

Proposed Framework for Discussion for Commissioners

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Defining the crisis

At the core of the crisis, was this a “credit crisis”, a “housing crisis,” a “financial institutions crisis,” or a “market panic”? To what extent can these be disentangled?

The primary economic impact of the financial crisis has been caused by the “credit crisis” which occurred following the collapse of Lehman Brothers. Secondary are the wealth losses and industry contractions associated with the collapse of the housing bubble and the failures of financial institutions – although, in certain areas of the country, those impacts have been very serious.

These crises can be disentangled sequentially, as the crisis materialized in different stages (first the collapse of the housing bubble, then the failure of major institutions, then a market panic leading to a credit crisis). These crises can also be disentangled by macroeconomics stages (an economic slowdown beginning in the fourth quarter of 2007, a normal recession until September 2008, and a severe recession after September).

Macroeconomic factors

Were macroeconomic factors causal? Were they facilitators for the crisis?

One factor in the growth of the credit bubble was low interest rates and excess liquidity, caused by international capital flows and Federal Reserve monetary policy. Thus, they were causal. However, low interest rates are not a sufficient condition for bubbles, and a bubble is not a sufficient condition for a financial crisis.

The housing bubble and its collapse

What was the role of housing policy in the growth of the housing bubble, specifically government housing mandates on the GSEs, FHA rules, and the Community Reinvestment Act?

The interaction of government housing policies, a system awash in capital and market-based perverse incentives combined to cause the housing bubble. Given the varied role that housing policies played in causing the crisis, it is difficult to delineate the differential effects of housing policy and that of the private market.

Four primary roles of government policies were incentivizing financial institutions to lend to marginal borrowers, encouraging borrowers to use their home as a bank account, insuring or purchasing high risk loans, and discouraging regulators from restricting homeownership growth or credit availability.

What role did declining underwriting standards play in the housing crisis? Why did underwriting standards decline?

Declining underwriting standards were a cause of the housing bubble.

Underwriting standards declined due to: investor demand for mortgage-related debt, fraudulent and predatory business practices by originators, government policies encouraging lending to marginal borrowers, the activities of the GSEs, and a lack of transparency about the quality of mortgage-related assets caused by the securitization process.

The GSEs have always been standards-setters in mortgage markets. Thus, their decision to acquire riskier mortgages in the early 1990s and 2000s was a cause of industry-wide declines in underwriting standards. Further, during the crisis, they continued to be a large source of demand for high-risk mortgage products.

What was the role of credit rating agencies in the housing crisis?

Credit rating agencies facilitated the securitization process by allowing firms to create standardized tranches of mortgage exposure with varying risk characteristics. However, as they failed to sufficiently anticipate the severity and correlation of home price declines and misaligned incentives, their ratings were, in retrospect, inflated.

Did securitization of mortgages and other credit instruments play significant roles in fueling the housing bubble? Did securitization help to diversify or pool mortgage credit risk?

The rapid growth of the securitization process made the bubble larger, because, by satisfying investor demands for assets with a particular expected risk and return profile, credit was attracted to the mortgage market.

Securitization both diversified and pooled mortgage risk. In the absence of securitization, firms originating mortgages would have had to take an originate-to-hold strategy, which would have led to mortgage credit risk concentration in those firms and less mortgage origination.

However, those financial firms engaged in securitization retained risks related to the mortgage market, which made them vulnerable to a severe downturn. In this way, the securitization process also concentrated risks in major financial institutions.

What was the role of misrepresented or falsified information in the origination and securitization process?

Certain actors in the mortgage origination chain, including borrowers, originators and securitizers, misrepresented or falsified information in order to increase returns. This led to a decrease in transparency in the mortgage market, which contributed to the growth of the housing bubble.

Was the mortgage crisis the trigger for the financial crisis?

The mortgage crisis led to large losses at major financial institutions, and was thus the trigger for the financial crisis.

Supervision and regulation

Were there regulatory failures? If so, were these failures observable before the crisis? Were warning signs ignored?

In retrospect, it is clear that there were financial regulatory failures. Many of the areas in which these were failures were a result active policy decisions and warning signs were considered. Looking back, however, it is clear that different decisions should have been made.

The Federal Reserve, given its responsibility for the oversight of mortgage markets in the US, certainly could have acted more aggressively, but chose not to do so. Was this the result of the regulatory system not working as it should?

The Federal Reserve had an active internal debate over the need to more aggressively regulate the mortgage market and chose not to. While, in retrospect, tighter regulatory scrutiny may have lessened the effect of the crisis, at the time, the level of regulation that was decided upon was not inappropriate given the information at hand.

Did the regulated portion of the mortgage origination industry create safer mortgages than the less regulated portion of the industry?

Those segments of firms which had stronger regulation (either due to regulator mandate or strength of enforcement) tended to originate higher quality mortgages and had less mortgage-related risks retained on their balance sheet. However, affiliates of those more tightly regulated firms tended to originate mortgages that were of lower quality.

How did differential regulation among different types of financial institutions contribute to the crisis?

The primary cause of the failures of major financial institutions was a liquidity crisis triggered by exposure to mortgage-related losses. Mortgage-related losses materialized at firms across the regulatory system, which implies that the differential supervision for each type of institution was not a major factor in the crisis.

However, different types of firms did tend to take on different types of exposures (e.g. thrifts had greater exposure to high-risk mortgages than commercial banks). Additionally, liquidity issues emerged more quickly at more lightly regulated

institutions without access to government liquidity facilities than more heavily regulated ones with access to government liquidity facilities.

Did differences in capital standards in different markets play a role?

The financial system, as a whole, was over-leveraged prior to the crisis. This was a function of a number of factors, including regulatory capital standards. Capital standards differed across international boundaries and financial markets, and the nature of differential capital standards influenced demand for certain products and the leverage level in markets.

Additionally, the pro-cyclical nature of capital standards placed firms under strain during the market turmoil in 2008.

Did policy makers and regulators appropriately act preventively on the long-standing knowledge that financial markets are prone to panic?

There was a growing belief by policymakers, regulators and market participants alike that financial markets had become less prone to panic, or that market panics could be prevented through targeted government intervention following external shocks to the system. Thus, most actors, including policy makers and regulators, in retrospect, did not act appropriately preventatively.

Did the power of the financial sector increase in the years leading up to the crisis? Did increasing power play a role in creating a fragile financial system?

All industries advocate for their own profitability. The financial industry was no different in this respect.

A somewhat different matter is the GSEs, whose influence was unique compared to other types of institutions, due to its financial influence, political connections, and role in the housing market (which, due to its geographic diversity, is a particularly powerful lobby).

Derivatives

What role did mortgage-related credit derivatives play in the financial crisis?

Mortgage-related credit default swaps and synthetic CDOs were a tool which participants in the financial system used to increase leverage. Those institutions which were mistaken about the risks associated with these instruments (either due to their embedded leverage or the mortgage-related assets their derivative exposures were dependent on) were particularly susceptible once the housing crisis began.

At the same time, the existence of these products allowed certain firms to hedge their risks, played a role in spreading credit risks throughout the financial system, and hastened the decline of the market by allowing investors to express negative opinions about the mortgage market more cheaply.

Thus, they both increased and mitigated the effect of the collapse.

Did over-the-counter derivatives, aside from derivatives related to the mortgage market, play a significant role in causing the crisis?

Non-credit derivatives were one type of product which contributed to interconnectedness in the financial system. Further, they were one tool used to add to systemic leverage. Additionally, non-credit derivatives added to the lack of transparency in the system. All of these effects contributed to systemic fragility prior to the crisis.

To the extent that contractual interconnections played a role in the panic, derivatives played a special role in facilitating contagion. In addition, derivatives played a similar role as other short-term debt markets in contagion once the panic began.

The failure of large financial institutions

Were risk management failures a cause of the crisis? Did the use of off-balance sheet exposure create unmanaged risks?

On a market-wide basis, risk managers at major firms failed to appreciate the potential that housing prices would fall *at all*, which was a major cause of the financial crisis. Similarly, firms reliant on short-term funding failed to appreciate the potential that they would lose access to short-term debt markets. Thus, in many firms which ultimately failed, there is evidence of risk management failures.

However, in many cases, these risk management failures were embedded in a firm-wide strategy to increase exposure to housing, which makes it as much a corporate governance failure as a risk management failure.

SIVs and off-balance sheet entities created reputational risks for major financial institutions, which were not accounted for in their capital or liquidity risk management, and contributed to their failures.

Did compensation structures play a role in causing the crisis? Did the structure matter? Did the levels matter?

Compensation structures in financial industries tended to incentivize risk-taking, which played a significant role in the risk management and corporate governance failures. Compensation size, however, appears to be less significant cause.

Did financial institutions behave inappropriately in a way that helped to cause the crisis?

It appears that market participants were aware that market makers were not honest brokers. In this way, the failures of rating agencies were particularly acute, as they gave certain investors misguided confidence in the products they were investing in.

Were financial institutions too big (or interconnected or important) to fail before the crisis? Did their status depend on whether the system was in crisis?

There are no firms that are too important to fail outside of a financial crisis. However, a number of important firms took on risks that made them likely to fail during a crisis and thus receive government support.

Does the failure of the GSEs, in and of itself, matter for the financial crisis?

The GSEs, in addition to their role facilitating liquidity mortgage market, issued debt that was considered by market participants to be implicitly guaranteed by the government. Thus, their failure could have had systemic implications.

Additionally, the decision by the government to take the GSEs into conservatorship had a large deficit impact, which is an important effect of the financial crisis.

Therefore, the failure of the GSEs, in and of itself, did matter for the financial crisis.

Did the bailout of Bear Stearns play a primary role in causing the financial crisis? How important was moral hazard and the Fed's intervention in Bear Stearns to (1) the behavior of leaders of large financial institutions after March 2008; and (2) market and investor perceptions of the possibility of a federal bailout in that same time period?

Although a pattern of government interventions to bail out firms prior to Bear Stearns surely impacted expectations of future intervention (and thus counterparty relationships with firms that may be deemed too important to fail), there is limited evidence that market participants explicitly expected government intervention prior to the collapse of Bear Stearns.

Following the rescue of Bear Stearns, market participants and investors expected some government intervention in the face of the impending failure of a major financial institution. However, the nature of the support expected ranged from an orderly wind-down to liquidity support to government guarantees of troubled assets.

The market was surprised when Lehman Brothers was allowed to fail, which was a major cause of the liquidity crisis.

Liquidity crisis

What was the primary cause of the panic following the Lehman/AIG/Merrill weekend?

Recognition of real losses, panic due to lack of information, systemic panic that occurs during a run, contractual interconnections and changed perceptions about government bailouts all played a role. Primary were panic caused by lack of information and changed perceptions of government bailouts. Secondary were contractual interconnections and irrationality driven by market panic itself. Tertiary was recognition of real losses.

Was the financial crisis a direct result of a panic?

The total losses in the financial system from the decline in home prices was not large enough – in and of itself – to cause the crisis. The financial system has withstood drops in asset values similar to the drop in asset values created by the decline in home prices. The decline caused a crisis because of how the assets were leveraged and where the assets were held.

Panic played a very important role. Counterparties had not carefully valued mortgage-related assets. The panic was about counterparties and liquidity – it extended beyond mortgage assets.

Was the system particularly susceptible to panic?

Financial systems, by their nature, are susceptible to panics. Factors which increase systemic fragility include leverage, a lack of transparency, and maturity mismatch, all of which were present at the time of the crisis. In addition, the system-wide belief that the financial system was less prone to panics than it had been previously, combined with the belief that housing prices would not fall made the financial system particularly fragile before the crisis.

Policy actions in response to crisis

Did the policy responses to the crisis exacerbate the crisis? Did they play a role in ending the panic?

The failure of Lehman Brothers was a primary cause of the panic. Thus, the decision not to save Lehman Brothers (whether or not the government believed it had the power to do so, or whether the panic would have occurred in Bear Stearns had been allowed to fail) exacerbated the crisis.

Government interventions which provided liquidity and capital to the financial system played a role in ending the panic.