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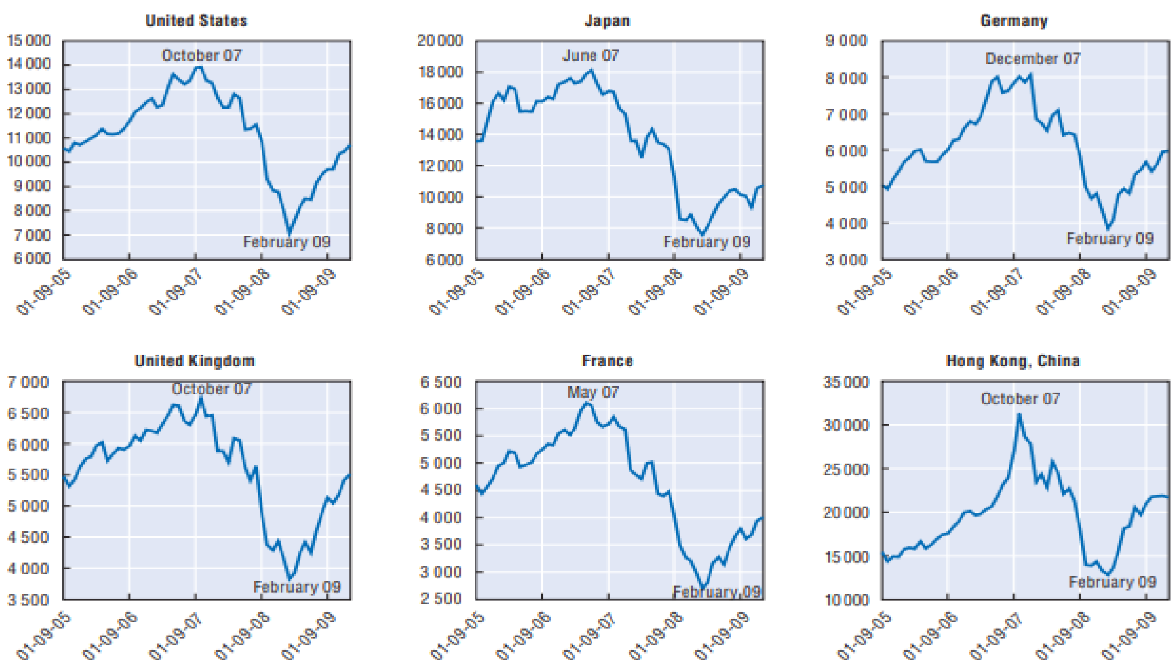
The Global Financial Crisis and Regulatory Response Analysis

[Revised Submission 1 – Bold text part refers to the commented part]

Introduction

Financial crises are defined by asset prices experiencing sharp declines, debts spiraling out of control and institutions experiencing liquidity shortages. Often, they also include speculative financial bubbles and may either be limited to a single sector, or much like the 2008 Global Financial Crisis, can ripple through global economies. Other market features that presented themselves during the GFC include huge government bailouts, the introduction of more stringent regulation (e.g. Dodd-Frank) and the failure of many large financial institutions, such as Lehman Brothers. Market conditions also drastically changed during the GFC with global equity markets reversing their up trends (*Figure 1*), major liquidity issues for the banking sector and a sudden, sharp reduction in the amount of money/credit available from lenders. Here we explore the potential causes, mechanics and responses to the GFC. After discussing these, we will do an in depth analysis of Dodd frank Regulation, its actual and intended impact, role of human behavior and ethics in GFC followed by self-understanding of regulation impact, GFC blame and Conclusion.

Main stock market indices[1] between 2005 and 2009



1. United States: Dow Jones Industrial Average; Japan: Nikkei 225; Germany: DAX; United Kingdom: FTSE 100; France: CAC 40; Hong Kong, China: Hang Seng.

StatLink http://dx.doi.org/10.1787/837733674302

Figure 1. Source: OECD (2010), "Global economic crisis: stock market trends", in Measuring Globalisation: OECD Economic Globalisation Indicators 2010, OECD Publishing, Paris, https://doi.org/10.1787/9789264084360-5-en.

Stakeholders and Mechanics

To delve deeper into the GFC, we need to understand who was involved, what their role was and how they all link together (*Table 1)*.

Stakeholder	**Role & Motivation**	**Impact of increasing house prices**
Homebuilders	To build houses that sell for more than they cost to build	Increased income per property
Mortgage Lenders	Earn money through interest rate payments	Little impact, as benefit of higher notional mortgages may be offset with a decrease in demand
Mortgage-Backed Securities (MBS) Structurers	Securitize a pool or mortgages and sell tranches to investors	Little impact, more dependent on demand for mortgages
Realtors/Real Estate Appraisers	Earn commissions on selling houses/fees on valuing houses	Increasing commissions
Townships collecting local real estate taxes	Collect fees based on the value of properties in the town	Increased income on taxes
Homeowners using a mortgage	Pay regular interest payments in the hope of eventually paying off their mortgage	Possibly more reluctant to take out mortgages

Table 1

It is also useful to know some of the mechanics as to how these stakeholders are affected in different scenarios. For example, if the borrowers default on their mortgages it is easy to see the direct impacts such as homeowners being repossessed and losing their homes. However, this would also impact the **banks selling the mortgages** as if the house is not worth enough to cover their losses they would also be at risk of loss. Further than this, the **end investors of MBS' would also be affected as their pass-through income could also be at risk**.

Causes and Responses

Although there is much debate regarding the causes of the GFC, factors such as deregulation, securitization, and the growth of the popularity of subprime mortgages clearly had a massive part to play. Firstly, the Gramm–Leach–Bliley Act, which repealed the Glass-Steagall Act, helped to remove restrictions on how banks could use people's deposits. This allowed them to use deposits to **invest in riskier assets such as derivatives**. Secondly, **banks began increasingly utilizing securitization**, pooling together various types of debt, **such as mortgages, and selling their related cash flows on, concealing underlying risks in the process** (in cahoots with rating agencies to end up misrepresenting the associated risk and quality). Finally**, the Financial Institutions Reform, Recovery, and Enforcement Act helped enforce the Community Reinvestment Act, which encouraged banks to lend to lower income neighborhoods, by publicly ranking banks based on this (moral hazard –** it will be in interest of banks to give more loans for better ranking while having low risk of loss as if people default the banks will still have the house to get the money back), leading to **a boom of subprime mortgages**. As the

adjustable rates on these started to increase, homeowners were hit with obligations they could not afford. This along with **falling home prices meant homes were not good enough collateral for the mortgages either, leading to the housing bubble ultimately bursting**.
In response, policymakers and regulators reformed regulation and passed acts into legislation to both control the damage and prevent future similar crises. In early 2008, President Bush signed the **Economic Stimulus Act** which provided **tax rebates of more than $150 million in the hope of reducing financial pressure on business and averting an economic recession**. Shortly after, the Fed reduced their nominal rate to 0% to encourage borrowing and ease the liquidity issues constraining financial markets at the time. In terms of regulation, the **Dodd-Frank Wall Street Reform and Consumer Protection Act** was passed into legislation, which we shall cover in more detail soon.

Risk and Regulations

Other than default risk, the housing market also contained a plethora of systemic risks, which can be defined as risks inherent to the market or a sector as a whole and hence cannot be diversified. **Systemic risks within the housing market are widely thought to be one of the major contributors to the GFC**. As previously alluded to, **the US governments policy on residential housing encouraged banks to give out low quality mortgages and regulation allowed banks to have minimal reserves in the case that borrowers defaulted**. This caused **great strain on the lending sector** when they did. Also, **the way these mortgages were securitized into MBS' led to a lack of transparency of the true risks inherent to these products and the further trade of exotic securities such as CDS' and CDO's between banks resulted in a large, interconnected web of dependencies within the financial system, meaning if one institution failed, it had massive ramifications on the system as a whole**.

As mentioned before, one key regulation put in place to minimize these systemic risks was the Dodd-Frank Wall Street Reform and Consumer Protection Act which is discussed in detail in next section onwards.

Submission 2

Overview, Context and Intended Impact

Dodd-Frank Wall Street Reform and Consumer Protection Act came into being in 2010 under Obama's administration (Direct-Domestic-Governmental regulation). It is the biggest reform in US post the great depression era. The wide spread impact of this act can be attributed to **strong linkages effect** between financial market and other industries (industry specific regulation- financial sector indirectly affects other sectors). This regulation is a combination of prudential regulation, Regulation of financial market and Regulation of investment product.

As we know, the basic aim behind any regulation is to address present market's flaws, from causes and response section (lack of transparency and knowledge about the complex derivative instruments like CDOs and CDSs, sub-prime mortgage lending, speculative risky investments etc.). Corresponding contingency plans in form of excess reserve holdings for rainy day purpose at firm level were also deemed necessary in order to enhance consumer safety and confidence level in the market as a whole. A few specific implications of this reform are as follows:

a. **The Financial Stability Oversight Council (FSOC)** was formed to administer systemic risk at national level. The purpose of it is to regulate high profile firms more heavily, for example, more requirements in capital and liquidity, stress tests, leverage limits and so on. Financial institutions were further asked to prepare sparse money/ “living wills” to be used in case of panic, to reduce the dependency on tax-payer’ money. The basic idea is to prevent from firms becoming “too big to fail”. [Regulation of Financial Markets]
b. **Volcker rules** were composed to limit banks from taking too much risk with their depositors, minimize banks from investing in hedge funds and private equity, as well as complex derivative instruments like swaps. [Prudential Regulation]
c. Central Clearing houses and regulation of **complex OTC derivatives trading** was made more **transparent**. [Regulation of Investment Products]
d. **Bureau of Consumer Financial Protection** was established to protect individual consumers from industrial and financial issues. This bureau has a broad area of jurisdiction involving financial unions ranging from banks to payday lenders and other financial institutions with aim as mentioned above.
e. SEC’s **Office of Credit Rating** was formed to monitor credit rating agencies.
f. Federal assistance to individual institutions was limited, even in emergency cases.

Above regulations are not only to help with current crisis but also aims to act (not react) as a guide in order to prevent future crisis.

Observed Impact and Comparison with intended target

Basically, all systems have flaws. So, maybe the reform has intended impact but there are also other unforeseeable impacts which can only be observed post implementation. Here are some of such impacts/downsides of this regulation itself or due to its functioning:

a. **Volcker rule** ended up reducing the liquidity of the markets due to the new capital constraints under the rule. As banks had to shrink their proprietary trading business, they also had to cut back on other trading. This led to increasing presence of **shadow banking activities**, which are much less regulated. This goes **against the initial intention of the rule of financial regulation to stabilize markets and protect consumers**. As Banks have to maintain higher ratio of cash in their assets relative to before the act, the ability to invest in market securities was decreased. It, in turn, affected the role as bond market-maker of these entities leading to sellers facing more difficulties when seeking for potential buyers in bond markets, thus worsened the liquidity of bond markets.

b. **Reserve and Capital related impositions on financial institutions**: were redundant as most financial institutes already use various risk mitigation techniques and maintain plenty of reserves as any issue with respect to their performance and credibility can have widespread impact on themselves and also the whole market too.
c. **Regulatory Capture**: was crucial issue due to the degree of independence given to these agencies and regulatory authorities. Initially, these bodies were aimed at forming standards to avoid another crisis and to aide consumers whereas they later ended up crafting certain industry/group favoring regulations due to external influence.

Behavioral aspect and GFC

For this section we'll discuss the following behavioral aspects which led to GFC:

1. **Negligence/carelessness** – Banks and investors did not care to consider the effect that counterparty credit risk could have on derivatives that they were trading and traded under the assumption that banks who were "too big to fail" would never default on their obligations.
2. **Bad Assumptions** – Generally believe that house prices would not crash nationwide, leading to underwriters and investors to consider a geographically varied real estate portfolio to have little risk.
3. **Ignorance** – Investors buying MBS' believed that they were investing in a low-risk product without scrutinizing/analyzing it themselves.
4. **Greed** – Homeowners wanted to get rich by profiting off real estate. Mortgage lenders went to great lengths to increase the volumes of mortgages they could sell. Banks were paid hefty fees and commission to securitize subprime mortgages. Rating agencies were incentivized to class subprime mortgages as investment grade, as they were paid by banks to issue ratings. Politicians attempted to gain popularity by heavily incentivizing banks to lend to borrowers with poor credit worthiness.
5. **Fraud** – Banks often knew the risks that their securitized products carried but hid them from investors with the aim of securing more profit.

Even though we may believe that ethical training may curb aforementioned aspects of our behavior but it still can't purge them altogether. Except the common people who invest, most of the executives at the banks and politicians would have been extremely intelligent, well educated people who likely would have had some sort of ethics classes during their education. In the end human nature always dominates so no amount of ethics can purge the greed born in the moment of opportunity.

Regulation Impact and GFC blame

Dodd Frank regulation has helped deter companies from the certain actions that led to the crisis:

a. Oversees credit agencies and asks them to submit process and procedures, this stops them from inaccurately overrating the credit worthiness of certain institutions/securities as they did in the run up to the GFC.
b. Using Volcker rule banks were stopped from taking on too much risk with their depositor's money, helping keep depositors money safe and preventing bank runs like those that occurred at Bear Stearns in the lead up to the GFC

The issues that led to the GFC cannot be blamed on one single person/institution but instead are part of the systemic risk that existed in the market at the time:

a. Inadequate capital requirements for banks/large insurers such as Lehman Brothers/AIG meant that when any large institution started to lose money, they did not have enough reserves to come out the other end in one piece.
b. Counterparty risk that existed in the market was not accounted for. Investors believed that derivatives traded with large institutions were credit risk free and when it turned out they were not this risk led to many banks sustaining large losses as trades had to be unwound

Conclusion

Although there were many causes that could be linked to the GFC, **we have identified deregulation, lack of transparency in exotic securities and the enablement of institutions to grow so large that their failure shakes the whole global markets as some of the primary causes for the GFC**. We have also identified the main systemic risks inherent to housing market that allowed such a collapse to occur and how the response from policymakers and regulators helped minimize the repercussions and mitigate these risks to prevent such a crisis from occurring again. We further discussed Dodd Frank act in it detail (intended impact and actual impact) followed by analysis from behavioral and ethical aspect in GFC. In the end, we also discussed

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