

SPECIAL POLICY BRIEF 26

Rumors and News: Credit Derivatives Trigger Near System Meltdown

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Rumors started circulating two months ago concerning the possible failure of several large hedge funds and massive losses by at least one major global bank. The source of the troubles was a free-fall in prices in the credit derivatives market that was triggered by the downgrading of GM and Ford. The financial system ended up dodging a systemic meltdown, but without proper coverage and analysis of the events there will be no lessons for policy makers to learn.

This Special Policy Brief is an attempt to put these rumors together in order to tell a coherent story. The purpose is to show how the events posed a severe threat to the stability of our financial markets and overall economy. The narrative also should help illustrate the market problems with these non-transparent markets organized around dealers with no commitment to market participants to maintain orderly and liquid markets.

During these May events, there were only rumors because this “near-systemic meltdown” – in the words of a senior representative of the securities industry – occurred in OTC derivatives markets where there are no reporting requirements and hence no real transparency.

Instead of news and facts, it was rumors that circulated. First the rumors were of one hedge fund failing, and then another. As the New York Times (May 12, 2005) put it, “One firm that was the subject of rumors was Highbridge Capital Management.” Highbridge, which manages a reported \$7 billion in hedge fund investments, had to send out a reassuring letter to investors denying the rumors. GLG Partners – a London hedge fund owned by Lehman Brothers known to have suffered enormous losses – was also the subject of such rumors. More alarming were rumors that Deutsche Bank had lost \$500 million on its own account from trading in credit derivatives and that it faced further losses through a default from its prime broker relationship with an unnamed hedge fund – its stock slid 3% as a result. Kim Rupert, analyst at Action Economics, put it this way, “There could be pretty substantial problems given the size of the moves... At this

point we're trying to figure out whether this is just the tip of the iceberg and how big this iceberg may be."¹

A few journalists cautiously reported this, but were constrained by the lack of factual information and flat denials or refusals to comment by those targeted by the rumors. Being long rumors and short facts is not the basis for sound journalism. And it is made all the more acute because so few journalists feel comfortable talking about the intricacies of derivatives markets and especially credit derivatives.

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THE SETUP

The sources for this Brief are several news articles and a series of conversations with financial professionals at major financial institutions, trade associations and credit derivatives markets in particular. So it is different from previous Special Policy Briefs because it is not built solely upon data and other official facts. Given these limitations, it attempts to construct a more complete picture of the near catastrophe.

Two investment strategies created the condition for these market malfunctions. The first investment strategy was for hedge funds to sell credit protection (i.e. insurance against default or downgrade) to major banks and broker-dealers through credit derivatives. These major financial institutions use these derivatives to reduce their capital requirements by shifting risk onto unregulated hedge funds. As a Federal Reserve Board study put it, "In addition, the use of synthetic CDOs has been mainly motivated by the needs of commercial banks to free up regulatory capital, rather than to offer investors an alternative to the safety of U.S. Treasury securities, and indeed, U.S. banks tend to retain the super senior tranches of synthetic CDOs in their balance sheets."²

Of the array of derivatives, credit default swaps and especially synthetic collateral debt obligations (synthetic CDOs) were the vehicle of choice to transfer credit risk and income. (A brief description of both can be found in Box 1.) The strategy first involved hedge funds selling protection on the equity tranche of a synthetic CDO. The equity or junior segment of a synthetic CDO is responsible for the first portion of the corporate names in the CDO to suffer a credit event. It offers the highest risk and the highest return portion of the credit derivative. This generates income to hedge funds as the protection buyers – often banks and broker-dealers – pay an "insurance premium" of sorts in order to move credit risk off their books.

It should be added at this point that the proprietary trading desks at major banks and broker-dealers also took speculative positions through this credit arbitrage investment strategy.

Hedge funds manage their exposure to this credit risk by shorting the underlying corporate bonds – when economical – or by shorting the mezzanine tranche of the synthetic CDO. The economics of this latter strategy amounts to selling protection on the riskiest tranche and buying protection on the second riskiest tranche. The idea is that corporate credit spreads tend to move together, i.e. have a high degree of correlation, so that losses on the equity tranche would be offset in part or whole by gains on the mezzanine tranche. Hedge funds capture gains on this

1 Financial Times and National Post, May 11, 2005

2 Antulio N. Bomfim. 2001. "Understanding Credit Derivatives and their Potential to Synthesize Riskless Assets." Federal Reserve Board, July 11, 2001.

long and short credit risk play because payments they receive on the equity tranche are greater than that they pay on the mezzanine tranche.

The second investment strategy forming the basis of the market meltdown was hedge fund investments in convertible arbitrage. This strategy involves buying convertible corporate bonds – bonds with an attached call option that allows the bonds to be exchanged or converted into stock at what amounts to a specified price – and hedging out the value of the call option by short-selling the stock. (The amount of stock sold short depends upon the exercise price or conversion ratio, the sensitivity of the option value with respect to changes in the stock price (the delta risk), and the sensitivity of the delta with respect to the stock price (gamma)). The strategy generates a low risk income if the options value of the convertible bond is under-priced in the market and because the practice of hedging the option's value results in systematically selling the stock when the price is high and buying when it is low. Would Adam Smith have made such a high moral purpose of this buy low and sell high activity?

In sum, the foundation was created by two hedge fund investment strategies that were long GM and Ford credit risk while proving inadequately hedged with short positions in mezzanine level credit risk and stock.

THE CATALYST

Some people celebrated the past May the 5th for Mexico's victory over French invaders in 1862 and others celebrated it as Karl Marx's birthday (his 187th), but the folks at Standard and Poor's apparently saw it as the time to release some seriously bad news to credit markets. GM was cut two notches to BB and Ford one notch to BB+.

Although this represented just a couple of steps down the credit grade ladder, it meant that these two corporate giants crossed the threshold from investment grade to junk status. Falling from the status of investment grade meant that pension funds and some other managed funds might be prevented from investing in their bonds. As a result, the price effects of this downgrade were larger than would otherwise result from a single or double step downgrade.

The downgrade also meant that both GM and Ford bonds might be removed from the Lehman Brothers and Merrill Lynch bond indices that set the performance standards for portfolio managers on Wall Street and elsewhere. Removal from these indices would likely harm demand because portfolio managers would not need to buy the bonds in order to match the returns on the index.

This other reason that this downgrade was atypical is that GM and Ford were a major share of the corporate debt market. GM had \$290 billion in outstanding debt and Ford had another \$160 for a total of \$450 billion – several times over the size of Argentina's debt which suffered a default a few ago.

Since the announcement by S&P was widely expected – hints had been “telegraphed” to markets by S&P for some time – it is all the more telling about market stability that it ended up having such a profound impact. As one wire service put it, "After the downgrade there was a few minutes of silence, followed by 15 minutes of mayhem."³

3 Dow Jones Newswire, May 5, 2005, quoting Michael Fuhrman, product manager at GFI in New York, an inter-dealer brokerage in credit derivatives.

THE DELUGE

The downgrades had the following impact on the two investment strategies that was compounded by their impact on credit derivatives prices and to a lesser extent GM and Ford bonds.

The credit arbitrage investment strategies were hit hard by the downgrade because it resulted in an “uncorrelated” event. The credit rating and credit spreads of GM and Ford were sharply affected, but there was so comparable impact on other corporate ratings or spreads and so corporate credit spreads did not change in a correlated manner. The result was that the equity tranche of synthetic CDOs (see box below for description) underwent a huge price swing (the price of protection reported to have risen from 16% to 50% of notional principle for the benchmark CDO index) while that of the mezzanine tranche remained unchanged. The result was a breakdown in the hedge component of the investment strategy that left huge losses on the equity portion with no offsetting gains on short positions in the mezzanine level. Hedge funds that tried to buy back their position were crushed when they had to pay 50% for what they previously sold for 16%.

And that level of loss was not always available because market liquidity broke down. As one newspaper put it, “When these generated losses after the May turmoil and many investors tried to unload loss-making positions at the same time, liquidity evaporated.”⁴ This appears to have been example of what Avinash Persaud has described as a “Liquidity Black Hole.”⁵

The price impact was very high – movements from 16% to 50% represents a tripling of prices – and this could be due to the tremendous growth in the credit derivatives market and the fact that it has outgrown the amount of underlying cash credit instruments, i.e. bonds, in some areas. “There are indications that growth in CDS activity, especially for highly volatile names such as GM, may have outpaced growth in cash market activity by a factor of three to one this year, highlighting the greater use of the CDS market for those who wish to either take on or lay off credit exposure,” said Jim Batterman of Fitch Ratings.⁶

Another reason for the price impact can be explained by the market structure. Credit derivatives are traded in OTC markets where a few major financial institutions act as dealers. Prices are not fully transparent, and the dealers are under no obligation to act as market makers. When certain kinds of trouble emerge, they are free to withdraw from the market. At other times when market participants have reason to doubt the creditworthiness of a dealers – such as rumors that they face massive losses from trading or lending to hedge funds – then the dealer’s counterparties withdraw from the market. And then sometime both factors happen at once. The illiquidity that results is in sharp contrast to the behavior of derivatives exchanges and securities exchanges where liquidity is all but assured. It is also in contrast to the OTC market for U.S government securities where primary dealers are required to maintain bid/ask quotes through the trading day as a condition for their primary dealer status.

At the same that the credit arbitrage strategy was collapsing and causing spikes in credit risk protection, the convertible arbitrage strategy was suffering its own version of the disaster. While in normal times the convertible arbitrage strategy generated low risk and high returns, in rare

4 Gillian Trent, India Business Standard, July 6, 2005

5 State Street Bank working paper, 2001.

6 Quotes in Financial Times, May 12, 2005.

situations it became very high risk and big trouble. The downgrade of GM sent the price of its bonds tumbling, and the short stock position would normally have provided some protection against this event. However, Kirk Kerkorian's bid for GM was not a normal event and it sent the price of stocks up at the same time the price of the bonds was falling. Hedge funds that were long the bond and short the stock lost in both directions – instead of being hedged they found themselves doubly exposed and with leveraged positions.

In short, prices were free falling towards a dry lakebed of a market. Their fall was arrested, according to the same rumors, only when previously uninvolved investors came into the market to seek gain from what they perceived to be miss priced derivatives.

Box 1: CREDIT DERIVATIVES

Credit Derivatives

A financial contract that transfers the credit risk of a reference asset, also known as a “name,” from one counterparty to the other in exchange for payment. The protection buyer or originator makes a periodic payment (think of an insurance type risk premium) to the protection seller. In exchange, the protection buyer has the right, upon the occurrence of a credit event, to deliver loans or securities to the protection seller in exchange for an agreed upon amount (typically par) – or to cash settle the claim. A credit event is usually defined as the failure to perform on a scheduled payment, but might also be defined as a downgrade, bankruptcy filing or other such “event.”

Credit Default Swap (CDS)

The contract is structured so that one counterparty pays a constant payment or “insurance premium” to the other counterparty in exchange for protection from a specified credit event on a particular name or reference asset.

Synthetic CDOs

Synthetic CDOs can be thought of a basket or a portfolio of credit default swaps (CDS). The term synthetic is used to distinguish them from a class of credit-linked structured securities called collateral debt obligations (CDOs). The key difference is that synthetics are pure derivatives and while the CDOs are securities with an actual (as opposed to a notional) principal that is attached to a credit derivative structure.

The risks and payments on these instruments are usually divided into segments called a “tranche” in order that they might better fit the needs of investors. The most junior tranche, known as the equity tranche, covers the first corporate names to suffer a credit event. The next level of risk is the mezzanine or intermediate tranche and covers the portion of names suffering a credit event after the equity tranche as been exhausted. The least risky is the senior tranche and is responsible for the last of such credit events.

The premia or protection payments for each tranche are set when the synthetic CDO is issued. In subsequent trading in the secondary market the tranches are priced as a percentage of their notional principle. As credit risk rises, the price might rise from say 5% to 10% of principal for the tranche that pays a fixed number of basis points in exchange for credit protection on that tranche.

CONCLUSION: THE FIRE NEXT TIME?

What is the extent of the fallout? Exact amounts cannot be known with any clarity or certainty. Actual losses at hedge funds and proprietary trading desks are not reported or at least not reported separately. The change in credit derivatives prices can be estimated from the iTraxx index for credit derivatives, however there is no reported information on the volume of trades and value of derivative and cash positions. Thus estimates of gains and losses to individual firms and the market cannot be determined.

Some anecdotal information can be gleaned from announced hedge fund closings. The well-known Marin Capital hedge fund closed doors after big losses in convertible arbitrage and credit arbitrage; and Aman Capital also closed shop at the end of the mid-year. GLG's Neutral Group, which has credit derivative investments similar to that of Marin Capital, lost \$2.5 billion or 17.2% in the first half of the year. Cheyne Capital's hedge fund lost 4.8% in May alone. The huge hedge fund Bailey Coates Cromwell Fund, after being named Hedge Fund of the Year for 2004, announced in early June that it would close down.

What lessons might markets and policy makers have learned?

The financial sector maintained its customary stance. Either there is no problem or the limited impact of the problem proves that the system works. An exception comes from Louise Purtle of CreditSights, who stated "The combination of leverage, credit deterioration, event risk and illiquidity now bodes ill for how pervasive a period of weakness the corporate bond market will face."⁷ And as an unfortunate coincidence in timing, ABN Amro and AXA Investment Managers chose this time to role out a credit derivatives fund aimed at attracting retail investors.⁸

Reaction by the official sector varied a great deal. Of US officials, SEC Chair Donaldson appeared the most alert and perceptive, stating, "Every week seems to bring another article in the press about the crowding of hedge funds into similar investment strategies and the difficulty that this implies for hedge fund managers eager to post market-beating returns. If history is any guide, it is just this sort of pressure that can lead otherwise well-intentioned professionals to pursue practices that can ultimately result in disaster for the investors they serve."⁹ Unfortunately, this person is no longer helping to regulate financial markets.

In comparison, U.S. bank regulators appeared to have been drinking something caffeine free. Timothy Geithner, president of the New York Federal Reserve, equivocated with, "The growth of credit derivatives . . . seems to have made the system more stable" and at the same time these improvements have come "at the price of increasing uncertainty and potential losses".¹⁰

This position pretty well mimics the equivocation of Federal Reserve chair Alan Greenspan's views on derivatives and credit derivatives especially. Greenspan gave a speech at the Chicago Fed's annual banking conference on the very day of the downgrade and market panic. While expressing his concerns about hedge funds and credit derivatives and concentration amongst derivatives dealers, he also took the opportunity to restate his view that these markets should not be regulated.

⁷ London Times, May 14, 2005.

⁸ Financial Times, May 6, 2005, "Fund lets retail investors bet on CDS A new credit derivatives fund will open up to small investors previously unavailable sources of risk and reward, writes Ivar Simensen."

⁹ HedgeWorld

¹⁰ Quotes in FT, May 14, 2005

This ambiguity about financial contagion and other threats to financial stability may very well be itself contagious. The IMF's Global Financial Stability Report, released before the May events in April of 2005, also concluded that the role of large, complex financial institutions **might or might not** contribute to global financial stability or instability.

Federal Reserve Board vice-chair Roger Ferguson suffered from neither equivocation nor concern as he expressed his glowing assessment of the market. Speaking to the U.S. Financial Professionals and Global Corporate Treasurers Forum in San Francisco, he said "Hedge funds are not at this stage a source of instability, nor likely to become one," he said. "The market discipline of hedge funds has improved over what we have seen in the past." Reporters described him as also saying that the largely unregulated global hedge fund industry was improving market efficiencies.¹¹

One last important item in the policy sphere deserves special attention. The Counterparty Risk Management Group II, formed in January of this year, released a related report entitled, "*Towards Greater Financial Stability: A Private Sector Perspective*" on July 27, 2005. Although the report does not mention the near-meltdown until page 239 of the 278 page report, it does address such issues and does provide a thoughtful and coherent analysis of financial disruptions and threats to financial stability. (Available at www.crmpolicygroup.org).

In contrast to its analysis, the report's recommendations are weak. They are mostly non-regulatory and amount to an appeal for voluntary compliance to several trading, settlement, disclosure policies by the major financial institutions and their hedge fund counterparties.

"Most of the Recommendations and Guiding Principles relate to measures that are within the control and reach of individual institutions. Others entail collective actions by institutions and their so-called "trade groups.""

Even these recommendations face the daunting assumption of the role of such a entirely private, financial sector group:

It was clearly understood by all at the outset that these individuals were not representing nor speaking on behalf of their employers [Wall Street banks, brokers and fund managers] and that neither the individuals nor their employing agencies were being asked to endorse the Report or any of its component parts.

Nonetheless, a noteworthy exception is their call for a joint public and private sector effort to study the potential for a proper framework for regulating hedge funds.

47. Recommendation, Category II & III (pages 149 to 150)

CRMPG II recommends that the private sector, in close collaboration with the official sector, convene a high level discussion group to further consider the feasibility, costs and desirability of creating an effective framework of large exposure reporting at regulated financial intermediaries that would extend — directly or indirectly — to hedge funds.

Using the indirect method, regulators would collect and aggregate large exposure data from traditionally regulated institutions and, through those institutions, collect data on hedge fund activity. Under the direct approach, hedge funds would, on a voluntary basis, provide large exposure data directly to the appropriate regulator.

Rumors are no way to lesson regulatory lessons...

It would be preferable to conclude on a positive note, but there really isn't one. Perhaps two negatives ones will do equally well. The first note is that the details of the May events will not likely be assembled and made available to the public for analysis, scrutiny and fuel for good public policy deliberation. The second note is that both the public regulatory authorities in the U.S. (although the situation is different in Europe) and the powerful financial interests are dead set against taking regulatory measures to address these concerns. They cry out about the crushing cost of regulation, but they ignore the benefits of a more orderly market and they discount the costs of regulations emerging out of a realized as opposed to a near systemic meltdown.

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