

MEMORANDUM

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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 March market and credit risk packages.

There were several common themes in discussions with firms:

- **Event-driven lending portfolios at most CSE firms increased during the month.** These increases were the results of increased leveraged buy-out activity, measured both by the volume and size of deals, as well as some significant corporate acquisitions not arranged by financial sponsors. The portfolio increases were also fueled by a decline in the velocity of commitments moving through the pipeline as more deals are requiring lengthy regulatory approvals. These developments have led at least one CSE firm to increase substantially the systematic hedging of its portfolio. Regardless of the amount of hedging activity, which generally provides protection only against a systematic widening of credit spreads, the firms still rely primarily on their underwriting and committee approval processes to limit the idiosyncratic risk of their largest positions.
- **The underlying risk characteristics of the leveraged loans in the pipeline are increasingly distinct from traditional bank loans.** Risk managers at several firms noted that the percentage of commitments with covenant-lite features has increased dramatically during the first quarter 2007 and that the ability to get "covenant-flex" (i.e. the ability to put covenants into the credit agreement if the deal isn't able to be syndicated effectively without the covenants) has decreased. In addition, firms have noted the continued increase in the use of PIK (payment-in-kind) loan features in commitments. Interest payments to investors accrue during the life of the PIK loan, and are only paid when the debt is redeemed. While these features may provide borrowers with significant flexibility to deal with broad economic downturns or firm specific issues, the resulting postponement of covenant breaches substantially reduces the ability of creditors to take action on a deteriorating credit. As a result risk managers have expressed concern that the recovery rates associated with these loans may be far lower than typically seen in the bank loan market when defaults occur.

- **In the leveraged lending business, the ability to distribute risk relies heavily on the structured bid.** Increasingly, the leveraged loan market is heavily dependent on the Collateralized Loan Obligation ("CLO") bid as these structured vehicles purchase the majority of originated loans sold to the institutional market. As one risk manager highlighted this month, the ability of CLO deals to get done relies on the ability to sell the equity tranche, typically the riskiest 3-5% of the deal. These equity tranches are sold to a variety of investors, including dedicated CDO/CLO equity hedge funds, insurance companies, and banks, as well as the CLO asset managers themselves. In some cases, CSE firms may finance the purchase of these CLO equity tranches, albeit on a collateralized basis with significant haircuts (e.g. 50%). While the market for this equity as well as the rest of the CLO tranches currently appears robust, given the recent problems experienced in other structured markets (e.g. ABS CDOs with subprime collateral as discussed below), this is a risk that should garner special attention.
- **Subprime MBS deals continue to get done.** In spite of recent problems faced by subprime originators and the deterioration in the performance of subprime collateral backing previous deals, securitizations of subprime whole loans by the CSE firms are continuing, albeit at lower prices and a slower pace. Most firms noted that the securitization profit (i.e. "securitization arb") has eroded significantly or become negative in some cases. While firms have generally been able to print new deals, including collateral originated by very troubled or now bankrupt originators (e.g., New Century), they have in some cases retained more of the lower rated tranches than they have in the recent past.
- **Quarterly net profits in the subprime mortgage businesses are the result of larger gains offsetting smaller losses.** Most CSE firms had modest to large profits in their mortgage businesses, including the subprime sector, during the first quarter. However, underlying these net profits are substantially larger gross profits and losses. Most CSE firms were, and still are, long the ABX asset-based index through selling protection to clients including hedge funds. They have bought offsetting protection through other derivative instruments including substantial amounts of single name default swaps (single name CDS on ABS), largely from CDOs. The positions, notably single name CDS on ABS, that drove the large profits for many of the CSE firms are challenging from a price verification standpoint. In many cases, the size of these positions remains largely unchanged from the end of February so the gains are unrealized. Given the substantial unrealized gains on these products and the limited price transparency in this area, risk managers and financial controllers are very focused on the marking process.
- **CDO warehouses of subprime ABS collateral have generated losses.** One ripple effect of the subprime shakeout has been in the CDO space, where some CSEs are involved in financing the accumulation of subprime collateral to be securitized into CDOs. Several firms highlighted losses, some significant, from these activities. Typically, the firm will purchase assets for an asset manager's CDO and immediately sell those assets forward to the CDO, creating the economics of secured lending, often without recourse to the asset manager. Under normal market conditions, the forward price more than covers hedging costs during the warehouse period. However, in a distressed market, these CDO deals may not be completed at a profit. In these cases, the type of risk-sharing agreement the financing bank has with the CDO asset manager becomes important. In some cases where CSE firms lost money on the "ramping up" of subprime collateral for ABS CDO deals, the asset manager did not have to put up any equity, which is equivalent to financing the positions without haircuts. In other cases, the asset manager's sharing of risk was capped. As risk managers at one firm explained, a lesson learned from this experience is that their asset manager partners need to have "more skin in the game".

In addition, CSE firms noted that the market for super senior tranches of ABS CDOs containing subprime exposure remains weak. As a result, some CSE firms still hold a

significant amount of this exposure. These AAA rated tranches are of significant size (e.g. \$500 million and above) and, as a result, relatively few investors are in a position to purchase meaningful amounts of these instruments. Monoline insurance companies have dominated this market. Several CSEs noted that the monolines have recently backed away from the mezzanine super senior market (i.e. those tranches containing mostly BBB and BBB- tranches of sub-prime residential mortgage backed securities in both cash and CDS form) and are currently "sitting on the sidelines". Risk managers hypothesize that this recent lack of appetite is due both to record high issuance of these tranches in the first quarter and the continued negative subprime news.

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

Bear Stearns

- Following a loss of \$135 million in February, Bear's Adjustable Rate Mortgages (ARMs) and Non-Agency CMO desks, which are the most significant to its overall Mortgage business from a risk and P/L perspective, had a combined profit of only \$3 million in March. However, the desks were able to securitize and sell over \$10 billion in collateral throughout the month in an attempt to keep things moving through the pipeline and create some momentum in the market. We will continue to discuss in detail the success of the mortgage desks in turning over assets, as well as the work done by risk managers in price verifying existing inventory.
- As discussed last month, Bear's Independent Model Validation Group (within the Risk Management Department) is currently operating with insufficient staff. As a result, the Model Review Committee did not conduct its most recently scheduled quarterly meeting. The chair of the Committee (who is also the Chief Risk Officer for Asia and Europe) is currently focused on hiring a new manager for the group. As an interim measure, he is having the more technical product line risk managers perform the most pressing model control work. We will discuss the status of the model validation function and its staffing again next month.

Goldman Sachs

- While Goldman's mortgage business as a whole has earned a positive profit year-to-date, individual desks have exhibited significant P/L volatility. The ABS CDO desk, which accumulates RMBS and existing ABS CDO tranches for re-securitization (and retains certain tranches resulting from those deals), has lost approximately \$320 million year-to-date. These losses are larger than the potential impact anticipated by market risk management's "Fall of 1998" Stress Test, the primary risk measurement tool used for managing this activity. As this business has significant exposure to the US subprime mortgage sector, risk managers and controllers have explained that, for this particular product space, the "Spring of 2007" has actually been worse than the "Fall of 1998". Since the market turmoil began, the desk has ceased accumulating collateral for new deals and been proactively exiting its current risk, selling or securitizing product at a loss. As this wind-down continues throughout next month, we will follow-up regarding the remaining positions and any additional losses.
- We discussed again with the market risk manager the challenges associated with using the Sovereign Stress Test for controlling the firm's sovereign risk, and with allocating limits across businesses. As there has been a proliferation in the types of instruments and strategies desks can trade, more granular and sophisticated tools are required. For instance, recently the Bank Loan Origination business purchased short-dated CDS protection on Russia (the sovereign) in order to hedge a loan to a Russian corporation - a strategy viewed by risk management as sub-optimal. One tool that market risk management is developing to better capture such basis risks is a VaR by country. We will continue to discuss such enhancements, as well as any changes to the sovereign risk limits structure.

Lehman Brothers

- Lehman's firmwide VaR hit an intra-month high of \$82 million, just below their limit of \$85 million, before ending the month down at \$65 million. Even as VaR has risen over the past few months, the firm has remained well under its risk appetite limit, which represents the aggregate amount of market, event, and counterparty credit risk that Lehman is willing to take. The head of market risk noted that while the VaR limit effectively constrains the business' ability to take risks in liquid products, traders who still wish to increase their risk-taking activities could do this through more illiquid products, which are captured through the event risk calculation rather than through VaR. By moving into more illiquid areas, a trader could take more risk while remaining within their VaR and risk appetite limits. Market risk management understands that the potential for creating perverse risk-taking incentive exists, and will continue to monitor VaR usage closely.
- Lehman's pipeline of commitments continues to grow and credit risk managers do not anticipate a slowdown in the near future. The size of potential commitments also continues to grow, with Lehman-backed sponsors bidding unsuccessfully for the \$24 billion Sallie Mae deal. Activity in commercial real estate remains robust, especially in Europe where Lehman is providing \$2.8 billion in financing, including \$400 million in bridge equity, for a single building in France.

Merrill Lynch

- Merrill's exposure to credit spreads has significantly declined from the high levels seen last year as the result of a management decision to reduce exposure in this space. The decline has been accomplished through a reduction in directional long positions, increased hedging, and increases in short proprietary positions. However, Merrill's overall VaR remains high, reflecting increases in equity and interest rate exposure.
- The commodities business continues to expand the scope of its activities beyond power and gas. Merrill recently participated in a large aluminum trade to hedge production related to an M&A transaction. They were also recently granted a license to trade physical power in Japan. Future growth areas include options on oil, agricultural products, coal, and ethanol. There are no New Product Reviews pending for the commodities business, but we will continue to monitor activity closely in this space. We are scheduled to meet with the new global head of Commodities Risk Management next month.
- Merrill recently issued its first securitization consisting of only First Franklin originated mortgages since its acquisition of First Franklin. The deal was well received in the market as the majority of the \$2.2 billion deal was sold. Unlike previous deals, Merrill did not incorporate language guaranteeing the repurchase of any loans that incur early payment defaults ("EPD"). They have stated instead that they will repurchase EPD loans on a case by case basis. We will continue to monitor the progression of this and future deals for any adverse reaction by the market because of these changes in practice.

Morgan Stanley

- As highlighted in last month's memo, the firm terminated its subprime mortgage warehouse line to New Century and foreclosed on the collateral. During the past month, the firm has held a closed auction process in an attempt to liquidate this collateral. As of the date of our meeting on April 12th, dealers invited to this auction had submitted preliminary bids and were in the process of performing due diligence on the collateral. The firm indicated that the preliminary bids had come in above Morgan's marks on the collateral. However, during our meeting, the Chief Credit Officer stated that New Century and its advisor had approached

Morgan Stanley about re-opening the auction to a wider audience with New Century providing support to the bidders in their due diligence efforts. While a decision had not yet been made regarding whether the firm will re-open the auction process, they are currently discussing the idea. This decision to potentially re-open the auction to a wider set of bidders and under a more transparent process (i.e. open outcry) is at least partially motivated by litigation concerns. The firm appears to be willing to take more time in liquidating this collateral in exchange for greater insulation from legal claims. We will continue to monitor developments in this area.

- As discussed previously, the Credit Department at Morgan Stanley had provided us with short-term tactical and long-term strategic plans for enhancing the overall effectiveness of its credit systems, particularly around data quality and flexibility. We continue to discuss the department's remediation plans in this area during our monthly risk meetings. While we have seen substantial progress made on many short-term objectives regarding improving data quality, a major system release, ICE 2.0, was repeatedly delayed and little progress was evident in the firm's formulation of its long-term strategic plans to re-engineer the credit systems. As a result, during this past month, the firm replaced the IT manager in charge of supporting the credit systems infrastructure and made the long awaited conceptual change of migrating the ownership of the underlying data to the businesses. We met with the senior IT managers now responsible for the credit systems. During this meeting they articulated the firm's strategic plans for re-engineering the credit systems as well as the change in reporting lines. While this endeavor may take a few years to complete, we have asked to be updated as key milestones are reached.