## summaries

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## The Credit Crisis; History in the Making

The recent turmoil surrounding Bear Stearns, wherein the Federal Reserve (Fed) has agreed to guarantee \$29 billion of Bear's most complex, illiquid securities and JPMorgan has been situated to acquire Bear for what many perceive to be a bargain basement price has brought the credit crisis to an inevitable apex.

With emotions running high and fear permeating the markets rapidly, the Fed, in conjunction with the U.S. Department of Treasury, felt that a market system that has so often been described as self-regulating needed direct intervention. Along with assuming the risk associated with Bear's most illiquid securities to facilitate the JPMorgan acquisition of Bear, the Fed also agreed to open its lending facilities (the discount window) to Wall Street investment banks. Traditionally, the Fed's discount window has only been accessible to more heavily regulated commercial banks.

As in any situation with such far-reaching implications, there will invariably be a definite dichotomy between the polarized opinions of supporters and critics. Although many have criticized the Government's market intervention as a Wall Street "bailout", the Fed's ability to step in quickly and unlock the financial system seems to have circumvented imminent widespread systemic risk. In addition, a sense of market rationality that had all but completely dissipated has been reintroduced.

In an attempt to shed some light over what has transpired and what may follow, it is essential to understand what fueled this credit crisis, why it was so important for the Fed to take such drastic action, and what regulatory changes may emerge as a result. The underlying structure of the credit crisis first started to materialize in the late 1990s, as the real estate market had not yet fully recovered from its slump earlier in the decade. It so followed that real estate was perceived to be relatively cheap and investors began contributing to the growth of what would eventually become a housing bubble. The mortgage business was transformed from one centered around local bank lending, to a global business, where investors from anywhere could pool their money to fund mortgage lending.

With the real estate market continuing to boom well into the recessionary years following the dot com bubble burst and the attacks of September 11, 2001, everyone wanted a piece of the asset class that seemed to appreciate perpetually, notwithstanding (or perhaps, because of) the broad draw back in the major stock market averages.

Fueled by a declining interest rate environment and a relaxation of mortgage approval requirements, many people embarked upon speculative home purchases without significant down payments or proof of income. Mortgage brokers found no guilt in stretching questionable borrowers beyond their means with adjustable rate mortgages (ARMs). ARMs afforded people the chance to finance home purchases with payments that initially seemed manageable. However. over time the low introductory rates would reset higher, leaving the homeowner unable to cover ballooning monthly payments.

The mortgage brokers surely weren't concerned, as larger mortgages meant larger commissions. More importantly,

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the brokers could lay off the risk of these sub prime mortgages onto the commercial banks that were actually making the loans. Likewise, the commercial banks took their cut of the deal and sold the mortgages to investment banks on Wall Street, who packaged the investments into collateralized debt obligations (CDOs). This was an attempt by the investment banks to reduce their own risk. To create these CDOs, the investment banks pooled sub prime mortgages into groups with similar risks, securitized them, paid ratings agencies to give them investment grade credit ratings, and sold the products to willing and unsuspecting investors. As long as the underlying mortgages performed (as they surely would since housing prices had always appreciated in the past and would continue to do so indefinitely), the investor would get a favorable return.

The investment banks (e.g. Bear Stearns), confident as they were in the ever strengthening housing market, oftentimes sold complex insurance policies on the mortgage debt in an attempt to increase profits. As long as real estate prices continued to increase, they would never have to make good on their promise. In addition, since some of these CDO asset pools were too risky to pass off as investment grade, the investment banks decided to hold the securities and earn a handsome return for themselves. In many instances the investment banks were able to keep these investments off of their balance sheet so as to limit the transparency of their risky dealings.

While the underlying structure of the credit crisis was built on an overabundance of confidence in the housing sector and the subsequent securitization of sub prime mortgages, the overpowering catalyst to the eventual system collapse was leverage. Financial leverage resulting from a relaxed regulatory environment and financial innovation was implemented for its ability to exacerbate gains while being grossly underestimated in its ability to inflate losses.

Heavily leveraged hedge funds and investment banks (e.g. Bear Stearns) were the ones ultimately left bearing the risk of these sub prime CDOs. Let us examine a simple leverage example. Assume a \$100 million investment in CDOs is made by committing \$10 million of equity and borrowing the remaining \$90 million. If the underlying mortgages perform as intended and the CDOs appreciate by 10%, the investment is now worth \$110 million, a 100% return on the initial \$10 million of equity. However, if some of those underlying sub prime mortgages default and the market values of the CDOs are reduced by 10%, the hedge fund or investment bank is now left with zero equity and \$90 million in debt. As equity values plummet, margin calls by the those who lent the initial \$90 million come pouring in and a firm such as Bear Stearns, not having enough capital to cover the debt has no choice but to surrender.

Large margin calls and the inability of the borrower to come up with additional capital can result in a complete loss and thus serves as the hand that topples the first piece in a long series of dominos. If Bear Stearns were allowed to go into bankruptcy and suffer the consequences of their own actions, there would have been no way to keep the pain from spreading rampantly throughout the market as a whole.

As it became clear that the credit crunch had all but crippled one of the biggest investment banks in the world, lenders and investors were forced into a state of heightened sensitivity, vowing not to be the next victim of an epidemic that had cast its shadow wide and sunk its roots deep within the capital markets. Irrational behavior took hold, as investors were unable to quantify in dollar terms the risks associated with sub prime debt. Private investors had become unwilling to lend funds and investment banks were unwilling to do business with their peers, as the value of the collateral backing up deals was constantly in question. Even if one was willing to do business in these uncertain times, their hands were tied, as funding was virtually inaccessible. This climax of fear prompted the Fed to take what has arguably been its most dramatic action since the Great Depression.



In normal times, capitalism allows for declining asset prices to fall to a point where institutional investors rush in and buy distressed assets in bulk at fire sale prices. This time proved to be different as the big money investors remained on the sidelines, not fully convinced that a bottom was within sight. While buyers would have eventually moved in, the fear was that it would take far longer than what was deemed to be tolerable by an already weakened economy.

With Bear Stearns having been spared from bankruptcy, many have argued that the actions of the U.S. Treasury and the Fed will do nothing more than create a moral hazard. This claim implies that other investment firms will be more inclined to seek out incremental return irrespective of the added risk because they are assured of a Government bailout should their investments go sour.

In retrospect, although Bear was rescued from bankruptcy, their current position is far from enviable. As a result of their risky actions, Bear Stearns will soon cease to exist and their shareholders have paid dearly. It is hard to argue that the ramifications suffered by Bear Stearns has left shareholders feeling as if they have dodged a bullet by being "bailed out".

If in fact the Fed had managed to create a moral hazard, investors would be immune to risk and willing to chase risky incremental return. This claim has yet to be substantiated by investors' actions as credit quality spreads between Treasury securities and other debt securities have yet to retreat from their recent peaks. This is an indication of a continued flight to quality, where investors are unwilling to take risk, leaving near risk free Government Treasury securities in high demand.

Further discontent with the Fed is being voiced by distressed homeowners who are up in arms over the fact that the Government was quick to respond to corporate America's woes while disregarding the struggle that so many Americans face in trying to stay current on their mortgages. Even though interest rates have been declining, high credit spreads have prevented mortgage rates from falling, offering little opportunity for homeowners to refinance their mortgages. The pain has been compounded further as real estate values have continued to decline, leaving many outstanding mortgage liabilities larger than the market value of the asset.

have failed realize What people to is the interconnectedness that exists between Wall Street and Main Street. When liquidity dries up and Wall Street fails to operate in a fluid manner, lenders become unwilling to lend, deals can't get done, businesses suffer, GDP contracts, and a prolonged recession is inevitable. By offering to lend hundreds of billions of dollars to investment banks through the discount window, the Fed has greased the wheels of capitalism. This in turn will flush some of the reluctance to lend from the markets and serve to stimulate GDP. As the economy eventually recovers and lenders become less disinclined to lend, credit spreads will align themselves with lower historic averages and mortgage rates will eventually relent. However, complete normalcy cannot resume in the residential real estate market until the drastically inflated values of homes come back into line with real wage levels. After all, homeowners can only afford as much house as their incomes can support. Unfortunately this relational adjustment between home prices and real income, along with the effects of the Fed's intervention, will take time.

In the midst of the current credit crisis, it has become clear that a regulatory system that has been largely untouched since its overhaul in the 1930's is not adequately structured or designed for regulators to optimize their effectiveness in today's complex financial environment. At the time of this writing the Secretary of Treasury, Henry Paulson, has proposed a blueprint for a modernized financial regulatory structure. We view this proposal as a starting point from which the debate on developing a regulatory structure suited to monitor and act within the complexities of today's markets can originate. While we may see some

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legislation passed in the near term, we believe that the emergence of a completely new regulatory structure, in its totality, will take years to play out.

In closing, one must always remember the streetwise wisdom that there is no such thing as a "free lunch." It should come as no surprise that adjustable rate sub prime mortgages with virtually no borrower qualification requirements, affording many people the chance to purchase a home that was far beyond their means, turned out to be too good to be true when low introductory rates adjusted painfully upward. In addition, the so-called "risk free" mortgage backed CDOs, claiming to have had the same average credit rating as a typical money market fund and substantially greater returns played out in a similar manner. In protecting oneself in the market environment that we operate, a prudent investor needs to understand the true rarity of stumbling upon an investment that offers superior risk adjusted returns over a sustained period of time.

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Please remember to contact Sigma Investment Counselors if there are any changes in your financial situation or investment objectives.