

Valuation & Pricing Related to Transactions with AIG

In July 2007, as the housing market continued to deteriorate, financial markets began to significantly re-price risk in U.S. mortgage products, including super senior Collateralized Debt Obligations (CDOs). As required by US GAAP, our policy of fair value accounting, which recognizes the value of an asset or liability as the price at which willing buyers and sellers transact, prompted us, as always, to mark our positions to the then prevailing market prices. We believe our marks were accurate and reflected the value markets were placing on the transactions.

Over subsequent weeks and months, we made collateral calls to AIG, and other counterparties, consistent with the further deterioration in the market. We made those collateral calls based on prices that reflected the deteriorating conditions in the market for the underlying collateral in Residential Mortgage Backed Securities (RMBS) and CDOs and specific transactions in comparable securities – transactions in which we acted as a market maker and transactions we observed between other market participants. Goldman Sachs called for and paid (known as “posting”) collateral consistent with the marks we used for our internal and external reporting purposes as well as for our own collateral posting calculations.

The foundation of our approach to risk management is based upon disciplined mark-to-market accounting. This involves the daily practice of valuing the firm’s assets and liabilities to current market levels – that is, the value one might expect to find on the open market. Without a realistic view of our own financial position, we would not be able to properly assess or manage our risk. Goldman Sachs is one of the few financial institutions in the world that carries virtually all financial instruments held in its inventory at current market value, with any changes reflected immediately in our risk management systems.

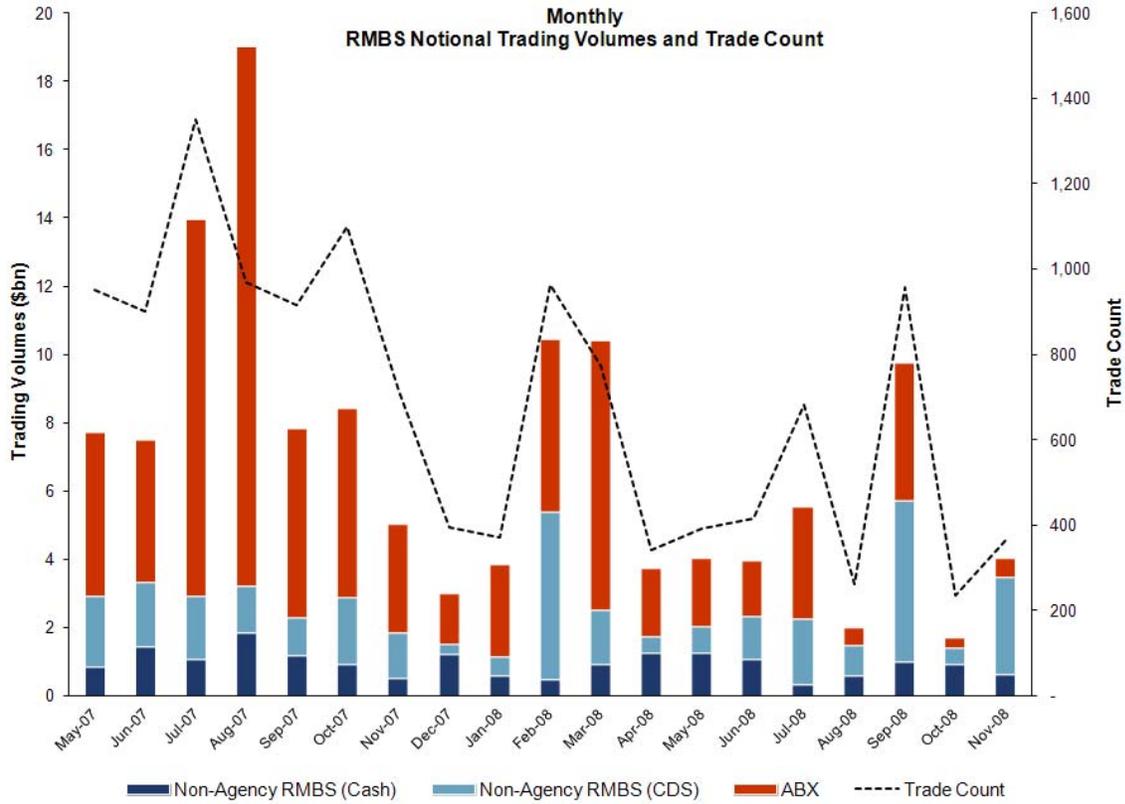
Significant Trading Activity On Behalf of Clients Informed Pricing

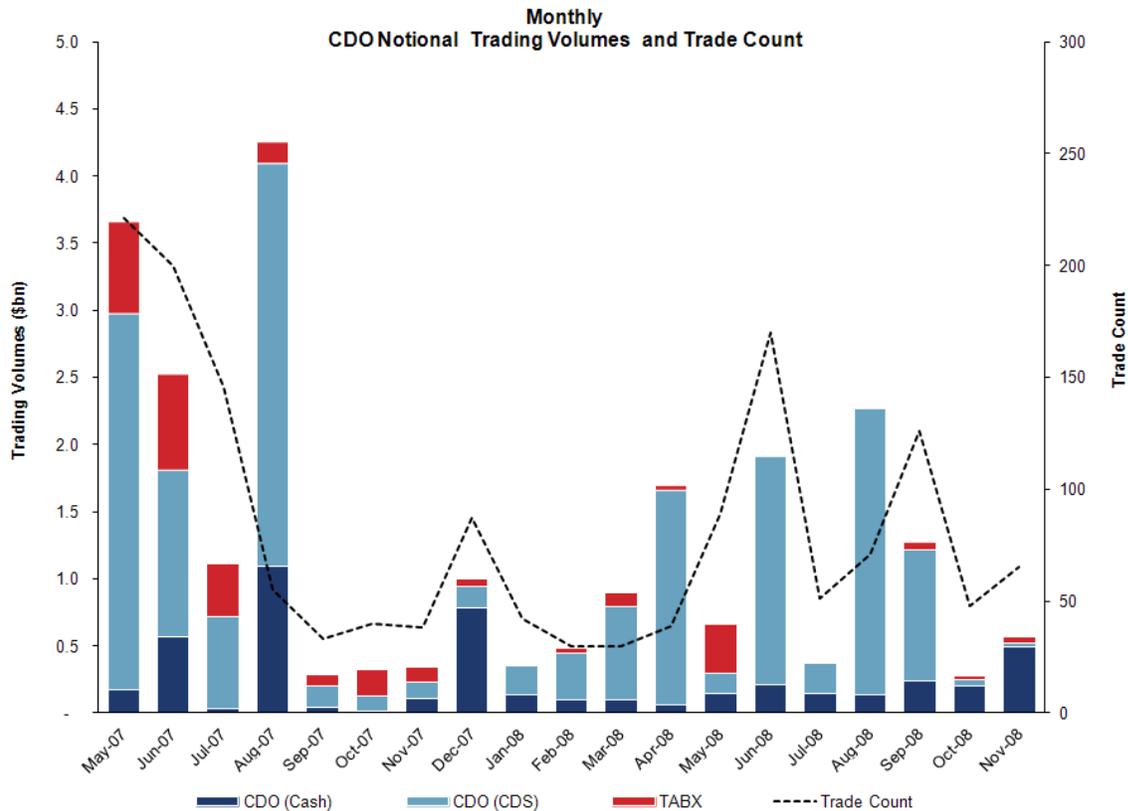
Throughout 2007 and 2008, Goldman Sachs was an active market maker in cash and credit default swap (CDS) mortgage products. This market activity provided a strong foundation for our marks:

For example, from May 2007 through November 2008, our Mortgage Department bought and sold approximately:

- \$85 billion notional amount of the ABX and TABX indices, representing 5,000 trades
- \$17 billion principal amount of RMBS cash securities, representing 2,000 trades
- \$32 billion notional amount of RMBS CDS, comprising 5,000 trades
- \$5 billion principal amount of CDO cash securities, in more than 350 trades
- \$16 billion notional amount of CDO CDS, in more than 800 trades

The following graphs provide for RMBS and CDOs the total notional traded and trade count on a monthly basis from May of 2007 through November 2008. In addition, we have provided to the Commission the detailed list of all transactions executed during that time (bearing production number GS MBS 0000039095).





How We Determined Pricing

Our marks were based upon the best available market information at the time, including observed trades, actionable bids or offers from other parties, and other market information sourced through our franchise.

Consistent with other cash and derivative markets, it was not unusual for there to be an absence of transactions in specific RMBS, CDO securities and derivatives. In addition, certain securities often had only one or a limited numbers of holders. As a result, we used observed transactions in comparable instruments (e.g., instruments having similar underlying collateral, structure, and/or risk/reward profile) to help inform our valuations.

Market information we used in connection with determining valuations extended beyond trades executed by Goldman Sachs. We were frequently asked to bid and/or offer securities or derivatives. Whether or not we executed a transaction, we were able to obtain additional useful pricing information from client feedback as well as other market color.

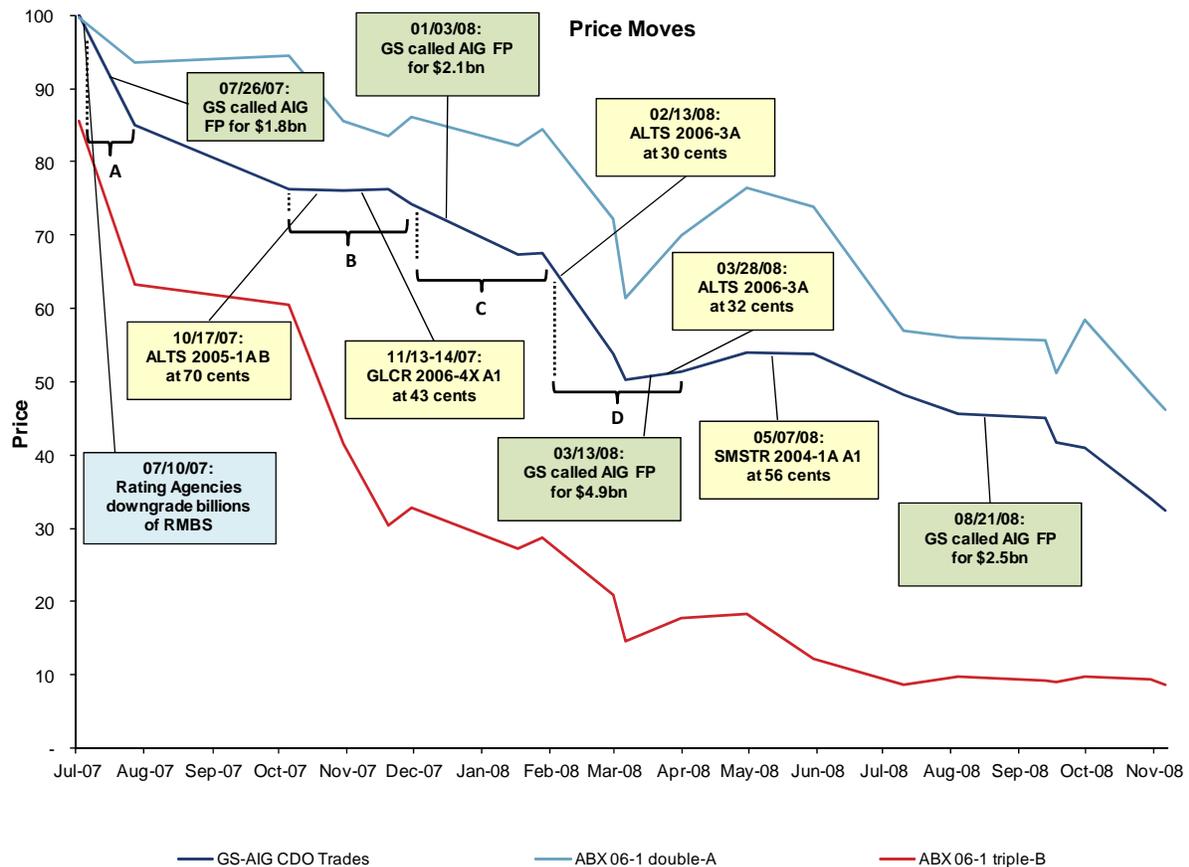
At times, in order to gauge the fair value of the CDO securities, we would also value the collateral underlying the CDO. This approach, referred to as a net asset value (“NAV”) analysis, valued the underlying collateral based upon the best available market information for the underlying RMBS and other securities at that time.

This NAV analysis incorporated additional factors into the valuation process. For example:

- CDO securities began to trade at a discount to NAV-implied values as market participants penalized less liquid and complex instruments during the market deterioration in 2007 and 2008;
- Valuations of the CDO securities reflected the allocation of NAV across the CDO's capital structure (e.g., senior classes vs. subordinate classes).

While a certain degree of judgment was necessary in these valuations, we were able to access the best available market information to price these CDO securities and to ensure that our pricing represented actual fair market values at the time.

Market Moves, Examples of Comparable Transactions and Timeline



The above graph depicts Goldman Sachs' weighted average price of the back-to-back CDO trades (i.e., trades in which AIG sold credit protection to Goldman Sachs and Goldman Sachs sold credit protection to another counterparty referencing the same security), hereafter referred to as the "AIG portfolio". These trades constituted the substantial majority of the CDS transactions we undertook with AIG. AIG's CDO trades predominantly consisted of high-grade (typically double-A average rating) and mezzanine (typically triple-B average rating) CDOs from the 2003 to early 2006 vintages. Also shown are two indices referencing subprime securities issued in the second half of 2005 -- the double-A rated and triple-B rated tranches of the ABX

06-1 index. These indices represented the most liquid and observable proxy for the vintage and ratings of the RMBS underlying the AIG CDO positions.

From July of 2007 through November of 2008 there was observable market data which provided the basis for our collateral requests to AIG.

A) July 2007:

- In mid-July 2007, before our first collateral call to AIG, rating agencies downgraded hundreds of subprime RMBS and put hundreds more securities on watch for further downgrades. With tens of billions of dollars of subprime securities negatively impacted, ABX and subprime RMBS prices dropped sharply and significantly over the month.
 - Specifically, in July, the ABX 06-1 AA index dropped 7 points from \$100 to \$93, and ABX 06-1 BBB index dropped 21 points from \$86 to \$65. At the time, these were unprecedented drops and new market lows.
- Over the course of July, after the subprime ratings downgrades, a number of our clients requested that dealers bid on more than \$1 billion of CDO risk. Clients wanted to sell their risk, but frequently could not find buyers at prices they liked.
- Dealers were aggressively buying CDS protection on CDOs across the vintage spectrum. During July 2007, we observed CDS on subordinate classes from 2005 and earlier vintage CDOs trading at 70 cents on the dollar or lower in competitive auctions. In particular, this was the case for high grade CDOs such as ALTS 2005-1A, ALTS 2005-2A, and BUCK 2005-2A and mezzanine CDOs such as DUKEF 2005-9A, GSCSF 2005-1A, PS 2A, SCF 5A, TOPG 2005-2A and TRNTY 2005-1A. Although, of the above CDOs, only ALTS 2005-2A CDO was specifically referenced in the AIG portfolio, the observed transactions clearly substantiated widespread re-pricing of 2005 and earlier vintage CDOs in the market.
- In July, we traded approximately \$14 billion RMBS and approximately \$1 billion CDOs across cash securities, single name CDS, and CDS indices.
- The observed significant re-pricing of CDO liabilities and the relevant market moves necessitated the initial collateral call to AIG, as illustrated by the graph on page 4.

B) October - November 2007:

- During October and November 2007, based upon increasing delinquencies and clear credit deterioration in underlying subprime RMBS, rating agencies downgraded dozens of CDO transactions with billions of dollars in outstanding securities. CDO prices continued to fall during this period, as the following examples reflect.

- On October 17th, we bought at 70 cents on the dollar ALTS 2005-1A B, the double-A rated subordinate tranche from a 2005 vintage high grade CDO. The ALTS 2005-1A CDO is very similar to the ALTS 2005-2A CDO on which AIG had written super senior protection to Goldman Sachs. In particular, the two ALTS CDOs have similar type and vintage of collateral, similar structures and the same collateral manager. The trade on the subordinate ALTS 2005-1A B tranche at 70 clearly demonstrated that market pricing at the time reflected a significant degree of stress for 2005 vintage high grade CDOs. On October 30th, the mark we used for the AIG collateral call on ALTS 2005-2A super senior was 87.
- On November 30th, we owned SMSTR 2004-1A A1, the super senior class of a 2004 vintage mezzanine CDO, marked on our books at a price of 68. We viewed this particular security as better quality and more desirable versus the mezzanine CDO transactions in the AIG portfolio, which had a weighted average price of approximately 69 as of November 30th in the AIG collateral call. SMSTR 2004-1A A1 was ultimately sold on May 7, 2008 at 56 cents on the dollar.
- From the beginning of October through the end of November 2007, the ABX 06-1 AA index dropped 9 points from \$95 to \$86 and ABX 06-1 BBB index dropped 28 points from \$61 to \$33, as illustrated by the graph on page 4.
- During this period, we traded more than \$13 billion RMBS and approximately \$700 million CDOs across cash securities, single name CDS and CDS indices.

C) December 2007 - January 2008:

- Cash CDO trading activity picked up considerably in late 2007 and into early 2008. In December 2007, we purchased almost \$800 million notional of various senior and subordinate CDO securities.
- On November 13th and 14th, we purchased at a blended price of approximately 43 cents on the dollar almost \$67 million of GLCR 2006-4A A1, an early 2006 vintage mezzanine CDO. This transaction was comparable to specific line items in the AIG CDO portfolio, in particular SCF 8A A1, which was marked at 55 cents on the dollar as of November 30th.
- We observed that approximately \$90 million of the super senior class from TRAIN 3A A1, a 2003 vintage mezzanine CDO, traded at approximately 70 cents on the dollar. Although this specific bond was not in AIG's portfolio, this observation clearly substantiated the fact that even highly seasoned super senior CDO tranches traded at a significant discount to par value at the time.
- From the beginning of December 2007 through the end of January 2008, the ABX 06-1 AA index dropped 2 points from \$86 to \$84 and the ABX 06-1 BBB index dropped 4 points from \$33 to \$29, as illustrated by the graph on page 4.

- During this period, we traded approximately \$7 billion RMBS and approximately \$1.4 billion CDOs across cash securities, single name CDS and CDS indices.

D) February-March 2008:

- The RMBS and CDO markets became further stressed in February and March 2008 as Bear Stearns nearly failed, the hedge fund Peloton Partners collapsed and other mortgage participants experienced financial distress and investors were concerned that a substantial amount of assets would be sold into the market.
- On February 13th, we facilitated a client unwind of \$296 million notional credit protection referencing the super senior tranche of ALTS 2006-3A, an early 2006 vintage high grade CDO, at approximately 30 cents on the dollar. This high grade CDO security was similar to early 2006 vintage high grade CDOs on which AIG had sold Goldman Sachs credit protection, and in particular WESTC 2006-1A which was marked at 33 on February 29th.
- On March 28th, we purchased \$38 million of the super senior class of the same ALTS 2006-3A high grade CDO at approximately 32 cents on the dollar from a different client. The price of WESTC 2006-1A super senior was marked at 33 on March 28th.
- From the beginning of February through the end of March 2008, the ABX 06-1 AA index dropped 13 points from \$83 to \$70 and ABX 06-1 BBB index dropped 11 points from \$29 to \$18, as illustrated by the graph on page 4.
- During this period, we traded approximately \$21 billion RMBS and approximately \$1.4 billion CDOs across cash securities, single name CDS and CDS indices.

CDO Valuation Discussion with AIG

Throughout the period of the collateral dispute, we continued to augment and refine tools to provide additional analysis for our valuations.

In particular, in January 2008, in order to have a very detailed dialogue with AIG about our pricing, we performed an extensive analysis on our CDO transactions with AIG.

- **ALTS 2005-2A A1** is a super senior tranche from a late 2005 vintage high grade CDO. The valuation approach we used began with the underlying portfolio net asset value (“NAV”). The underlying portfolio was 96% RMBS, comprised of alt-A (43%), subprime (36%) and prime (15%), with the other 4% of the portfolio comprised of various other types of asset backed securities. Almost 95% of the collateral was issued in 2005 and had original ratings of triple-A (46%), double-A (25%) and single-A (29%). Informed by our market making activities in RMBS, Goldman Sachs used the large amount of available trade information to price the underlying assets. The result of this analysis was

an average price of \$73 for alt-A, \$67 for subprime and \$87 for prime arriving at a weighted average portfolio NAV of approximately 71 cents on the dollar.

The super senior notes comprised approximately 87.1% of the overall CDO capital structure. Therefore, the portfolio market value was equal to approximately 81.4% of the face amount of the super senior class (71.0/87.1). The portfolio NAV divided by the super senior tranche size ignores the cashflows owed as well as the value of the other parts of the CDO capital structure, such as subordinate tranches, swap counterparties, and other fees and expenses (collectively referred to as cashflow “leakage”). For ALTS 2005-2A A1, we estimated the leakage (using market pricing for the subordinate CDO liabilities and the embedded fixed/floating interest rate swap) to be approximately 6% of the super senior face amount. Deducting this 6% leakage from 81.4% resulted in a NAV-based calculated value of 75.4 for the super senior tranche.

Goldman Sachs’ bid and offer for ALTS 2005-2A A1 was 67.5 / 77.5, further informed by the market supply/demand dynamic, other market pricing information, in depth portfolio analysis and relative value tools. The mid-market price of 72.5 was used for purposes of margining the CDS protection with AIG.

- **BROD 2005-1A A1NA and A1B1** are *pari passu* super senior tranches from a 2005 vintage high grade CDO issued in late 2005. The underlying portfolio was 80% RMBS, comprised of subprime (45%), alt-A (26%), and prime (9%), with the other 20% of the portfolio comprised mostly of CDOs. Over 90% of the collateral was issued in 2005 and had original ratings of triple-A (25%), double-A (47%) and single-A (27%). Informed by our market making activities in RMBS and other products, Goldman Sachs used the large amount of available trade information to price the underlying assets. The result of this analysis was an average price of \$57 for 2005 collateral and \$70 for 2004 vintage collateral arriving at an NAV of 57 cents on the dollar.

The super senior class comprised approximately 84.0% of the overall CDO capital structure. The leakage was estimated to be approximately 4.0% of the super senior class face amount on this date. Therefore, the NAV-based calculated value was 64.4 (i.e., 57.5 / 84.0 – 4.0).

Incorporating the market supply/demand dynamic and other market pricing information, our bid and offer for BROD 2005-1A A1NA and A1B1 was 55 / 65. The mid-market price of 60 was used for purposes of margining the CDS protection with AIG.

- **SCF 8A A1NV** is an early 2006 vintage mezzanine super senior CDO. The underlying portfolio was 88% RMBS, comprised mostly of subprime (73%) and alt-A (14%) with the other 12% of the portfolio consisted mostly of CDOs and CMBS. More than 85% of the collateral was issued in 2005 or later and had original ratings of triple-B (98%), and single-A (2%). Informed by our market making activities in RMBS and other products, we used the large amount of available trade information to price the underlying assets. The result of this analysis was an average price of \$43 for the RMBS, \$86 for the CMBS and \$5 for the CDOs, resulting in a portfolio NAV of 41 cents on the dollar.

The super senior class size was 68.1% of the overall CDO capital structure. We estimated the leakage to be approximately 10.6% of the super senior class face amount. Therefore, the NAV-based value was 49.4.

Incorporating the market supply/demand dynamic and other market pricing information, our bid and offer for SCF 8A A1NV was 37.5 / 47.5. The mid-market price of 42.5 was used for purposes of margining the CDS protection with AIG.

Although we did not conduct the same level of analysis as the January 2008 exercise summarized above, throughout the course of our collateral dispute with AIG we performed analyses of comparable transactions and actionable bids and offers using a similar methodology.

Conclusion

We believe that our marks on the GS-AIG trades were accurate for a number of reasons, including:

- As we have demonstrated, our fair value marks were based upon the best available market information at that time because we were an active market maker in cash and credit default swap mortgage products throughout 2007 and 2008.
- We were willing and ready to make a two-way market. If AIG believed that our marks were too low relative to the rest of the market, it could have bought additional risk at those significantly lower prices. It did not.
- We told AIG that it could offer our prices to other counterparties in an effort to find clearing levels for the specific reference obligations if it was not interested in adding risk.
- The prices at which we marked the securities were consistent with the prices we had on similar securities that we held in our inventory.
- We used consistent prices to post collateral to clients on the other side of the AIG transactions.
- We felt confident enough in the accuracy of our marks to pay a premium to other financial institutions in order to hedge our uncollateralized credit risk to AIG.

We questioned AIG's view of the value of super senior CDO risk they insured because:

- We provided our individual marks to AIG on a daily basis, but AIG did not provide us with its marks, despite repeated requests to do so. This was not consistent with how other counterparties looked to resolve valuation disputes.
- AIG stated on numerous occasions in our discussions with them that they were not actively trading in the market.
- AIG depended on third party marks but confirmed on multiple occasions that it could not buy or sell on those prices. In other words, the marks they cited were not actionable.
- During early discussions with AIG, they stated they were looking at their positions on a "more fundamental" basis and were accordingly not incorporating actual current market values.

Indeed, as AIG stated during its testimony before the FCIC, it did not have an internal pricing system to value the securities on which they sold credit protection until December 2007.