

**CONFIDENTIAL – NOT FOR DISTRIBUTION**

# Memo

To: Files  
From: E Habayeb  
CC: S Bensing, D Herzog  
Date: February 28, 2008  
Re: Valuation of AIGFP's super senior credit default swaps as of  
September 30, 2007

---

## **Purpose**

This memorandum represents management's assessment at December 31, 2007 of the appropriateness of the valuations of AIGFP's super senior credit default swaps as of September 30, 2007 in order to determine whether there was an error in these valuations.

## **Background**

Through June 30, 2007, AIGFP did not calculate a fair value for its super senior credit default swaps using a valuation model. AIG-FP's best estimate of fair value at each balance sheet date was that it approximated the remaining deferred day 1 gain. Hence, until the third quarter, the net amount reflected on the balance sheet at each reporting date was zero. Refer to memorandum concerning the valuations of super senior credit derivatives dated November 5, 2007 in Attachment A.

The significant disruption in the structured finance markets during the third quarter of 2007, including the significant widening in credit spreads, required that AIGFP implement a model(s) to value the super senior credit derivative portfolios as its earlier assumptions that the fair value would approximate the deferred 1 gain might no longer be valid.

## **BET Model**

In response to the need to implement a valuation model for the super senior credit derivatives, AIGFP considered various approaches and ultimately selected Moody's Binomial Expansion Technique (BET). In September 30, 2007, AIGFP implemented a modified version of the BET model to calculate the change in fair value of its super

senior credit default derivatives written on collateralized debt obligations (CDO) of asset-backed securities (ABS) and on the Corporate Arbitrage portfolio, including the collateralized loan obligations. AIGFP modified the standard BET algorithm to reflect default probabilities derived from market credit spreads. Throughout the fourth quarter, AIGFP continued to make enhancements to the model.

BET is a well established model for rating CDOs. Further, at the time AIGFP adopted it, at least one other marketplace participant, MBIA, had publicly announced that it was using the BET to value its credit derivatives written on CDOs. It was understood at the time that other financial guarantors also may have been using it for that purpose.

The BET model is also effective in reducing the level of judgment that would be required in valuing these derivatives. The majority of the inputs into the BET model are obtained from sources independent from AIG. AIG continues to use the BET model as its primary valuation model for the multi-sector CDO transactions. Neither AIGFP nor AIG through its review have identified any errors in how the BET model was applied at September 30, 2007.

### **Price Inputs**

For the third quarter, AIGFP was not able to obtain reliable prices or credit spreads from dealers for either the super senior securities for which it wrote credit default swaps on or the ABS securities that comprise the collateral pool of the CDOs. Numerous contacts were made to a wide range of dealers to request pricing estimates for securities whose type and vintage would match the main exposures of the collateral pool of the CDOs, but the sparse information that was provided to AIGFP clearly suggested that very little was actually trading and that transactions that did occur were very disparate and hence AIGFP were unable to create a comprehensive pattern of useful price indications to value the entire portfolio.

Due to the general opacity within the marketplace affecting price discovery for structured credit products and the lack of equivalency in information from the dealer community as to assumptions they were using when determining prices and credit spreads, the third party dealers contacted appeared to be relying on highly subjective data sets of information. Such data points were not deemed representative enough and therefore a broader baseline of independent market-calibrated inputs were sought in order to create an alternative, more representative measure as of September 30, 2007.

During the fourth quarter, apparently many of the dealers had enhanced their capabilities to determine and provide prices on CDO securities. Hence, AIGFP was more successful in obtaining third party prices for the super senior CDO securities as of December 31, 2007.

### **Prices on CDO Collateral and Credit Spreads**

*September 30, 2007 Valuations*

As AIGFP continued to look for sources of independent data to price the super senior credit derivatives, they observed that others in the marketplace used a credit spread matrix produced by JP Morgan on a weekly basis for the valuation of multi-sector CDO super senior credit default swaps. MBIA was one institution believed to use this credit spread matrix, as evidenced in MBIA's 2007 3<sup>rd</sup> quarter earnings call. Upon investigating this data set, AIGFP also believed at the time that was the best data input that it could use to help with its valuations at that time.

JP Morgan's weekly spreadsheet contains a substantial amount of credit spread data for various ABS categories, ratings and maturities. AIGFP was aware that there could be differences between the collateral pool of the securities for which JP Morgan produced credit spreads and the securities that AIGFP was ultimately exposed to, but believed that this data remained the best source of pricing information available to them at that time in light of the market conditions and looked to monitor the differences in the respective collateral pools over time. An unadjusted JP Morgan spread matrix, which was felt to be the best set of inputs available at the time, was used when determining the September 30, 2007 valuations.

AIGFP also considered collecting prices directly from the CDO managers themselves because they have relationships with the dealers who had sold the ABS securities to the CDOs, and were likely to have the best access to the traders who would be the most knowledgeable about those securities. Initially, it was unclear how many CDO managers would be willing to provide the data or even had a process in place to collect it. CDO managers are typically not obligated to collect and provide prices, however, given the market conditions and demand for prices by the market participants for valuation purposes, AIGFP believed that CDO managers might be starting to provide such data and also becoming increasingly transparent about their price gathering process. However, given that there is about a one-month lag between the valuation dates and when the collateral managers are able to provide information, AIGFP concluded that it would not be possible to use this alternative methodology for the September 30, 2007 valuations. Nonetheless, AIGFP decided to investigate this idea. Members of the credit trading team started to call the CDO managers and evaluate what could be collected. They also focused on trying to collect September end 2007 prices. At the end, not enough September-end 2007 prices were collected to provide a representative reflection of the portfolio valuation and to be able to construct a reasonable pricing matrix. (AIGFP obtained data on 2,774 of the required 11,858 securities). (Refer to Attachment B for a list of which managers provided data and when that data was received.)

#### *December 31, 2007 Valuations*

Due to the further deterioration of the market during the month of October 2007, the differentiation between the JP Morgan index data and the underlying AIGFP CDO collateral became increasingly apparent. AIGFP continued to perform further analysis, as a result of which it increasingly came to believe that the JP Morgan data perhaps provided the best estimate of where a "generic" asset might be issued or might currently trade, but did not reflect the differentiation in likely trading levels attributable to vintage

differences. AIGFP therefore began to investigate creating a proxy which could adjust the JP Morgan spreads to more accurately reflect the market spreads of the underlying instruments having different vintages. The approach that AIGFP ultimately identified was to apply changes in some of the home equity ABX indices which, while only reflecting one sector of the market, were readily available and offered significant price transparency while still capturing the effect of the different vintages not reflected in the underlying JP Morgan spreads. More information about this is provided in Attachment A to this memo.

During the months of November and December, as AIGFP was concluding that the JP Morgan data was becoming increasingly less correlated with the underlyings of its transactions, the team decided to strongly encourage all CDO managers to provide prices, and started to collect October-end 2007 prices for the underlying securities of the reference collateral with the objective of using those prices as an additional reference point in the November 30, 2007 valuations. AIGFP was able to obtain prices from the CDO managers for 68% of the underlying securities of the reference collateral for October-end 2007 (AIGFP obtained data on 8,152 of the required 11,951 securities). The number of prices was now high enough that AIGFP became comfortable that this alternative source of inputs was going to be better than using the JP Morgan data and the team expected that the use of the JPMorgan spread matrix would be abandoned in the near future. The time lag in collecting prices however meant that such October pricing information was not available until towards the end of the following month of November.

### **Cash Flow Waterfall**

In September 2007 AIGFP acknowledged that the BET model did not adequately quantify the benefit of cash flow diversion features that are important to the appropriate valuation of the transactions. However, AIGFP was not able to reliably estimate the value of these mitigants in time to incorporate them in its fair value estimate of the portfolio as of September 30, 2007. AIGFP estimated however that the value of these mitigants ranged from zero to \$50 million. (Refer to memorandum concerning the valuations of super senior credit derivatives dated November 5, 2007 in Attachment A.)

In November and December of 2007, AIGFP continued to further enhance the BET model to capture the cash flow waterfall, to represent the liability structure of the CDOs and to more accurately represent variations in the amortization profile of reference collateral. This was accomplished through the addition of a Monte Carlo simulation to the BET model.

### **Collateral Calls**

#### *September 30, 2007 Valuations*

The legal agreements (including ISDA confirmations) with Goldman Sachs and with certain other counterparties for certain (but not all) types of trades in AIGFP's portfolio state that the collateral exposure is based on the difference between par and the market value of the cash reference obligation. Hence, for the trades in this category the amount

of collateral required is a function of the change in market value of the reference obligation, which is a cash bond, and not a function of the change in fair value of the super senior credit default swap. Accordingly, the amount of cash collateral is not necessarily reflective of the valuation of the super senior CDS transaction.

In July, 2007, AIGFP received a collateral call from Goldman Sachs for approximately \$1.8 billion. At the time, AIGFP disputed the call. Subsequent discussions ensued between the two parties resulting in Goldman Sachs reducing its collateral call to less than \$1 billion. These discussions also resulted in an agreement between AIGFP and Goldman Sachs pursuant to which AIGFP agreed to deposit \$450 million with Goldman, continue to dispute the valuations, but agreed to work together to resolve these differences. At September 30, 2007, the collateral call from Goldman Sachs remained the only collateral call and the only disputed collateral call on any of AIGFP's super senior credit derivative transactions. AIGFP believed and continues to believe that the valuations provided by Goldman Sachs are deeply discounted, reflecting the fact that Goldman Sachs has been considered to be shorting the market, and not representative of the proper valuations. For September 30, 2007, AIGFP did not have much transparency to the pricing methodology used by Goldman Sachs and also had other pricing data points from other third parties that suggested very different price levels for the securities in the Goldman portfolio. For this reason, while considered, the pricing provided in the Goldman Sachs collateral call was not included in the super senior credit default swap valuation. AIGFP also received additional collateral calls from counterparties by November 5, 2007, relating to valuations subsequent to September 30, 2007. While AIG took note of the prices provided by its counterparties through the collateral calls for the period subsequent to September 30, 2007 but before the filing of the Form 10Q for third quarter, AIG decided to disclose in its financial statements that there are disagreements on the valuation of our positions with several counterparties, recognizing that the resolution of these differences may materially affect our its valuation estimates. (Refer to agreement with Goldman and the subsequent call at October 31, 2007 discussed in Goldman Sachs memo in Attachment C.)

*December 31, 2007*

During the fourth quarter, Goldman Sachs increased its collateral call to \$3 billion. Collateral calls were also made by other counterparties on super senior credit derivative transactions. AIGFP was also able to obtain other 3rd party pricing points. AIG considered prices provided by its counterparty through the collateral calls and other third party prices in the valuations for December 31, 2007.

### **Methodology Enhancements**

AIGFP continued to further enhance the BET model in the fourth quarter of 2007 as market conditions continued to worsen and additional information became available. Model enhancements are time consuming and require additional calibration as well as customization. Given the sudden and unexpected extent of market turmoil in the third quarter of 2007, AIGFP had to react quickly to develop the new valuation approach, which did not allow for the refinement of the model until late in the fourth quarter of

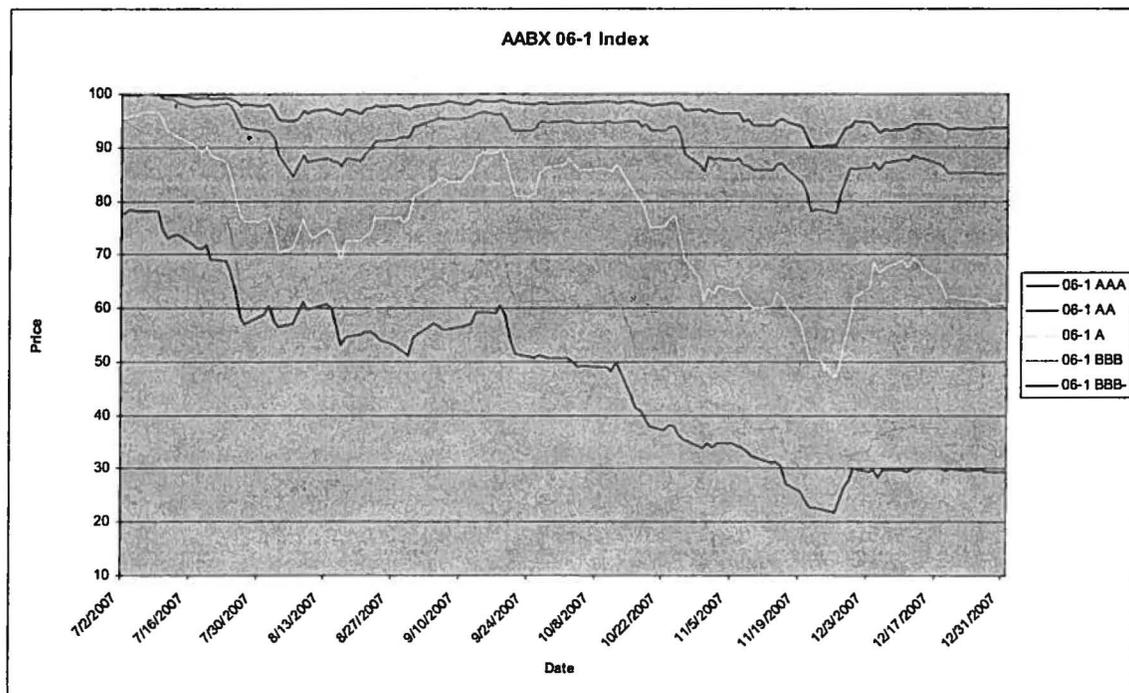
2007. These enhancements, while minor, enabled AIG to further refine its estimate of the fair value of the super senior CDS transactions as of December 31, 2007.

### Negative basis

AIGFP did not incorporate a negative basis adjustment in its valuations as of September 30, 2007 and October 31, 2007. The first time AIGFP included a negative basis adjustment was as of November 30, 2007.

### Mark Trends and Impact on the Valuations

The developments in the structured finance markets during the fourth quarter were the largest driver behind to the significant increase in the mark to market loss in the fourth quarter as compared to the third quarter. During the fourth quarter of 2007, the structured finance markets experienced severe deterioration, more severe than the third quarter developments. There was a significant widening of credit spreads on ABS and CDO securities driving in part by the liquidity crunch. Additionally, the structured finance markets began to truly unravel following Citigroup's, Merrill Lynch's and UBS' earnings announcements in mid-October. The downgrading and / or placing on credit watch of thousands of RMBS and CDO securities by the ratings agencies which began in the second half of October and continued through early 2008 has also added to the significant decline in the value of these products during the period. The following diagram illustrates the severity of the events in the fourth quarter as compared to the third quarter.



The combined effects of continued spread widening and rating agency downgrades had the greatest effect on the increase in AIGFP's unrealized valuation losses from September

30, 2007 to December 31, 2007. This point is illustrated in the analysis prepared by AIGFP and included in Attachment D. In that analysis, AIGFP attempts to estimate the impact of the changes in spreads on its most sensitive assets, being RMBS and inner mezzanine CDOs. While this analysis is not precise, AIGFP's reflects that at approximately \$7 billion of the increase in the unrealized valuation losses resulted from changes in spreads during the fourth quarter. Further, this analysis was performed before factoring in the adjustments to the BET valuations to reflect differences with third party valuations.

The magnitude of the effect of spread movements on the value of a financial option will depend on how far out of the money the option is. The effect of spread movement is less the further the option is out of the money. However, as a written option gets closer into the money, the magnitude of a widening in credit spreads becomes much larger. This phenomenon is important to understand the scale of the unrealized market valuation losses in the fourth quarter as compared to the end of the third quarter. At September 30, 2007, a handful of AIGFP's derivatives were in a loss position. However, at December 31, 2007, the majority of the AIGFP's credit derivatives were in the money to the purchaser.

### **Corporate and Regulatory Capital Portfolios**

At September 30, 2007, AIGFP valued its corporate arbitrage portfolio, which consists of investment-grade corporate debt securities and collateralized loan obligations, using the BET model. The valuation results from the BET model at the time demonstrated that there was no noticeable change in fair value of these derivatives during the third quarter. In respect to the December 31, 2007, AIGFP concluded that it would be more appropriate to value the CLO portion of its corporate arbitrage portfolio using prices provided by third parties as part of the collateral calls, while it decided to price the remaining portion of the corporate arbitrage portfolio using relevant market corporate credit indices (CDX and Itraxx).

At September 30, 2007, AIGFP concluded that a valuation adjustment to its regulatory capital portfolio was not necessary. It reached the same conclusion at December 31, 2007 for this portfolio. Refer to the Regulatory Capital Transactions memo for a description of AIG's basis for this conclusion.

### **Other Considerations**

As part of its considerations for purposes of this analysis, AIG also considered the qualitative considerations in SAB 99 to determine whether any of these considerations may lead the organization to conclude an error might exist in its previously filed financial statements or whether there may have been intentionality in underestimating the loss in the third quarter. AIG concluded based on its own analysis that there were no indications of intentionality nor were there any indications of an error in the September 30, 2007 valuations. The change in the level of the value of the credit derivative portfolio did not stem from an error in the application of its chosen model or the efficacy of available

inputs. As noted in FAS 154, changes relating to continuing processes of obtaining additional information and revising estimates are considered changes in estimates for purposes of applying this statement.

## **Conclusion**

AIG continues to believe that the valuation of AIGFP's multi-sector super senior credit default swaps as of September 30, 2007, represented the best estimate of fair value of these derivatives based on the data and information that were available at that time for the following reasons:

- As demonstrated in Attachment D, the principal driver for the increase in the unrealized valuation losses in the fourth quarter are the severe deterioration in the structured finance markets evidenced by significant spread widening and rating downgrades.
- At September 30, 2007, the credit spreads provided by JPMC were the best available and most complete set of market data. AIG was not the only user of that data. MBIA had publicly announced that they were using the JPMC spreads in their valuations. We also understood that other parties were also using it.
- At the time, AIGFP had tried to obtain prices on the super senior CDO securities it wrapped from dealers but was not successful in obtaining sufficient prices
- Only a limited number of collateral managers were providing market prices on the securities in the CDO as compared to December. AIGFP was able to obtain prices on about 2,800 positions, which was not adequate to price its positions. This compares to receiving prices on approximately 9,000 positions as of December 31, 2007.
- By September 30, 2007, AIGFP had price indications from Goldman Sachs on certain of its super senior CDO bonds via the collateral calls. However, no other counterparty called at that date. By October 30, 2007, it had received additional calls, but these reflected the significant market deterioration in October and were not reflective of the valuations as of September 30, 2007. At the time, AIGFP had disputed these prices and was in the price of trying to resolve these differences.
- AIGFP had not incorporated an assumption for negative basis in the September and October valuations.