

Memorandum

To: Invested Asset Working Group
From: Risk Subgroup of the Invested Asset Working Group
Date: August 26, 2008
Subject: Review of Investment Risks

This is the report of the Risk Subgroup of the NAIC Invested Asset Working Group (IAWG). The Subgroup was formed to evaluate all investment risks to determine which risks are individual security risks for fixed income securities and to review how those individual security risks are handled in the current NAIC regulatory framework.

The need to undertake the review of investment risks stemmed from the events that followed the hybrid security decisions taken by the NAIC in 2006. The issues were finally resolved by the adoption of the American Academy of Actuaries (AAA) report by the NAIC earlier this year. A full review of all possible investment risks by the IAWG, as part of the NAIC's transparency initiative, was necessary to minimize future problems.

To the extent that the Subgroup observed deficiencies, it would recommend improvements to the IAWG. There were no boundaries on the risks that could be considered as part of the deliberations. The Subgroup consisted of the following regulators and industry representatives:

Max McGee, Prudential, Chair of the Risk Subgroup
Chris Anderson, Anderson Insights
Bob Carcano, NAIC Securities Valuation Office (SVO)
Kevin Fry, Illinois Department of Insurance
Wally Givler, Northwestern Mutual
Trond Odegaard, Allstate
Matti Peltonen, New York Insurance Department
Ruth Sayasith, MetLife
Elaine Weiche, Connecticut Department of Insurance

Aside from the subgroup members listed above, significant input was also provided by Allen Elstein (Connecticut), Jeff Evans (SVO) and Jim Everett (New York).

Although a member of the Subgroup may be associated with a particular company or insurance department, his or her participation in the Subgroup was as an individual, in a professional capacity, rather than representing their company or state. The subgroup was composed of participants with various specialties including: regulatory, financial/capital markets, risk management, actuarial and accounting/reporting.

Risk Subgroup Process

The Subgroup began its work in late January 2008 and conducted weekly conference calls to discuss issues regarding investment risks. The calls did include other regulators from the states represented on the Subgroup, NAIC staff and the SVO. However, the Subgroup members made all decisions regarding the content of the report. All conference calls were documented and the Subgroup members approved minutes of the calls. There was a full and complete discussion of the issues during those calls.

The focus of the Subgroup was fixed income securities only. We began the process by developing a list of all potential investment risks. Our initial list included approximately twenty risks and it swelled to almost thirty as we worked through the process. We used a very deliberate process to discuss each risk on our list. We focused on risks associated with individual securities and not portfolio risks although we did discuss portfolio risks during our deliberations.

We first discussed and arrived at a definition for each risk. Based on that definition, we determined whether a particular risk was an individual security risk. Some risks were discussed and disposed of quickly. Other risks took several calls to reach a conclusion. Ultimately, each risk discussed ended up on one of two lists (Individual Security Risk or Not an Individual Security Risk).

Any discussion of fixed income investment risks should include a discussion of interest rate risk as that risk can fundamentally alter the return of a fixed income instrument. Although interest rate risk was determined not to be an individual security risk but rather a systematic risk, we did discuss it in some detail.

Whenever possible, we considered existing definitions for the risks identified rather than creating new definitions. The definitions may have been changed slightly to reflect the insurance context. The sources used were the NAIC and the Federal Reserve System Joint subgroup on Financial Issues from June 2003 and textbooks such as The Handbook of Fixed Income Securities by Frank Fabozzi.

Discussion of Investment Risks

The Subgroup reviewed twenty-eight potential individual security risks, and through a full and detailed discussion, determined that eight of these risks were present in fixed income securities. The eight risks are credit, event, liquidity, call, extension, deferral, currency and leverage. After discussing all of the risks identified, the Subgroup agreed that there were no material additional individual security risks related to fixed income securities. We also discussed Financial Innovation, which is covered in more detail in Exhibit 4.

There are four additional attachments to this report which supplement our written report. Exhibit 1 provides a summary of the risks that were determined to be individual security risks along with a definition for each risk. Exhibit 2 is a listing of the balance of the risks covered as part of our deliberations, which were determined not to be individual security risks. Exhibit 3 is a grid that describes how each of the eight risks determined to be individual security risks are addressed in the current regulatory framework and recommendations to further improve the regulatory process. Exhibit 4 is Jeff Evans' report on how the ratings of rating agencies reflect loss and recovery given defaults as part of the ratings process.

Credit Risk

Credit risk is the risk of non-performance of contractual payment obligations on bonds, cash equivalents and other invested assets with the characteristics of fixed income instruments. As part of our discussions, we covered the history and development of C-1 (Asset Risk) in the RBC formula and how that relates to credit risk.

The American Academy of Actuaries (AAA) performed a review of default history in the early 1990's in order to develop the AVR and C-1 factors. The AAA utilized the Moody's default statistics as part of that review to classify securities into six rating categories. The study resulted in recommendations on the factors regardless of cause for default.

We also discussed whether the definition should be modified, as it does not explicitly state that there is a risk of downgrades of debt instruments which could lead to greatly reduced market values well before scheduled maturity dates or defaults. It was observed that the C-1 factors contemplated defaults (using a ten-year horizon) and that as an asset is downgraded RBC factors will increase and marking-to-market may even be required. Still, this does not address whether the possibility of downgrades should be stated explicitly in the definition. Ultimately, the Subgroup concluded that the present definition was adequate, however, following the concept that adverse developments for the investor with respect to any risk factor should be expected to result in market price declines for the asset and as such credit risk was not materially different from other risks identified in this regard.

Our conclusion is that C-1 covers the risk of default and is synonymous with credit risk. Credit risk is an individual security risk. Defaults are cyclical and the factors used in C-1 should be reviewed by the NAIC on a periodic basis. We did determine that default experience is reflected in ratings provided by the rating agencies.

We recommend that the Capital Adequacy Task Force review the default studies periodically (at least once every five years or more frequently as circumstances dictate) to determine whether material changes have occurred. Based on that review, a more in-depth study of default experience may be warranted.

Deferral Risk

Deferral risk is the risk of the issuer's right to delay payments of interest or dividends (temporarily or indefinitely) on certain instruments. It was noted that the impact of deferral is already explicitly incorporated in rating agency credit ratings and is also covered as an element of C-1. Deferral risk is required to be disclosed in the bond characteristics codes in Schedule D.

Event Risk

Event risk is the risk of regulatory changes or other external actions or occurrences that are significant and unanticipated, and which impact the value of a security. It includes governmental actions that limit payments from borrowers that are otherwise willing and able to fulfill their obligations. Some examples of event risk are corporate restructuring, takeovers or changes in tax or accounting treatment of an investment as well as natural disasters. Actual or potential corporate restructurings and takeovers, in particular, may have an adverse impact on the holders of fixed-income securities in a number of ways. In general, the impact of an event can be immediate or gradual over time.

Event risk is not a risk that is included in the credit ratings of individual hybrid and other securities, according to papers by the SVO and Standard & Poor's. This is because it is generally believed that it is impossible to factor in predictions of surprise events, such as corporate restructurings and major changes to accounting or regulation, into the ratings of individual securities. Because the factors for AVR and RBC C-1 are intended to set levels for entire portfolios of securities, the impact of defaults caused by unexpected events is actually included in AVR and RBC, even though individual ratings do not reflect event risk. This is because the historical studies that formed the basis for AVR and RBC looked at the occurrences and consequences of all defaults regardless of cause, so if an unexpected event caused a default then that event was included in the calibration of C-1. This is consistent with the understanding that all factors that cause defaults are contemplated by AVR and C-1, and factors that do not cause defaults (such as foreign currency risk) are not included in AVR or C-1 risk factors.

Liquidity Risk

Liquidity risk is defined as the risk that an investor will not be able to buy or sell an asset into the market with the expected bid/ask spread, anticipated price continuity or sufficient depth, thus causing price realization or execution that is unfavorable or nonexistent. The Subgroup agreed that liquidity is both a portfolio level risk as well as an individual security risk. Liquidity risk could also change over time based on the occurrence of certain events that could make the security less liquid.

Liquidity risk is addressed in the Examiners Handbook as part of the risk-focused examination approach. The Subgroup believes that liquidity risk is a significant risk and recommends, at a minimum that, the NAIC Financial Analysis Handbook be reviewed and potentially strengthened to better address portfolio liquidity risk.

Call Risk

Call risk is the risk that an issuer may elect to retire an asset, in whole or in part, when the investor would have preferred that the asset remain outstanding. Call risk and extension risk are closely related.

Call risk is currently addressed for life insurers through asset liability management, statutory cash flow testing and RBC C-3 Phase I. Call risk is required to be disclosed in the bond characteristics in Schedule D for all insurers but the details of the call provisions for a security are not readily available to state insurance regulators. Provisions should be made for facilitating access by regulators to the specific call features, possibly by including them in the SVO database project.

Extension risk

Extension risk is the risk that an issuer may elect not to retire an asset, in whole or in part, prior to its maturity date when the investor might have anticipated and might have preferred early retirement.

Extension risk is currently addressed for life insurers through asset liability management, statutory cash flow testing and RBC C-3 Phase I. Extension risk is required to be disclosed in the bond characteristics in Schedule D for all insurers. Provisions should be made for facilitating access by regulators to the specific extension features, possibly by including them in the SVO database project.

We also discussed how mortgage-backed securities are impacted by call and extension risk. In the case of mortgage-backed securities, the cash flow depends on the timing of principal repayments made by the borrowers in the pool of mortgages that serve as collateral for the security. Prepayment risk is the risk that borrowers will prepay all or part of their mortgage sooner than anticipated. Extension risk is the risk that prepayments will be slower than anticipated.

Currency Risk

Currency risk is the risk that a nondollar-denominated bond (i.e., a bond whose payments occur in a foreign currency) has uncertain U.S. dollar cash flows. The dollar cash flows are dependent on the foreign exchange rate at the time the payments are received.

Payments linked to foreign exchange rates are required to be disclosed in the bond characteristics codes in Schedule D. The Subgroup believes that currency risk is adequately disclosed in the annual statement, but recommends that the IAWG review the disclosures for potential enhancement.

Leverage Risk

Leverage risk is the risk associated with increasing the volatility of periodic payments. Using leverage, principal repayment terms also may be structured to increase their uncertainty, which increases credit risk. Security specific leverage is generally accomplished through structuring periodic payments according to formulae.

Rating agencies consider the risk of credit leveraging when assigning a rating to a security or a tranche of a structured security. Therefore, the risk of credit leveraging would be captured through the C1 (Credit Risk) component of the life RBC formula. In the situation where periodic payments (e.g. interest payments) may be leveraged, modeling of the security in C-3 Phase I of the life RBC formula would capture the impact of leveraging of periodic payments of the security in the Asset-Liability mismatch risk. Leverage risk is required to be disclosed in the bond characteristics codes in Schedule D which identifies when the insurer can vary the amount of periodic payments.

Other Considerations

- We also discussed the Bond Characteristics (Schedule, D Part 1, Column 5) and their development during the implementation of Provisional Exemption to enhance disclosure. Realizing that credit ratings referred only to default risk (and its costs), IAWG members sought a mechanism to flag risks other than credit risks. Disclosure of these risks (call, foreign currency *etc.*) for each individual asset was considered at the time to be an enhancement to the explicit reliance on ratings based solely on credit as the basis for AVR and C-1. The IAWG should consider expanding the Bond Characteristic codes to enhance disclosure and transparency.
- It was pointed out during our discussions that we need to be thinking about the cumulative effect of a specific risk across a number of asset classes. It could be more significant than just an individual security.
- There were also seventeen additional risks that were considered as part of our discussions. Those risks are outlined in Exhibit 2. The discussion on most of those risks was very short since the Subgroup members quickly agreed that they were not individual security risks. In some instances, the risks were already embodied in the eight risks that were deemed to be individual security risks. In many instances, we agreed that they represented legitimate risks but were not individual

security risks. The details on the risks deemed not to be individual security risks are documented in Exhibit 2 (further details are contained in the minutes from the meetings which are included in the Appendix).

- We had an interesting discussion on conversion risk. If a security has a mandatory conversion provision, it is treated in RBC as if it had already converted so the risk is addressed from a solvency supervision standpoint. If the conversion is not mandatory, there is no incremental risk because the conversion is at the investor's option. We concluded that conversion risk does not warrant further attention at this time but this should be documented in our work product.

Recommendations

The Risk Subgroup recommends:

- The Capital Adequacy Task Force should review the default studies periodically (at least every five years or more frequently if circumstances dictate) to determine whether material changes have occurred. Based on that review, a more in-depth review may be warranted.
- The NAIC Financial Analysis Handbook should be reviewed and potentially strengthened to better address portfolio liquidity risk.
- The IAWG should consider expanding the current database project by the SVO, or other alternatives to address regulators concerns about additional data on call and extension characteristics of specific securities.
- The VOS Task Force should consider expanding the Bond Characteristics codes to incorporate additional needs of regulators to identify attributes of securities.
- The Subgroup believes that currency risk is adequately disclosed in the annual statement, but recommends that the IAWG review the disclosures for potential enhancement.

Exhibit 1

Individual Security Risks

Credit risk is the risk of non-performance of contractual payment obligations on bonds, cash equivalents and other invested assets with the characteristics of fixed income instruments.

Event risk is the risk of regulatory changes or other external occurrences that are significant, unanticipated and external, which impact the value of a security.¹

Liquidity risk is the risk that an investor will not be able to buy or sell an asset into the market with the expected bid/ask spread, anticipated price continuity or sufficient depth; thus causing price realization or execution that is unfavorable or nonexistent.

Call risk is the risk that an issuer may elect to retire an asset, in whole or in part, when the investor would have preferred that the asset remain outstanding.²

Extension risk is the risk that an issuer may elect not to retire an asset, in whole or in part, prior to its maturity date when the investor might have anticipated and might have preferred early retirement.

Deferral risk is the risk of the issuer's right to delay payments of interest or dividends (temporarily or indefinitely) on certain instruments.

Currency risk is the risk that a nondollar-denominated bond (i.e., a bond whose payments occur in a foreign currency) has uncertain U.S. dollar cash flows. The dollar cash flows are dependent on the foreign exchange-rate at the time the payments are received.

Leverage risk is the risk associated with increasing the volatility of periodic payments. Using leverage, principal repayment terms may be also structured to increase their uncertainty, which increases credit risk. Security specific leverage is generally accomplished through structuring periodic payments according to formulae.³

¹ Includes governmental actions that limit payments from borrowers that are otherwise willing and able to fulfill their obligations.

² In the case of mortgage-backed securities, the cash flow depends on the timing of principal payments made by the borrowers in the pool of mortgages that serve as collateral for the security. Prepayment risk is the risk that borrowers will repay all or part of their mortgage sooner than anticipated. Extension risk is the risk that prepayments will be slower than anticipated.

³ As an example of leverage risk under this definition, Inverse Floating Rate instruments may be used to lever the risk and returns of periodic payments (e.g., interest payments). Other instruments, such as Collateralized Debt Obligations, or CDOs, can be used to lever credit risk (as defined herein) and the effect of this leverage is reflected in rating agency ratings, NAIC Designations and C-1 factors.

Exhibit 2

Risks Not Considered as Individual Security Risks

Conversion risk of a mandatory convertible security is not an individual security risk.

Systemic or systematic risk is not an individual security risk because it relates to classes of securities, securities markets or even broader market place.

Reinvestment risk is not an individual security risk but is considered a portfolio risk.

Refinancing risk is not an individual security risk and is already covered in call and extension risk.

Prepayment risk is part of call and extension risk.

Political risk is not an individual security risk and is already considered as part of event risk.

Sovereign risk is not an individual security risk and is already considered as part of event risk.

Recovery risk is not an individual security risk since it already covered in credit risk. This was confirmed in discussions with rating agencies and by reviewing their documentation.(See Exhibit 5)

Risk of permanence is not an individual security risk but is an example of extension risk.

Option risk is already addressed in other risks (call, extension and leverage).

Market risk is not an individual security risk since it is the sum of all the other individual security risks which have already been identified.

Reinsurer risk.

Counterparty risk.

Lack of accountability risk.

Yield-Curve (Maturity) risk.

Inflation risk.

Market manipulation risk.

Security Specific Investment Risks and the Insurance Regulatory Framework

<u>Risk</u>	<u>Manner in which addressed in the 2008 regulatory framework</u>	<u>Recommendations</u>
Credit	Covered through C-1	Capital Adequacy Task Force should review the default studies periodically (at minimum every five years) to determine whether material changes have occurred. It is important to note that the default studies by their nature are backward-looking and need to incorporate low probability/high severity events (such as a depression). These studies should be reviewed periodically since financial innovation may impact future experience.
Event	Covered through C-1 in the aggregate if it results in default In other cases not addressed since it is unanticipated The balance of the risk is addressed in C-4 for life insurers.	None
Liquidity	Important at the portfolio level and how it impacts the insurance company Not explicitly addressed in current structure for RBC or reporting Companies use varied internal calculations to monitor liquidity Risk-focused exam can be a platform for examining and assessing company liquidity practices	NAIC Financial Analysis Handbook needs to be reviewed and potentially strengthened to address liquidity risk.
Call	Covered through ALM and C-3 Phase I for life insurers only. Covered through statutory cash flow testing for life insurers. Required to be disclosed in the bond characteristics codes in Schedule D.	Provisions should be made for facilitating access by regulators to the specific call features, possibly by including them in the SVO database project.
Extension	Covered through ALM and C-3 Phase I for life insurers only. Covered through statutory cash flow testing for life insurers Required to be disclosed in the bond characteristics codes in Schedule D.	Provisions should be made for facilitating access by regulators to the specific extension features, possibly by including them in the SVO database project.
Deferral	Covered through C-1, see reports from AAA and Hybrid RBC Working Group It is noted that NRSROs rate for significant deferral risk Required to be disclosed in the bond characteristics codes in Schedule D.	None
Currency	Payments linked to foreign exchange rates are required to be disclosed in the bond characteristics codes in Schedule D.	The Subgroup believes that currency risk is adequately disclosed in the annual statement, but recommends that the IAWG review the disclosures for potential enhancement.
Leverage	Required to be disclosed in the bond characteristic codes in Schedule D and identifies where the issuer can vary the amount of periodic payments. The risk of credit leveraging is addressed in C-1. The leveraging of interest rate risk is addressed in C-3 Phase I of the life RBC formula.	None

Exhibit 4

Financial Innovation

The members of the Subgroup considered the risks related to financial innovation (a/k/a financial engineering, financial structuring), including modeling risk, information risk, and complexity risk. Fixed income investments subject to such risks include, but are not limited to: callable/escrowable municipal bonds, municipal inverse floaters, auction rate securities (ARS), mortgage backed securities (including pass-throughs, CMOs, IOs/POs and other MBS variants), asset backed securities, and cash market and funded synthetic collateralized debt/loan obligations (CDOs/CLOs). Any security that is not a straightforward non-callable bond would be subject to some degree of the risks attendant to financial innovation. However, a true statement for the general category may not be true (in a practical sense at least) for an individual security in that category. For example, a cash market AAA CDO tranche would arguably have less risk under almost all conceivable circumstances than the underlying pool of collateral, financial engineering notwithstanding. Further, a true statement for the general category may not be true for an individual security when considered in an asset portfolio context – for example, MBS IOs (which may be used as a tool to reduce portfolio duration – arguably reducing interest rate risk). These examples begin to illustrate the challenge of a one-size-fits-all approach, or a security specific approach, to characterizing financial innovation risk.

As evidenced by the instruments listed above, financial innovation is not a new market phenomenon. Relative to non-callable fixed income instruments, financially engineered instruments generally require more sophisticated analysis (including modeling) and more information to properly characterize their expected cash flows, the risks associated with timely (either premature or belated) and complete receipt of these cash flows, and as events have recently unfolded, in some cases, their liquidity. The members of the subgroup were in general agreement that financial engineering risk is, at least conceptually, security specific. For instance, the risks presented by student loan ARS are completely different from the risks presented by funded synthetic corporate CDOs, and derive from the respective nature of the underlying collateral and the structure of the instruments. Analysis of the risk, therefore, naturally requires an understanding of the specific characteristics of the instrument in question. However, comprehensive characterization of the risks generally extends beyond instrument specifics, and for many instruments includes an underlying interest rate simulator/generator (generally monte carlo or lattice based, depending on the particulars of the instrument). Interest rate simulators are at the heart of many fixed income instrument risk analyses, and their implementation involves as much judgment and skill as the modeling of the specific instruments. In some cases, the nature of the instrument requires modeling of default correlations – a non-security specific (more accurately a cross security) parameter. These realities complicate a myopic focus on the security specific aspects of the risk in question.

There was considerable debate within the sub-group regarding whether financial innovation represents an individual security risk or an operational risk. However, there was agreement that it is a legitimate concern and should be addressed within the regulatory framework. The sub-group felt that it is less important that financial innovation be characterized as an individual security risk, than it is for regulators to have a process to identify securities that are so affected, so that they can engage companies in further dialogue about how they manage the risks often attendant to these securities.

Summarizing the preceding, the general sense of the sub-group is that 1) the risks presented by financial innovation represent a legitimate concern worthy of regulatory attention, 2) while aspects of the risk are security specific, a security specific approach to addressing such risk is incomplete and otherwise problematic, and 3) a more appropriate approach to handling financial innovation risk is to regard it as a subset of operational/management risk, and to improve the regulatory review of management processes and expertise. Further, the sub-group recommends that the IAWG consider ways to make improved security information more readily available for regulator use, perhaps through the Bond Characteristics column of Schedule D.

Exhibit 5

Recovery Ratings and Loss Given Default Assessments How Standard & Poor's and Moody's Incorporate Recovery and Losses Following Default in Their Ratings Processes

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IAWG subgroup on Risks
07/24/2008

Both of the two largest NRSROs incorporate recovery analysis (S&P) or loss given default assessments (Moody's) in their below investment grade corporate ratings. Essentially, in their efforts to incorporate recovery in default, both rating agencies notch lower (usually) or higher (less frequently) from the baseline probability of default rating. Thus, the issue rating as published is a blend of the strict probability of default, combined with recovery of the investment in the event of a default.

The notching is based on the agencies' assessments of what proportion of the face value of the obligation a debt holder is likely to receive on their investment should the issuer default on its obligations. These assessments are influenced by three main factors: 1) the quality of the collateral of the issuer overall; 2) by the relative size of the claim relative to the collateral; and 3) the order of priority of claim in the capital structure that each issue represents. An issue backed by substantial collateral, that is higher in priority, will be notched higher; while one backed with little or no collateral, that is lower in priority, will be notched lower.

Conceptually, this means that between two issues with the same rating (say "B+/B1" rated senior subordinated bonds of ABC and XYZ); one (XYZ) might actually be more likely than the other (ABC) to default. In default, however, expected recovery on XYZ would be higher than ABC.

The methodologies by which the two rating agencies arrive at their conclusions are very different in process, if not so greatly different in outcome. For a discussion on the agencies' respective methodologies, see S&P "Corporate Ratings Criteria 2008", available at:

<http://www2.standardandpoors.com/portal/site/sp/en/us/page.article/2,1,1,4,1204836634695.html>¹

"Probability of Default Ratings and Loss Given Default Assessments for Non-Financial Speculative-Grade Corporate Obligors in the United States and Canada" is available at:

¹ Free registration is required. Once logged in, click "Research and Knowledge/Criteria & Methodologies/Ratings – Corporates."

<http://www.moodys.com/cust/content/loadcontent.aspx?source=staticcontent/free%20pages/LGD/lgdadpage.htm>²

What follows is an examination of the hypothetical case above, following the steps that end with identical ratings, but with different probabilities of default and corresponding different levels of expected recovery.

For the two issuers, ABC and XYZ, to have identical issue ratings but with different probabilities of default, they must have different baseline or enterprise level ratings. In S&P's nomenclature, this is called a Corporate Rating, or an Issuer Rating. Moody's calls it their Corporate Family Rating. In the case of ABC, imagine that it has an Issuer rating of "BB+" from S&P and a Corporate Family Rating of "Ba1" from Moody's. XYZ, on the other hand, has an S&P issuer rating of "B" and a corporate family rating from Moody's of "B2." In this case ABC and XYZ baseline or enterprise level ratings are four notches apart, with ABC rated higher. It is interesting to note that using Moody's published historical default statistics, a "B2" rated bond has a nearly 36% likelihood of defaulting over 10 years, while for a "Ba1" rated bond the likelihood of default over 10 years is just over 10%.

Let us assume that ABC is a company that has relatively little collateral for bondholders to claim in the event of a default. ABC could be a services company that is rated on the basis of its cash flow. Let us further assume that there is a substantial amount of debt on ABC's balance sheet that is senior to the issue in question. Should ABC default, what little collateral there is would be claimed by the senior debt holders, leaving nothing for the issue we are looking at. In this case, both S&P and Moody's might notch ABC's senior subordinated debt *lower* by two steps, to "BB-/Ba3."

With the other issuer, assume that XYZ, although lower rated, has good collateral for the bondholders. Perhaps it is a company with more leverage, or a weaker competitive position, but one that has valuable and marketable assets for collateral. XYZ might be an independent oil producer with proven oil reserves in its portfolio, reserves that would fetch a good price from another buyer. Let us further assume that XYZ has very little debt on its balance sheet that is senior to the issue in question. Were XYZ to default, the senior subordinated investors could expect to receive the full face value of their investment, because the collateral coverage is so strong. In this case, both agencies might notch XYZ's senior subordinated debt *higher* by two steps, to "BB-/Ba3."

² Free registration is required. Once logged in, this report is listed under "Reports" dated August 23, 2006.

Appendix to the Risk Subgroup Report

Compendium of the discussions of the Risk Subgroup of the Invested Asset Working Group

January 31, 2008 Risk Sub-Group Meeting

Attendees: Matti Peltonen (New York), Elaine Wieche (Connecticut), Allen Elstein (Connecticut), Kevin Fry (Illinois), Chris Evangel (SVO), Ruth Sayasith (MetLife), Max McGee (Prudential), Trond Odegaard (Allstate), Wally Givler (Northwestern Mutual) and Chris Anderson (Merrill Lynch)

There was a brief discussion of the objective of the sub-group which is to define and identify risks inherent in investment assets of insurers that are risks other than credit risks. A series of bi-weekly conference calls has been scheduled. This sub-group will advise the Invested Asset Working Group in its deliberations on any risks, other than credit risk, that are material in the assessment of the solvency of insurers.

The agenda for the call is attached. The first topic was a historical perspective on how C-1 was developed and it was presented by Chris Anderson.

In the 1990's the NAIC took a comprehensive look at solvency as part of its solvency agenda. This review encompassed investment laws and regulations, IMR, AVR, RBC, Statutory Accounting, and asset adequacy analyses (cash flow testing). Throughout this coordinated process, credit risk was defined as the risk of default (thus the cost of default) for cohorts of securities. The objective was to produce a combined level of AVR and RBC which would address default risk to a statistical confidence level of 95% for a portfolio of securities. The AVR was designed to address expected levels of defaults and the RBC was designed to cover unexpected (excess) defaults.

The American Academy of Actuaries conducted its research for developing the AVR and C-1 (Asset Risk) factors by reviewing default histories. They used the Moody's default statistics and classified investments into six ratings-based sub-groups. Various time periods were observed which were thought to be representative of the economic, credit and other cycles as they affect investments. The study resulted in recommendations for factors which account for the cost of a default regardless of the cause. Thus, any risk element that could cause default is a part of AVR and C-1. Any element that could not cause default (*e.g.* call risk) is not included in AVR or C-1. Because rating agency ratings were used as the basis for this research, rating agency ratings (or their proxies) are the sole basis for assigning securities into one of the six categories used in determining AVR and C-1.

The Bond Characteristics (Schedule, D Part 1, Column 5) were developed during the implementation of Provisional Exemption to enhance disclosure. Realizing that credit ratings referred only to default risk (and its costs), IAWG members sought a mechanism to flag risks other than credit risks. Disclosure of these risks (call, foreign currency *etc.*) for each individual asset was considered at the time to be an enhancement to the explicit reliance on ratings based solely on credit as the basis for AVR and C-1.

There were some questions raised by Alan and Matti on cash flow testing and investments. If companies are harvesting capital gains, they are not reflected in the cash flow testing by the actuaries. In addition, certain investments may be excluded from the cash flow testing.

We then moved to a discussion of what is included in C-1. The basic premise is that C-1, for purposes of the NAIC solvency regime, is designed to address the risk of default.

A question was raised by Trond as to whether C-1 covers fluctuations in spread. It was agreed that C-1 was not intended to cover spread variations. In that discussion the distinction was made between asset risk and credit risk. As the terms were used in the NAIC's solvency agenda, asset risk encompass the totality of all of the risks inherent in an asset. At least in theory, the price (or spread) of a security is the best measure at any point in time of the market estimate of the totality of the risk of the asset. Thus, price volatility is synonymous with asset risk. Credit risk, as the term is used, is just one component, or subset, of asset risk. (Some other asset risks are disclosed for each asset in Schedule D Part 1, Column 5).

Chris Evangel commented that if the C-1 study was based on Moody's default statistics, and if securities are assigned AVR and C-1 factors based on rating agency ratings (or their proxies), then AVR and C-1 only cover default (or credit) risk.

Both companies and regulators wanted to have further internal discussions before committing to a definition of C-1. All members of the sub-group were given an assignment to send Max a note by February 8 documenting their view of what is included in C-1. These views will be summarized (without identification of the source) and presented to the sub-group at the next conference call (February 14).

February 14, 2008 Risk Sub-Group Meeting

Attendees: Matti Peltonen (New York), Kevin Fry (Illinois), Elaine Weiche (Connecticut), Ruth Sayasith (MetLife), Max McGee (Prudential), Trond Odegaard (Allstate), Wally Givler (Northwestern Mutual), Chris Evangel (SVO), Bob Carcano (SVO), Jeff Evans (SVO), Joseph Prakash (SVO), Frank Meyers (SVO), Gary Mescher (SVO) and Chris Anderson (Merrill Lynch)

Discussion on C-1

The first part of the meeting covered a discussion of C-1. Chris Anderson commented that back in the late 1990's or early 2000 there was a review of the default factors by IAWG. The review looked at current default experience and compared it to the original study. The conclusion was that defaults are cyclical and there was no need to update the factors at that time. He also indicated that the solvency framework contemplates periodic updates of its various supporting studies.

Bob Carcano expressed a concern that due to the financial engineering of investment products that past default studies may not be useful today.

There may be a need to review the entire RBC approach but that is not the charge of this subgroup. Our charge is to develop an inventory of investment risks and determine how they are covered in the current solvency framework.

We then moved to a discussion of the differing views of C-1 (copy attached). Bob Carcano stated that the SVO would agree that C-1 covers default risk. However, the SVO had concerns about forward-looking risk.

Trond Odegaard agreed that C-1 covers default risk but expressed a concern about how we might deal with changes in default experience in the future.

Wally Givler was concerned that our view of C-1 was too narrow. The original design of C-1 also included equity securities and the fluctuations in their valuation. Wally mentioned a report from the early 1990s which discussed C-1 and the broader view that it included equity securities.

It was agreed that our focus on C-1 should be from the perspective of fixed income securities since that is the area of concern from regulators.

The consensus of the group was that C-1 covers default risk.

Investment Risk

The balance of the call was spent discussing the list of potential investment risks (copy attached).

Chris Anderson described his view of event risk. Event risk, along with market and extension risk, is not a risk that is included in the credit ratings of individual hybrid and other securities, according to papers by the SVO and Standard & Poor's. This is because it is generally believed that it is impossible to factor in predictions of surprise events, such as corporate restructurings and major changes to accounting or regulation, into the ratings of individual securities. Because the factors for AVR and RBC C-1 are intended

to set levels for entire portfolios of securities, the impact of defaults caused by unexpected events is actually included in AVR and RBC, even though individual ratings do not reflect event risk. This is because the historical studies that formed the basis for AVR and RBC looked at the occurrences and consequences of all defaults regardless of cause, so if an unexpected event caused a default then that event was included in the calibration of C-1. This is consistent with the understanding that all factors that cause defaults are contemplated by AVR and C-1, and factors that do not cause defaults (such as foreign currency risk) are not included in AVR or C-1 risk factors.

In response to a question about what occurs when an individual security diminishes in value due to an unexpected event, but does not default, Chris expressed the view that when the unexpected event occurred and resulted in a significant rating change the reserve and C-1 factors would begin to increase for that individual security. But it is still the case that regardless of the timing of reserve accumulations and C-1 factor increases for an individual security, the overall AVR and C-1 factors already contemplate, for the portfolio overall, the occurrence of unexpected events that cause defaults.

There was a debate on how Event Risk is covered in the current solvency framework. We ran out of time on the call and we agreed to continue the discussion of Event Risk at the next call.

Other Items

We agreed to add four additional calls in March/April to allow us sufficient time to develop the list of investment risks.

Bob Carcano reiterated that the output from our discussions would be an inventory of risks and whether they are applicable to investments. If they are investment risks, we would provide a definition and how they are covered in the current solvency framework. If they are not currently covered, we would provide a recommendation as to how they should be addressed.

February 28, 2008 Risk Sub-Group Meeting

Attendees: Matti Peltonen (New York), Kevin Fry (Illinois), Elaine Weiche (Connecticut), Allen Elstein (Connecticut), Ruth Sayasith (MetLife), Max McGee (Prudential), Wally Givler (Northwestern Mutual), Chris Evangel (SVO), Jeff Evans (SVO), Dick Newman (SVO) and Chris Anderson (Merrill Lynch)

Max asked if there were any changes to the draft minutes from the February 14 conference call. There were none.

Before we began the discussion on the list of investment risk. Ruth offered some comments about how life insurance companies make their investment decisions and how heavily C-1 weighs into that decision. Life insurance companies are investors, not speculators. Their investments are driven by asset/liability management and the need to match liabilities with appropriate assets. It is important to look at default risk when considering solvency because it is defaults that could disturb this balance. Companies generally invest in and hold positions, relying on the cash flows of the investment to discharge the liabilities.

Kevin raised a question about the fluctuations in value on a bond. Ruth said that we are primarily concerned about the payment of the interest and principal and not so concerned about fluctuations in value. Alan added that the volatility of interest rates is really addressed in C-3.

Chris Anderson then talked if the group could agree on a term to use for anything that could go wrong with an investment. In other words, the sum of all the risks in an investment that could hurt an investor. He proposed using “asset risk”. The consensus, however, was that the term should be “investment risk” to encompass all of the risks embedded in an asset.

We then moved to a discussion of the inventory of potential investment risks

Event Risk

At our last conference call we started to discuss event risk but never completed the discussion. Initial discussion indicated that event risk is included in C-1 to the extent that it results in defaults. Jeff made the point that unexpected events could have an economic impact on investors prior to default. This led to a discussion of how the C-1 factors increase for assets adversely affected by unexpected events, and this occurs as the credit rating of the asset declines. There was discussion of the effect of the requirement that fair value, as opposed to amortized cost, is required if an asset deteriorates in credit quality, but the opinion was also expressed that the gradual increase in factors required when credit deteriorates has a more significant impact on the C-1 calculation. Consensus was not reached.

Matti reminded the group that our first goal is to determine if a risk is an investment risk and to develop a definition. Our charge is not to change the RBC approach.

We agreed that event risk is an investment risk and agreed to the following definition of event risk.

Event risk involves regulatory changes or other events that are significant, unanticipated and external, which impact the value of a security.

Examples of event risk are corporate restructuring, takeovers or changes in tax treatment of an investment. The impact can be immediate or gradual over time.

Price Volatility Risk

Matti commented that price volatility should not be on the list because it is the sum of all investment risks and it is not a discrete risk in itself. After some discussion it was agreed to take it off the list.

Liquidity Risk

Max started the discussion by commenting that liquidity risk is a portfolio risk not a specific security risk. Matti and Kevin didn't agree and pointed out that it could impact individual securities as well as a portfolio.

This led to a discussion of the regulatory concerns about liquidity. Regulators do not feel they have sufficient tools to measure the liquidity of a company's investment portfolio. At this point we ran out of time and agreed to discuss the issue further at the next conference call (March 11).

Other

Max agreed to send out some suggested definitions for liquidity risk through currency risk prior to the next call.

March 11, 2008 Risk Sub-Group Meeting

Attendees: Matti Peltonen (New York), Jim Everett (New York), Karen Bailey (New York), Kevin Fry (Illinois), Elaine Weiche (Connecticut), Max McGee (Prudential), Trond Odegaard (Allstate), Wally Givler (Northwestern Mutual), Chris Evangel (SVO), Jeff Evans (SVO), Dick Newman (SVO) and Chris Anderson (Merrill Lynch)

Max asked if there were any changes to the draft minutes from the February 28 conference call. There were none.

We then discussed the risks for which we have finalized definitions. Some regulators expressed a view that the definitions are a work in process and are subject to change. Max indicated that we should be doing our best to develop final definitions. Our goal is to define investment risks and how they are addressed in the regulatory framework. Kevin agreed. The consensus was that the definitions developed so far are useful working

definitions that will be recommended by this subgroup for consideration recognizing that the subgroup or the IAWG we might add more details later.

We next discussed liquidity risk. Trond and Wally both felt that liquidity could be a risk at both the security and portfolio level. Chris Anderson pointed out that a security could change in its liquidity over time. For example, an event could make it less liquid. Chris also commented that we need to be thinking of risks across all asset classes in individual portfolios and not just in silos by individual securities within portfolios. The cumulative effect of a specific risk across a number of asset classes could be more significant than just the risks within individual assets.

We agreed that liquidity is an individual security risk (we did agree that it was a portfolio risk too) and we agreed on a working definition.

We discussed call risk and agreed that it was an individual security risk. It was felt that call risk and extension risk are closely related because they both depend upon whether a call option is or is not exercised. We agreed that extension risk was also an individual security risk. We agreed on working definitions for call and extension risks that are analogous, reflecting their common underlying element. Deferral risk was also determined to be an individual security risk and we agreed upon a working definition, noting that the impact of deferral is already explicitly incorporated in rating agency credit ratings.

We had an interesting discussion on conversion risk. If a security has a mandatory conversion provision, it is treated in RBC as if it had already converted so the risk is addressed from a solvency supervision standpoint.

If the conversion is not mandatory, there is no incremental risk because the conversion is at the investor's option. We concluded that conversion risk does not warrant further attention at this time but this should be documented in our work product.

March 25, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Elaine Weiche (Connecticut), Allen Elstein (Connecticut), Max McGee (Prudential), Wally Givler (Northwestern Mutual), Chris Evangel (SVO), Bob Carcano (SVO), Joseph Prakash (SVO), Dick Newman (SVO) and Chris Anderson (Merrill Lynch)

Max asked if there were any changes to the draft minutes from the March 11 conference call. There were none.

The first risk discussed was Currency Risk. All participants on the call agreed that it was an individual investment risk. We then discussed a definition and agreed that definition #3 provided in the advance materials was the most appropriate.

The next risk to be discussed was Leverage Risk. The group had a very difficult time understanding the nature of this risk and what it intended to address. Wally thought it was intended to cover a range of possible returns for a portfolio. Some thought it might be a portfolio risk as opposed to an individual security risk. Chris Anderson noted that the definition itself stated that Leverage could increase credit risk so he thought that at least that aspect of leverage was already captured in credit risk. Therefore, only payment variability (variable rates) was potentially not addressed. Since we were struggling with this risk, we decided to table until the next call. Wally agreed to provide an updated definition which might add our discussion.

The last risk that we discussed on the call was Information Risk. Elaine submitted this and she explained that it was intended to address the growing complexity of investment structures. Allan felt that Credit Default Swaps were a good example of complexity. Bob added that it really is opacity risk. Max commented that it was a risk but not an individual security risk. It was more of an enterprise risk since it really was addressing the ability of the insurer's investment staff to understand the nature of what it purchased. Chris Anderson added that the risk is based on the knowledge of the people buying the investment. There could be no risk at all based on the sophisticated nature of the investment staff. Kevin indicated that he thought it was a portfolio risk.

The debate continued for some time but there was clearly a difference of opinion. In order to break the deadlock, Max asked for a vote of the subgroup members on the call. The results were as follows

Individual security risk – SVO (Bob and Chris), Elaine and Wally

Other than individual security risk – Max, Chris Anderson and Kevin

Elaine agreed to redraft the definition which might help resolve the issue. We will continue our discussions at the next call.

April 11, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Elaine Weiche (Connecticut), Allen Elstein (Connecticut), Max McGee (Prudential), Wally Givler (Northwestern Mutual), Bob Carcano (SVO), Jim Everett (New York), Dick Newman (SVO), Joseph Prakash (SVO), Ruth Sayasith (MetLife), Trond Odegaard (Allstate) and Chris Anderson (Merrill Lynch)

Max asked if there were any changes to the draft minutes from the March 25 conference call. There were none so the minutes were considered final.

A discussion was held on the purpose of the Subgroup and the final output from the group. It was agreed that the purpose was to discuss investment risks, how they are addressed in the current regulatory framework and make recommendations where they are not covered. These recommendations could take many forms such as additional disclosure or identifiers for regulators.

During our last call, we could not reach a conclusion on Leverage Risk. We continued our discussion on that topic. Alan was concerned about Credit Default Swaps and their implied leverage that is not fully understood. Some felt this was an issue that the SEC and Federal Reserve should be dealing with and not insurance regulators. Bob Carcano felt that maybe it shouldn't be on the list of investment risks but perhaps should be considered when new investments are being reviewed. Chris Anderson indicated that Leverage Risk is already incorporated in Event Risk. Bob and Trond agreed.

This led to a discussion of the definitions and whether we should be using existing definitions rather than creating our own. Jim Everett commented that he had standard definitions for some of these risks that were developed by the NAIC several years ago. Jim shared that documentation with the group after the conference call. Max agreed to review and incorporate into the next revision of the risk definitions.

We reached no conclusion on Leverage Risk other than Wally will take another stab at developing a definition of Leverage Risk.

The next topic was Information Risk. We had also discussed this on the last conference call. Elaine Weiche provided a revised definition for our consideration. There continued to be a wide disparity of views. We all agreed that it was a risk. Some felt it was an enterprise or company risk while others felt it was an individual security risk. After debating the issue for close to 30 minutes, Max asked each member of the Subgroup to submit a view (investment risk or not) and a very brief write-up to support that view. Max will summarize the results and send out to the Subgroup.

April 24, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Elaine Weiche (Connecticut), Allen Elstein (Connecticut), Max McGee (Prudential), Bob Carcano (SVO), Jim Everett (New York), Dick Newman (SVO), Joseph Prakash (SVO), Jeff Evans (SVO), Ruth Sayasith (MetLife), Trond Odegaard (Allstate) and Chris Anderson (Merrill Lynch)

Attached to this document is the agenda for the meeting.

Max asked if there were any changes to the draft minutes from the April 11 conference call. There were none so the minutes were considered final.

We then moved to a discussion of the Subgroup charge. Max has received questions from Subgroup members over the past month concerning the charge of the Subgroup. In order to resolve some of the concerns, he drafted an objective statement and circulated it to the Subgroup members prior to the call. In response to that document, Bob developed an alternative view which would make this a standing Subgroup of the IAWG. The initial charge of the Subgroup would be to look at investment risks but in the future it could be asked to look at other issues on behalf of IAWG. It was agreed that this was a broader issue than just our Subgroup and should be addressed by the IAWG on their next conference call.

We discussed the Information Risk issue and the document that showed the various views of the Subgroup members. There was no consensus on this issue. In addition, Trond and Chris Anderson pointed out that we still need to work on the Information Risk definition. In order to move forward, we agreed to table the issue for now and go back to it at a later time.

We discussed the need for additional conference calls since this was our last scheduled call. We agreed that a 60 minute call once a week would help speed up the process and we scheduled a series of them through June 17. In addition, we discussed the feasibility of a face to face meeting during May in either New York or Chicago. We all agreed that a face to face meeting would be helpful. The locations were not a problem for industry but did present problems for regulators. Max and Kevin will talk and decide which location works best.

The last topic discussed was the revised list of risks. There was agreement that we need to take a step back and look at both the NAIC document (Report of the National Association of Insurance Commissioners and the Federal Reserve System Joint Subgroup on Financial Issues) and other authoritative documents to obtain definitions for the risks. There was some discussion of having a few of the Subgroup members get together and do this, but concerns were voiced about delegating the work. It was agreed that at the next conference call (April 29) we would go through the NAIC document for relevant definitions. Max also asked Subgroup members to send him other sources for the definitions.

May 6, 2008 Risk Sub-Group Meeting

Attendees: Elaine Weiche (Connecticut), Allen Elstein (Connecticut), Matti Peltonen (New York), Jim Everett (New York), Max McGee (Prudential), Joseph Prakash (SVO), Jeff Evans (SVO), Dick Newman (SVO), Dan Daveline (NAIC), Trond Odegaard (Allstate), Ruth Sayasith (MetLife) and Chris Anderson (Merrill Lynch)

Max asked if there were any changes to the draft minutes from the April 29 conference call. There were none so the minutes were considered final.

We then continued our discussion on modeling risk from the last conference call. Some members of the Subgroup still believe it is an individual security risk. Other members of the Subgroup felt that it is an operational risk. We could not reach a consensus so we agreed to document the differences and leave it on the list.

Next risk discussed was Systemic or Systematic Risk. After discussion on the topic, we agreed that it was not an individual security risk because it can relate to classes of securities, securities markets or even broader marketplaces.

Reinsurer Risk and Counterparty Risk were discussed at the same time. Although this is a risk, we agreed that they were not individual security risks when they pertain to other than the issuer or obligor of a security.

Lack of Accountability was next covered. Examples cited were the Enron situation and CMO's in which the collateral was originated and sold completely leaving the originator with no skin in the game. Agreed it was not an individual security risk and that the definition needed some work. Elaine agreed to come up with a better definition and Chris Anderson agreed to send her an article on the implications of separating lending from asset ownership.

Next area addressed was Recovery Risk. Example cited was debt which recovers less than expected. Chris Anderson stated that S&P, for example, maintains Issuer Credit Ratings but also rates issues from those issuers. Subordination (which upon default can result in lower recoveries) is definitely a factor for that agency in determining the rating of an issue. Accordingly, some felt that this was already addressed in default risk. We were not sure if the all of the rating agencies include recoveries as part of their issue credit ratings so Elaine agreed to explore this with the rating agencies and Bob agreed to assist.

Reinvestment Risk was the next risk discussed. Many members of the Subgroup felt that it was part of Market Risk. Ruth pointed out that it is more of a portfolio risk, given assumptions of the durations of assets and liabilities and thus it is contemplated in asset/liability matching. It was also observed that the early terminations of assets, which are due to calls or defaults, are covered by call and credit risks respectively. Because of this we agreed to consider it not an individual investment risk and to use the NAIC definition with a slight modification.

We moved onto a discussion of Refinancing Risk. The example given was the current market situation for Auction Rate Securities which are experiencing very significant liquidity issues. Some initially felt this was not an individual security risk while others disagreed. Chris Anderson and Matti questioned whether Auction Rate Securities were actually only experiencing liquidity and extension risk. Questions were raised as to whether there were actual examples of Refinancing Risk beside Auction Rate Securities. We decided to table Refinancing Risk until such time as someone can present an example of how this risk might affect insurers

Last item covered during the call was the Risk of Permanence. It was not clear whether the issuer was the entity mentioned in the definition. Some thought it was. Maybe this is already covered by call risk. We ran out of time and agreed to cover at the meeting on May 16.

May 16, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), Wally Givler (Northwestern Mutual), Bob Carcano (SVO), Matti Peltonen (New York), Jim Everett (New York), Dick Newman (SVO), Jeff Evans (SVO), Ruth Sayasith (MetLife), Trond Odegaard (Allstate) and Chris Anderson (Merrill Lynch)

Max asked if there were any changes to the draft minutes from the May 6 conference call. There were a few typos but aside from those changes the minutes were considered final.

We continued our discussion of Investment Risks with Definitions by reviewing all of the finalized definitions to close out any open issues. The only open issue on Credit Risk is the definition of Invested Assets. Wally reviewed a suggested definition from the annual statement (Line 10). It includes more than fixed income securities so Wally will redraft the definition and distribute to the subgroup for our next call.

We agreed to a revised definition of Liquidity Risk which is reflected in the updated list of definitions. It was felt that it better represented the various elements of Liquidity Risk.

There were no changes to Event Risk. We agreed that some additional language needs to be added to the definition. Chris Anderson and Ruth will work together and have a revised definition for our next call.

For Call Risk we discussed whether we should retain our original definition or go with the NAIC document version. We made some slight modifications to our original document which were also incorporated into Extension Risk definition.

We made no changes to Deferral Risk. The definition for Currency Risk was shortened to remove some extraneous information.

We then moved to discussion of the remaining risks. In terms of Leverage Risk, Wally is still working on a definition. He plans to provide a revised definition for our next call.

Market Risk was next discussed. Many subgroup members felt that all investment risks are really manifested in Market Risk. Some members of the subgroup did not agree. This led to a discussion on how we could map risks to each other and then see how they interrelate. After some discussion on this topic, it was felt that this was not a fruitful exercise and we should not pursue at this time.

We then returned to a discussion of the definition of Market Risk. We started with the Investment Market Value Risk from page 539 of the NAIC document. We could not agree on the definition. Some members of the subgroup only wanted to use the first sentence. Other wanted to use the first and last sentence. We tabled the discussion of the definition until the next call.

We agreed to footnote Call and Extension Risk to reflect the refinancing aspect and to consider Refinancing Risk as not an individual security risk. We also decided to drop the reference to Auction Rate Securities in the definition.

Since Elaine was not on the call, we tabled the discussion of Recovery Risk until the next call. Elaine did some research on how rating agencies factored Recovery Risk into the rating. We felt that insight was valuable to any discussion of Recovery Risk.

We agreed that the Risk of Permanence should be shown as an example of Extension Risk. We agreed to add some additional wording to the definition to encompass the Risk of Permanence.

Prepayment Risk was determined to be part of Extension Risk. Ruth will work on a footnote to use.

Yield Curve Maturity Risk and Inflation Risk were discussed and determined not to be individual security risks.

We could not come up with an example of Option Risk that is relevant to insurance companies. As a result, we decided to put the issue in the parking lot until we have a relevant example.

Political Risk was determined to be part of Event Risk. Sovereign risk was determined to be already covered in Credit Risk.

The final item that we discussed on risk definitions was Complexity Risk. There was agreement that Complexity Risk, Modeling Risk and Information Risk are all related and should be grouped together. We agreed that they are risk but there were differences of

opinions on whether they are individual security risks or enterprise risks. After some discussion we decided to table the issue for now

May 22, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), Elaine Weiche (Connecticut), Allen Elstein (Connecticut), Bob Carcano (SVO), Matti Peltonen (New York), Karen Bailey (New York), Chris Evangel (SVO), Jeff Evans (SVO), Ruth Sayasith (MetLife), Trond Odegaard (Allstate) and Chris Anderson (Merrill Lynch)

We reviewed the draft minutes from our all day meeting on May 16 and it was agreed that they be accepted as drafted.

Bob asked for a further discussion of Sovereign Risk. He made the point that the definition contemplated only a failure to perform by a sovereign entity whereas actions by that entity may also cause failures of obligations whose issuers may otherwise be willing and able to perform. For example, a foreign government may impose currency restrictions limiting a borrower's ability to make payments when and as due. The question was posed as to whether this should be viewed as a separate risk, a type of Sovereign Risk, or a part of Event Risk. Trond and others expressed the view that the unexpected actions of foreign governments that could restrict payments were an essential part of Event Risk as it had been defined. While Bob agreed in concept, he also thought that this risk element should be made explicit, perhaps by adding it to the definition of Event Risk. Chris Anderson asked if there were very many examples of this risk when it came to insurer investments, expressing the view that this is a relatively minor element of Event Risk for insurers. Allan responded that he thought that we should be dealing with a broad range of risk elements even if we have not seen them in actuality. Ruth and others joined in the discussion and we concluded that we would footnote the Event Risk definition to specify that it includes governmental actions that limit payments from borrowers that are otherwise willing and able to fulfill their obligations.

Since we did not discuss Recovery Risk at the all-day meeting on May 16, we asked Elaine to provide an update on what she had found on rating agencies inclusion of recovery as part of Credit Risk. She noted that a Moody's study had been distributed to the group and that the annual update to the study had also been sent out subsequently. She also indicated that the default study referred only to defaults by rating classes, including average recoveries for each ratings class, and this raised some concern in her mind. Chris Anderson indicated that the then-current Moody's data that Elaine had presented had formed the basis for the establishment of RBC factors. However, he did not know the basis for the 40% recovery factor that had been used in that research. There

was discussion of recoveries during which Trond noted that recoveries could be very sector-specific (for example, when telecom defaults predominated overall recoveries dipped sharply). Chris Anderson observed that while the conventional thinking seems to be that 40% is a reasonable number for recoveries over the long term, they had also been very volatile over time, so 40% may seem more or less reasonable depending on where you looked within credit cycles. He also recalled that default data had been reviewed by the NAIC in the late 1990s, but that this had consisted of a comparison of previous and current Moody's default statistics and it was not a comprehensive review of the RBC methodology. There was a suggestion that volatility assumptions be updated more frequently.

The discussion turned to rating agency considerations of recoveries and Chris Anderson noted that Standard & Poor's publishes *issuer* credit ratings but it also publishes ratings for each *issue* as well (at the CUSIP number level). He stated his understanding that for S&P the *issue* rating contemplates such elements as subordination which he said could be a very important determinant of the amount of recovery upon default. There was discussion of this point -- and disagreement -- and we concluded that we really need to ascertain the facts to resolve the issue. Chris Anderson and Trond also expressed the view that there might be differences between Moody's and S&P, and Chris noted that Moody's had announced very recently the development of new indicators for certain structured assets. He also asked how practical it would be for insurance regulators to attempt to track recoveries on 225,000 securities, particularly when they could be volatile.

To move forward, Jeff agreed to contact both Moody's and S&P to ask them for the descriptions of their policies for taking recoveries into account in determining the rating of an issue. It was suggested that he contact the heads of credit policy at the respective rating agencies.

June 5, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), Allen Elstein (Connecticut), Bob Carcano (SVO), Dick Newman (SVO), Matti Peltonen (New York), Karen Bailey (New York), Chris Evangel (SVO), Jim Everett (New York), Wally Givler (Northwestern Mutual), Ruth Sayasith (MetLife), Trond Odegaard (Allstate) and Chris Anderson (Merrill Lynch)

We reviewed the draft minutes from the conference call of May 22. There was one editorial change (correct spelling on Allen's name) but the rest of the memo was accepted as drafted.

We discussed the definition of credit risk. Wally had provided a revised definition which was not reflected in the 5-27-2008 version of the Investment Risks with Definitions. These revisions made it explicit that the insurer invested assets to which these risk definitions refer are those that are bond-like in nature. The wording in the May 20 note will be incorporated into the next version of the document.

We discussed other risks and potential changes to the definition. We made some minor changes to Event Risk, Call Risk and Extension Risk. With respect to Event Risk, we added specific examples (accounting changes and corporate restructurings). Regarding Extension Risk, we agreed that an extreme extension could cause an insurer's investment to become a part of the issuer's permanent capital base and appended this to the definition. The Liquidity Risk definition that we developed and agreed to during our May 16 meeting was not reflected in the document. This will be changed for our next call. We also made some modifications to footnotes 2 and 3.

Wally discussed the Leverage Risk definition that he had drafted. There were a number of comments on his definition. Among these were the ideas that the definition of Leverage Risk should not also incorporate Credit Risk, as this is a separate risk element. We also agreed that leverage, in this context, relates to the leverage contained within a specific security, not leverage that may be achieved on the portfolio or enterprise level. Accordingly Wally was asked to incorporate the consensus in the definition that only structured securities, not "straight bonds" are subject to this risk. Increased leverage within a security could be accomplished by adjusting periodic interest payments (paying LIBOR times a significant multiplier greater than one for example) or by tranching principal repayments (establishing first-loss positions in pools for certain investors). Based on the discussion, Wally will revise the definition to specify that leverage pertains to structured securities and note that leverage can be achieved within a security by the use of formulaic cash flows as evidence of leverage embedded in individual securities. Trond and Chris agreed to collaborate with Wally and the revised definition will be circulated for our next call.

Although Jeff was not on the conference call, there was a brief discussion of Recovery Risk. We all agreed that we are expecting to see the written policies of the rating agencies specifying the practice of each rating agency with regard to how recoveries are reflected in the ratings of individual issues of securities.

The last item we discussed was Option Risk. This had been placed on hold pending the receipt from anyone of an actual example of this risk. No examples have been presented. Chris Anderson and Trond both commented that Option Risk might be dropped from the list because call options are already covered in the definitions (see Call and Extension risks) and Wally's revised definition of Leverage Risk may incorporate all of the remaining elements of this risk element. Depending on the actual definition Wally develops, consideration will be given at the next meeting to moving this item from "hold" to "not an individual security risk" if it is decided that the new Leverage Risk definition fully reflects any residual risk elements.

June 10, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), Elaine Weiche (Connecticut), Allen Elstein (Connecticut), Bob Carcano (SVO), Dick Newman (SVO), Jeff Evans (SVO), Joseph Prakash (SVO), Matti Peltonen (New York), Dan Swanson (NAIC), Wally Givler (Northwestern Mutual), Ruth Sayasith (MetLife), Trond Odegaard (Allstate) and Chris Anderson (Merrill Lynch)

We reviewed the draft minutes from the conference call of June 5. There was one editorial change (corrected spelling of tranching) but the rest of the memo was accepted as drafted.

Since we only have one remaining conference call scheduled, we agreed to add four additional calls (July 8 at 10am, July 15 at 9:45am, July 22 at 10am and July 29 at 10:00am.) Max agreed to send out an E-mail with the dates, times and call-in number.

Chris raised a concern about the recently exposed proposal by the SVO to the VOS Task Force which calls for new securities under regulatory review to be flagged and analyzed by the SVO staff without defining the types of securities to be reviewed or the review process itself. He expressed the view that the proposal is premature, especially given the charge of our subgroup to look at the risks in individual investments. Wasn't the proposal undercutting the work of our subgroup? Bob felt that these were separate projects and that the proposal at IAWG does not compromise our work here. Kevin commented that the proposal is in the hands of the VOS Task Force, not the IAWG. After a brief discussion, it was decided that the discussion of the blanks proposal was a VOS Task Force matter and not an item of discussion for the IAWG or this subgroup unless it is referred by the VOS/TF.

We then moved to a discussion of the Investment Risk Definitions and the revised document that was distributed for the call. There were minor wording changes to Liquidity Risk and footnote 3. Max will distribute a revised document for the June 17 call and, hopefully, we can finalize the definitions for the Individual Security Risks that have been identified so far.

The next topic discussed was the open proposed definitions. Wally is still working on the revised definition for Leverage Risk and will be having a call later this week to discuss a proposed definition. He expects to circulate his proposed definition to the entire subgroup before our next call.

Since we were on the proposed definitions, Chris raised the question on how we might document differences of opinion in our report in the event consensus cannot be reached. He felt that the report should show the different points of view, with rationales for majority positions and dissenting positions, if any. He proposed that these draft reports be circulated among this group so that individuals could sign on as they wished. This

would allow the IAWG as a whole, and other readers as well, to better understand the deliberative process and the reasons behind various points of view to better enable them to reach their own informed conclusions. There was general agreement on the point that it would be useful to document differences of opinion but there was no agreement as to whether individual names should be associated with the positions. We tabled this topic for discussion at a later date.

Jeff commented about a recent report of an announcement by Ray McDaniel of Moody's on May 23. Moody's acknowledged a programming error in their model for CPDO's. The error existed for some time without having been disclosed by Moody's and this caused the ratings of more than 40 structured securities to have been inflated by as much four ratings categories. Sullivan and Cromwell has been hired by Moody's to look at their modeling processes and controls. Jeff felt that this was sufficient evidence that modeling risk is an individual security risk.

Chris and Max both commented that this is an example of management mistakes not modeling risk, noting that investors and rating agencies can err in many aspects of their analyses; not just in their modeling. Matti agreed and commented that the potential for modeling errors would be difficult for regulators to identify and measure. Jeff still felt that it was an individual security risk. Allen's view was that modeling risk was not an individual security. He shared the view that the Moody's case was the failure of adequate management review and oversight. Bob felt that modeling risk should be taken into account by regulators. He said he believed it may not result in an extra RBC charge but it may just be something regulators should monitor or question.

We came to no conclusions but agreed that on the next call we would concentrate on the remaining risks in the proposed category.

Jeff gave an update on his progress on Recovery Risk and discussions with the rating agencies. He is in the process of setting up the Moody's meeting but has just started to work on S&P meeting. He hopes to have the discussions completed by our July 8 call.

Finally we discussed the grid mapping the individual security risks within the existing regulatory framework. Max reported on his discussion with Dave DelBiondo (PA) on how the risk-focused exam covered liquidity risk. Dave agreed it was covered but at the entity level and not at the individual security level. However, Trond commented that you need to look at the individual security level to develop the entity liquidity view. Kevin added that perhaps procedures need to be added to the Financial Analyst Handbook to address liquidity risk in a more complete fashion. We will add that to our recommendations in the report. There were no further comments on the grid.

June 17, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), Elaine Weiche (Connecticut), Allen Elstein (Connecticut), Bob Carcano (SVO), Jeff Evans (SVO), Joseph Prakash (SVO), Matti Peltonen (New York), Jim Everett (New York), Wally Givler (Northwestern Mutual), Trond Odegaard (Allstate) and Chris Anderson (Merrill Lynch)

We reviewed the draft minutes from the conference call of June 10. There were no changes so the memo was accepted as drafted.

Max then discussed the game plan for the next four meetings. By the end of the July 8 meeting we are planning to have the Risk Definitions for the Individual Security Risks completed and to finalize our views on the risks where we have differences of opinion. The July 15 call would focus on finalizing the grid which illustrates how each individual security risk is addressed in the current regulatory framework. The last two calls (July 22 and 29) will focus on any clean-up issues and drafting the report. We may need to schedule additional calls in order to have the report completed in time for discussion at the IAWG call on August 19.

Chris and Trond both commented that there were some style differences in the definitions. Max agreed to revise for a consistent style.

Wally provided an update on the status of the Leverage Risk definition. He is still working on it and hopes to have a write-up to circulate before the July 8 call. Wally will work with a few individuals in an attempt to separate the concept of portfolio leverage from the specifics of how an individual asset can lever its risk in the context of all of the other risks that have been identified.

Jeff provided an update on the discussions with the rating agencies on how recovery is factored into their ratings. The SVO met with S&P's senior credit analyst. The Moody's meeting is June 20. Jeff reported that at Moody's investment grade ratings do not incorporate the concept of recovery upon default since default it is considered too remote to be able to quantify. For non-investment grade, however, Jeff indicated that Moody's does take recovery amounts upon default into account. Jeff indicated that he would provide documents from the rating agencies describing their policies with respect to recoveries upon default.

We then moved to a discussion of modeling risk and the question was raised whether we were discussing rating agency modeling or company modeling. We all agreed that it was rating agency modeling.

Matti commented that rating agencies are going to have a separate category for structured securities. Elaine said that her concern was the complexity of structured securities.

We all agreed that modeling risk, complexity risk and information risk should be discussed at the same time. Perhaps we should call it structured security risk. Trond felt it was more than structured securities. It really is the volatility or the uncertainty of outcome. There were some comments that we should call it “financial engineered products” and Bob agreed to develop a definition for the next call.

There was also a debate on whether we are talking about only SPE’s. The question was put on the table to provide examples of financially engineered products that do not utilize SPE’s. We could not reach agreement on that point.

Trond suggested that perhaps there could be an identifier on Schedule D so that regulators could readily see structured securities. However, some were concerned about the definition of what would be considered a structured security. We decided to table the discussion until the next call.

Finally, we had a brief discussion of Option Risk. Depending on the definition of Leverage Risk, Option Risk could drop off the list.

July 8, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), Elaine Weiche (Connecticut), Bob Carcano (SVO), Jeff Evans (SVO), Joseph Prakash (SVO), Jim Everett (New York), Wally Givler (Northwestern Mutual) and Chris Anderson (Anderson Insights, LLC)

We reviewed the draft minutes from the conference call of June 17. There were no changes so the memo was accepted as drafted.

We reviewed the revised Risk Definition document and the minor cosmetic changes that were made to the finalized group. There were no comments on the changes so the definitions were considered as final.

Wally then reviewed the revised Leverage Risk definition that was circulated. As it was discussed, with respect to the return of principal Leverage Risk is already contemplated by Credit Risk. But it is also possible to lever periodic payments and Wally’s group could find no other risk factor that would cover this. Periodic payments can be material, depending upon their tenor and coupon levels, even though they are limited on the downside because under NAIC rules periodic payments can never be less than zero for bonds. Accordingly, the definition of asset-specific leverage that was advanced by Wally’s group relates to the leverage involved when periodic payments are modified (usually formulaically) Wally believes that Leverage Risk with respect to periodic payments should be considered an individual security risk.

There was some discussion on Wally's definition and he asked the members of the subgroup to review further so we can finalize at our next call.

Bob then discussed his proposed definition for Financial Innovation, referring extensively to the Fender Mitchell paper. Both Bob and Jeff feel that this is a better term than Financial Engineering. They believe it encompasses the concerns raised under the headings of modeling risk, complexity risk and information risk. There was a lengthy discussion of this issue since some members of the subgroup could not understand how the fact that an asset was financially engineered, or was complex or was structured would necessarily change its risk characteristics. Chris Anderson observed that in credit tranching structures you would generally expect roughly half of the value of the resulting assets to actually be less risky than the pool from which they were drawn, so in his view it would be illogical to say that structuring increased risk.

There did seem to be general agreement, however, that complexity alone may make it more difficult for analysts to discern the degree of fundamental risks in an asset (e.g. credit risk). There was also some support for the idea that perhaps complexity or the use of financial engineering should be disclosed, but the view was expressed strongly that these were attributes of a security, and not risk factors. However, many members of the subgroup do not consider it an individual security risk.

Kevin thought that perhaps identifying securities that are structured would provide a benefit to regulators. Chris Anderson commented that the use of the bond characteristics column of the Annual Statement might be a way to do that.

Bob agreed that it was impossible to measure complexity of structure. However, he thought that the Fender Mitchell June 2005 paper provided some good insight and he commended it to the attention of the group. Max raised the question as to whether the structuring itself is a risk or whether it may just change the nature or extent of the credit or other risks.

At the end of the discussion Bob and Jeff seemed convinced that financial innovation, *per se* is a risk. At the end of the call Max indicated that we will spend the first 10-15 minutes of the next call discussing the issue further but we must come to a conclusion at that point.

July 15, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), Bob Carcano (SVO), Jeff Evans (SVO), Joseph Prakash (SVO), Dick Newman (SVO), Jim Everett (New York), Wally Givler (Northwestern Mutual), Trond Odegaard (Allstate) and Chris Anderson (Anderson Insights, LLC)

We reviewed the draft minutes from the conference call of July 8. There were no changes so the memo was accepted as final.

Max expressed some concern that we were falling behind schedule and need to expand the length of the calls and the number of remaining calls. We agreed to following schedule of calls:

July 22	10-11:30am EDT
July 29	10-11:30am EDT
July 31	9:30-11:00am EDT
August 5	10-11:30am EDT

We next discussed Leverage Risk and the revised definition that Wally had developed with the help of others in the group. There was some discussion of the point that leverage with respect to principal is contemplated in credit risk, but if periodic payments were engineered this could result in a new risk. For example, interest payments could be determined by formulae that could, in some circumstances, result in a zero payment of interest. If this persisted for a very long time, this could have a significant adverse effect on the value of the security. The group reported that this definition was intended to address this possible risk. The larger group then agreed that the definition was acceptable and that Leverage Risk should be included in our list of individual security risks.

Before we proceeded to discuss additional risks, Max asked about the process that we would use to document differences in opinion in our report if differences arose. We agreed that the various views should be presented in no more than two paragraphs in the report. We would then indicate by name the individuals who supported each view.

We then moved to a discussion of Financial Innovation Risk and whether it was an individual security risk. Bob and Jeff reiterated their position that structured securities create additional risk, referring once again to the Fender Mitchell paper and expressing the view that a bill being introduced in the US Congress supports their position. Jim Everett expressed skepticism about whether the introduction of this bill should be interpreted in this way. Wally then indicated that he could agree that complexity and structuring may make the risks in an asset more difficult to understand but structuring in and of itself does not actually create an individual security risk or cause the asset to be more or less risky in a manner that is comparable to the risks we have defined thus far. Trond felt that he could see Bob's point to some degree but still felt that structuring/financial innovation represented more of an operational risk to insurers.

Bob did say that he was struggling with this risk like many of us but felt that it was important to highlight this issue. There was consensus that structuring and complexity are important issues. Max asked if perhaps the identification of a structured security by a new bond characteristic in Schedule D of the Annual Statement was the more appropriate way

to go. This would provide regulators with information which could be used to engage in a dialogue with companies. Kevin and others agreed with the point.

It was obvious that as a group we were struggling with the issue. Max suggested that Bob and Trond craft a statement that would capture the essence of the group's opinion. This could then be circulated and discussed at a future call. All agreed that this was a good idea. Due to work conflicts, Trond would not be able to devote much attention to this for the next call but agreed that he and Bob would have something ready for circulation by August 1 so it could be discussed on the August 5 call.

The next topic was Option Risk. We agreed that option risk is reflected in the definitions of call risk, extension and leverage. There was a question concerning whether the writing of covered call options constituted call risk, but it was agreed that written calls are not securities within the scope of this project. After some discussion, we agreed that option risk has been dealt with adequately under separate risk definitions and accordingly it does not require its own definition.

The final topic covered was Recovery Risk. Jeff reported orally that based on discussions with the rating agencies and the review of their documentation, it is his understanding that Recovery Risk is included in credit risk by the rating agencies and, therefore, should not be considered an individual security risk. Specifically, projected amounts of recoveries upon default are incorporated into the ratings of lower-rated securities where the rating agencies can attempt to quantify them. The only open point is that Jeff still needs to provide documentation (such as ratings policies or procedures) from the rating agencies so the entire subgroup can review them.

July 21, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), John Bauer (Prudential), Jeff Evans (SVO), Joseph Prakash (SVO), Dick Newman (SVO, Allen Elstein (Connecticut), Elaine Weiche (Connecticut), Matti Peltonen (New York), Wally Givler (Northwestern Mutual), and Chris Anderson (Anderson Insights)

We reviewed the draft minutes from the conference call of July 15. There were no changes so the memo was accepted as final.

The last risk from our list of potential risks to discuss was Market Risk. We purposely left it to the end since we wanted to discuss all the other risks first before we moved to a discussion of Market Risk. Matti and Chris asked whether anyone could think of any risks that had not previously been stated by the group because in their view Market Risk, or market prices for fixed income securities, should be the sum of all of the risks of

repayment. If no other risks are missing from the list compiled by the group then market risk did not need to be included, in itself, as an individual security risk because it represents the totality of all risks. There was some discussion and agreement that Market Risk was not an individual security risk.

This led to a discussion of interest rate risk because clearly general levels of interest rates impact market prices for individual securities. Chris expressed a view that we should have some mention of interest rate risk in our report due to its impact on the market price. Because it is systematic it is not an individual security risk but is worthy of inclusion in our report because it can be such a large determinant of fixed income security prices. A brief discussion followed and there was agreement that it was not an individual security risk, but it should be defined in the final report.

Reverting to market risk. Allen asked if a kind of market risk may have been omitted that could be thought of as market manipulation. He has been engaged in discussions with hedge funds where he was of the opinion that convertible bond prices could have been manipulated and he wondered if regulators should be concerned about that in this context. There was discussion on the point but the sub-group agreed that there was no indication that for debt instruments there is evidence of market manipulation that rises to the level of calling it an individual security risk.

Max then highlighted the changes he had made in the Risk Definition document since the last call to include Leverage Risk as an individual security risk and to include Recovery Risk as not an individual security risk. Chris pointed out that we were including examples of Leverage Risk while we had not for others. For consistency purposes, we agreed to remove the examples from the definition.

The next topic was to finalize the Risk Grid. Max highlighted the changes that he made since we last reviewed the document about two months ago. Chris felt that Currency Risk was already addressed in the existing bond characteristic codes for Schedule D. Matti thought it only partially addressed. Chris quickly reviewed the bond characteristic codes and reported that it only covered dual currency bonds. We agreed to amend the grid to reflect that point but the recommendation for the database project was still valid.

Jeff questioned whether Credit and Event Risk should have a recommendation that the Capital Adequacy Task Force review the default studies on a periodic basis. Chris agreed that Jeff raised a good point and we should have a general recommendation. Max and others felt that there should be some timeframe for how frequent the review would be – every five years, ten years. There was discussion on whether there should be a full review or some abbreviated version. It was agreed that the suggestion should be made of a review every five years or so to determine if there have been any material changes. Based on that review, the Capital Adequacy Task Force would decide whether a full study was needed.

Allen raised the question of whether credit default swaps have already been addressed in our review. We agreed that they were not in scope because CDS's in themselves are not

debt instruments but, more importantly, insurer use of CDS's takes the form of debt when they are embedded in a debt structure or when they are used as a part of a replication, and debt instruments have been the focus of the inquiry of the group. Joe questioned whether the RBC requirements for replications using CDS's were appropriate and he was assured that they are.

There was a discussion about the Financial Innovation Risk document that Trond and Bob had agreed to work on. Bob has circulated a draft to a few people for comments. Since Trond will not be back in the office until July 29, Max reviewed Bob's draft and will be providing him comments. The goal is to discuss the final draft at the July 31 call.

Max agreed to revise the Risk Grid and the Risk Definition document for the next conference call. In addition, Max will develop a draft outline of the report for our next call.

July 29, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), John Bauer (Prudential), Jeff Evans (SVO), Robert Carcano (SVO), Joseph Prakash (SVO), Dick Newman (SVO), Dan Swanson (NAIC), Elaine Weiche (Connecticut), Matti Peltonen (New York), Trond Odegaard (Allstate), Ruth Sayasith (MetLife), Wally Givler (Northwestern Mutual), and Chris Anderson (Anderson Insights)

We reviewed the draft minutes from the conference call of July 21. There was some discussion of Market Risk as a risk factor from the perspective of credit spreads driven by asset quality, sector and security specific factors. It was agreed that term structure is not an individual security risk so the discussion focused on spreads. There was consensus that credit spreads are most generally the result of other risk factors, particularly credit, but also event and liquidity risk. In light of this agreement, it was agreed that there was no need to review the minutes further and they were accepted as final.

Max noted that he had added two risks in the category of "Not Individual Security Risks" as a result of last week's discussion. These are Market Risk and Market Manipulation Risk.

In a discussion of the risk grid and Leverage Risk, Max noted that "Bond Characteristics" (col. 7, Schedule D, Part 1) specifies disclosure of: "Variable coupon securities, where the issuer has the right to vary the amount of periodic payments (include: equity-linked coupons, exclude: floating rate notes with an unleveraged coupon, linked directly to an interest rate index)". This will be noted on the risk grid, as it is the consensus that

leverage, in the context of the work of this group, is potentially reflected in periodic payments.

Trond inquired about this and Wally noted that he is still in discussion with Ruth about precisely how this risk is reflected in the regulatory structure. It was agreed that they will try to have a more detailed report by the August 5th meeting. A more general discussion followed focusing on whether floaters are flagged in Bond Characteristics. (The consensus was that they are). There was also an inquiry concerning debt-equity hybrid securities with the conclusion that technically they should probably be flagged in Bond Characteristics, but this is redundant because as of 1/1/09 they will be disclosed on their own lines of the Statement for all insurers.

More generally, the group considered whether the Bond Characteristics column is something it may include in its recommendations for disclosing the attributes of securities and the conclusion was that it definitely is. The discussion turned to whether call/extension risk is disclosed and it was agreed that the existence of a call option for an asset is disclosed as code 1 (“call option”) of Bond Characteristics. It was noted that the specifics of the option (call dates and prices) are not specified in Schedule D, Part 1, but that these specific bond characteristics could be a part of the database symmetry project if the IAWG seeks more specific information about these call options.

In discussing whether the group’s final report should discuss topics and issues that were not at the core of the charge to the group, it was concluded that these would not be done. It was acknowledged that the IAWG Chair has participated in the discussions of this group and he can use his discretion to put on the IAWG agenda any topic that surfaced from the deliberations of this group without further action its part.

In discussion of the risk grid, Dan Swanson noted that call and extension risks are covered in ALM for life companies, but not for non-life insurers. Max agreed to conform the grid. In addition, Dan pointed out that for Event Risk that C-4 is only for life insurers.

The next topic was the work that has been done on Financial Innovation. Max and Bob have agreed on a draft that revises the first draft Bob prepared. Trond is working on an alternative version and plans to finalize his draft by the end of the day, but had not been able to distribute it prior to the call. While awaiting Trond’s work, there was discussion of the most recent paper and there was general agreement with its direction. The sole exception was whether financial modeling in itself is an individual security risk that should be listed along with new or innovative terms and complex or innovative structures. It was agreed that product designers, analysts and others use models in their design and valuation work, that these models can be imperfect, and that regulators and analysts should be aware of this. It was also agreed, however, that modeling in itself is not an actual security characteristic, and as such it should not appear on the list.

Max indicated that his goal is to complete and circulate to the IAWG the report of this group no later than August 12th in anticipation of the August 19th conference call. There was discussion of whether this was really necessary, acknowledging that it is very

important that the work be complete in time to circulate it prior to the subsequent IAWG call (September 16th) so it can be presented to the VOS/TF at the Fall National Meeting. The consensus was to continue to try to meet the August 12th deadline. To prepare for this Max will set placeholders for tentative calls on August 7th and 12th.

Jeff summarized his written report describing how recoveries are incorporated in rating agency ratings of below-investment grade assets. This topic will be revisited at the next meeting after members have an opportunity to refer to the substantial reference material in the report. There was general agreement that the conclusions were well expressed and seemed reasonable and Jeff was commended for his work.

July 31, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), John Bauer (Prudential), Jeff Evans (SVO), Robert Carcano (SVO), Dick Newman (SVO), Allen Elstein, (Connecticut), Elaine Weiche (Connecticut), Matti Peltonen (New York), Trond Odegaard (Allstate), Ruth Sayasith (MetLife), Wally Givler (Northwestern Mutual), and Chris Anderson (Anderson Insights)

We reviewed the draft minutes from the conference call of July 29. There were no changes so the memo was accepted as final.

In a discussion of the two drafts on Financial Innovation it was decided that the more recent draft (by Trond) did a better job of capturing the consensus of the group than did previous drafts. It was agreed to incorporate several elements from closing portion in the previous draft (Bob and Max) into the end of the most recent draft. Trond agreed to do that today.

Turning back to Credit Risk, there was discussion of whether the definition that has been adopted should be modified, as it does not explicitly state that there is an ever-present risk of downgrades of debt instruments which could lead to greatly reduced market values well before scheduled maturity dates or defaults. It was observed that the C-1 factors contemplated defaults (using a ten-year horizon) and that as an asset is downgraded RBC factors will increase and marking-to-market may even be required. Still, this does not address whether the possibility of downgrades should be stated explicitly in the definition. Ruth read (and later circulated) a quotation from a Fabozzi text that emphasized the significance of downward credit migrations and the resulting declines in market values. The group agreed to include that quotation in its report. Ultimately the group concluded that the present definition was adequate, however, following the concept that adverse developments for the investor with respect to any risk factor should be expected to result in market price declines for the asset and Credit Risk was not materially different from other risks in this regard.

There was a brief review of the recovery on default study by Jeff. Elaine indicated that she was pleased to hear how the rating agencies incorporate recoveries on default into their ratings and she commended Jeff for his work.

Ruth reported on a call she, Trond and Chris had had on how leverage risk (as defined by this group) is reflected in the regulatory structure. It is her view, agreed to by the others, that when periodic payments are leveraged there is a requirement for insurer disclosure in the Bond Characteristics column of Schedule D, Part 1 for all insurers. Additionally, the impact of this leverage is an element of the computation of C-3, Phase 1 for life insurers.

Max indicated he hopes to distribute the first draft of the report of this subgroup on Sunday evening.

August 5, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), John Bauer (Prudential), Jeff Evans (SVO), Robert Carcano (SVO), Dick Newman (SVO), Allen Elstein, (Connecticut), Elaine Weiche (Connecticut), Matti Peltonen (New York), Trond Odegaard (Allstate), Ruth Sayasith (MetLife), Wally Givler (Northwestern Mutual), and Chris Anderson (Anderson Insights)

We reviewed the draft minutes from the conference call of July 31. There were no changes so the memo was accepted as final.

The purpose of the call was to discuss the draft report of the group. Max indicated that he prepared the draft using the outline approved at the previous meeting, referring extensively to the minutes of the group. Max will also include the quotation from the Fabozzi text referred to at the previous meeting. Throughout the subsequent discussion minor editorial suggestions were considered and accepted.

In the introductory section there was agreement that group members should be listed and the significant contributions of others should be acknowledged even if they were not formal members of the group. Max will make that modification. In discussion of the background it was agreed that the draft should refer to more than debt-equity hybrid securities. Wally will incorporate the points discussed and will provide suggested revisions to Max. Descriptions of the backgrounds of the participants will also be included. "Avoiding future problems" will be changed to "minimize".

Considering the Risk Group Process, the reference to states being "represented" will be modified. Max will modify the phrase "We used existing definitions..." to capture the

sense that existing definitions were used as starting points for discussions, but were modified to apply to the insurance regulatory context.

Considering Discussion of Investment Risks it was agreed that the discussion of financial innovation be moved to an Exhibit to reflect the consensus that financial innovation should be considered by insurance regulators. It was agreed that the financial innovation Exhibit will be referenced in the introduction. The Fabozzi quotation will be incorporated into credit risk and each risk will have its own header.

Because C-1 is backward-looking, it was agreed to include in the grid and recommendations that a reason for examining default history is that financial innovation can influence future experience. It was also agreed to be more specific in the report saying that a review of C-1 should be conducted as needed but no less than every five years.

The first sentence of the second paragraph on event risk was modified to remove reference to market and extension risk. Event risk was modified to include both actions and “happenings” and the examples of event risks were expanded to include natural disasters. The definition of event risk will also be modified to include “happenings” (in the nature of natural disasters).

In discussing liquidity there were questions about whether the group should make more specific recommendations. It was mentioned that the SVO already has the responsibility to monitor the market and notify regulators of changes in the liquidity of types of assets, but that liquidity is a “moving target”. It was also noted that liquidity should be a central element of risk-focused exams, and that these exams should be ongoing. Additionally it was stated that NY Circular Letter #4 and other regulatory tools may address liquidity. Chris will forward to Max suggested language with respect to whether “regulators do not feel they have sufficient tools to measure liquidity....”

August 7, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), John Bauer (Prudential), Joseph Prakash (SVO), Robert Carcano (SVO), Dick Newman (SVO), Allen Elstein, (Connecticut), Elaine Weiche (Connecticut), Matti Peltonen (New York), Jim Everett (New York), Trond Odegaard (Allstate), Ruth Sayasith (MetLife), Wally Givler (Northwestern Mutual), and Chris Anderson (Anderson Insights)

We reviewed the draft minutes from the conference call of August 5. There were some editorial changes made and the memo was accepted as final.

The purpose of the call was to continue the discussion of the draft report of the group. Several regulators objected to the statement in the introduction of the report about the disruption in the hybrid market due to the NAIC decisions on hybrid securities. After some discussion it was decided to remove that reference and Matti offered to draft alternative language. There were additional editorial changes to the introduction including the combining of the first two paragraphs.

During our previous call, there was a discussion about including some Fabozzi quotes in the credit risk section. Max questioned whether that was necessary since we already added wording concerning downgrades (third paragraph of credit risk section). The Subgroup felt that adding the quotes was not necessary.

Considering event risk it was suggested that “occurrences” is a better term than “happenings” and that change was made.

In discussing extension risk it was agreed to delete the reference to the possible consequences to the issuer of extension as that is elsewhere in the documents. It was also agreed to change the term “contraction” to “call risk”.

With respect to currency risk it was agreed to delete a sentence referring to the issuer of a security, as currency risk relates to the denomination of the payments and not the location of the issuer.

Considering leverage, it was agreed that examples of leverage are needed and Ruth agreed to coordinate drafting that language.

There was discussion of whether it should be suggested that liquidity risk be addressed in more detail in the Examiners Handbook. Even given recent revisions to the Handbook it was agreed that it should be reviewed. Elaine also explicitly asked that it be noted in the minutes that there are other NAIC groups who should consider such things as liquidity scores, and it was noted that the regulators on the call can pursue this in the future.

The group considered whether the minutes should be part of the record and whether other materials should be included as well. We agreed that if there is additional information that members think should be included in the report they can present that to the group.

There was extensive discussion of what the position of the group should be with respect to recommending further action by regulators with respect to the liquidity of portfolios or individual assets.

August 12, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), John Bauer (Prudential), Robert Carcano (SVO), Dick Newman (SVO), Jeff Evans (SVO), Joseph Prakash (SVO), Allen Elstein, (Connecticut), Elaine Weiche (Connecticut), Jim Everett (New York), Trond Odegaard (Allstate), Ruth Sayasith (MetLife), and Chris Anderson (Anderson Insights)

We reviewed the draft minutes from the conference call of August 7. They were accepted as final.

Max reported that he has distributed the most recent marked up version of the report. The first agenda item was to review these changes page by page. Throughout the discussion minor stylistic and editorial changes were made to the draft.

Kevin suggested that for each risk there should be a description of how it is covered in the regulatory structure and what recommendations, if any, are being suggested.

Concerning deferral, it was agreed to add that because rating agency ratings contemplate deferral it should be stated that these are also a part of C-1. Max agreed to make this change.

On liquidity, the Subgroup decided to delete the reference to the Examiners Handbook since we have seen no reason to make this recommendation. It was also agreed to state that this risk may be covered in risk-focused exams so Max will review the language of the draft in this context. Liquidity, in a broader context, will also be on the agenda for the next IAWG meeting.

For call and extension risk it was agreed to state that this is disclosed in bond characteristics and for non-life companies it is dealt with in C-3 Phase I. This change will be made here and in Exhibit 3.

It was agreed to state that currency risk is disclosed in bond characteristics.

Trond and Ruth are working on examples of leverage, and it was agreed to state that this is disclosed in bond characteristics.

Discussing the Exhibits, it was agreed that footnote 3, Exhibit 1 is not needed, so it will be deleted.

On Exhibit 2 it was agreed first to define the risk and then to describe why the risk is not an individual security risk. Discussion of this Exhibit was then tabled.

On Exhibit 3 it was agreed to recommend that the IAWG consider adding deferral to bond characteristics.

There was discussion of regime changes, during which there can be low probability, high severity events that can adversely affect security-holders. It was agreed to modify the new sentence on credit risk to add the concept that low-probability/high-severity events exist (such as the great depression). It was agreed to add possible accounting changes to the definition of event risk in the report. It was also agreed that Chris will draft an additional sentence in the definition to describe how corporate restructurings and takeovers could have an adverse impact on fixed-income securities.

There was discussion of how insurers can increase risk through securities lending. It was agreed that Connecticut would pursue this concern outside of this group.

In Exhibit 3, it was agreed that for call and extension risk the proper reference is to C-3 Phase I, and further agreed to specify that this does not pertain to non-life insurers. It was also agreed that leverage of periodic payments is covered for life insurers in C-3 Phase I. Ruth will draft language for the leverage section of the body of the report clarifying that leverage of credit (but not periodic payments) is credit risk.

August 14, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), Dick Newman (SVO), Jeff Evans (SVO), Joseph Prakash (SVO), Allen Elstein, (Connecticut), Elaine Weiche (Connecticut), Jim Everett (New York), Trond Odegaard (Allstate), Ruth Sayasith (MetLife), Wally Givler (Northwestern Mutual), and Chris Anderson (Anderson Insights)

We reviewed the draft minutes from the conference call of August 12. They were accepted as final.

It was noted that the next two IAWG calls were consolidated and rescheduled to September 9.

Discussing the current draft of the final report minor stylistic and editorial changes were adopted.

In Credit Risk section the reference to the Fabozzi text was removed as being redundant. It was agreed to add a bibliography of all reference sources used. (This decision was subsequently reversed as noted below).

Considering Deferral it was agreed to include in the report the point that that the subgroup recommends that Deferral information be included in Bond Characteristics.

On Event Risk a few words were added to the newly suggested language.

In the Liquidity Risk section a sentence on regulatory concern for this risk was deleted.

Under Extension Risk there was discussion of the thought that the charge of this group is to describe its consensus as to what should be made available to state insurance regulators rather than to prescribe what precise steps should be taken. The reference to the SVO database will be changed and modifications will be made to Call and Extension Risks. Chris volunteered to propose language.

With respect to Currency Risk, there was a question concerning what the “other elements of currency risk” might be. Max will ask Matti for more explicit language.

Concerning Leverage, Trond proposed adding a reference to inverse floaters and CDOs. There was discussion of the point that inverse floaters are an example of leverage risk as defined and CDOs are an example of credit risk. There was also discussion of how to describe the consensus concerning leverage risk, and it was agreed that examples would be provided in Exhibit 1. Chris will draft this. Ruth suggested that it should be stated that leverage, as defined, is covered for life companies in C-3 Phase I. Language provided by Ruth describing how credit risk is included in C-1 will be incorporated into the report. The language will also be modified to make it clear that does not pertain to non-life insurers.

Under Recommendations it was agreed to add that various regulatory groups should consider the recommendations proposed as well as other alternatives.

After extensive discussion, we decided that more work is still needed on Exhibit 2 to develop definitions for all of the items listed. A draft of Exhibit 2 would be included in the report to the IAWG if we are unable to resolve the definitions in time for the September 9 call.

Discussing Exhibit 1 it was decided to delete the reference to an asset becoming a permanent part of the capital structure, on the grounds that this point was too detailed and off point.

In Exhibit 3 it was agreed to add to Column 2 that references to Bond Characteristics should be made for Call and Extension Risk. Additionally the reference to the SVO database project will be modified to conform to the reference in the draft report.

Considering the additional materials that should be included it was decided that the minutes (in full) should be called an “Appendix” and not edited beyond the deletion of obviously irrelevant points (such as the schedule for future meetings). This decision was

the result of concerns being expressed about how the minutes should be edited. An additional objective is that the very lengthy minutes should be searchable and attached as the very last item in the report so they don't bog down the reader. Other materials, including Jeff's report, should be called "Exhibits". It was also agreed that in place of a bibliography the reference sources used should be footnoted using the standard footnoting format.

August 19, 2008 Risk Sub-Group Meeting

Attendees: Kevin Fry (Illinois), Max McGee (Prudential), John Bauer (Prudential), Bob Carcano (SVO), Jeff Evans (SVO), Jeff Evans (SVO), Joseph Prakash (SVO), Allen Elstein, (Connecticut), Elaine Weiche (Connecticut), Matti Peltonen (New York), Jim Everett (New York), Trond Odegaard (Allstate), Wally Givler (Northwestern Mutual), and Chris Anderson (Anderson Insights)

We reviewed the draft minutes from the conference call of August 14. They were accepted as final with one minor editorial change.

We reviewed the changes proposed to the draft report. There were minor stylistic and editorial changes throughout. The newly proposed language for Call and Extension Risks was reviewed and further modified. On currency risk Matti will review the current language to see if it addresses issues raised previously (concerning dual-currency bonds). Regarding the new language for leverage risk, the first three sentences of the proposed language were stricken as being redundant. Several other editorial changes were made to make it clear that interest rate risk is a part of the risk of leverage of periodic payments, and there will be a reference made to bond characteristics.

Considering Exhibit 1 there were two editorial changes to a footnote.

Reviewing Exhibit 3, the sections concerning Calls and Extension Risks will be conformed to the newly adopted language in the report. There was discussion of whether there should be a recommendation regarding deferral and it was agreed that no recommendation needs to be made because the current bond characteristics should already require disclosure of deferrals. The Exhibit and the report will be conformed to this.

On Exhibit 4 there was one editorial change.

Exhibit 5 was adopted with no changes.

Regarding Exhibit 2 it was agreed that the Exhibit would be submitted with only a list of items considered for discussion. In the event the IAWG would like more information about the risks referenced in the Exhibit beyond the discussion from the minutes then it may make a charge as appropriate.

Prior to the next call Max will provide final black-lined documents with the goal of having a final approval of the Report, the Exhibits and the Appendix at that time.