

# The Credit Market Crisis

## A PLAN TO AVERT THE WORST SCENARIO

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The United States faces what could be its worst financial crisis since the 1930s. The data pointing toward the worst-case scenario keeps accumulating. Home prices are expected to decline as much as 20% nationally by 2010. If this were to occur, as many as 14 million homeowners would have mortgages in excess of their home value, leading to a precipitous decline in spending, increased unemployment and a dangerous negative feedback loop in which each step leads to more pain. The housing crisis could well turn into an economic catastrophe. In spite of the rapid escalation of problems, we feel there is still time to act to avert the worst-case scenario.

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What began as an isolated subprime mortgage problem has now evolved into a full-blown credit crisis. Financial institutions are curtailing the availability of credit to high-quality borrowers. Appetite for debt in the capital markets has collapsed. Nearly every part of the credit markets has now been infected in the aftermath of the subprime debacle. The vast majority of market participants will attest that credit spreads are excessively wide. However, their ability to commit capital to get markets to a new equilibrium has been constrained by actual and expected losses on bank and non-bank balance sheets.

We believe the markets have ceased to function properly. This seizure is exposing and attacking the hidden and not-so-hidden pockets of leverage throughout the system, ranging from Structured Investment Vehicles (SIVs) to financial guarantors to even the Government Sponsored Enterprises (GSEs). What had been a virtuous cycle of leveraged institutions realizing gains, which were then leveraged again to facilitate lending and growth, has turned into a vicious cycle in which every loss is amplified by the underlying leverage, leading to the withdrawal of credit and further losses as assets are sold at fire-sale prices.

In spite of the rapid escalation of problems, we believe there is still time to act. A range of proposals have been offered, from a home owners' loan corporation to bankruptcy reform to government assistance to states and localities or even individual borrowers. Each proposal has pros and cons. That said, none of these plans addresses the issues beyond housing, and none is timely enough.

To maximize the chances of success, any plan should be quickly implementable, and should:

- Reinitiate the flow of capital to creditworthy borrowers in and beyond the mortgage arena
- Leverage existing private sector expertise
- Establish confidence that the situation will not spiral out of control

My proposal is two-pronged. The first part aims to reactivate credit markets to get capital flows to productive enterprises. The second part would ensure credit availability to the U.S. mortgage market and turn what may be the "next shoe to drop" into part of stabilizing the financial system.

1. **The Federal Reserve should open the Discount Window and/or Term Auction Facility (TAF) to non-bank financial institutions:** This move would provide liquidity immediately to private market participants on terms equal to those offered to banks, but would not be a bailout.
2. **The federal government should purchase large equity stakes in both Fannie Mae and Freddie Mac:** By investing directly in each entity alongside private investors, the government would clearly indicate that there is a line the turmoil will not cross. Moreover, the additional capital would allow the GSEs to achieve their mission as a countercyclical stabilization driver rather than the procyclical force they have become.

## Why Must the Government Act?

The U.S. housing market has already seen a national price decline with no compare in recent generations. If you think the view in the rearview mirror is bad, do not look through the windshield. Lehman Brothers estimates that foreclosures are expected to rise to as many as 1 million per year in 2008 and 2009, implying that as many as 20% of homes sold in the United States would be foreclosed, the highest level since at least the 1930s and multiples of the more normal 3-6% figure.

The Federal Reserve of St. Louis has documented that foreclosed homes sell at prices 20-25% lower than comparable homes not in foreclosure. If current foreclosure expectations pan out, we may well see home prices decline by even more than 20% from peak to trough, as forced sales exacerbate price declines.

In a down-20% scenario, the value of all U.S. residential real estate would have declined from roughly \$20.3 trillion at its peak in the third quarter of 2007 (as calculated by the Federal Reserve) to \$16.3 trillion. Importantly, however, one must consider what the decline in value would mean for people who have mortgages. Of the roughly 75 million homeowners in the United States, approximately 25 million have no mortgage. If we assume that the average home value for owners with and without a mortgage is the same, that would imply that the homes with mortgages against them would be valued at \$10.9 trillion of the \$16.3 trillion of total value. The debt outstanding against these homes currently totals approximately \$10.5 trillion, meaning that the average borrower would have only 3.3% equity in his or her home. Much more importantly, however, this would also imply that as many as 14 million homeowners, if not more, would have negative equity in their homes—i.e., a mortgage larger than their home's value—as estimated by Mark Zandi of Moody's in a recent report.

JPMorgan Chase indicated recently that in Florida it is now charging off home equity loans for negative equity borrowers at a 10% annualized rate. This 10% charge-off rate compares to a rate of 3.4% for borrowers with 0-5% equity and only 0.8% for borrowers with 5-10% equity. Put simply, the increases in defaults are severe when borrowers realize they are underwater and unlikely to recover quickly. Moreover, these are prime home equity loans, and unemployment has yet to increase in any broad way, implying that many borrowers are choosing to walk away rather than being forced from their homes.

Consider now how a 20% decline in home prices would impact consumer confidence. It is worth remembering that the decline would be uneven. Perhaps California and Florida home prices would decline 30-40% while those in Texas would be flat. The reality is that consumer spending would not only not grow; it may well decline in absolute terms. Increased unemployment would certainly follow, leading to even more credit losses. In Southern California, unemployment doubled in the early 1990s, from 5% to 10%. While unemployment was a significant cause of home price declines in California, the roles might be reversed with a negative feedback loop this time as home price declines lead to weak sentiment and spending which lead to unemployment, which leads to even lower home prices.

This is not an alarmist scenario. These are broadly discussed home price projections. What is surprising is how little time is being spent considering the secondary and tertiary impacts of such price declines.

## Why These Two Proposals?

I offer two proposals, as the problems now are too broad and complicated to be addressed by any single solution. I also acknowledge that the second part of the plan would take longer to implement, as it likely would require legislation. Given the pace of deterioration in the markets and economy, however, we do not have time to wait for more evidence of crisis to act.

### FEDERAL RESERVE LIQUIDITY TO NON-BANK FINANCIAL INSTITUTIONS

The Term Auction Facility (TAF) is a great way for the Federal Reserve to offer banks dependable financing for high-quality collateral. The problems with this arrangement are:

- The TAF only addresses the banks. Much of the financing for investment and consumption in the United States has moved out of the commercial banking sector in recent years. In fact, the assets of commercial banks in the United States total approximately \$11 trillion. The assets of the five major

U.S.-based investment banks total over \$4.5 trillion. Fannie Mae and Freddie Mac have assets of over \$1.5 trillion and off-balance sheet guarantees of an additional \$3 trillion. Put simply, our central bank no longer oversees enough of the system to do its job effectively.

- Moreover, the TAF was started as a small facility that has gradually gotten bigger. Incrementalism is not working in this case. Largely on the back of mark-to-market losses, the banks and nonbanks need more capital and/or smaller asset bases to avoid violating regulatory minimums. To sustain their capital levels, the banks are still shedding assets even while calling in credit lines to clients. Given the lack of funding, these client asset sales lead to lower asset prices, which then lead to the need for further markdowns and sales.

### What is the proposal?

- Open the TAF and discount window to non-bank financial intermediaries such as credit card, mortgage and auto financiers, and investment banks.
- Hedge funds would not be allowed access to these facilities, as they are investors rather than intermediaries. Moreover, this is not a proposal to become the prime broker to the world. Instead, it is aimed at ensuring that firms that provide financing to creditworthy borrowers can fulfill their roles.
- In return for access to this funding, any recipient would have to agree to supervision by the most appropriate regulatory entity.

### Advantages of expanding access to liquidity

- **Ease of implementation.** The borrowing rules are in place already for banks and would be the same for nonbanks. It is not clear if legislation would be required to authorize this change in eligibility, but to the extent the Fed maintains the same standards for banks and nonbanks, it is difficult to see how a reasonable observer could criticize providing credit for borrowers who can post the right collateral with an appropriate cushion against it from a valuation perspective.
- **Immediate impact.** By providing access to credit for high-quality assets, the Fed would not only curtail the spread of credit market contagion, it would facilitate the resumption of capital flows. Put another way, this plan minimizes the moral hazard associated with other suggestions of helping only homeowners and is more effective as it goes well beyond mortgages to get credit to productive enterprises, hence mitigating secondary economic damage.
- **No cost to the taxpayer.** There would be cost only if the Fed were to incur credit losses, but the haircuts on collateral should address that risk appropriately. The Fed should make its decisions in this regard considering not mark-to-

market, but actual expected cash flow from the underlying loans. The level of collateral requirements would begin the process of deemphasizing pricing that reflects a market seizure rather than fundamental value of the collateral.

### GOVERNMENT INVESTMENT IN FANNIE MAE AND FREDDIE MAC

Fannie Mae and Freddie Mac were created for precisely the situation we are faced with now. The GSEs were expected to stabilize markets in times of stress through their guaranties and their ability to purchase loans and securities. The problems right now are:

- Fannie and Freddie are excessively leveraged. The markets are systematically identifying excessive leverage and destroying the entities at fault. Fannie and Freddie have too much leverage even after not growing for the last several years and raising capital in 2007. At year-end 2007:
  - Fannie Mae had \$27 billion of common equity and \$17 billion of preferred equity. Fannie's assets were \$882 billion, including \$724 billion of mortgages, implying 20x leverage. This leverage ratio does not include the additional \$2.2 trillion of mortgages guaranteed but not owned by Fannie Mae.
  - Freddie Mac had \$12.6 billion of common equity and \$14.1 billion of preferred equity. Freddie's assets were \$794 billion, including \$710 billion of mortgages. Above and beyond these mortgages, Freddie guaranteed \$1.38 trillion of mortgages it does not own.

In a scenario in which home prices declined an additional 15% from year-end levels, it is easy to argue that Fannie Mae and Freddie Mac would be insolvent given their mark-to-market rules.

- Given their mark-to-market accounting requirements, the GSEs are incapable of stabilizing the market. In fact, where they were intended to be countercyclical stabilizers, Fannie and Freddie are actually procyclical in that they have to write down their equity when losses rise, which limits their ability to buy and guaranty mortgages. When times are good, they can increase leverage, effectively increasing the probability of boom and bust cycles.
- Combine leverage and procyclical accounting and you get the "next shoe to drop": Critics point to the fact that \$13 billion of Fannie's \$44 billion of equity is actually a deferred tax asset that only has value in periods of profitability. If Fannie loses money again in 2008 and 2009, it is likely to have to reserve against these deferred tax assets, compounding the reduction in equity from net operating losses. Freddie has a deferred tax asset of \$10.3 billion of its total

equity of \$26.7 billion. It is increasingly likely that both Fannie and Freddie could become sellers of assets if they do not raise material amounts of capital. If they become sellers, the downward asset price spiral would accelerate.

### What is the proposal?

- The federal government should purchase a large amount of equity in both Fannie Mae and Freddie Mac. By a “large amount,” I would suggest the government could announce a backstop through which it would invest up to \$50 billion in each firm. This equity investment would be made alongside a secondary public offering of shares, which would establish the purchase price for the private and government purchases. To the extent there is private funding for the entities, the government investment would decrease in size. For example, if there were \$25 billion of demand for the equity in Fannie Mae, the government would invest \$25 billion alongside that capital at the same price.

The obvious retort is that Freddie Mac has equity of only \$26.7 billion and a market value of \$12.7 billion. As such, the scale of this investment would be enormous. That is the goal. Freddie and Fannie may well be too leveraged to survive this cycle, much less play a role in stabilizing it.

- Along with the new equity, Fannie and Freddie should be forced to permanently decrease their leverage levels. While neither entity will like this idea, it should be clear that their business model is not sustainable when the 100-year flood occurs. Ironically, the model is not built to survive the very cycle these entities were created to address. We may well be at the beginning of such a flood. From a systemic perspective, we should not allow excessive leverage to return to the GSEs after this cycle.
- With the proceeds obtained above the new higher capital levels, Fannie and Freddie would be expected to invest the capital and take advantage of the dislocation in the credit markets. While providing liquidity to creditworthy borrowers, Fannie and Freddie would also be investing profitably, adding to their capital through the earnings they would accrue on the high-yielding assets.
- This is not a permanent government injection of capital. Instead, the terms should be such that Fannie and Freddie would be required to buy back the government shares as mortgage credit spreads narrowed to predefined levels. By setting the return of capital based on a series of credit spread levels, we would ensure that the capital is pulled when markets are functioning properly and in increments that do not create shocks in the system.

### The advantages of this second proposal are:

- **It eliminates fears of GSE insolvency.** By investing in the GSEs if necessary, the government can eliminate the concerns that are growing in the market and were evident even recently when the cover story of Barron’s was “Is Fannie Mae Toast?” Credit markets have begun to question the solvency of Fannie Mae and Freddie Mac, curtailing access to credit even in the prime mortgage market for the first time since the downturn began.
- **It demonstrates to market participants that it is safe to invest in the GSEs.** The government might not even need to commit capital to the GSEs if the markets were convinced there is no chance of bankruptcy driven by lack of liquidity. That said, through the government backstop, the plan would create the confidence to get capital into the entities to de-lever and stabilize markets.
- **It enables the GSEs to capitalize on extremely wide spreads on mortgages.** This is the time when the GSEs should be actively purchasing mortgages in the market. Unfortunately, their excessive leverage and the accounting rules imposed on them have made the GSEs procyclical rather than countercyclical. As such, they are now aggravating the crisis rather than offsetting it with liquidity.
- **It could be profitable for taxpayers.** If Fannie and Freddie do invest wisely in collateral from creditworthy borrowers, the owners, including the taxpayers, can profit handsomely from the market turmoil. They have done it before and can do it again if they have enough capital.

### Hope Is Not a Plan; Having a Plan Offers Hope

As a country, we face a financial situation that could be the worst in over 70 years. It might not end up being as bad as I suggest, but hope is not a plan. Only by contemplating and planning for a range of scenarios can we properly protect our economy.

The obvious counter to my proposals is that they reinforce moral hazard. My simple response is that there are scenarios where even moral hazard is an acceptable price to pay to avoid the alternative. This is such a scenario.

This is not like past recessions. Hence, the parallels to 1990-1992 and other crises are only relevant as building blocks to consider how the various drivers might coalesce negatively or positively. The financial instruments available to United States consumers and companies have never been more extensive.

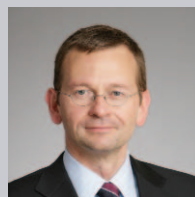
Moreover, the absolute and relative level of debt obligations against the United States has never been higher.

If we end up experiencing the extreme scenario and are unprepared for it, it is easy to imagine this becoming a national security issue—the U.S. dollar could decline precipitously, leading foreign investors to dump our debt as it became clear that the United States might not be the creditworthy country it had been perceived to be.

Over the longer term, it is clear that our patchwork approach to regulating the financial system no longer works as it should. The fact that we still have no regulatory reform plan for Fannie Mae and Freddie Mac is symptomatic of our lack of willingness or ability to create an infrastructure to promote growth and avoid catastrophe.

We need comprehensive regulatory reform to ensure that the entire system, bank and nonbank, abides by rules that, while perhaps reducing the speed limit for the system overall, also prevent fatalities. We can avert the worst situation if we prepare. If we wait until the evidence is in the rearview mirror, do not expect the airbags to deploy in time.

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Mr. Temple is a Co-Director of Research and a Research Analyst on the Global Research Platform. Prior to joining Lazard in 2001, Ron held positions with Deutsche Asset Management and Deutsche Bank Americas in New York, Deutsche Bank Asia/Pacific in Singapore, Deutsche Morgan Grenfell in London, Bank of America NT & SA in San Francisco, and Fleet Financial Group in Boston. He began working in the investment field in 1991. Ron received a MPP from Harvard University and a BA in Economics & Public Policy from Duke University.

**NOTES:**

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Sources: Lehman Brothers, [www.lehman.com](http://www.lehman.com); U.S. Census Bureau, [www.census.gov](http://www.census.gov); Federal Reserve, [www.federalreserve.gov](http://www.federalreserve.gov); Fannie Mae, [www.fanniemae.com](http://www.fanniemae.com); Freddie Mac, [www.freddiemac.com](http://www.freddiemac.com); Moody's Economy.com, [www.economy.com](http://www.economy.com). JPMorgan Chase, [www.jpmorganchase.com](http://www.jpmorganchase.com), Investor Day Presentation, dated February 27, 2008.

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