment strategy. Lastly, synthetic CDOs allowed investors to bet on the performance of the CDO market by promising to cover the cost of default of various CDO asset pools they don't own in return for regular insurance premiums. The bet was that due to a strong housing market, the profits from premiums to synthetic CDO holders would outweigh any losses incurred by covering asset defaults (Wojtowicz, 2014, pp 5-10). Financial institutions were not only investing in the underlying asset pools, but in collections of those asset pools, collections of those asset pool collections and the continual positive performance of all these asset structures.

Financial institutions were not just profit-hungry investment firms, but pensions, universities and government wealth funds that saw CDO and RMBS AAA tranches as very safe and profitable means to grow their clients' holdings. The size of these instruments and the number of individual assets made their full valuations hard to assess; beyond a select number of clever investors, the real risk of these investments was institutionally undervalued. In 2006, near the height of the housing bubble, 80% of the CDO market was in some way made up of subprime mortgages (Wojtowicz, 2014, pp3-9). AAA tranches were increasingly filled with subprime mortgages as demands for new RBMS were far higher than the available pool of prime mortgages.

Rating agencies, which were paid by banks and RMBS issuers, to rate the risk profile of their asset, assured that the default rates of tranches were comparable to bonds of the same rating (Wojtowicz, 2014, pp 9-13). Historic default data they argued showed comparable default in AAA bonds and AAA rated mortgages, unaffected by the changes in lower tranche default.

With hindsight, a great deal of faults can be seen with the financial paradigm which defined the pre-crisis period. As stated earlier, most apparent is the misattribution of safety to the AAA tranches within securitised assets. By the end of the financial crisis 90% of CDO tranches rated AAA would be downgraded, many to junk bonds (Wojtowicz, 2014). One ought to ask, why were all these assets rated so highly if, in time, they would prove to be disproportionately risky compared to their initial valuation?

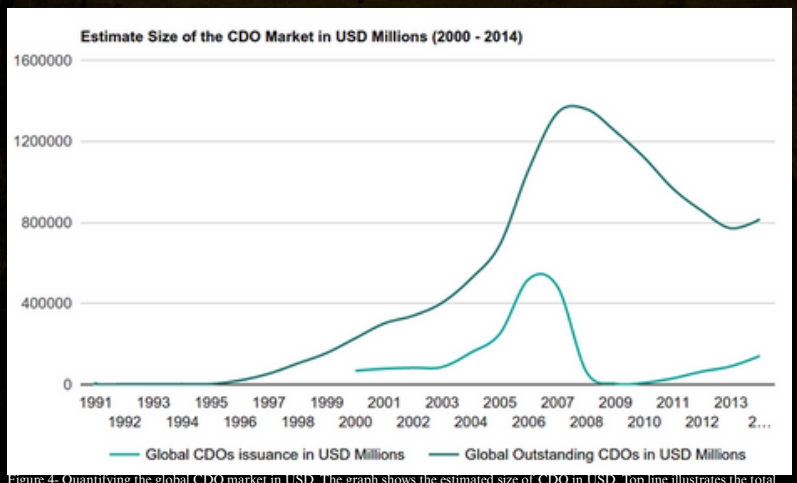

Figure 4- Quantifying the global CDO market in USD. The graph shows the estimated size of CDO in USD. Top line illustrates the total market value of active CDO while bottom line shows the value of new issuances of CDO beginning in 2000s. Graph is taken from Stuart Reid's blog piece on Turning finance and edited for accessibility.

First, the 'issuer pays' models acted to incentivise rating agencies to rank asset pools as close to AAA as possible or risk losing their clients to competitors (Wojtowicz, 2014). Upper tranches were more profitable for issuers as the lower risk premiums increased the issuers' profit margins compared to riskier tranches (Wojtowicz, 2014, pp 9-13). This bias is reflected in the Fair Spread (increase in asset earnings required by investors to offset the assets risk) of CDOs. When compared to bonds of the same rating, CDOs and CDOs squared possessed a fair spread 2 times and 7 times greater than bonds rated by the same agency. This meant that the market allocated greater risk to the assets than 'equally risky' bonds (Wojtowicz, 2014). The models by which rating agencies predicted the riskiness of housing assets would, in time, be shown to be based on various incorrect assumptions that understated asset exposure to losses (Wojtowicz, 2014).

Financial models were based on historic data, representing periods of increasing housing prices and mostly positive economic conditions. Models assumed that defaults were sporadic and based on individual failings by the homeowner and would not affect the default rate of the wider asset pool. The model was incapable of predicting what would happen to the AAA tranche pool should mass regional defaults dramatically change the returns of lower protective asset tranches (Wojtowicz, 2014). Agencies and most of the market failed to acknowledge that, as the entire asset pool was based on assets bought with copious amount of debt,justified by the value of those same assets. Derivatives (particularly CDO squared) were therefore highly sensitive to changes in the value of homes, as that value underlined the loans which were propping up the housing bubble.

Consistently rising housing prices instilled a bias in Americans that such a period would never end. Large portions of the economy would take out debt against their mortgage to finance their lifestyle, buying more homes, or to cover the costs of their mortgages' monthly payments. This could only be feasible in an environment where dramatic house appreciation covered large portions of the taken out equity (Duca, 2013). Falling housing prices could therefore induce catastrophic levels of subprime mortgage default, which relied on rising house prices to cover the risk premium of the initial subprime mortgage. Bank holdings in CDOs had a similar capacity for spiralling losses. The structural nature of CDOs and synthetic CDOs meant their failure could cost some banks 10 times their cash holdings (Wigmore, 2021c). Failing CDO's could perpetuate even greater losses given the relative size of the synthetic CDO market has been estimated to have been roughly 75% of the total CDO market. More money was being put on betting on those assets than the assets themselves, CDO devaluations would therefore create apocalyptic losses in the secondary CDO market.

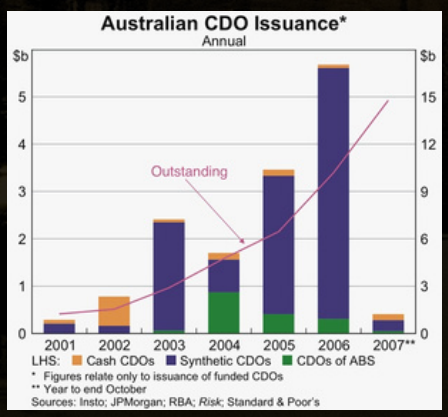

Figure5- Proportion of CDO issuances each year prior to the Financial crissis. Data focuses on Australia as an equally bubbly housing market, though smaller economically compared to the USA.Graph is taken from the Reserve Bank of Austrilia.

All these underlying faults meant should mass defaults occur in the subprime markets, losses would be massive throughout the financial system. Keenly, losses would not be contained to lower asset tranches but spread to AAA tranches. Without the protection of lower tranches, as the most exposed to losses, upper tranches would become the frontline of further asset losses. Particularly if those upper tranches are themselves made up of highly leveraged and overrated mortgages. Unlike the Dot.com financial crisis, regular consumers were more exposed to the fallout. By the end of 2008, this very scenario would debilitate the global financial system and test governments throughout the world.

The Crisis- 2007 to early 2009

Early signs of market turbulence began in the summer months of 2007, as large portions of the most bubbly areas saw a decline in their housing prices (Wigmore, 2021b, pp 116-153). Throughout the country, new home sales dropped 50% from 2005 highs, reflecting a decline in construction and housing demand (Wigmore, 2021b, pg 117). Debt among the bottom 98% of Americans reached astronomical levels, with 22% of all disposable income, on average, going towards keeping up with debt repayments (Wigmore, 2021b, pg 116). 20% of Prime mortgage holders and 45% of subprime mortgage holders had, in the last 3 years, taken cash out against their mortgage loan, relying on appreciating prices to cover the extra collateral (Wigmore, 2021b, pp 116-123). Yet the cooling housing markets made these bets unfeasible as rising housing prices were no longer a guarantee of financial safety. In 2007, prime mortgage defaults doubled from 4% to 8%. Subprime default rates were more dramatic, with a rise from 16% to 35%, as larger and larger portions of Americans began defaulting on their housing debt. This translated into losses in the RMBS markets as greater default rates increased lower tranche losses as well as the exposure risk of RMBS upper tranches. Many RMBS products were downgraded by rating agencies, particularly those formed from recently issued mortgages (Wigmore, 2021b, pp 116-123). Rating agencies, predicting a 10% devaluation in housing prices, began large-scale revaluations of RMBS and CDO clients. Agencies like Moody's, by the end of 2007, downgraded 8,000 RBMS and 1500 CDO tranches, many of which had been sold at AAA safety ratings. Yet losses at this stage were concentrated in the Subprime derivatives market.

Banks like Bear Stearns, heavily invested in subprime CDO tranches, haemorrhaged capital as their stock went from a 2004 high of $64 to a low of $35 in mid-2007. Mortgage brokers who had profited highly from the issuance of highly risky and predatory subprime mortgages began going bankrupt as default rates kept rising (Wigmore, 2021b, pp 123-130). The economic certainty of the strength of the housing market was beginning to come undone, threatening to damage the institutions most invested in it.

Liquidity, or the share of available spendable cash, was becoming an increasing issue for various financial institutions. All banks and institutions hold less money as accessible capital than they actually possess. Most of their worth is held in illiquid investments and assets that are not easily turned into usabe currency. Mortgages are relatively illiquid investments, as full repayment or selling of the underlying property can be a slow process. This becomes an immense issue when the scale of losses becomes so great as to wipe out a company's available liquid holdings. Bear Stearns in this period lost $1.4 billion in a single quarter due to its exposure to subprime losses. This level of collateral forced it to dump its asset holdings into the market, usually at a discount price, to acquire sufficient capital to stay afloat. Fannie Mae and Freddie Mac, two chartered companies that had invested heavily in alternative and subprime mortgages, saw nearly 7billion in losses in this same period. The companies were staying solvent by the mass sale of their AAA tranche holdings. This acted to exacerbate asset depreciation in a self-sustaining loop of losses, where the increased supply of an asset, such as RMBS AAA tranches, compared to the decreasing demand for that increasingly volatile asset, forces sellers to undervalue them. And as the market price begins to fall, losses grow, forcing more sell-offs. Repeating the financial doomspiral.

An aspect of exacerbating losses, particularly in the investment bank sector, was the state of the Credit Default Swap market (CDS). CDS is a form of financial agreement where an issuer agrees to cover the losses incurred by a loan, should it default, in exchange for paying a monthly premium. Simply, it is a form of insurance on an investment. CDS on CDOs were particularly popular before the crisis; investment banks, believing in the strength of the housing market, thought overall losses from defaults would be minimal compared to profits from the premiums. As defaults increased, investment institutions and insurance entities like American International Group had to pay greater and greater amounts to CDO holders in many cases, inducing company bankruptcies.

In fact, it was this financial edifice which Michael Burry of Scion Capital used to bet against the housing market. He bought CDS from banks, paying the regular premiums without holding the underlying CDO assets. As the underlying assets defaulted, he was paid out the cost of the defaults while incurring no losses from the collapsing CDOs, which he didn't own.

Photo of Dr. Micheal Burry founder of Scion capital, here photographed in his home. He is famous for his funds bet against the housing market bubble and would be later played by Chritian Bale in the financial drama "The Big Short". Image is taken from Forbes Argentina.

On the 17th of September 2007, Northern Rock, a UK mortgage-oriented bank, saw the first bank run in the UK for over a century. While the UK government stepped in to guarantee deposits, it spooked the market. Creating uncertainty about the continued viability of some of its largest financial institutions (Shirakawa, 2021, pp 146-151). Major commentators in the Federal Reserve and the US government remained optimistic about the economy's outlook. While losses were dramatic, the common thinking was that losses would remain within subprime mortgage securities (Wigmore, 2021a). Consumer spending and the general stock market were strong; it was thought to be an isolated correction of a small portion of the financial system. And like the dot-com bubble before it, the fallout was predicted to have a limited effect on the real economy (Shirakawa, 2021). Many sought to "buy the dip" as price devaluations were thought to be extreme and overcorrected compared to their actual asset prices. Market analysts during this period closely studied the LIBOR-OIS spread.This measures the difference between the costs of short-term borrowing between banks and risk-free borrowing from the central bank. It measures the trust gap, or how risky banks view borrowing from each other compared to the "risk-free" central bank. Throughout this period LIBOR-OIS spread would remain low, signalling to markets the maintenance of trust between banks (Shirakawa, 2021). This would all change with the collapse of two high profile Wall Street banks in the first half of 2008 (Shirakawa, 2021).

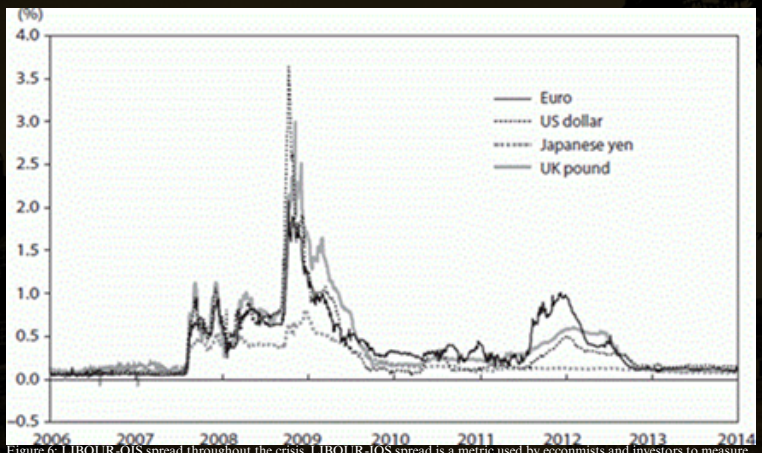

Figure 6: LIBOUR-OIS spread throughout the crisis. LIBOUR-IOS spread is a metric used by ecconmists and investors to measure "market confidence". It measures the relative difference between bank to bank loans and near risk free central bank to commercial bank loans. As banks grow more anxious about the economy the perceived risk of loaning to other banks increases, reflected in a higher LIBOUR spread. The figure displays this metric through the pre-crisis, financial crisis and eurozone crisis. It is taken from (Shirakawa, 2021).

Despite the optimism, throughout the first half of 2008, the housing market kept getting worse. Housing prices fell an average of 5%, with bubbly markets like LA seeing a 30% drop (Wigmore, 2021a, pp 155-157). Prime defaults went up further to 11% while subprime rates stayed around 35% (Wigmore, 2021a, pp 155-157). RMBS and CDOs kept getting downgraded as greater portions of the prime mortgage stock, which formed the upper tranches, began to suffer greater and greater losses. On the 16th of March 2008, Bear Stearns, being one of the most prominent recipients of subprime losses, was bought out by JPMorgan Chase (Wigmore, 2021a, pp 155-157). With this, the 5th largest US bank lost its independence, valued in the acquisition at 6% of its 2006 stock price peak. The New York Federal Reserve facilitated the deal by purchasing a large portion of the company's most illiquid and rapidly depreciating assets. While this intervention prevented a Bear Stearns bankruptcy, it was seen by markets as the banks' collapse in all but name only (Shirakawa, 2021). Things looked increasingly dire.

Photo of Bear Stearn head office prior to its purchase by J.P Morgan Chase in 2007. Photo taken from a New York Times article by Peter Eavis.

As August approached, Fannie Mae and Freddie Mac looked increasingly likely to file for bankruptcy. Their losses kept mounting, as both companies held a portfolio of Subprime and Alternative mortgage assets about 30 times the value of the companies' liquid capital (Wigmore, 2021a, pp 199-219). Treasury Secretary Hank Paulson, in response, built congressional support for a government takeover of both companies. Through the Housing and Economic Recovery Act, both companies were put under congressional conservatorship. Becoming the closest thing to fully nationalised companies. Their federalisation came with a White House announcement of no further government bailouts (Wigmore, 2021a, pp 199-219). Following, Congress pushed a stimulus package of $300 billion in income tax cuts and $113 billion in corporate tax cuts; it was hoped the economy might outgrow any major fallout (Wigmore, 2021a, pp 199-219).

In September 2008, another major bank seemed to be nearing its end. Lehman Brothers had amassed $85 billion in real estate related debt, exceeding about 15 billion in available equity. Attempts were made to negotiate a Bear Stearns styled buyout. With the UK bank Barclays briefly in the running to purchase the struggling company (Wigmore, 2021a, pp 199-219). Negotiations broke down, and at 1:45 am on the 15th of September 2008, Lehman Brothers filed for Chapter 11 bankruptcy (Shirakawa, 2021). With it came the largest bankruptcy in US history. Overnight, the 4th largest US investment bank, possessing over 28,000 employees and a peak market cap of over $60 billion, collapsed. Later testimonials by Ben Bernanke, Head of the Federal Reserve, stressed that a bailout of the bank would have been untenable. He argued that the companies' risky investments and CDS-related collateral were well known to investors for some time; investors ought to have seen the firms' failure as a strong possibility (Shirakawa, 2021, pp 165-174). Politically, the bailouts of Bear Stearns, Fannie Mae and Freddie Mac had already been incredibly unpopular. The necessary capital needed would have had to come from the Treasury, which, before the Lehman Brothers collapse, would have seen bipartisan opposition to such a rescue (Shirakawa, 2021, pp 165-174).

Photo of a Man protesting outside Lehman Brothers headquarters on the 15th of September 2008. Photo taken from an article on The Nation by Richard Kreitner.

Lehman Brothers' Bankruptcy marked a turning point in the Crisis. It provided evidence to the Government, the markets and the American public that the US and potentially the global economy were about to enter a financial crisis. Withdrawals intensified as the public feared further bank collapses, which forced Morgan Stanley and Goldman Sachs to be allowed to operate as National banks as a means to calm withdrawals (Wigmore, 2021a). In the 4th quarter of 2008, house prices fell a further 8% causing 15,000 CDOs and RMBS to be downgraded (Wigmore, 2021a, pp 190-220). Consumer confidence and spending shrank as small business earnings dropped 40% (Wigmore, 2021a, pp 190-220). The overall US economy saw an 8% shrink in a single quarter. By November, the stock market had taken extreme losses as investors fled banking-related stocks. The S&P500 was down 40% from its 2007 peak, causing investment firms like BlackRock to tank from $34 a share to $4 (Wigmore, 2021a, pp 190-220). In a single quarter, the top 10 commercial banks had lost $322 billion, reflected in a 78% decrease in their stock price (Wigmore, 2021a, pp 190-220).

The commercial paper market consists of short-term loans taken out by companies which lack significant collateral. It is vital for providing companies with short term liquidity to cover everyday costs such as wages, debt commitments and other everyday expenses (Shirakawa, 2021). In response to market turmoil, the commercial paper market dried up, as lenders became increasingly risk averse.

Companies, unrelated to the housing market, were unable to take out short term debt to cover various costs and so were put under risk of bankruptcy. What started as a subprime mortgage crisis quickly became a generalised financial crisis.

The big bet on housing had come crashing down. Financial sector losses amounted to $437 billion in RBMS, $298 billion in conventional mortgage lending, $208 billion in corporate loans, $134 billion in commercial real estate and $103 billion in public equities (Wigmore, 2021a, pp 190-220). In response to the worsening economic situation, the Federal Reserve became far more reactive. Rates were cut to near 0 as currency was pumped into the economy through quantitative easing (Wigmore, 2021a). The hope was to ease the liquidity and debt issue by increasing the capability to take out debt and deprioritise investment in government bonds. It also began buying large swathes of commercial paper to allow companies the liquidity necessary to survive the crisis. In late September, AIG and Washington Mutual, two major insurance companies, were placed under public control, aiming to slow the turmoil following Lehman Brothers' collapse (Shirakawa, 2021).

Early congressional efforts failed to back the use of public funds to fund bailouts, causing a single day 7% dip in the stock market and doubling of the LIBOR-OIS spread (Shirakawa, 2021). Congress pivoted in response, passing the Emergency Economic Stabilization Act on October 3rd. This gave the Treasury the authority to form a $700billion relief fund, which would be used to buy stocks in underperforming financial companies and create a TARP fund to buy toxic assets from struggling companies (Sharma, 2013). In the drama of the bills passing, it was reported that Republican Tresury secretary Hank Paulson pleaded on his knees to get Democratic Speaker Nancy Pelosi behind the bill (Wigmore, 2021a, pp 200-220). Though by the 12th of November, the TARP subsection of the bill would be scrapped, evaluating the value of toxic assets was seen as too difficult; instead, the focus stayed on providing market liquidity through purchasing company stock (AmericanRhetoric.com, 2008).

It had now become the opinion of the Federal Reserve that a Great depression styled recession could be possible. It was the express desire of the Federal Reserve chairman that an active Keynesian economic approach should be taken to avoid the mistakes made in the 1920s (Sharma, 2013).

Photos depicting Treasury Secretary Hank Paulson (Left) and Democratic Speaker Nancy Pelosi (Right) who lead their parties congressional efforts to respond the the financial crisis of 2008.

In conjunction with the treasury, $3 trillion in assistance would be set aside to ensure sufficient market liquidity through the Fed acting as a lender of last resort (Sharma, 2013). On the 10th of October, a meeting of the finance ministers and central bankers of the G7 was held. In a 266 word communique, the group would affirm their commitment to using all tools at its disposal to ensure market agents had sufficient liquidity through private and public capital to continue operations (Shirakawa, 2021). The Federal Reserve would act to further aid liquidity issues beyond the US by participating in dollar currency exchanges with other central banks (Helleiner, 2014a). By facilitating the exchange of Dollar reserves for foreign capital, the Fed ensured allied central banks had the ability to loan Dollars. Foreign debtors, therefore, could borrow the necessary dollar capital to pay US dollar housing debts and stay afloat (Helleiner, 2014b). This effort, more than any other policy platform, has been argued by some economists as integral to the arguably successful prevention of a worse global economic collapse (Helleiner, 2014a).

Throughout this Period, the Bush administration took a policy approach which deviated in many ways from the traditional Republican economic policy platform he campaigned on. In his address to the Nation on the 24th of September, he laid out his administration's position:

"So my natural instinct is to oppose government intervention, I believe companies that make bad decisions should be allowed to go out of business. Out of normal circumstances, I would allow the market to run its course, but these are not normal circumstances." -(AmericanRhetoric.com, 2008)

His administration called for bipartisan support of the $700billion relief fund and called for a modernisation of the financial sector's regulatory frameworks (AmericanRhetoric.com, 2008). In later speeches, he called for the strengthening of Free Trade in the global economy, promoting his administration's attempt to further bilateral trade agreements with countries such as Panama (Office of the Press Secretary, 2008).

In a speech in New York, he called for regulatory modernisation of the IMF and World Bank, giving *"dynamic developing nations"* greater say within the organisations (Office of the Press Secretary, 2008). Like the Fed, the White House aimed to act in response to the failures of the 1930s administrations. Seeking to alleviate the issue through free trade and multilateralism.

Yet much of these initiatives failed to manifest significant change; Republican and Democratic efforts to introduce government backed guarantees for half a billion mortgages only saw 517 applications (Sharma, 2013). The US response and that of much of the world, while it would prove to cool the turmoil, came at the cost of exacerbating sovereign debt. In time, the quantities of printed money and debt would morph the crisis, particularly in Europe, into a generalised sovereign debt crisis (Cafruny and Schwartz, 2022).

BANKS' 4TH QUARTER 2007 STOCK PRICES

	% decline
Morgan Stanley	47%
Bear Stearns	47%
Citigroup	47%
Merrill Lynch	46%
Lehman Brothers	43%
Goldman Sachs	37%
Wachovia Corp	35%
JP Morgan	25%
Bank of America	24%
Wells Fargo	23%

BANKS' QUARTERLY PRE-TAX INCOME

($ millions)	1Q2007	2Q2007	3Q2007	4Q2007
AIG	6,172	6,328	4,879	–8,436
Bank of America	7,823	8,660	5,356	–915
Bear Stearns	835	554	175	–1,371
Citigroup	6,715	8,782	261	–17,342
Goldman Sachs	4,859	3,439	4,259	5,055
Lehman Brothers	1,699	1,879	1,205	1,230
JP Morgan	7,332	6,351	5,000	4,122
Merrill Lynch	2,901	2,826	–3,638	–14,920
Morgan Stanley	3,430	3,504	2,246	–5,786
Wachovia	3,300	3,481	2,362	–16
Wells Fargo	3,200	3,444	3,289	1,693

FINANCIAL STOCKS IN THE CRISIS

	2007 high	2008 low	decline
AIG	$73	$1	–98%
Wachovia	53	2	–97%
Lehman Bros	86	5	–94%
Citigroup	55	4	–93%
Morgan Stanley	91	7	–93%
Merrill Lynch	98	17	–83%
Goldman Sachs	251	47	–81%
Bank of America	54	11	–79%
JP Morgan	53	20	–63%
Wells Fargo	38	20	–48%

Figure 7: Bank evaluations during the Crisis. Above are the % decline in stock market price and revenue of the USA's 10 largest banks compared to individual peak evaluations prior to the crisis. These are shown for the 4th quarter of 2007 and 2008 respectively. The Right most table removes Bear Stearns due to its purchase by JP Morgan, replacing it with AIG, an insurance company highly invested in Credit default swaps on housing assets. Central table shows quarterly incomes in the millions through 2007.Tables are taken from (Wigmore, 2021a).

Global effects as of 2nd April 2009

The aftermath of the US housing market collapse would be felt across the globe. The US, atop of the financial world order, acted as the stable pillar for its Western allies and international investors. These investors from abroad were active participants in the US housing market seeking profits in the mortgage bubble. These international agents represented firms and banks from across the globe and by extension governments. The dominating pursuit of Western capitalism and blind faith in America would lead to global repercussions (Chen, Mico, and Nabar, 2018). The long-term effects could not be wholly predicted nor understood.

Europe had sustained excessive government spending through savings made in US investments. Many European countries had maintained high deficit levels and public debt, each country's expenditure in different sectors developed their own bubbles.
The adoption of the Euro and the assured strength of the German economy emboldened countries of the Eurozone to continue their high expenditure. On the onset of the Global Financial crisis the foreign investments in the US market collapsed. European domestic banks dealt with the fallout, by 2009, the United Kingdom had 7 banks announce bankruptcy (Reserve Bank of Australia, 2016). The forecast of economic slowdown and potential decline through the interconnections of the US housing market would need intervention from governments to bailout national banks. The immediate effects would likely be expressed through rising unemployment, proposals of austerity, or greater government spending. Europe's governments needed to balance alleviating pressure with a greater public debt to bear and spending cuts.

Export-driven countries with less ties to the Western systems, like China, would seem better equipped to face the fallout of the US financial crisis. However, its reliance on exports and the decline of consumption from the West would slow economic growth. On the other side, Africa and South America would seem to be isolated from the recession facing the global effects of a decline in global trade (CFR Education, 2023).

Discussion Points

Level of Fiscal Stimulus Domestically and Internationally

After the 2008 financial crash many countries were of the opinion that fiscal stimulus would help boost economic growth. The level of fiscal stimulus varied and was a point of contention even between Keynesians who believed in intervention.
These packages were common to stimulate demand, create new jobs and prevent further recession. Discretionary fiscal stimulus was a key tool in most countries post the financial crisis.

The US was the main proponent of an international response, expecting other countries to do the same. U.S. discretionary stimulus was around 2% GDP which amounted to double the combined 1% discretionary stimulus of the four biggest European economies (Germany, Britain, France and Italy). China and Japan also had a large discretionary stimulus of 3.2% and 1.4% of GDP respectively.

CHINA:

* Size: 4 trillion yuan ($586 billion), or 13.3 percent of 2008

GDP

* Timeframe: Nov 2008 to end-2010

* Focus: 37.5 percent on roads, rail and water; 25 percent on post-earthquake reconstruction; 10 percent housing; 9.25 percent on rural infrastructure; 9.25 percent on economic upgrading; 5.25 percent on environmental protection; 3.75 percent on health and education

* Rollout: began in fourth quarter of 2008

* More to come? Senior officials are pleased with initial impact; will watch data before deciding whether more is needed.

JAPAN:

* Size: 12 trillion yen ($122 billion) in three stimulus packages, 2 percent of GDP

* Timeframe: current and next fiscal year, up to March 2010

* Focus: payouts to individuals to boost consumption, job-support measures, tax breaks for housing mortgages

* Rollout: began October 2008, second, third packages being rolled out this month though some spending still pending formal parliament approval of state budget

UNITED STATES:

* Size: $787 billion, or about 5.5 percent of GDP

* Timeframe: 2009-10 but tax cuts spread over several years

* Focus: $287 billion in tax breaks, $500 billion in spending projects and money for social programs

* Rollout: signed into law in February. Obama has already told Treasury to get employers to reduce payroll withholdings

* More to come? No sign of that.

GERMANY:

* Size: 81 billion euros ($110 billion) officially for two packages, or 3.25 percent of GDP

* Timeframe: Two-year 2009-10

* Focus: First package (31 billion euros) includes: a new lending program of up to 15 billion euros for state development bank KfW; 3 billion for building renovations; 3 billion for infrastructure projects; 2 billion for transport investment; tax incentives to buy new cars and an increase in the amount that is tax deductable for house repairs

* Focus: second package (50 billion euros) includes: 18 billion euros in investments; tax relief of 2.9 billion euros in 2009 and 6.05 billion in 2010; measures to boost demand for cars worth 1.5 billion euros; health insurance contributions will also be cut; the package also includes credit guarantees of up to 100 billion euros to help firms survive the credit crunch

* Rollout: Both approved by parliament and being rolled out

* More to come? No talk of it

BRITAIN:

* Size: 20 billion pounds ($29 billion), over 1 percent of GDP

* Timeframe: three years from late 2008

* Rollout: began last December

* Focus: mainly on sales tax cut (12.5 billion pounds worth, but also includes three billion pounds of extra capital spending)

* More to come? Yes, more expected in April budget

FRANCE:

* Size: 26 billion euros ($35 billion) , 1.3 percent of GDP

* Timeframe: 2009 principally

* Focus: mostly public investment projects, also 1 billion euros for car sector, 1.8 billion euros for construction industry

* Rollout: already in place

* Extras: Separately, 6 billion euros in loans to car makers PSA Peugeot Citroen and Renault; strategic investment fund (FSI) with 6 billion euros, to invest in hardhit companies and already used in part for car parts manufacturer Valeo

* More to come? Open question. Opposition calling for consumption stimulus. Economy Minister Christine Lagarde says important to work on existing package before working on a new plan

Similar large economies also followed the policy of discretionary stimulus like Canada (injecting $63 billion through an Economic Action Plan) and India (2 fiscal packages in late 2008 and early 2009 amounting to 3% of GDP)

Counter-cyclical tools (both fiscal and monetary) played a key role post the financial crisis and had to balance both short-term stability and long-term sustainability. Even in countries that were employing fiscal stimuli, the discretionary nature of it created the risk of under or over stimulation.

However, the debate of fiscal stimulus proved to be quite a large one with countries adopting a monetarist approach of less intervention. This led to an uneven level of stimulus internationally causing geopolitical tensions. Actions taken by any one economy independently had spillover effects on other countries, like trade partners, and many countries called for a more coordinated approach, and international fiscal governance.

Need for International Fiscal Governance

As differences came about in response to the 2008 financial crisis, most nations felt the need for a more even and multilateral approach. With this belief, came a rise in the demand for international fiscal governance. A coordination of policies as well as governance that ensured any regulatory action was followed was the need of the hour.

The 2008 financial crisis affected different countries to varying extents, and the difference in development was exacerbated. Responses to the crisis in late 2008 - early 2009 also differed, in terms of both policies and their magnitude. For example, even in countries that followed the policy of fiscal stimulus the amount and share of GDP varied, as did continuation and impact of these policies.

The need for international fiscal governance also raised the debate of sovereignty. Having a governing body seemed to pose a risk of control over developing countries. Another extremely important issue that had to be considered in the aftermath of the crisis was the concern of protectionism. Some economies thought trade barriers or in buying nationally made products would help . The importance of maintaining open trade flows and open markets was a key factor that led to a push for more governance to ensure this.

Thus the G20 became an extremely important body in facilitating this governance. The first Summit in 2008 became landmark in committing to key global financial reform policies including the Financial Stability Board, banking regulations, open trade and tackling tax evasion.

Reform of Global Financial System

The global financial system was under scrutiny following the 2008 crisis, and the situation called for reform. The International Monetary Fund and World Bank were two institutions in particular that formed a major part of the system. This system, known as the Bretton-Woods System, was set up after WW2 by the US and was a monetary order that many thought upheld a unilateral, almost hegemonic, balance of power. A more multi-lateral order was required, which the G20, through IMF and World Bank reforms, must facilitate.

The International Monetary Fund (IMF) increased its lending capacity after 2008, extending credit to countries in need, especially low-income countries. The G20 at this Summit must decide on the IMF's lending capacity. Additionally instruments to facilitate this lending must also be discussed.Following the crisis the IMF has also been moving to implement more monitoring and surveillance with the aim of being able to prevent a similar financial crash from occurring. The IMF's role in prevention will be a key move in the future, but concerns about dependency need to be addressed.

The IMF having more surveillance in place needs to come alongside regulations enforced globally. Supervision, such as the Basel Accords, must be further developed to ensure a collaborative approach to recommendations on banking regulations. The G20 must demonstrate its commitment to such reform in the 2009 Summit.

A major issue that was identified was the existence of certain banks and financial institutions becoming 'too-big-to-fail.' This implied that these institutions were large and interconnected and their collapse would be disastrous for the entire economy. Governments and other regulatory bodies bailed out such institutions when needed to avoid this collapse, which allowed them to continue to undertake risky behaviour. While market structures must be interconnected, allowing single banks or institutions to become too large without safeguards has proven to be risky, hence these structures must be strengthened and cooperation and resolution agreements put in place.

Dollar dependence was a major issue in the aftermath of the 2008 Crisis, as many thought the overdependence on the dollar had to be overcome. As a global reserve currency, its position did not change much however any volatility could have a significant impact.

Regional bodies like ASEAN and the EU have already started working within themselves to implement policy changes. A multilateral approach that recognises varying impacts of the crisis must be taken by the G20 in coordination with regional coalitions to achieve integration and stability.

Key National Positions and Blocs

Keynesians

Nations in the Keynesians block were proponents of government stimulation/intervention, which stemmed from the belief that it is demand that drives the economy. Government spending and injections would be the stimulus needed to drive demand up therefore positively affecting the economy. A main Keynesian belief is that government expenditure majorly combats unemployment and deflation, which countries in this bloc believed was the main need after the financial crisis.
On an international level, Keynesians supported reform and regulation as it followed from their belief in intervention.

Monetarists

Monetarists believed in the importance of supply-side economics, where money was the main driver of the economy. Monetarist nations were more concerned about debt and high, rising inflation that stimulating the economy, thus rather than fiscal policy, these nations would choose to focus on their monetary policies and coordinate with Central Banks to allay concerns following the 2008 crisis. Austerity policies were also advocated to prevent inflation. However, it is important to keep in mind that after the financial crisis, certain monetarist nations did exercise discretionary fiscal stimulus but to a lesser amount/percentage of GDP or without intending to continue it long term.

Country Matrix

Country	Status	Rough Block
Argentina	G20 Member	Keynesian
Australia	G20 Member	Monetarist
Brazil	G20 Member	Keynesian
Canada	G20 Member	Keynesian (Moderate)
China	G20 Member	Keynesian
France	G20 Member	Keynesian
Germany	G20 Member	Monetarist (Initially)
India	G20 Member	Keynesian
Indonesia	G20 Member	Monetarist-leaning
Italy	G20 Member	Keynesian
Japan	G20 Member	Keynesian (Complemented by Monetary Easing)
Mexico	G20 Member	Monetarist
Russia	G20 Member	Hybrid
Saudi Arabia	G20 Member	Montetarist (Some Keynesian effects due to Oil funding)
South Africa	G20 Member	Monetarist
South Korea	G20 Member	Monetarist
Turkey	G20 Member	Monetarist (Austerity)
UK	G20 Member	Monetarist-dominated-Hybrid
USA	G20 Member	Keynesian
EU	G20 Member	Hybrid woth coodinated fiscal stimuli and monetary stabilisaiton initiatives.
Spain	Observer	Keynesian
Netherlands	Observer	Keynesian (Cautious)
ASEAN (Thailaind)	Observer	Monetary (Diverse Members)
AU (Libya)	Observer	Focused on preventing aid cuts and international reform
World Bank	Observer	Keynesian (Targeting middle-income economies)
ASEAN (Thailaind)	Observer	Keynesian
AU (Libya)	Observer	Free Trade Focus
World Bank	Observer	Advocate of Coordinated approach safeguarding developing nations.

Additional Resources

Factbox: Fiscal stimulus in G20 countries | Reuters

Government Response - 8512-411-167 - House of Commons of Canada

Financial crisis 2008: Response of RBI and Indian banks | IIMB-

Austerity: a failed experiment on the people of Europe - PMC

Importance of G20: What happened at previous G20 Summits? - 2008- 2009 (Washington DC, London, Pittsburgh) | The Economic Times

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