August 3, 2012
Mr. Matti Peltonen
Chair, NAIC C1 Factor Review (E) Subgroup
New York State Department of Financial Services
One State Street Plaza
New York, NY 10004-1511

Dear Matti:

Attached for consideration by the NAIC's C1 Factor Review (E) Subgroup is a draft condensed project plan, prepared by the American Academy of Actuaries[1] C1 Work Group. The plan primarily covers the development of the bond Risk-based Capital (RBC) factors, as well as changes to the RBC determination for structured securities. In addition to the major steps in the development of the bond factors, the work group has also identified the key actions and/or decisions needed from regulators and industry groups before finalizing recommendations to the Capital Adequacy Task Force and the Valuation of Securities Task Force.

The project plan does not include any items related to the review and development of RBC factors for real estate, commercial mortgage loans, equities, other invested assets (BA), or derivatives. Further, there are no items related to the consideration of risk correlation between asset classes. When RBC is determined for all asset classes, the feasibility of reflecting risk correlation between the asset classes could be undertaken as a separate phase of the project.

We look forward to discussing with the C1 Factor Review (E) Subgroup.

Sincerely,

Nancy Bennett, Co-Chair, Academy C1 Work Group
Jerry Holman, Co-Chair, Academy C1 Work Group

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[1] The American Academy of Actuaries is a 17,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

Regulator/Industry Decisions for C1 Component Review

1. Endorse Academy Work Group C1 Methodology & Assumptions (as a package)
   (presentation at December NAIC meeting with tentative endorsement by **February 1, 2013**)
   a. By both regulators and industry
   b. Endorsement is directed at the methodology and the structure of assumptions
      i. Endorsement is predicated upon accepted principles regarding the purpose of RBC, C1 capital & the covered risks, the incentives/disincentives to insurer decisions created by RBC, and NAIC designations
      ii. Endorsement is predicated upon review of certain "structural" assumptions that are defined by use of an algorithm (i.e., more complicated and time consuming to change if the final package is unacceptable).
      iii. Structural assumptions include the following:
         - Use of cumulative default rate (vs. annual default with transition matrix)
         - Volatility of default and recovery assumptions via economic regime (recession or expansion)
         - Note: all other assumptions would be endorsed in the form defined by the C1WG
      iv. Certain adjustments will be made to the base C1 Factors (e.g., portfolio size, concentration, etc..); list of adjustments will be included
   c. Final endorsement of recommendation by regulators and industry will be based on analysis, resulting factors, and impact on industry

2. Develop general plan for the review of RBC for structured securities **(March 1, 2013)**

3. Decide on the number of NAIC designations **(March 31, 2013)**
   Note: Academy preliminary analysis will present results for each rating category to facilitate determination of the number of designations

4. Decide on Protection Level (*tentative*: **March 31, 2013**)
   Note: Academy preliminary analysis will present results for multiple protection levels.
   a. Time horizon (e.g., 10 years)
   b. Risk metric (e.g., percentile, CTE)
   c. Statistical level (e.g., 95th percentile, 90 CTE)

Academy C1 Work Group Project Plan

GOAL: ADOPT BY December, 2013 FOR 2014 RBC CALCULATION *(tentative)*

> **Notes: Major items included in plan. Time needed for the testing phase is not known at this time. Steps 15-21 are the iterations between industry impact testing and changes to preliminary C1 factors.**

TBD: IMPLEMENT ALL C1 CHANGES AT ONCE?

TBD: TIMING OF CORRESPONDING BLANKS CHANGES

TBD: TIMING OF CORRESPONDING AVR CHANGES

1. √ Evaluate different types of credit models – structural, closed form, etc.
   Will continue use of historical model, but will document reasoning.
2. √ Recommend model treatment of Asset Valuation Reserve (AVR) in the bond model; document rationale
3. √ Replicate 1991 factors
   a. √ Meet with members of 1991 Modeling Team
   b. √ Document 2012 validation model
   c. √ Demonstrate replication of factors
4. Rerun bond model with AVR contributions turned off to restate RBC factors (equivalence with full loss distribution) *(August 15)*
   Analysis will focus on Total Adjusted Capital; the allocation between AVR and unassigned surplus will not affect the analysis of capital requirements
5. Define economic model *(August 15-30)*
   a. Need to define before recovery assumptions can be finalized
   b. Proposed model presented 7/11; evaluating use with cohort default data
6. Decide on source of default rates (Moody's, S&P) *(August 30)*
   a. √ Meet with Moody's, S&P
   b. Reconcile differences between Moody's and S&P (e.g., in higher rating categories) S&P uses probability of default; Moody's uses an ordinal ranking of LGD
   c. Evaluate alternative structures for default/recovery assumptions (e.g., issuer AND seniority, issue AND seniority)
7. Decide on recovery assumptions *(August 30)*
8. Translate default/recovery data into input for bond engine *(September 15)*
9. Define/document 2012 assumptions *(September 15)*
10. Define representative portfolios
    a. Define *(August 30)*
    b. Generate *(September 30 – October 15)*
    c. *Note: the representative portfolios will be defined AFTER completion of the default research and available date*
11. Complete the development of the bond calculation engine and sub-models *(August 30, 2012)*
    a. Analyze output under different protection levels

b. Create standardized output template to facilitate comparison
12. Scope out plan for determination of C1 factors for structured securities *(**March 1, 2013**)*
 a. Review plan with regulators & industry
 b. Seek endorsement from regulators & industry
13. Generate preliminary C1 base bond factors for each rating (e.g., AAA, AA, etc.) for different time frames and confidence levels; identify & illustrate the major assumptions *(**November 1, 2012 – December 31, 2012**)*
 a. Timing dependent on getting endorsement from regulators and industry
 b. Timing dependent on amount of time needed for the analysis
14. Compare required capital for investment risks in different regimes, such as Solvency II *(**November 15, 2012**)*
 a. √ Draft completed
 b. Goal: adequately describe and compare different approaches – important for decision on protection level
15. Obtain C1 Factor Review Feedback *(**through Q1, 2013**)*
 a. Number of NAIC designations
 b. Protection level
16. Rerun base bond factors based on feedback *(**through Q1-2, 2013**)*
17. Determine adjustments to be made to base bond factors *(**timing TBD**)*
18. Develop preliminary C1 bond factors with adjustments *(**timing TBD**)*
19. Estimate impact of preliminary C1 bond factors on industry required capital *(**timing TBD**)*
20. Recommend final C1 bond factors based on feedback, analysis *(**timing TBD**)*
21. Implementation steps:
 a. Reflect designations in statement blank
 b. Reflect changes in AVR
 c. Reflect changes in RBC worksheet and instructions
 d. Other items?