

## IAQF 2013 Academic Competition Problem Statement

A footnote to AIG's 2007 consolidated financial statement presented in its annual report stated, "In most cases AIG-FP does not hedge its exposures related to credit default swaps it has written." At 2007 year-end, AIG-FP held \$562 billion risky un-hedged credit default swap (CDS) contracts on its books. These default swaps were unconditionally guaranteed by AIG, which was rated triple A by both major rating agencies. AIG-FP was not required to post margin on this position as long as AIG was, itself, not downgraded below double A. The half trillion in notional default swaps represented more than half of all AIG's assets. The bulk of these CDSs were written on super-senior tranches of collateralized sub-prime mortgage obligations, which, in turn, were rated triple A.

A prominent financial economist hired by AIG-FP as a consultant did a simulation based on historical default data and concluded that there was no chance of these super-senior tranches defaulting. In November 2007, the then CEO of AIG-FP stated on a conference call with Wall Street that, short of a depression, he didn't expect AIG to lose a single dollar. The simulation study provided support for AIG-FP not hedging its credit derivatives and not marking them to market, but recognizing the revenue from selling default swaps as current income. In contrast, AIG-FP's much smaller default swap book in early 2005 was hedged until former AIG Chairman Hank Greenberg was ousted from his post in April 2005.

However, in December 2007, AIG's accountants insisted that AIG-FP mark its default swaps to market, which resulted in a greater than expected write-down of over \$5 billion. By the end of 2008, AIG-FP had suffered more than \$101 billion in losses.

The credit-rating agencies lowered AIG's rating below AA, which required posting collateral on the default swaps. This ultimately led to the collapse of AIG and a government bailout of AIG (and, therefore, its counterparties). This government bailout of AIG credit default swaps was intended to stabilize both AIG and its bank counterparties. In the end, the triple A tranches of the collateralized sub-prime mortgage obligations did not actually default and the government was paid back in full. In fact, the government made a profit on the bailout.

Analyze the impact of AIG-FP defaulting on the CDSs it wrote and the moral hazard associated with the US Government making AIG's counterparties whole. Now that such a precedent exists, are there additional implications for the financial system? Develop a method for hedging CDS instruments in general and for determining the appropriate reserves for both writers of CDS and for buyers of CDS to hedge their counterparty risk (three parts). Finally, how should regulators establish capital requirements for these instruments?