

MEMORANDUM

February 2, 2007

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Robert L. D. Colby, Deputy Director
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Division of Market Regulation

THROUGH: Matthew J. Eichner, Assistant Director

FROM: Financial Economist
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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 December market and credit risk packages.

There were several common themes in discussions with firms:

- **Risk-taking at most of the CSEs increased significantly during the month.** Firm-wide value-at-risk (VaR) measures and scenario/stress tests hit record highs in December at most of the CSEs. Although longer directional exposure in equities was a common theme – fueled in part by seasonal block trading as institutional investors rebalanced portfolios at year end – the risk drivers at each firm varied somewhat. Notably, at several of the firms long exposure to emerging market local currencies increased dramatically.
- **Goldman envy.** Year-end earnings for the CSEs were quite positive across the board. However, Goldman stood out. The perception among peers is that Goldman took more risk (i.e., ran higher VaR) in a wider variety of assets (especially commodities, "special situations"/distressed and private equity) and by using more of its own capital (i.e., proprietary trading). Perhaps not surprisingly, then, several firms have increased risk-taking, as noted above, and risk limits for 2007 are being revised upwards at most of the CSEs, including at Goldman. Notably, expanding activities outside of the U.S. and into growth and sometimes non-core areas, such as emerging markets, commodities, and principal investments – often with a prop trading mindset – appears to be a focus area for firms as the year gets underway. (Motivated by these developments, we have begun a cross-firm review of private equity and other principal investments at the CSEs.)
- **"Technical factors" continue to support the rosy outlook in credit markets.** Leveraged lending and securitization activity, particularly in the commercial real estate space, marches on. "Strong technicals", meaning investor demand, continue to support ever larger deals. The leveraged buyout battle for Equity Office Partners where the anticipated debt package will

easily top \$30 billion is a particularly stark example. Some risk managers point to the so-called “CDO bid” or “structured bid” as one of the main drivers behind the continuing tightening of credit spreads, which many have cited as a market signal of a positive outlook on credit. This bid refers to the seemingly insatiable investor demand for structured credit paper, such as collateralized debt obligations (CDOs).

- **The CDO bid and ratings agency arbitrage.** The “CDO bid” noted above has been driven in part by ratings agency arbitrage. Many institutional investors operate under investment guidelines that reference public ratings, for instance by requiring a very high proportion of the portfolio to consist of publicly-rated investment grade (IG) paper and limiting the amount of non-investment grade (non-IG) exposure. However, significant growth in lending in the past several years has been through non-IG loan products, namely, leveraged loans in the corporate lending space, subprime loans in the consumer credit space, and subordinated loans (mezzanine, PIK, 2nd lien, etc.) referencing a variety of collateral types. Securitization through structured products, like CDOs, has helped to bridge this gap between non-IG loans and IG-constrained investors, by diversifying risk through pooling and adjusting the risk profile for different tranches through structuring. As a result, most of the securities issued by CDOs receive IG ratings from the ratings agencies, even though a significant portion of the underlying loan assets may be non-IG. The rating agencies use models to determine which types of collateral and tranching structures support different ratings. These methodologies are monitored very closely by collateral managers and structuring banks, such as the CSEs, who know that the ability to close and distribute a deal hinges on achieving the desired ratings. Should the ratings methodologies suddenly change, for instance due to unexpected default losses, the CDO bid noted above may dry up. Given the sheer size of this market and the corresponding growth in credit derivatives trading, the knock-on effects of such a change in market dynamics could be significant.
- **Macro-hedging is back, with a twist.** At many firms, certain senior managers/trading heads are authorized to put on “overlay” positions, trades that hedge portfolio-level, rather than position or desk level, risks. This may occur when each of the individual traders and/or desks is under risk limit, but the division as a whole may be running an uncomfortably high level of aggregate risk, perhaps due to the correlation across positions. In December, several firms saw managers put on sizeable macro-hedges to offset broad exposure to credit spreads. In some cases, rather than using credit derivatives, managers relied on equity index options to provide protection, thereby incurring basis risk. Moreover, it appears that market risk managers may be playing a more active role in designing these trades, particularly in advising which positions to take and in what size, to reduce risk in the aggregate.

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

Bear Stearns

- During this past month’s risk meeting, the risk manager proposed the idea of eliminating one of the primary risk reports that we review during our monthly market risk meetings. The risk manager noted that while this report was still going to the Executive Committee, it was not a real focus of senior management. Further, he thought the risk department could provide us with a more meaningful report that provided risk information at a somewhat higher aggregated level (e.g., Fixed Income, Equities, Mortgages, etc) versus the current report which is very granular. This proposed change in reporting is consistent with the move to place more emphasis on aggregated risk measures during our discussions with market risk managers.
- As previously highlighted, Bear Stearns’ corporate lending business has grown substantially and has approved some very lumpy buyout transactions. The Chief Risk Officer stated that the leverage finance business was the number one focus of risk management in the firm and that the firm was close to its satiation point. As a result, senior management asked the

business to increase its hedging activity, in particular hedging the credit spread risk associated with deals in its pipeline as well as left-over positions from previously closed deals. In addition, the Chief Risk Officer stated that the firm was working on implementing a more formalized limit structure for this business. We will continue to discuss these initiatives with risk management.

Goldman Sachs

- Firmwide value-at-risk (VaR) usage reached an all-time high of \$141 million on January 5, with the firm's aggregate risk profile continuing to be driven by equities exposure. During January, Market Risk Management and Analysis (MRMA) will be presenting its annual market risk limits review to the Firmwide Risk Committee. We will discuss any revisions to the limits framework next month.
- The corporate lending pipeline remains robust, and Goldman currently has six commitments greater than \$2 billion. In addition, there appears to be a resurgence of covenant-lite deals, which are being placed in the market with little difficulty. We will continue to monitor Goldman's risk appetite in this space.

Lehman Brothers

- Firmwide VaR climbed to \$63 million, reflecting Lehman's significant increase in risk appetite. In addition, for 2007, they have increased their firmwide risk limits by 45%, compared to a 10% increase in 2006. The increase in risk appetite is reflected in Lehman's continued expansion of proprietary trading businesses. We will continue to discuss this evolving approach to risk-taking, as well as risk management processes around new proprietary trading activities.

Merrill Lynch

- On January 2nd, Mortgage Lenders Network (MLN), a subprime mortgage lender, announced that it has stopped funding loans and accepting new applications. Subsequent to the announcement, Merrill terminated MLN's \$1.95 billion asset based lending facility due to a breach in liquidity covenants and seized the \$1.5 billion in loan assets that were collateralizing the funded loan amount. As stated last month, Merrill also acquired \$1.2 billion of Ownit-originated mortgages prior to the collapse of the subprime mortgage lender. As Merrill now holds substantial amounts of subprime mortgage product, we will continue to monitor the overall exposure and work out.
- Market Risk Management (MRM) recently provided the Finance Committee with its annual update. Under the direction of the new head of market risk, MRM has moved away from a transaction-level approach dependent upon strong product risk managers toward greater use of aggregate level metrics. Specifically, the adoption of the limit framework (i.e., more granular sets of VaR-based limits) and of equity specific risk are two examples of more emphasis on portfolio based metrics. We will continue to monitor the implementation of these initiatives.

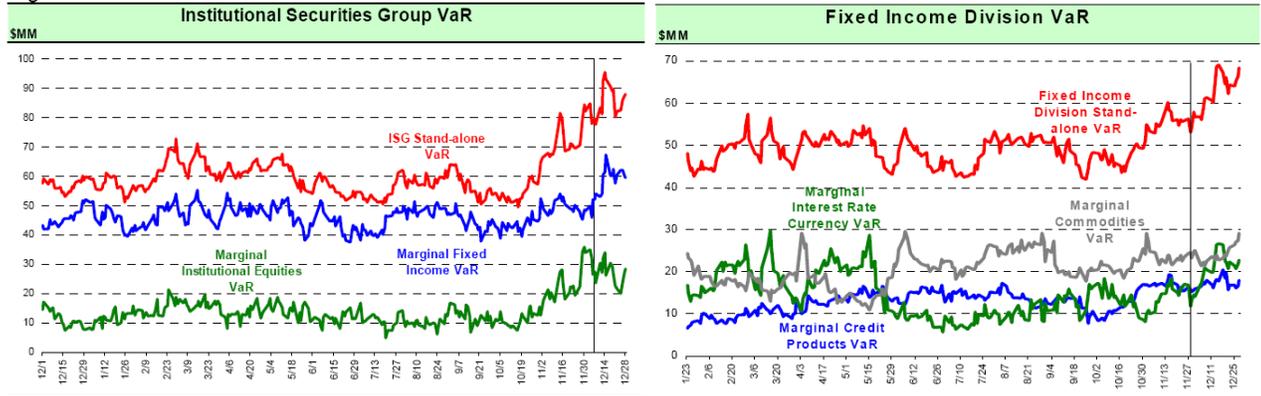
Morgan Stanley

- At month end, the non-investment grade "relationship" positions were above their portfolio limit for the second time in recent months. (Relationship loan commitments are made with the goal of facilitating other business with the borrower and are often uneconomic on a standalone basis.) This area remains a focus of senior management and the credit risk department. Credit risk managers stated that roughly half of the positions in this portfolio are continuing to be sold or hedged post syndication. In addition, over the next few months, the

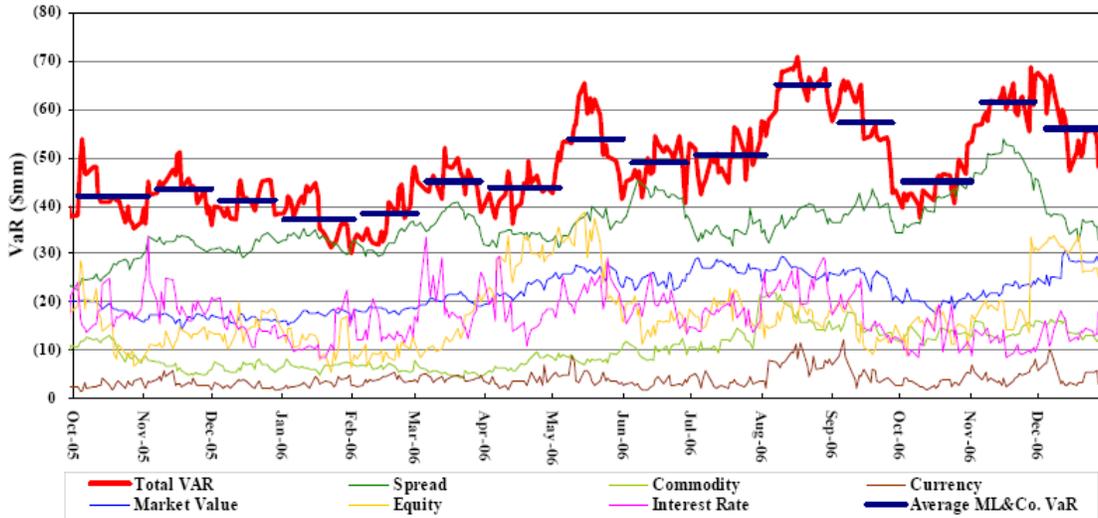
business plans to distribute a significant amount of this product by contributing the loans to a couple of Morgan Stanley-led collateralized loan obligations ("CLOs"). We will continue to monitor the firm's progress in distributing out this risk.

VaR trends through Dec06

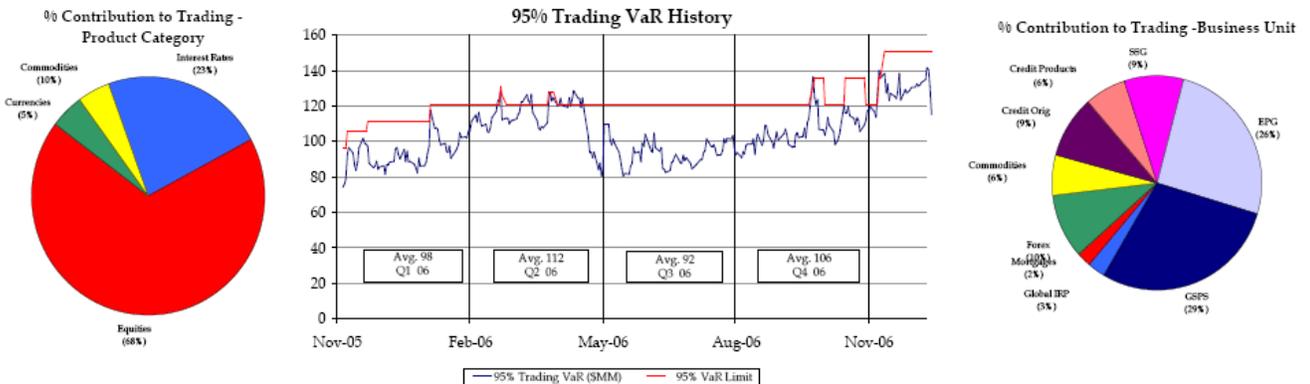
Morgan Stanley (95th 1-day) source: Firm Risk Committee report



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