

MEMORANDUM

March 1, 2007

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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 January market and credit risk packages.

There were several common themes in discussions with firms:

- **Subprime mortgage market turmoil: the market risk story.** Rising delinquency and default rates for subprime mortgages and widening credit spreads in synthetic and cash securities markets have made headlines recently. The ABX BBB- index, which tracks the cost of buying protection on the lowest-rated tranche of a reference pool of subprime mortgages, began the month at 400 bps over LIBOR and ended January at almost 700 bps. It has since widened out to over 1000 bps. This widening has occurred primarily in the more recent vintages, which reflect mortgages originated in the last year amidst a declining housing market. Some risk managers noted that their firms act primarily as sellers of protection to their clients (often hedge funds) through derivatives referencing the index. This dynamic can make it difficult for dealers to hedge their positions without incurring significant basis risk, and some CSEs experienced trading losses as a result of the widening. However, spread widening has been mostly limited to the lower parts of the capital structure, with spreads in the AAA and AA tranches remaining tight (ending the month at 9 and 14 bps, respectively). The cash market has also been much less volatile, with BBB- subprime MBS trading in the upper 200s at the end of the month. One risk manager noted that CDO managers still have to buy product for their issuances, keeping demand high, and that the inability to short cash bonds keeps selling pressure to a minimum.
- **Subprime mortgage market turmoil: the credit risk story.** Many CSEs incur credit risk to subprime mortgage lenders through pre- and post-settlement exposures resulting from whole loan purchases and through warehouse lines. Much of the focus lately has been on post-settlement exposures, for example those generated when a CSE exercises its right to 'put back' a loan to the seller, often due to an early payment default or a breach of representations and warranties. The seller is required to buy this loan back at cost.

However, in the case of several recent defaults (e.g. Mortgage Lenders Network) the subprime lenders have been unable to fulfill their repurchase obligation, and the CSEs will sell the loans into the market as 'scratch-and-dent,' resulting in a loss. There has also been a good deal of focus on warehouse lines, where CSEs fund a mortgage originator's loan production on a secured basis in order to allow them to accumulate enough loans for a whole loan sale. While the mortgage collateral being financed is subject to a haircut, many of the CSEs have been taking a close look at their warehouse lines to subprime lenders, and in some cases have raised the haircuts or lowered the committed portion of those lines. In other cases, CSE firms have foreclosed on warehouse lines due to covenant breaches and have seized the underlying collateral.

- **Acquisition activity moves into regulated industries.** Typically, the strategy of the CSEs engaging in event-driven lending is to quickly sell down financing commitments, for example through loan syndication or debt offerings. Recent headline acquisitions suggest that financial sponsors may be pushing into more regulated industries such as gaming and energy. Deals involving companies in these industries often take longer to close because they must go through lengthy regulatory reviews, often at both the state and federal levels. The risk can therefore remain on firms' books for much longer than with the standard acquisition financing. One risk manager noted that with these large commitments, 'time is not your friend,' and it is unlikely that firms will be paid for this additional risk.
- **Covenant-lite deals continue to gain popularity.** While each risk manager might have a slightly different definition of covenant-lite, all agree that these deals continue to be pushed by financial sponsors and accepted by deal investors. In essence, a covenant-lite deal is one that has few or no financial covenants, such as leverage or interest coverage tests. This trend makes bank loans look very similar to bonds, which do not have financial covenants. One possible reason for the acceptance of these loans is that many of the newer bank loan investors (e.g. hedge funds) are accustomed to holding bonds, and do not demand the greater protections historically required by banks holding term loans and revolvers.
- **Emerging markets risk goes beyond the BRICs.** While firms have been active in the so-called BRICs (Brazil, Russia, India, and China) for some time, risk managers noted that exposure is growing in other emerging markets. From loans extended to Mongolian banks to large FX positions in the Egyptian pound and Hungarian forint, the CSEs have expanded broadly across the globe. Some risk managers speak of the new paradigm in emerging markets where the potential for market contagion is greatly reduced due to more sophisticated differentiation of countries by market participants, and cite the recent events in Ecuador, Venezuela, and Thailand, where county-specific events remained local phenomena, as evidence. Others are less optimistic, noting that they heard the same "paradigm shift" comments in 1997 and 1998, prior to the emerging markets disruption.
- **CSEs continue to grow their international operations.** Many of the CSEs are opening new branches in countries such as Brazil and South Korea. One CSE noted that half of its trading and securities revenue now comes from Europe and Asia, and that it believes the best growth opportunities are outside the US. In many cases, the firms have been actively trading these countries' bonds and FX for some time, but through off-shore, hard currency markets. As they open branches in the countries themselves, they plan on applying for (or have already received) licenses which will allow them to engage in on-shore, local currency and securities trading. While some CSEs already have regional trading limits in place, others are discussing how to formalize the allocation of risk limits not just by product but by region as well.

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

Bear Stearns

- Bear's mortgage business incurred significant market risk losses on second lien residential mortgage residuals. In January the firm marked down approximately \$300 million of inventory by \$58 million, following \$25 million in mark-downs the previous month. The mark-downs are the result of deteriorating performance in the underlying loans (i.e., increased delinquency rates), as well as residual sales. While these losses are not material at the group level, or even at the level of the overall mortgage business, risk managers note that these events reflect a more rapid and severe deterioration in collateral performance than anticipated in ex ante models of stress events. Separately, Bear's second lien product is comprised primarily of Alt-A credit quality loans, while other CSE firms have reported losses primarily in the subprime space. We plan to discuss the firm's positions and performance in both the second lien and subprime residual products again next month.
- We requested an update on Bear's Structured Funds Business (see OPSRA report dated June 26, 2006 for detailed business overview). The business, which primarily generates gap risk to baskets of hedge fund shares, has continued to grow steadily. The loan equivalent amount of the desk's position has reached \$5.8 billion, and thus is approaching the current limit of \$6.5 billion. Consequently, it has requested a limit increase to \$10 billion. In addition, while the vast majority of transactions done to date reference relatively diversified baskets of hedge funds shares, risk managers note some trend in the market towards single fund underliers. We will continue to monitor this activity and discuss any shift in risk appetite, including willingness to enter into riskier trade structures, with risk managers.
- The risk manager for Europe and Asia reported there has recently been some increased trading activity with emerging market counterparties. While Bear's fingerprint in emerging markets is still quite small, the firm has recently established credit lines with financial institutions domiciled in countries such as in Kazakhstan, Russia and Mongolia. We will continue to monitor this nascent activity going forward.
- As discussed in previous months, risk management has been considering "re-engineering" the process for reporting market risk to the Executive Committee. A prototype risk report should be available for our review at the next monthly meeting. In addition, Bear has been in the process of refining its market risk limits framework (also mentioned in previous memos in the context of establishing firm-wide limits). We intend to discuss the new framework in more detail in the coming months.

Goldman Sachs

- Goldman's mortgage business incurred approximately \$70 million in market risk losses as a result of the recent subprime mortgage spread widening. While not material at the group level, the losses help to highlight some current market risk challenges. For instance, the magnitudes of the spread widening, as well as the rapid deterioration of underlying loan performance (e.g., increased delinquency rates), have been more severe than many considered plausible ex ante. In addition, as mortgage businesses have evolved beyond securitization activities and also become more active trading desks, managing more subtle basis risks has become increasingly important. We will continue to monitor and discuss this space with risk managers.
- Goldman has been actively managing its counterparty credit exposures to subprime mortgage originators, particularly in its warehouse lending business. They have taken an aggressive tactic with a large subprime originator that was recently forced to restate its

financial results. By raising haircuts to an uncompetitive level, they have effectively terminated the line. Goldman noted that they are acting aggressively to minimize losses, even at the cost of future business.

- The dominance of equity-related exposure as the primary driver of the Firmwide risk profile persists. Following the firm's year-end limits assessment, the Equity Product Category standalone VaR limit was increased to \$120 million. According to risk managers, the equity space is currently perceived to offer the most customer and proprietary trading opportunities. We will continue to monitor these exposures and discuss any further shifts in the firm's associated risk appetite.

Lehman Brothers

- Lehman has been aggressively remarking the collateral held through its mortgage warehouse lines. As the collateral has been marked down, Lehman has made margin calls on their clients, the mortgage originators. These calls have been in the \$10 - \$20 million range, and so far clients have had no difficulties in meeting them. However, the risk manager noted that widespread calls of this nature by many warehouse lenders may cause problems for liquidity-constrained originators. Lehman, already a large player in the mortgage space, is keeping a close watch on this phenomenon.

Merrill Lynch

- Merrill's subprime whole loan inventory stands at \$8.7 billion with the majority of the loans originated by First Franklin, Merrill's recently acquired originator. Performance of First Franklin collateral has been solid, with a delinquency rate about one-fourth the industry average. The rest of the collateral is from lower rated originators and we will closely monitor the planned securitization exit for these loans. In addition, Merrill currently has \$200 million in outstanding early payment default claims to lower rated subprime originators. If Merrill is unable to put back these loans, they could be facing a \$40 million loss.
- Merrill Lynch has seen its non-U.S. revenues grow to 50% of total revenues, and management sees more opportunities for growth outside of the U.S. For example, trading activity in Asia has increased with Aussie dollar-yen positions and the rise in European leveraged buyout activity has increased financing commitments. Market risk management is working with senior management on allocating limits regionally as well as by product. We will continue to monitor Merrill's risk appetite in this space as expressed through its limits.
- Trading VaR increased significantly last month predominantly due to increases in proprietary trading activity across most risk factors. Merrill Lynch has several proprietary trading groups that take positions across multiple asset classes. Market risk management is closely monitoring aggregate risk generated by these different groups.

Morgan Stanley

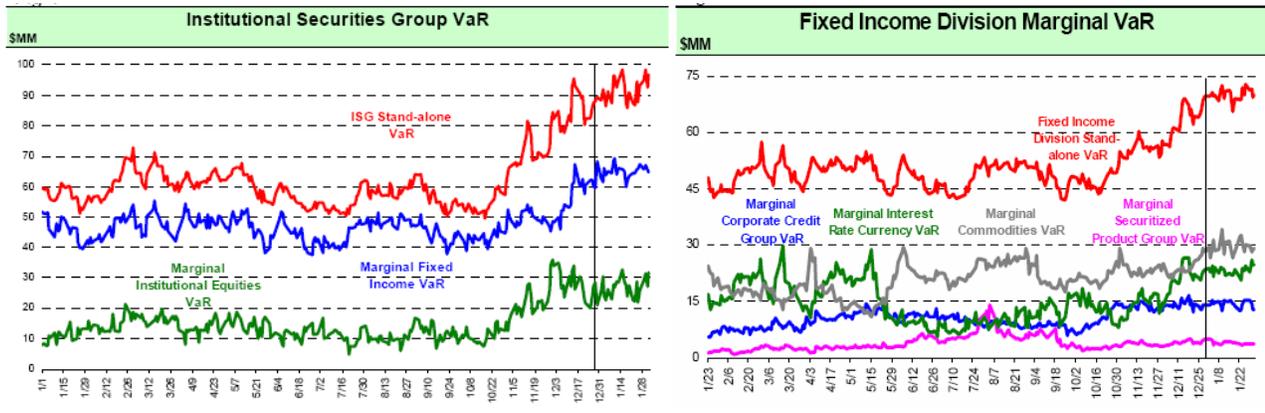
- Morgan has a significant subprime securitization business, which relies on a relatively small number of large originators to source product. Subsequent to the monthly risk meeting, one of these originators restated its earnings and its stock price dropped by 30%. At the next monthly meeting, we will follow-up on how the deterioration of subprime originators is affecting the risk profile of the business.
- The Chief Credit Officer discussed a recent "fire drill" exercise that the department had undertaken with respect to its subprime warehouse lines. As part of this process, Credit

tested their assumptions and the coordination of roles and responsibilities given a stress or default event. In addition, Credit discussed other recent actions taken in this space, such as increasing the frequency of marking collateral on these warehouse lines. Given the exposures and the recent problems subprime originators have been facing, they will continue to monitor developments in this area closely.

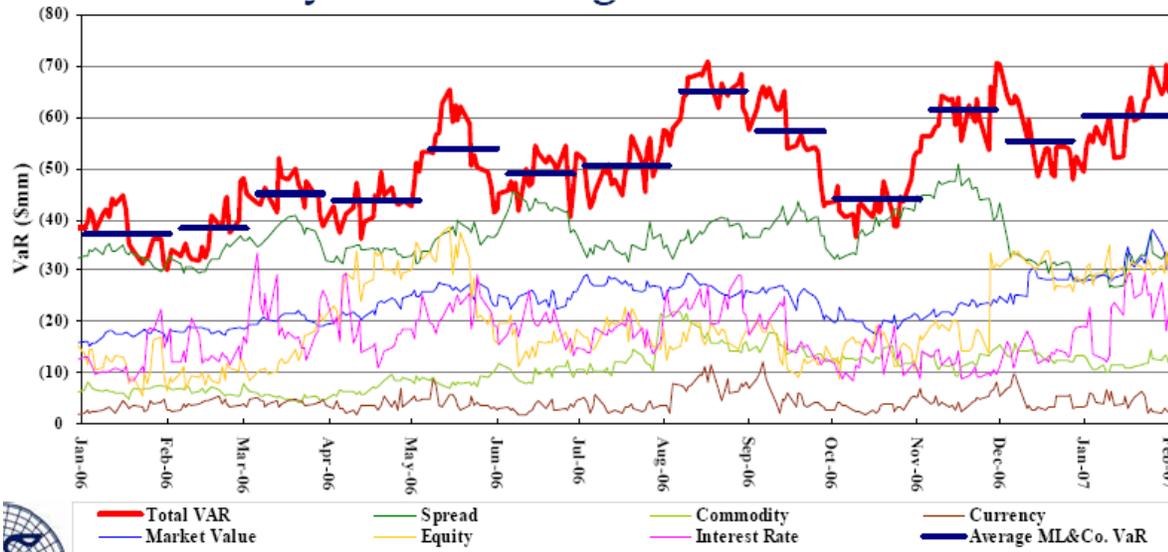
- Emerging markets risk-taking has increased significantly. This spans a range of asset classes and liquidity profiles. We anticipate doing a deeper dive in the emerging markets business, with a focus on getting a better understanding of the risk exposures and risk measurement and aggregation methodologies.

VaR trends through Jan07

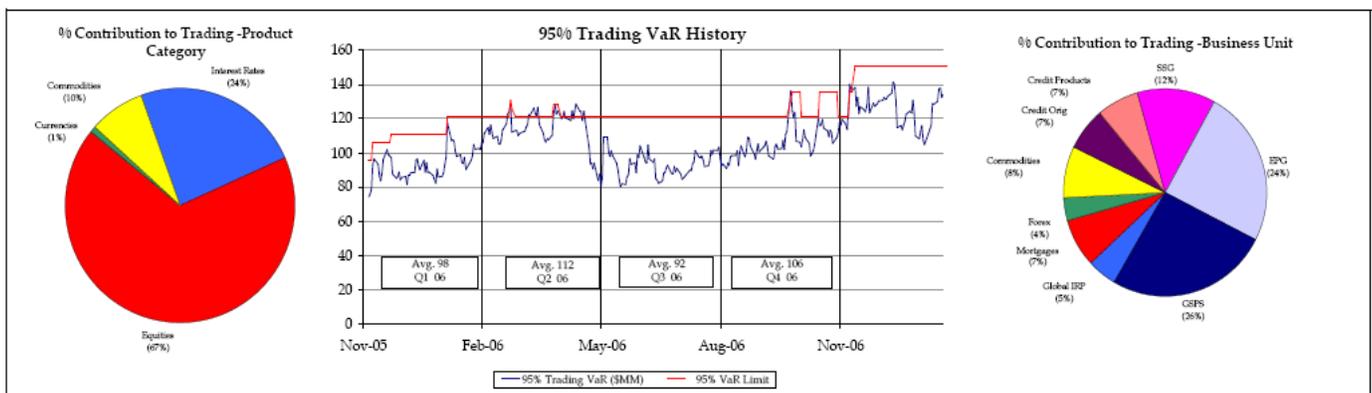
Morgan Stanley (95th 1-day) source: Firm Risk Committee report



Merrill Lynch (95th 1-day) source: Monthly SEC Risk Package



Goldman Sachs (95th 1-day) source: Firmwide Risk Committee report



Graphs for Bear and Lehman forthcoming

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