

# Office Of Thrift Supervision Department of the Treasury

Northeast Region

Harborside Financial Center Plaza Five, Suite 1600 Jersey City, NJ 07311 Telephone: (201) 413-1000 • Fax (201) 413-7543

# TARGETED REVIEW

American International Group, Inc. 70 Pine Street New York, NY 10270

**Docket Number:** H2984

Subject of Review: Regulatory Capital Credit Default Swaps

Start Date: September 2, 2008 End Date: October ///, 2008

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October //, 2008

American International Group, Inc. 70 Pine Street New York, NY 10270

Members of the Board or their Representative:

Pursuant to Section 10 of the Home Owners' Loan Act, we performed a risk-focused targeted review of American International Group's residential mortgage-related securities.

Information, comments and conclusions contained in this report are based on filings made with the Office of Thrift Supervision and the books and records of the holding company and its subsidiaries. OTS prepared this report for supervisory purposes, and you should not consider it an audit report. OTS prepared this report for supervisory purposes and furnishes this document to the holding company, subject to prohibition of disclosure or release, for its confidential use.

Please review the report in its entirety and advise us of what action you took, or will take, regarding each recommendation discussed in this report. Please reply within 45 days from the date of this letter.

If you have any questions, please call Alexandria Luk, Acting Managing Director, Complex and International Organizations, at (202) 906-6502, or Thomas O'Rourke, Examiner-in-Charge, at (212) 770-6416.

/s/ <u>James T Christner</u> Lead Examiner

/s/ Thomas O'Rourke Examiner-in-Charge

/s/ Martin Lavelle
Assistant Director

#### TARGETED REVIEW

# American International Group, Inc. (AIG) 70 Pine Street New York, NY

**Docket Number:** H2984

**Subject of Review:** Residential Mortgage-Related Securities

**Start Date:** February 11, 2008

**End Date:** July 9, 2008

#### ABBREVIATIONS USED

AIG American International Group, Inc.

AIGFP AIG Financial Products, Inc.

BAIG Banque AIG
CP Counter Party

CRC Credit Risk Committee
CCO Chief Credit Officer

ERM Enterprise Risk Management
IAD Internal Audit Department
PwC PriceWaterhouseCoopers

RMBS Residential Mortgage-Backed Securities

#### **SCOPE**

A target examination of AIG Insurance Company, Inc. (AIG or the Company) commenced on September 2, 2008. The examination focused on a top down review of the Company's super senior credit default swaps written to facilitate regulatory capital relief for certain European Union financial institutions (regulatory capital CDS). AIG subsidiary AIG Financial Products Inc. (AIGFP) entered into these transactions through its French regulated subsidiary, Banque AIG (BAIG). The examination was conducted through discussions with AIG, AIGFP, and BAIG management and other personnel, the review of public records, internal financial records and other internal reports, and reports prepared for the examiners. The examination commenced and concluded with onsite work at AIG's offices in New York City, New York. Onsite work at BAIG's office in London, United Kingdom began on September 8, 2008, and was completed on September 12, 2008. Financial data and information in the report is as of June 30, 2008, unless otherwise noted.

The examination included an assessment of the potential for catastrophic market losses resulting from regulatory capital CDS exposure and the impact such losses would have on the Company's liquidity and consolidated capital position. The examination included a review of valuation methodologies. The review considered how the Company monitors and evaluates its counterparty termination

expectations. The review considered whether the Company conducted scenario analyses in preparation for the possibility that counterparties do not terminate the transactions as the Company expects, and whether the Company has in place a plan to value these transactions under such scenarios. The review considered how the Company monitors and assesses the performance of the underlying portfolios and the broader residential and corporate loan markets. The review focused on existing risk controls and governance matters. A small sample of transaction files was reviewed.

#### **CONCLUSIONS**

The regulatory capital CDS portfolio represents a significant concentration of risk to AIG. Despite declining by \$72 billion since the beginning of 2008, the notional amount of this portfolio totaled \$307 billion or 394 percent of capital as of June 30, 2008. The regulatory capital CDS transactions remain subject to the correlated risks such as a European and Worldwide recession, accounting volatility brought on by risk aversion, a rapid change in regulators views of Basel II Capital models, and long-dated legal maturities during which facts, circumstances, and conditions could change for the worse. In addition, the Company has not conducted a comprehensive, holistic analysis of the notional exposure subject to collateral calls, the conditions required for posting of collateral, and the impact collateral calls would have on the Company's liquidity.

The regulatory capital CDS portfolio is valued at zero as of June 30, 2008. Management conducted a comprehensive accounting analysis to support this valuation. Management concluded that the counterparties are motivated by economic capital relief and that the value of the credit risk transfer component of these transactions continues to be nominal. AIG believes that the most compelling data supporting this conclusion is the termination of \$/// billion of net notional exposures in 2008 at no cost to AIG. However, facts, circumstances, and conditions supporting these conclusions could change rapidly. AIG does not have an alternative valuation methodology in place should these changes occur and the credit risk transfer component of these transaction increases in value.

The Company performs fundamental credit analysis and Worst Case Value-at-Risk (WVAR)<sup>a</sup> analysis of the portfolios of loans underlying each regulatory capital CDS transactions. The WVAR analysis may not be appropriate for a portfolio of this size because the analysis is designed to protect against the vast majority of statistically derived, expected outcomes, not stress. AIG should therefore focus on fundamental credit analysis and not place too much reliance on the WVAR analysis.

Slippage?
Managed Portfolios?

#### RECOMMENDATIONS

<sup>&</sup>lt;sup>a</sup> Defined later in this document.

As a result of our targeted review, AIG corporate management should:

- Continue to monitor counterparty motivations regarding termination, establish concentration reduction targets, and prudentially reduce the size of this portfolio.
- Conduct a comprehensive, holistic analysis of the notional exposure subject to collateral calls, the conditions required for posting of collateral, and the impact collateral calls would have on the Company's liquidity.
- Finalize, test, and implement a model to value the regulatory capital CDS as credit risk transfer instruments in preparation for changing facts, circumstances, and conditions regarding counterparties regulatory capital relief motivations and the Company's expectations that the majority of its counterparties will terminate their transactions at no cost to AIG by the end the first quarter of 2009.
- Focus on fundamental credit analysis and not place too much reliance on WVAR analysis.

# **RISK MANAGEMENT PRACTICES**

#### **Risk Concentration**

The regulatory capital CDS portfolio represents a significant concentration of risk to AIG due to the significant size of the notional exposure and the correlated risks. Despite declining by \$72 billion since the beginning of 2008, the notional amount of this portfolio totaled \$307 billion or 394 percent of shareholders equity capital as of June 30, 2008. The exposure increases to \$313 billion when considering the \$5.8 billion in credit derivatives written by the Company on tranches below super senior on certain of the regulatory capital CDS transactions. The regulatory capital CDS transactions remain subject to the following correlated risks:

- 1. A European and Worldwide recession would impact the quality of the underlying protected portfolios of mortgage and corporate loans;
- 2. A continuation or deterioration of the global credit markets disruption, brought on by risk aversion, would result in further volatility and flight to safety in Europe, as has occurred in the United Sates. These two risks may shift counterparties' motivations away from regulatory capital relief toward credit risk protection, reflecting increases in the value of the credit risk transfer component of these instruments;
- 3. The current economic malaise could lead European Regulators to suspend or change the capital reduction benefits afforded to these instruments by Basel II. This change could appear rapidly, before counterparties receive approval of their Basel II capital models from their local regulators and before the counterparties terminate the transactions at no cost to AIG.
- 4. The legal maturities of the regulatory capital CDS transactions are long dated. Most of the regulatory capital CDS transactions written on portfolios of residential loans mature in excess of 30 years, and some mature in excess of 50 years. Therefore, even if the value of the credit

risk transfer component is currently nominal and the risk of any payment obligation, or actual credit loss is currently remote, a long period of time exists during which facts, circumstances, and conditions could go very wrong. These changes could impact CDS valuations and result in credit losses.

These risks are mitigated in several respects. The regulatory capital CDS protected portfolios of loans are diversified by country and each CDS transaction is diversified by many obligors. AIGFP/BAIG underwrote each CDS transactions at attachment points designed to ensure, based on historical loss data, a remote risk of loss. The credit protection fee is typically fixed or tied to a slowly amortizing schedule. This makes the credit protection fee relatively more costly to the counterparty on declining portfolios of loans. There are fundamental differences between the U.S. and European loan origination models, at least with respect to the residential mortgage markets, However, the securitization motivated super senior CDS portfolio of multi-sector CDOs were mitigated by some of these same factors.

The Company expects the majority of regulatory capital CDS counterparties to terminate their contracts with the Company by the end of first quarter of 2009. Management contacts the counterparties each quarter now to determine if their intensions to terminate have changed. They use this information to estimate the expected call dates. At this point, the Company has not identified concerns that counterparties won't terminate as communicated to Company. However, as noted above, the facts, circumstances, and conditions providing motivation to the counterparties could change rapidly. AIG should continue to monitor counterparty motivations regarding termination, establish concentration reduction targets, and prudentially reduce the size of this portfolio.

Some of the regulatory capital CDS transactions are subject to collateral positing requirements. Management states that the collateral postings vary by counterparty. *The Company has not conducted a comprehensive, holistic analysis of the notional exposure subject to collateral calls, the conditions required for posting of collateral, and the impact collateral calls would have on the Company's liquidity. The Company should conduct this analysis promptly.* 

#### Valuation and Accounting

The regulatory capital CDS are credit risk transfer (CRT) instruments. The CRT component allows the counterparty (CP) to receive a favorable capital treatment from their local regulators under the Basel I capital regime. Management expects the CPs will terminate the transactions when they receive approval from their local regulators and they fully convert to the Basel II capital calculation regime. BAIG/AIGFP priced these instruments at inception as regulatory capital relief transactions with annual fees ranging from four to thirty basis points. Management indicated that, because the Company and its counterparties deemed there was virtually no risk of cash payment on these obligations, they agreed upon a fee that did not incorporate a credit risk charge. Differences in pricing was due to ////////

The regulatory capital CDS portfolio is valued at zero as of June 30, 2008. Management concluded that the counterparties are motivated by economic capital relief and that the value of the CRT component continues to be minimal. This classification and the concomitant valuation methodology is predicated primarily on the assumption that the CPs will terminate the transactions at no cost to AIG when the CPs switch over to Basel II.

AIG believes that the most compelling data supporting this conclusion is the termination of \$/// billion of net notional exposures in 2008 at no cost to AIG. Management also points to the fact that CPs continue to express their intent to terminate the transactions once they receive the full benefit of the capital relief under Basel II. Management actively monitors the remaining CPs intent. The CPs have indicated they see no value as a CRT instrument, other than the capital relief afforded then by Basel I and their local regulators. Management also pointed out that most of these CDS are structured as pay as you go, rather than pay as cash settlement. As many payments are based on the original notional amount, or /////, the effective cost to the CP increases. The continued terminations and the lack of collateral calls are major reasons for this conclusion. Discussions with the Commission Bancaire and AIG's independent auditors, PWC did not reveal that recorded assets/liabilities for these positions. The Company outlines its rationale further in its June 30, 2008, SEC filings. Should the CP fail to terminate the transaction, AIG will change the valuation methodology at that time. PWC concurs with AIG's conclusions.

Even under this conclusion, the CDS have cash flow streams and options related to CP's legal rights toward termination/extension. While the option to extend may presently be of very little value to the CP, the cash flow stream may still require an asset be recorded. Both management and PwC agree with this position but they do not want to record an asset in this case.

While we agree that these are strong arguments, we are concerned that the facts and circumstances supporting their conclusion can rapidly change and they need to be prepared with an valuation model that addresses the CRT component. Outside events and portfolio specific trends, combined with the long-dated stated maturities, could combine to adversely impact valuations. If Europe slides into a recession, the credit protected portfolios deteriorates, or the regulators change the rules or guidelines around Basel II, the option to extend could become move valuable.

Management has moved one CDS out of the regulatory group in the June 2008 quarter because the CP has indicated it see CRT value to the structure. This underlying collateral for the CDS is a security. Management indicated that because the collateral is a security, the CP was able to find an counterparty to offset the position with a positive spread. This is the only transaction with a security as collateral. Management has pointed out that other CPs have not been able to monetize this position when a pool of loans was the collateral.

Management currently does not have a method to value these options or the CRT. We recommend the company finalize, test, and implement a model to value the CDS as credit risk transfer instruments where the option value impacts the overall values. We noted the PwC has made a similar recommendation and management is working on it. We believe such a model could further validate management's position that the options have little or no value. We also request that management provide periodic updates on the development of such a model.

### **Credit Monitoring and Analysis**

The Company performs fundamental credit analysis and Worst Case Value-at-Risk (WVAR)<sup>b</sup> analysis of the portfolios of loans underlying each regulatory capital CDS transactions. Presently, Counterparties provide performance data to BAIG/AIGFP on the underlying loan portfolios quarterly. BAIG/AIGFP personnel review each transaction based on portfolio arrears trends, recent economic trends, local lending conditions, and future expectations. Separate BAIG/AIGFP personnel produce the WVAR analysis. AIG's Chief Credit Officer and AIGFP's Credit Officer perform supplemental reviews of their analysis.

The WVAR analysis may not be appropriate for a portfolio of this size. The analysis is designed to protect against the vast majority of statistically derived, expected outcomes. It is not designed to capture remote events. The Company's WVAR analysis also relies on historical data. The Company does not update its historical data assumptions to reflect current market conditions and portfolio specific trends and the Company does not compare WVAR assumptions with current portfolio performance. AIGFP conducted similar WVAR analysis on the securitization motivated CDS portfolio of multi-sector CDOs. This analysis failed to capture the impact of the subprime mortgage fallout and the resulting, significant valuation losses. Furthermore, AIG projects as of June 30, 2008, that under stressed scenarios, it could realize eventual credit losses of as much as \$5 billion on its CDS portfolio of multi-sector CDOs. One year previously AIG stated that it "does not expect to incur any losses from this exposure." AIG relied upon the WVAR analysis in making this statement. AIG has since adopted the stress tests to more accurately estimate potential cash losses on its securitization motivated CDS portfolio of multi-sector CDOs.

AIG should focus on fundamental credit analysis and not place too much reliance on the WVAR analysis.

### Other points

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**Counterparty Motivation Analysis and Monitoring** 

The Company expects the majority of counterparties (CPs) to terminate the credit default swaps (CDS) by the end of first quarter of 2009. At this point, the Company has not identified concerns that CPs won't terminate as communicated to Company.

Management contacts the CPs each quarter now to determine if their intensions to terminate have changed. They use this information to estimate the expected call dates (shown below). In some cases, the expected call date has moved forward (quicker approval of models or other reasons) and these changes are not a concern. There have been a number of cases where the expected date has 'slipped' back and these could become a concern.

<sup>&</sup>lt;sup>b</sup> Company documents indicates that its WVAR analysis incorporates a Monte Carlo simulation of historical performance data such that the model outputs the 99.85th percentile of the resulting loss distribution. The 99.85 percentile VaR is a number with the interpretation that 99.85 percent of the time the realized loss will not exceed that number. BAIG indicates that it adjusts the historical data at inception to further stress the model output.

Expected Call Dates and Amounts				
As of June 30, 2008				
(Amounts in billions)				
			AIG	% of
	From	То	Exposure	Exposure
Termination Notice received	July 4, 2008	July 31, 2008	\$15.3	5.0
Expected by end of 2008	July 31, 2008	Dec 31, 2008	17.4	5.7
Expected in 2009	Jan 1, 2009	Dec 31, 2009	120.1	39.1
Expected in Q1 2010	Jan 1, 2010	March 31, 2010	139.4	45.4
Expected in Q2 to Q4 2010	April 1, 2010	Dec 31, 2010	0.4	0.1
Beyond 2010	Jan 1, 2011	Dec 1, 2014	14.3	4.7
			\$306.9	

The contact reports indicate the reasons for the slipping back has include company acquisitions, delays in model approval, and the expectation that the structure will provide regulatory capital benefits after Basel II is fully implemented. Management has identified \$58.1 billion or 18.9% of the remaining notional amounts have extended out at least one quarter.

Seven of the CPs, where the CDS structure involves KfW, has indicated the capital benefits will survive into Basel II. The CPs have sold most (if not all) of the first loss pieces. The CDS for the deal went from the CP to KfW and then to Bank AIG. KfW is a German (government-owned) development bank and the transactions receive a 0% risk weight under both Basel I and II. Not all of the CDS involving KfW have sold the first loss pieces and those are expected to be terminated in the same period. Of the seven, they total \$\$14.9 billion and the current expected termination dates range from Feb 2010 to Feb 2013. AIGFP's conclusion for these deals remains that they are regulatory capital motivated.

Another group of CDs involve ABN Amro which was acquired by a consortium of RBS, Fortis (note – they are being asked to sell this interest), and Banco Santander. As a consequence, ABN is being allowed to run down and it is unclear as to what capital treatment will be applied. There are eight deals involving ABN but only four totalling \$27.4 billion have moved back. Management expects that once the assets are transferred to the appropriate bank, the CDS will be terminated.

There are others that have moved back because their regulator has imposed a floor on the capital calculations so the capital benefits continue. In addition, some CPs are faced with regulatory capital uncertainty. This may be due to possible mergers or issues with the modelling program.

As transactions extend out, they have increases chances for the CP to change their position or for economic circumstances to change. Either of these circumstances could result in the CDS not to be considered for regulatory capital purposes. This increases the need to have alternative valuation methods available for the CDS.

#### Underwriting

# 1. Managed portfolios –

AIGFP accepts two types of portfolios; managed and static. Substitutions are generally not allowed in the static portfolio. Managed portfolio CPs are permitted to substitute loans throughout the life of

the contract, thus maintaining the level of aggregate exposure equal to the exposure at the inception of the contract. This is subject to certain portfolio level guidelines agreed to at the inception of the contract. The Company receives periodic data feeds from the CPs which it uses in the subsequent performance reviews. Raises the risk that quality of the portfolio is not as good as originally assessed.

The Company does not perform a substantive test of the substitutions either. We recommend that FP implement a process that allows for substantive testing of the underlying assets, to ascertain that the new assets being substituted in fact conform to the original asset quality terms(, and the seasonality????).

Additional exposure – monitoring of CPs with junior pieces..motivations.

The instruments in-substance are credit risk transfer instruments and accordingly should be valued as such. The motivation of the counterparty, or the insufficiency of the compensation received relative to the risks borne, should not dictate how the instruments are valued. This concern is heightened in the current stressed credit market environment.

Rising residential mortgage loan delinquencies and defaults, depreciating home prices, widening credit spreads, reduced liquidity and price transparency, and volatile credit markets are all contributing to severe and rapid declines in the fair value of AIG's U.S. residential mortgage-related securities as well as substantial losses in other AIG businesses exposed to the U.S. housing market. AIG will continue to be adversely affected and additional realized and unrealized losses will be experienced if these adverse conditions persist.

AIG is exposed to the U.S. residential real estate market in the following areas:

- Capital Markets, AIG Financial Products (AIGFP)
- Insurance Investment Portfolios, AIG Investments (AIGI)
- Mortgage Insurance, United Guaranty Insurance Corporation (UGC)
- Consumer Finance, American General Finance (AGF)

We performed this targeted review of American International Group Inc. (AIG, or the Company) to determine the impact on the Company's operations and management's response to the ongoing U.S. housing market decline and global credit markets disruption. This review focused on AIG's risk exposure to U.S. residential mortgage-related securities and its management of this risk. The vast majority of the Company's U.S. residential mortgage-related securities are residential mortgage-backed securities (RMBS), which are housed within its Insurance Companies' investment portfolios. These RMBS are managed by AIGI, the Company's Asset Management unit. Mortgage assets owned and managed by AIG Federal Savings Bank were not in scope for this review.

Our primary objectives for this review were to:

- Evaluate management's representations regarding the Company's levels of exposure and its associated risk management practices.
- Evaluate the sufficiency of risk management directed toward this exposure.
- Assess the potential impact upon the Company's capital adequacy.

We reviewed the following functions:

- Portfolio management
- Underlying credit analysis
- Securities pricing and valuation
- Other-than-temporary impairment (OTTI) determination

We suspended our review of the Company's management of exposure to U.S. residential mortgage-related credit derivatives pending the completion of an internal investigation of AIGFP's fourth quarter 2007 super senior credit default swap valuations and disclosures. Comments and conclusions noted in this report are based on the information we have received to date. AIG's Audit Committee commissioned the internal investigation in late February 2008. We expect to receive a copy of the internal investigation report upon its completion in July 2008.

#### SUMMARY OF FINDINGS AND CONCLUSIONS

# Reporting

Our review found management reporting to be insufficiently comprehensive or robust. It reasonably reflects the level of AIGI's RMBS exposure and related risk management practices. However, AIG does not perform fundamental portfolio analysis and reporting of underlying mortgage characteristics to include, inter alia, sub-types, periods to next reset, loan-to-values (LTVs), credit scores, mortgage originators, geographic location, and credit surveillance results. Stratified risk measurement and reporting of these risk factors would provide a more complete representation of the Company's exposure to the residential mortgage market and further promote sound risk management.

# Oversight and Risk Management

We note concerns with oversight of the risk management of RMBS. Prior to the recent U.S. housing market and credit markets downturn, AIG's corporate risk management did not provide active oversight other than annual portfolio reviews and delegations of credit authority. Managers responsible for acquiring RMBS currently conduct the portfolio performance reviews and underlying credit analysis with little independent confirmation.

We were unable to identify risk tolerance levels, risk adjusted return objectives, and performance metrics for the RMBS portfolio. The credit surveillance processes employed by the portfolio managers should be validated and strengthened with more rigorous screening and migration analysis. The improved processes could be used for internal risk rating, thereby reducing reliance placed on external ratings.

While we conclude that management has designed and executed reasonable risk management controls for RMBS portfolio pricing and determining OTTI, the independent oversight of the pricing processes was performed by the accounting group on an interim basis. Corporate management is currently transferring oversight of the pricing processes to Global and Regional Pricing Committees. Validation of the pricing processes will be performed by Enterprise Risk Management's (ERM's) Valuation Group.

#### Capital Adequacy

We are concerned with the size of the Company's exposure to the U.S. residential real estate and structured credit markets and its potential impact on capital. As of March 31, 2008, AIG reported cumulative realized and unrealized losses of \$49 billion that are attributed to the continuing U.S. housing market deterioration and global credit markets disruption. The remaining potential exposure is significant and will be the subject of ongoing supervisory attention for the foreseeable future. We note management's recent capital augmentation and efforts to strengthen the Company's capital structure.

#### RECOMMENDATIONS

As a result of our targeted review, AIG corporate management should:

- Direct more resources toward the independent evaluation of portfolio performance, credit quality, and securities price verification.
- Conduct an independent review of portfolio management with the objective of identifying "lessons learned."
- Clarify portfolio risk tolerance levels, risk adjusted return objectives, and performance metrics.
- Ensure more granular risk measurement and performance reporting of RMBS characteristics.
- Ensure the following credit risk analyses:
  - Independent validation and testing of the credit surveillance process.
  - Credit screening criteria for AAA-rated RMBS that is no less rigorous than the criteria afforded to non-AAA rated RMBS.
  - Credit screening that incorporates projected default rates for the 2006 and 2007 vintage performing loans.
  - Consistent preparation of trend and migration analyses of portfolio performance and credit surveillance results.
  - Assignment of internal risk ratings consistent with the company-wide view of risk.
- Ensure the pricing committees and ERM Valuation unit receive the resources necessary to meet their objectives.

#### RISK MANAGEMENT PRACTICES AND PROCEDURES

# Reporting

The May 2008 investor's conference call presentation for March 31, 2008, separately identified AIGI's investments in RMBS and U.S. RMBS at \$82.3 billion and \$78.5 billion, respectively. AIG first publicly disclosed its detailed U.S housing market exposures in August 2007. The Company followed with subsequent public disclosures in November 2007, December 2007, February 2008, and May 2008. In November 2007, AIG began including U.S. real estate exposures in its quarterly risk concentration reports.

Our review found these disclosures and reports capture the aggregate level of AIGI's RMBS exposure and related risk management practices. However, they are currently limited to underlying mortgage type, vintage, rating agency rating, credit enhancement, and the relative fair values associated with these portfolio categories. The Company does not perform fundamental portfolio analysis and reporting of underlying mortgage sub-types (option ARM, hybrid, and fixed-rate), periods to next reset, average and range of LTVs, average and range of credit scores, mortgage originators, geographic location, credit surveillance results, and the relative fair values associated with these more granular portfolio groupings.

We recommend that AIG expand its internal reporting to reflect these portfolio characteristics. Stratified risk measurement and management reporting of these risk factors would provide a more complete representation of the Company's exposure to the residential mortgage market and further promote sound risk management.

# Portfolio Management

# Performance and Oversight

AIG's U.S. RMBS portfolio has experienced significant depreciation in value. Through March 31, 2008, AIG has recognized OTTI charges on U.S. RMBS of \$4.9 billion and an additional unrealized depreciation of \$10.7 billion. Nearly \$5.0 billion of the unrealized depreciation applies to securities that have experienced fair value declines ranging from 30 to 40 percent of amortized cost. AIG currently recognizes OTTI on fair value declines of more than 40 percent of amortized cost and evaluates securities for OTTI when the securities trade at a 25 percent discount for nine consecutive months or longer. Accordingly, if current market conditions persist, AIG may recognize these additional losses in its operating results by the end of 2008.

While the credit markets stress is affecting securities valuation, at least some of the aversion of investors to these investments reflects legitimate concerns about their risks. Many securities are also underperforming. Higher-risk securities that lost 50 percent of their market value in the fourth quarter of 2007 lost an additional 50 percent of the adjusted value in the first quarter of 2008. Particularly impacted were the second lien and home equity line-of-credit RMBS, where cumulative loss estimates have escalated precipitously. Sub-prime and Alt-A RMBS also declined significantly. These four investment types totaled \$40 billion or 62 percent of consolidated equity capital and 59 percent of the RMBS portfolio as of March 31, 2008. RMBS of 2006 and 2007 vintage comprise over 56 percent of the RMBS portfolio. Current lifetime loss estimates for these RMBS are significantly higher than the loss estimates for prime RMBS of earlier vintage.

The RMBS portfolio consists largely of securities rated AAA by at least one of the nationally recognized statistical rating organizations (rating agencies). Credit enhancements on these securities provide protection from credit losses based on current loss estimates. However, securities rated AA and below are at significant risk of ultimate loss and even RMBS rated AAA remain at risk of further U.S. housing market deterioration. This is evident particularly in the 2006 and 2007 vintage subprime and Alt-A RMBS, which have higher rates of delinquency, foreclosure, and credit loss than prime loans of earlier vintage. The risk of further deterioration was recently confirmed as the S&P/Case-Shiller March 2008 first quarter home price index showed that national home prices fell 14.1 percent from a year earlier, the largest decline in 20 years.

Management provides oversight of the RMBS portfolio in several ways. AIG's Credit Risk Committee (CRC) receives an annual presentation on portfolio performance from AIGI. The most recent presentation was made on October 2, 2007. The CRC requested AIGI to follow-up with monthly updates of the Alt-A and subprime Watchlist, and to fine tune stress testing to reflect a higher degree of severity. The CRC also delegates credit approval authority to AIGI based on obligor risk ratings. In addition, AIG's Chief Credit Officer (CCO) provides guidance and approves recommendations for OTTI due to credit impairment. Within AIGI, the Fixed Income Asset Allocation Team regularly reviews investment performance and market conditions.

We find elements of sound portfolio management but also observe certain weakness in oversight controls. The annual presentations to the CRC are prepared by AIGI's group managers, portfolio managers, and credit analysts. The presentations do not include an independent view of the portfolio or its performance. The October 2007 AIGI presentation to the CRC portrayed a very positive outcome and concluded "our conservative investment posture has significantly limited our exposure to the current downturn."

As indicated earlier, substantial write-downs were recognized on the portfolio subsequent to AIGI's October 2007 presentation. An independent party may have taken a different view in light of the deteriorating subprime market conditions in the broader markets. Furthermore, the CRC does not conduct regular quarterly reviews of portfolio quality and market conditions.

Given the significant losses that AIG is experiencing as well as the size, complexity, and scope of its investment operations, we recommend the Company dedicate more resources toward the independent evaluation of portfolio performance. We recommend the Company conduct an independent review of the portfolio value loss to identify "lessons learned" and to establish corresponding oversight controls. The review should be conducted by either an internal or external party that is independent of AIGI.

The Fixed Income Asset Allocation Team's risk tolerance levels, risk adjusted return objectives, and performance metrics are not clear. We were unable to determine how return objectives are established for the Fixed Income portfolio and how the portfolio's performance is measured. We recommend that corporate management ensure proper deployment of these important risk management tools to this portfolio.

# Concentration Exposure Management

As noted in prior examination reports, AIG historically has carried out strong corporate credit oversight of obligor and country concentration risks. Though the Company monitored industry concentrations, it did not aggregate certain industry exposures and left certain investment portfolio allocation decisions to investment group management. This included exposure to the U.S. residential mortgage market and portfolio allocations by investment type and vehicle.

The absence of continuing corporate oversight of these concentrations and portfolio limits permitted AIGI to accumulate residential mortgage-related securities exposure nearly exceeding consolidated equity capital, even as significant exposures to the U.S. housing market existed elsewhere in the Company and market signals indicated that mortgage market problems were mounting. As of December 31, 2007, the balance of 2006 and 2007 vintage U.S. residential mortgage-related securities purchases totaled \$30.4 billion and \$21.0 billion respectively. Much of this was in subprime and Alt-A RMBS, and some was in second lien and home equity line-of-credit RMBS.

ERM is currently responding in an active manner to the concentration in U.S. RMBS. AIG's CCO recently advised management at AIGI and AIGFP of the need to get his approval for increased

RMBS exposure. The CCO is working with AIGI to limit U.S. RMBS by type (sub-prime, Alt-A, prime jumbo, GSE pass-through, home equity line of credit, and second lien), vintage, and rating. The final portfolio limitation proposals will be submitted to the CRC for approval. Similar portfolio limitations will be put in place for foreign RMBS, Commercial Mortgage Backed Securities, and Collateralized Debt and Loan Obligations. The CRC approved a series of concentration limits and other approval requirements for American General Finance in April 2008.

The Company's current response to managing its RMBS concentrations is positive. However, the lack of oversight during the buildup of RMBS concentrations indicates that the corporate resources directed toward investment portfolio oversight were inadequate relative to the Company's size, complexity, and risk profile.

# **Credit Risk Analysis**

Credit risk analysis for RMBS was not robust prior to the U.S housing market decline and credit markets turmoil. Management historically considered the RMBS portfolio to be unvarying and low risk consisting mainly of AAA- and AA-rated bonds. It designed the portfolio's credit surveillance process to identify investments that were likely to have rating downgrades in the near future. Portfolio managers could then revisit the investments prior to price declines expected from their likely downgrades, and determine whether to retain the investments. AIGI adopted a more comprehensive credit surveillance process with oversight from AIG's CCO for the quarter ended September 30, 2007. This process evolved further through the first quarter of 2008 as the U.S. housing market continued to deteriorate, the credit markets disruption deepened, and the new requirements of the CCO's review were incorporated.

AIGI's portfolio managers and credit analysts now assess potential credit losses through a two-step credit surveillance process. First, credit screening is used to identify those securities that are more likely to have credit problems. Second, those identified securities are evaluated in more detail to determine whether they are credit impaired. Securities are classified as OK, Re-visit, Watch List, or Credit Impaired. The two-step credit surveillance process considers underlying mortgage collateral (subprime, Alt A, second lien, prime jumbo, fixed, adjustable); underlying mortgage loan rates of delinquency, default, and prepayment; internal assumptions and third party estimates of future default and loss severity; and cash flow impact of securitization structures.

#### Lack of an Independent Credit Review Process

Our review of the credit review process found that it lacks sufficient independence. The Company does not direct the resources necessary to provide strong oversight of the credit surveillance process employed by AIGI portfolio managers. As noted, AIG's CCO vetted and directed several adjustments to the process since it was first introduced in the third quarter of 2007. However, the CCO does not have the benefit of analytical assistance from an independent credit review staff and his other corporate credit responsibilities are significant. The CCO receives detailed security evaluations on only those securities that AIGI identifies as credit-impaired. AIGI provided only 17 security evaluations to the CCO for the quarter ended December 31, 2007. We recommend the

Company dedicate adequate resources to the credit review process to ensure independent and sufficient credit analysis.

AIGI's portfolio managers and analysts, with their collective knowledge of the investments and industry, are well suited for conducting ongoing credit analysis and identifying emerging risks in the RMBS portfolio. However, because they cannot produce independent analysis due to their vested interest in the portfolio's performance, the Company should not rely solely on the portfolio managers and analysts for credit monitoring of the RMBS portfolio.

Credit review should be conducted independent of portfolio management. An independent credit review process would encourage the identification of weaknesses inherent in portfolio investment strategies and practices, in addition to quantifying current credit problems. It serves as an early warning system and can mitigate the risk of loss. It can also reveal investment patterns or deficiencies in portfolio administration. In this respect, the independent review process can serve as a proactive, as well as a protective, function.

Given the significant losses AIG is experiencing as well as the size, complexity, and scope of its investment operations, we recommend that AIG consider establishing a separate and independent credit review department staffed by independent credit analysts. An expanded independent review function should address the following matters:

- The credit surveillance process has not been validated or tested to assess whether it is capturing all securities with credit problems and appropriately identifying all credit losses. For example, credit evaluations could be conducted on a sample of RMBS that do not meet the credit screening triggers, but are in fact experiencing actual severe price declines. This evaluation may uncover investment characteristics that market participants consider problematic but that are not identified by the credit surveillance process. Additional testing could be conducted utilizing the credit evaluation assumptions employed by market participants.
- Credit screening criteria used for non-AAA rated RMBS is more transparent and conservative than credit screening criteria for AAA-rated RMBS. This could result in significant underreporting of securities with credit problems because the RMBS portfolio consists largely of securities rated AAA by the rating agencies. Because the Company did not internally risk rate its RMBS, its credit screening criteria for RMBS rated AAA by the rating agencies should be no less rigorous than the criteria it affords to RMBS not rated AAA by the rating agencies.
- Credit screening considers only those loans that are already in default or past due. It does not
  consider the migration of performing loans into delinquent status. Because the mortgage loans
  underlying AIG's RMBS are of a very recent vintage, this could significantly underestimate the
  number of securities with credit problems. AIG should apply third-party, projected default rates
  for the 2006 and 2007 vintages to provide a better analysis of these newer securities.

- AIGI does not consistently prepare trend and migration analyses of portfolio performance and credit surveillance results. Trend and migration analysis would assist in providing risk-sensitive feedback on portfolio performance. The analysis could also provide early indicators of future deterioration or improvement.
- The credit surveillance process is not mapped to internal risk ratings. AIGI does not rate RMBS at the time of purchase. Instead, AIGI assigns the ratings to its RMBS that are assigned by external rating agencies. The ratings agencies have been slow and reactive in adjusting to the rapidly declining mortgage markets and capturing the inherent risk in these securities. We caution against reliance solely on external ratings. AIGI does not have a matrix for mapping the results of its credit surveillance process to the Company's obligor risk ratings (ORRs). Internal ratings provide a consistent company-wide view of risk, as well as provide a basis to determine required capital for each security in accordance with economic capital principles.
- IAD's findings contributed significantly to our assessment of risk management. AIG's internal audit division (IAD) conducted two audits of procedures and controls related to RMBS credit exposure aggregation, reporting, and credit surveillance processes in 2008. These audits identified a number of process and control gaps, and documentation shortcomings. AIGI and the Securitized Products Group have agreed to corrective action plans that will be monitored by IAD. We also identified securities that were miscoded due to process or system weaknesses. Consequently, these securities were not subjected to further credit surveillance.

## **Securities Pricing and Valuation**

In response to the difficulty of obtaining observable market prices for many securities, management has implemented interim controls on pricing and taken measures to ensure adequate RMBS pricing. The expanded interim processes for RMBS pricing include:

- Interviewing vendors and brokers to understand their pricing methodologies including their use of market-observable information, models, and other sources of information.
- Evaluating differences between vendor prices and broker quoted prices.
- Evaluating differences between several independent broker quoted prices.
- Evaluating differences between prices on securities held in common between AIG's Insurance Companies and AIGFP.
- Conducting follow-up evaluations of price differences from the prior quarter.

Beginning with the quarter ended December 31, 2007; management obtained and reviewed prices from various providers such as Interactive Data Corporation, Lehman Brothers, Reuters, and Bloomberg. Interactive Data Corporation is AIG's primary vendor and source of pricing for most of its RMBS and Lehman Brothers is AIG's vendor for securities in the Lehman Index. Management obtained additional broker quotes, where available, to ensure appropriate pricing. The follow-up evaluations resulted in some changes to the pricing hierarchy. For example, broker-quoted pricing

took priority over vendor default security pricing, resulting in additional OTTI charges for the quarter ended March 31, 2008.

Delegated roles and responsibilities for the interim securities pricing processes are defined and decisions are documented. The interim process is controlled by AIG's Comptroller and Director of Corporate Comptroller's Investment Accounting with relevant guidance provided by AIG's Office of Accounting Policy. AIGI's Operations Group administers the gathering of RMBS prices independent of the portfolio managers. For RMBS, the process relies primarily on third party pricing providers.

AIGI's portfolio managers provide input on a quarterly basis where significant differences existed between the prices provided by the pricing providers. In these cases, AIG's Comptroller and Director of Corporate Comptroller's Investment Accounting determines the price based on an evaluation of the portfolio managers' input. AIG documented these processes in a series of procedures memos and review reports to support the December 31, 2007, and March 31, 2008, pricing and OTTI determinations. PriceWaterhouseCoopers (PwC) confirmed that it has reviewed the price verification process and that it is satisfied with the existing controls.

The interim securities pricing processes did not raise any significant concerns. However, AIG should have a permanent pricing and valuation control process to ensure consistent application of independent and rigorous valuation practices across the firm. The Company recognizes the need for processes to ensure consistent pricing across the organization and has shifted oversight and control of this process to newly created Global and Regional Pricing Committees (GPC and RPC) and a dedicated ERM Valuation unit.

The GPC and RPC committees serve as forums for the business units to ensure AIG implements and operates consistent pricing methodologies to value assets and liabilities at fair value on a recurring basis. The ERM Valuation unit will lead the fulfillment of this mandate, provide relevant technical expertise, and ensure the processes that result in official prices are validated. The GPC is chaired by the head of the ERM Valuation unit and consists of representatives of investment accounting, accounting policy, financial reporting, and all of the Company's critical control groups. The RPC that is responsible for RMBS valuation consists of representatives of the critical control groups and AIGI. Corporate management should ensure the pricing committees and Valuation unit receive the resources necessary to meet their objectives.

# **Other-Than-Temporary Impairment Determination**

In addition to the expanded pricing procedures for RMBS, management has expanded its OTTI determination procedures. The expanded OTTI procedures augment the systematic methodology that management previously followed in its public filings prior to the current ongoing market dislocation. The systematic methodology incorporates consideration of price declines due to the following factors:

Credit impairment.

- Adverse declines in estimated future cash flows to be generated from structured securities such as RMBS with a credit rating of AA- or below.
- Adverse changes in foreign exchange rates.
- Management determines that the Company has neither the intent nor ability to hold securities until maturity.

The most significant of the new procedures is the application of OTTI based entirely upon the severity of price decline, regardless of the Company's intent or ability to hold the security until maturity. The Company now records OTTI charges on all securities trading at a discount greater than 40 percent. In addition, the universe of securities to be evaluated for possible OTTI has been expanded to include all securities with price declines in excess of 20 percent. Previously, management evaluated securities for OTTI once the securities were trading at a 25 percent discount for nine consecutive months or longer. Management has defined procedures for controlling the potential accretion of OTTI charges back into net investment income. For securities that decline in value by an additional 10 percent or more subsequent to a OTTI write-down, the new procedures will restrict accretion of OTTI.

Delegated roles and responsibilities are defined and decisions are documented for OTTI determinations. The OTTI process is owned and controlled by AlG's Comptroller and AlG's Director of Corporate Comptroller's Investment Accounting with input from AlGI and AlG's CCO. AlG's Office of Accounting Policy provides relevant guidance on OTTI determinations. PwC has reviewed the existing OTTI controls and procedures and determined that they are satisfactory. PwC characterized AlG's OTTI policies and practices as being conservative.

The limited resources that are allocated to independent oversight of RMBS credit evaluations remain a concern. However, management has demonstrated a willingness to follow its expanded procedures including OTTI determinations based entirely upon the severity of price declines. This provides some assurance as a mitigating control that OTTI will not be under-reported. We identified no significant concerns and concluded that AIG has implemented reasonable OTTI determination controls.