MEMORANDUM

July 5, 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 May market and credit risk packages.

There were several common themes in discussions with firms:

- **Losses on subprime mortgage-related products caused distress at two Bear Stearns-managed hedge funds.** Two Bear Stearns-managed hedge funds experienced liquidity pressures during the early part of June. Bear Stearns High Grade Credit Strategies Enhanced Leverage Master Fund ("Enhanced") and Bear Stearns High Grade Structured Credit Strategies Master Fund ("High Grade") held portfolios of investment-grade structured credit products, including derivatives referencing market indices, asset-backed securities ("ABS"), and collateralized debt obligations ("CDOs"). These derivatives and securitized products are tied directly or indirectly to the performance of pools of subprime mortgage loans. While both portfolios consisted primarily of "high grade" paper, the instruments embedded significant economic leverage. The Enhanced fund further increased its financial leverage beyond the levels attainable with repo financings using additional bank borrowing.

  After Enhanced reported losses for three consecutive months, its three largest investors submitted redemption requests which would have eliminated one third of the fund's capital. In addition, the fund's creditors, including several of the CSE firms, issued margin calls as a result of the decrease in value of the collateral backing the secured financings. Unable to meet these liquidity demands, the Enhanced fund was declared to be in default and several creditors began to seize the fund's assets that they were financing. Soon after Enhanced's liquidity issues became public, pressure began to mount on its sister fund, High Grade, which invests in similar assets but without the use of the additional leverage.

  Enhanced is in the process of liquidating its remaining positions in an orderly manner while Bear Stearns has stepped in to assume the secured funding obligations of other creditors to the High Grade fund. Currently, none of the CSE firms have more than de minimis exposure, net of collateral, to either fund. However, they are reviewing their policies regarding setting "haircuts" on less liquid positions that are financed on a secured basis.

- **Investors turn to CLO and leveraged loans for high yielding investment returns.** With the increased turbulence in the subprime market space, investors have turned toward the collaterized loan obligation ("CLO") market and leveraged loans for yield. As one risk manager noted, investor demand for both loans and related securitized products has been insatiable over the last few months. However, the real test of investor appetite will be in the next couple of weeks. Several large leveraged loan deals will price in the coming days with several more to follow before the typical summer slowdown begins. The initial investor reaction has been unfavorable to the recent large deals that were structured with covenant-lite terms or with payment-in-kind ("PIK") toggles. Some of the covenant-lites structures, which lack the traditional lender protections, and PIK toggles, which allow the borrower to make interest payments in cash or additional bonds, have recently been rejected by the market. Hence, many firms are relying on their covenant-flex terms (i.e., the ability to reinstate traditional covenants terms) or eating through their fees to syndicate the deals. In some cases, investment banks have retained positions on their balance sheets that they had initially intended to syndicate or funded bridge loans that were intended to backstop bond issuance. With the sustained problems in other structured markets, risk managers are devoting special attention to this space.

- **CDPCs: the rise of a new breed in the derivative space.** In the past few months, a number of credit derivatives product companies ("CDPCs") have been established by major dealers. A CDPC is a AAA-rated, bankruptcy remote, special purpose entity that sells default protection on single name corporate credits as well as structured credit such as senior bespoke tranches. The protection is "deep out-of-the-money," meaning that the protection purchaser receives payment only in the event of a very significant deterioration in the underlying credits. To maximize profitability, CDPCs are structured to employ the minimum level of capital necessary to secure the desired AAA rating from the rating agency models. In practice, this leads to the entities employing a substantial amount of leverage, with little capital relative to the notional amount of protection written. Because market convention does not require 'AAA' rated counterparties to post collateral, liquidity requirements are similarly modest.

  Given the lack of margin requirements and lack of transparency of the relevant capital models, the majority of CSE firms do not consider CDPCs as AAA-rated and have limited potential exposure to them. In essence, the CSE firms believe that, under those market conditions when the deep out-of-the-money protection becomes relevant, the CDPCs will not be in a position to pay.

  Given this "wrong-way" risk, questions arise concerning the motivation of those who do purchase protection. One possible explanation given by risk managers is regulatory capital arbitrage. As a result of buying protection, some institutions may reduce measured market risk, with resulting reduction in capital requirements. The seller of protection is, in theory, accepting the risk and should as a consequence hold additional regulatory capital offsetting the reduction in the purchaser's requirements. But, this is not the case where protection is sourced from a bankruptcy-remote CDPC.

  Another potential supervisory concern, in addition to the leakage of regulatory capital, involves whether financial institutions sponsoring CDPCs would in fact allow them to fail, or whether, despite the bankruptcy remote structure, they would feel pressure to infuse additional capital into the entities.

- **Slow down in prepayment speeds produces mixed results**. CSE firms have observed the prepayment speeds on mortgage loans slowing down recently. For subprime mortgages that are predominately underwritten as variable rate loans, prepayments are largely driven by mortgage borrowers refinancing their loans to meet mortgage payment obligations. With the current turmoil in the subprime market, numerous subprime mortgage originators have either gone bankrupt, exited the market, or tightened their underwriting standards. Thus subprime borrowers have fewer opportunities to refinance their loans. Slowing prepayment speeds can have various effects on different pieces of ABS and CDO capital structures. For example, principal only bonds are being marked down as repayment is being extended into the future, while the interest only bond holders fare better so long as borrowers continue to make their payments. Risk managers remain poised for increased delinquencies as adjustable rate mortgage borrowers face substantially higher payments when "teaser" rate periods expire.

- **Firms are formulating new flavors of CDOs intended to attract a wider investor base.** Firms are designing new investment products that apply the CDO technology commonly used within the credit world to reference other types of underlying assets. For example, Merrill Lynch recently launched the first FX CDO, an investment that references a basket of FX assets. Other new investment products being considered for launch are Equity CDOs and Commodities CDOs. Goldman recently underwrote a reinsurance/catastrophe bond CDO.

- **Contingent deal swaps are on the rise.** With the increases in both size and volume of leveraged buy out activity and corporate acquisitions, the use of deal contingent swaps is growing. Deal contingent swaps permit a potential acquirer to hedge currency or interest rate risk relating to the financing component of the deal on a forward starting basis. But the swap terminates (typically before being struck) if the deal falls through. Although trading volumes in such swaps have been small thus far, they tend to be quite large in size. One risk manager noted they are challenging, messy, and complex to hedge, especially as the probability for deal close falls. Most deal contingent swaps that are offered are relatively short-dated but another risk manager noted that deals are taking longer to close due to the necessity of resolving regulatory issues.

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

<u>Bear Stearns</u>

- As of late June, both the BSAM High Grade and Enhanced funds had been significantly de-levered, largely via bilateral agreements involving the sale of BSAM assets to the fund's secured lenders. Consequently, total asset values as well as the size of outstanding repo lines had been reduced to a fraction of April levels for both funds. During this unwind period, Bear Stearns (parent) agreed to become the sole secured funding provider to the High Grade fund, taking all remaining repo counterparties out of their positions. While Bear's June 22nd press release asserted the firm was establishing a $3.2 billion repo facility in order to accomplish this, only $1.6 billion was required (as of June 25) due to further success in selling High Grade's positions, thus repaying credit lines. At that time, the value of the cash and collateral securing the new repo line was estimated to be between $1.7 and $2 billion. Meanwhile, Bear has not replaced any of the Enhanced fund's outside funding, as it appears there is no remaining investor equity to preserve.[1]

- As discussed in last month's memo, Bear Energy announced in May its agreement to buy the power portfolio of Williams Power Company. The portfolio consists of power plant tolling agreements, a set of full requirement power contracts, and an associated hedge book (which includes futures and other contracts). OPSRA staff reviewed the proposed regulatory capital calculation for the Williams portfolio during the June meeting. The standalone one-day 99th percentile value-at-risk ("VaR") for the portfolio is currently estimated to be around $50 million, which is greater than the current Bear Stearns holding company VaR of under $40

[1] Bear personnel have articulated that the firm was stepping in as creditor to the High Grade fund in an attempt to prevent a fire sale liquidation and maximize recovery to the fund's investors.

million. However, there is a significant diversification benefit generated at the holding company level. Separately, a new Chief Risk Officer was hired for Bear Energy. This individual, who is coming from Suez Energy, brings considerable risk management experience in the power and gas trading space.

- Bear's Non-agency CMO desk lost approximately $110 million in May, largely due to write-downs on second lien and subprime residuals. However, the Mortgages business as a whole made nearly $200 million due to gains elsewhere. For instance, the Global CDO desk, which was long credit protection in 2006 vintage subprime and second lien tranches, made approximately $90 million. In addition, the ARMs desk made over $100 million due to a combination of factors including new deals and mark-ups on option ARM residuals as well as structured IO positions, the latter of which was driven by slowing prepayment speeds. We will continue to discuss mortgage P/L in detail with mortgage risk managers, as well as the price verification work done in this space.

<u>Goldman Sachs</u>

- Goldman was engaged in repo and OTC derivatives trading with both the BSAM High Grade and Enhanced funds, with the bulk of its potential exposure being to the latter. All trading with both funds was done on a fully (over) collateralized basis. Given that Goldman was marking-to-market the funds' repo collateral and other positions daily, it was never forced to make an outsized margin call. Once it became evident that the funds (particularly Enhanced) would not have sufficient liquidity to continue to meet margin calls, Goldman commenced bilateral negotiations with the funds to close out positions. Goldman purchased the assets that it had been financing through repo, effectively moving them into Goldman's trading inventory. They unwound the OTC derivatives at a price that allowed them to return excess collateral to the funds. In addition, Goldman actually made a small profit on the unwinds.

<u>Lehman Brothers</u>

- Lehman has increasing exposure to bridge equity for both leveraged buyout ("LBO") and real estate deals. Syndication of a recent LBO bridge equity did not go well, and Lehman is being selective in entering new deals with a LBO bridge equity component. Real estate bridge equity commitments, on the other hand, have more than doubled between May and June. Risk management expressed comfort in this ramp up as they feel their business has the capability to market this paper successfully. We will continue to monitor the syndication of bridge equity commitments across all asset classes.

- Lehman had exposure to both BSAM's Enhanced and High Grade funds collateralized by illiquid AAA and AA bespoke tranches of CDO-squareds. As of the date of the monthly meeting, outstanding margin calls were $26 million for Enhanced and $5 million for High Grade. Lehman later agreed to buy the collateral from BSAM for a payment of $15 million from BSAM, which closed the positions with both funds.

<u>Merrill Lynch</u>

- Merrill continues to ramp up its risk-taking across multiple areas as firmwide VaR ended the month at $89 million as compared to the average $70 million during the year. Interest rate risk increased throughout May, ending the month in the $70 million range. In addition to increased risk-taking in liquid areas such as rates, Merrill is stepping into less liquid areas, such as investing in the output of a proposed coal mine in Indonesia. We will continue to monitor Merrill's appetite for increased risk and the management of that risk.

- Merrill provided repo financing to both BSAM's Enhanced fund and High Grade fund. When both funds were unable to meet their liquidity demands, Merrill issued notices of default and seized $647 million of assets from the Enhanced fund and $255 million of assets from the High Grade fund. Days following the default, Merrill has been able to liquidate $181 million of the seized collateral. We will continue to monitor Merrill's progress as they work down their position.

- Merrill is in the process of creating a CDPC which will focus on providing protection on super senior structure credit. We will continue to monitor and be periodically updated on the progression of the new CDPC as it is expected to be launched during the fourth quarter of 2007.

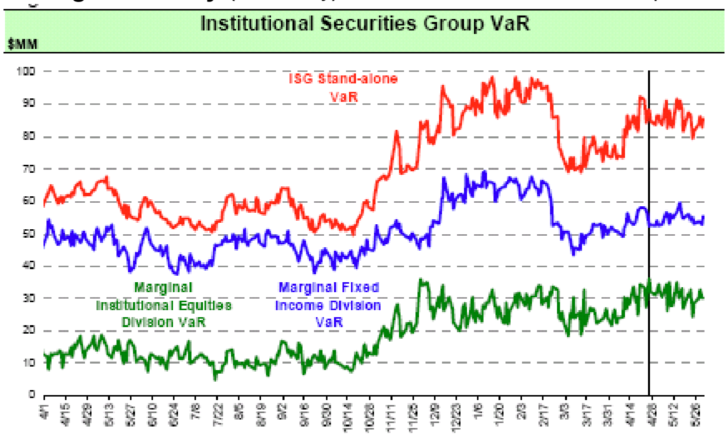
<u>Morgan Stanley</u>

- The corporate lending portfolio reached another record level of $70.4 billion net commitments, up approximately $7 billion from the previous record last month. This increase was driven by both financial sponsor and strategic acquisition financing as well as some new investment grade relationship loans. During the month, the firm exceeded its $15 billion sub-limit for Financial Sponsor Event-lending pipeline which required a limit excession approval by the Chief Risk Officer. At the most recent Firm Risk Committee meeting, senior management granted temporary limit increases to both the Financial Sponsor and overall event-lending pipeline. At the next Firm Risk Committee meeting, management will discuss new limits for the event lending pipeline. We will follow-up on the outcome of these discussions.

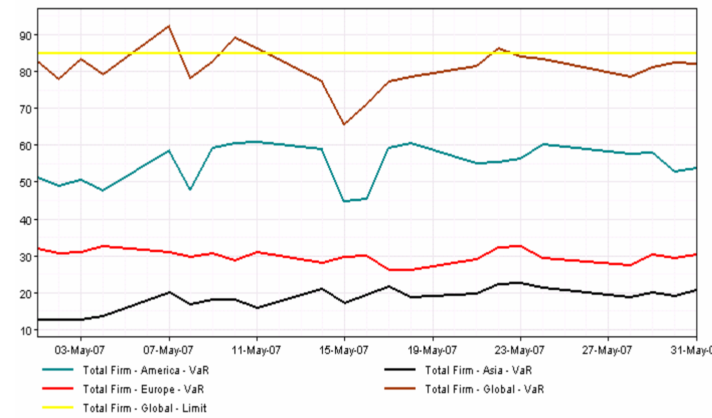
- The co-head of Institutional Securities Group asked the Market Risk Department to develop a scenario loss hedging program, as the firm has begun bumping up more frequently against its firm-wide scenario limits. Firm-wide scenarios are completed for historical and hypothetical events. For example, in the Financial Distress scenario, which is based in part on market moves during the fall of 1998, equity and asset prices fall, credit spreads widen, the yield curve steepens, and volatilities spike. We will track this initiative going forward.

VaR trends through May 07 *(June meetings)*

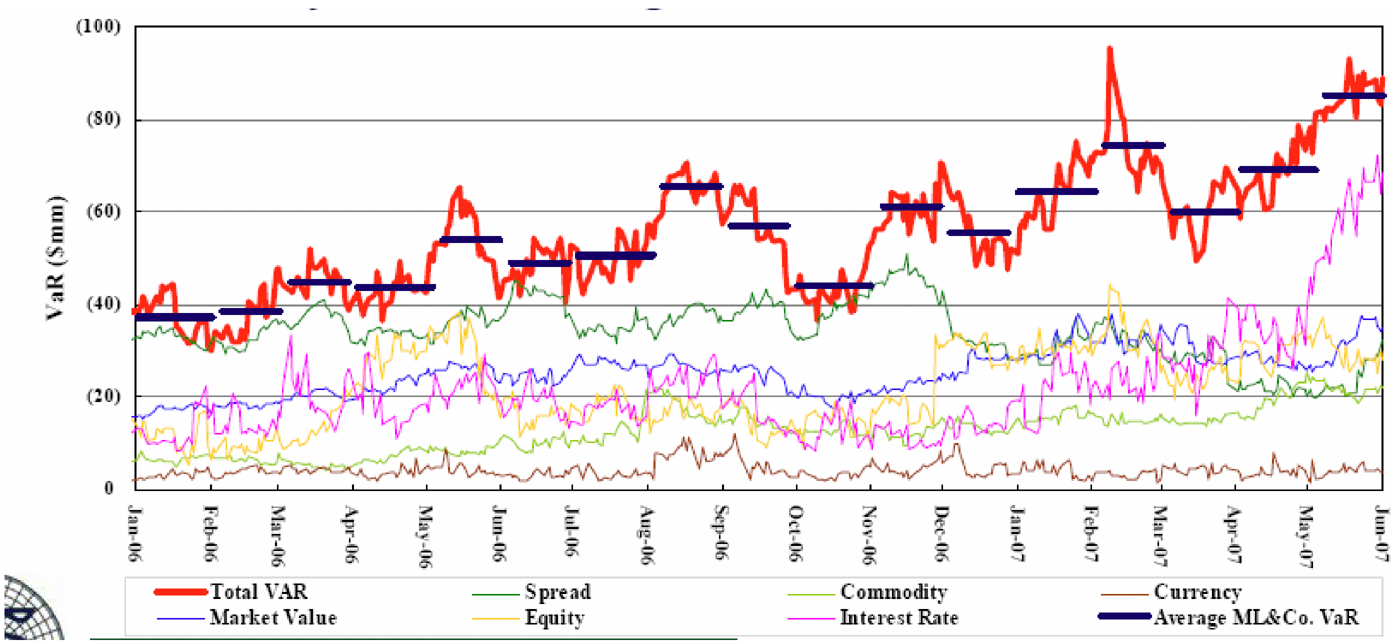
Morgan Stanley (95th 1-day) *source:* Firm Risk Committee report



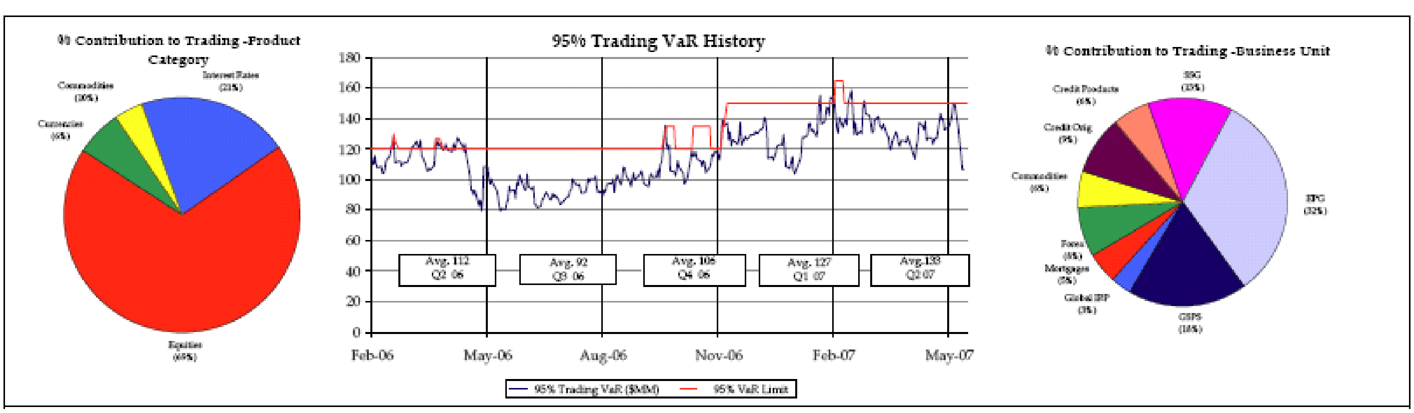
Lehman Brothers (95th 1-day) *source*: Monthly SEC Risk Report



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



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



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