

MEMORANDUM

February 6, 2008

TO: Erik R. Sirri, Director
Robert L. D. Colby, Deputy Director
Herbert F. Brooks, Chief of Operations
Michael A. Macchiaroli, Associate Director
Thomas K. McGowan, Assistant Director
Division of Trading and Markets

THROUGH: Matthew J. Eichner, Assistant Director

FROM: Financial Economist
Financial Economist
Accountant
Financial Economist
Financial Risk Analyst
Financial Economist
Financial Economist
Accountant

RE: Risk Management Reviews of Consolidated Supervised Entities

Office of Prudential Supervision and Risk Analysis ("OPSRA") staff met over the past four weeks with senior risk managers at the CSEs to review current market and credit risk packages.

There were several common themes in discussions with firms:

- **The possibility of a recession is on the minds of risk managers.** Risk managers at all CSE firms are concerned about the possibility of a U.S. recession, and some have developed specific recession scenarios to inform senior management about the possible P&L impact of such a situation. Firms have identified several product areas that could be impacted by a recession. House prices could fall further, leading to further price depreciation of firms' remaining mortgage inventory. Within the leveraged finance space, the paper of procyclical corporations (i.e., firms whose earnings are directly related to the economic cycle, such as consumer related) is most at risk of running into trouble in syndication. Risk managers also anticipate spread widening in other corporate credit products, such as investment grade bonds and credit default swaps, if company performance suffers with a recession. Further, equity markets are expected to fall in the event of a recession, although CSE firms have generally had positive P&L from the increased volume and volatility of the markets throughout January. In the interest rate space, firms expect to see steeper curves with a recession, and thus are positioned to profit as short-term rates fall relative to long-term rates. Some firms have had very profitable curve steepener positions as this pattern has already started to occur. Overall, firms continue to reduce risks and hedge positions in anticipation of a possible further slowing of the economy.
- **Risk-taking is down across the CSEs but while measured risk is flat, basis risks are growing.** Value-at-Risk ("VaR") continued to be relatively flat across CSEs, but this overall stability masks some underlying dynamics. Positions have been reduced across many product areas, lowering VaR. However, this risk reduction is offset by the incorporation of risk factor data exhibiting higher volatility into the VaR models, as older time periods "roll off" and are replaced with more recent data. Firms have concentrated on hedging their remaining

positions, although in some instances they have had to use atypical hedging instruments. This has led to growing concerns about basis risk, as gains from hedges may be inadequate to offset losses or the hedging strategies could actually lead to increased losses should correlation assumptions break down. For example, firms often hedge concentrated long single name stock positions with short index hedges. One firm was particularly concerned about their exposure in the scenario in which the index was down 5% while the particular stocks it owns declined by 10%. Some firms also mentioned that they have hedged counterparty credit risk with basket Credit Default Swaps ("CDS") as the single name CDS are not available. Further, the lack of hedging instruments in the mortgage space, especially to hedge Alt-A exposure, has led one firm to hedge with large bearish macro positions. Risk managers are continuously re-evaluating these hedges in light of changing market conditions and possible basis risks.

- **Leveraged finance markets failed to open in January as credit risk managers had hoped, and commercial real estate securitizations are grinding to a halt as well.** At the end of 2007, credit risk managers anticipated that the new year would bring renewed interest by potential buyers of leveraged finance paper. This has not happened as investors remain on the sidelines. Spreads are increasing, surpassing levels reached last summer. CSEs' non-investment grade pipeline exposures are declining as legacy sponsor deals fall apart or commitments come to fruition and the positions are funded and brought onto the firms' balance sheets. Very few new commitments are being made in the leveraged finance space.

Within the investment grade space, however, deals continue to be made and syndication is relatively normal, albeit with slightly higher spreads. In fact, two CSE firms are in preliminary discussions to participate in a multi-billion dollar investment grade acquisition in the natural resources sector.

Commercial real estate securitizations have virtually stopped in the United States and Europe. Toward the end of the month, Asian securitizations also started to slow. As in other markets, spreads continue to widen, and CSE firms are attempting to reduce their risk in this area.

- **Monolines remain a top concern for credit risk managers, but no other negative counterparty credit risk stories have emerged to date.** During the month, several monolines were downgraded by rating agencies. CSE firms with mark-to-market exposure took reserves for all or part of the exposure, depending on the particular monoline. Beyond the monolines, however, the deteriorating market conditions have not yet produced counterparty credit concerns in other areas. Certain hedge funds have faced large redemptions in the aftermath of negative annual returns, but these funds have thus far not caused any credit concerns and are meeting margin calls. Credit risk managers report staying in active contact with hedge funds participating in strategies that have not done well under current market conditions.
- **The mounting concerns around monolines have again focused attention on a number of longstanding issues related to credit derivatives.** Many market participants have purchased or sold protection on monolines through credit default swaps (as distinct from purchasing credit enhancement from a monoline). Therefore, there is focus on the potential operational and legal challenges should a default event occur. As has been the case with other defaults of actively traded credits, a monoline default would lead to a situation where the amount of purchased protection would exceed the amount of bonds issued by the monolines. Under the typical agreement, monoline-issued bonds must be physically delivered by the protection purchaser in order to receive payment from the protection seller. However, many CDS referencing monolines incorporate the 2005 Monoline Supplement, which allows for the delivery of monoline-issued debt or monoline-wrapped debt, greatly increasing the universe of eligible products. That said, there are questions as to what type of monoline-wrapped debt would be permissible, and there are concerns that some purchasers

of protection would attempt to deliver wrapped ABS CDOs whose values have dropped precipitously over the past months and expect to be made whole by the protection seller. On the other hand, there are many monoline-wrapped bonds that are issued by high quality credits such as municipals and would trade at close to par, even after a default by the insurer providing the credit enhancement. Delivering these bonds and receiving par would bring little value to the protection purchasers. All of these uncertainties will make the process of conducting an auction to determine a price for ad-hoc financial settlement, as has become standard industry practice over the last few years, more complicated than the prior auctions conducted for this purpose, e.g. Delphi and Delta.

We also expect to discuss the following firm-specific issues during the next round of meetings:

Bear Stearns

- The Head of the ARMS securitization and trading desk has transitioned to be the Head of Interest Rate Derivatives and F/X, as Bear attempts to grow this business and diversify its fixed income activities away from mortgages. The market risk manager expects that there will be a change in the F/X and rates limit structure going forward to accommodate the expected growth. After new management has had time to more fully develop their business plan, we will review this desk with front office personnel as well as the relevant product-line risk managers. We plan to discuss changes in product and risk focus, personnel, risk appetite, and risk measurement.
- The Risk Analytics team, along with the Mortgages product line market risk manager, is developing a customized housing-led recession scenario. While the scenario is preliminary and still being refined, risk management is now reporting the results along with other Firmwide Market Risk Scenarios. Furthermore, it is being used to drive the firm's hedging activities. The scenario includes all business areas but the focus is on mortgages, where liquidity is the poorest. Given the initial scenario results, the firm intends to reduce its exposure by both (1) selling mortgage inventory where possible and/or (2) adding additional hedges, including macro, non-mortgage related hedges.
- The firm had a particularly challenging month with respect to the daily P&L explain process for its bespoke structured corporate credit portfolio due to the wide swings in certain corporate credit spreads over the month. The firm is working on changes to its pricing methodology - namely in how it derives pricing inputs for less liquid bespoke tranches from observable prices on actively traded index tranches. Given the overall size of the structured corporate credit book we have asked for targeted updates on the risk measurement, management, and price verification of these positions at both our next monthly risk meeting and quarterly price verification meeting.

Goldman Sachs

- The syndication market for leveraged loans remaining from the summer 2007 deal pipeline did not reopen in 2008, as risk managers had hoped in December. Consequently, Goldman is still holding approximately \$30 billion of commitments associated with these "insufficiently distributed" deals, an exposure on which risk managers remain focused.
- Goldman experienced a rogue trading incident that involved a trader entering into an \$8 billion dollar long S&P position via exchange trade instruments, offset by fictitious shorts in OTC derivatives. While the trade was identified the following day, Goldman bore the associated market risk for two days. Consequently, the firm experienced new highs for its firmwide and equity product category VaRs, which were \$200 million and \$220 million respectively. The firmwide VaR measured without this unauthorized position was \$140 million.

Lehman Brothers

- Lehman recent raised its holistic limit for risk, Risk Appetite, to \$4 billion. The firm also increased its firmwide VaR limit to \$150 million, although the divisional limits were not increased in conjunction with this decision. As diversification between the businesses has fallen and correlation between markets has increased, Lehman wants to make sure VaR was set at a level that would not consistently be exceeded due to market moves rather than active risk tasking.
- Lehman remains very focused on its exposure to monolines, and expects to lose approximately \$500 million (net of reserves) if all monolines defaulted today. They are fully reserved against exposure to ACA, and remain an active participant on the Creditors Steering Committee.

Merrill Lynch

- To improve governance and oversight, John Thain, the CEO of Merrill Lynch, has implemented a weekly business risk meeting with the heads of the trading divisions, the two chief risk officers, and the chief financial officer. Although the meeting is still a work in progress, topics of discussion include balance sheet usage, risk weighted assets, and revenues, each broken down by business unit.
- The effects of US and European commercial real estate markets have begun to spill over into the Asian markets. Merrill completed four Japanese CMBS securitization deals in the fourth quarter. The first three, which occurred at the beginning of the quarter, were profitable. The last deal, completed late in the quarter, will at best break even. Merrill has decided to exit the securitization market in the Asian commercial real estate space. All remaining Asian properties will be transferred into the recently started Merrill Lynch Asian Real Estate fund, and thus the risk will be shared with new third party investors.
- The uneven performance for crude oil over the past year across the three trading locations, Houston, London, and Singapore, has made Merrill re-analyze the desk's trading and management strategy. The crude oil book will now be managed on a global basis versus at individual trading locations. Merrill has recently hired a global head of crude oil, who will manage the book out of London.

Morgan Stanley

- Following record losses on subprime exposures in the fourth quarter, Morgan reorganized some of its senior management and reporting structure. The Market Risk Department has begun to follow suit, with some significant personnel changes already visible. We will monitor the changes and their impact on the risk management function going forward.
- Morgan has embarked on a long-term project called Project Phoenix to overhaul the entire IT system for Finance. We anticipate getting an introductory briefing to this effort at next month's risk meeting.
- The Credit Risk Department highlighted that they have started to develop more exposure to lower rated names through their interest rate derivatives business. Their interest rate swap book with corporates has typically been relatively small, but the exposure has started to creep up. As a result, at the next monthly risk meeting OPSRA staff will be given a briefing on these non investment-grade corporate exposures.