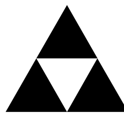

AMERICAN ACADEMY *of* ACTUARIES

Proposed Changes To Risk-Based Capital Charges Applied To P&C Preferred Stock Holdings

Report to the National Association of Insurance Commissioners Capital Adequacy Task Force

American Academy of Actuaries
P/C Risk Based-Capital Committee

December 2, 2004

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Overview of question posed to the P/C RBC Committee

The National Association of Insurance Commissioners (NAIC) has requested the American Academy of Actuaries Property/Casualty Risk-Based Capital (P/C RBC) Committee to evaluate whether preferred stocks should be assigned the same risk-based capital charges as bonds.

The Life Risk-Based Capital (Life RBC) Working Group of the NAIC has recommended that, in the Life company risk-based capital formula, preferred stocks be assigned the same risk-based capital charges as bonds – i.e. eliminate a separate preferred stock table of charges. This has been done in response to changes made by the credit rating agencies in the way they rate preferred stocks. The NAIC has requested the P/C RBC Committee to evaluate the actions being proposed by the Life RBC Working Group to see if similar actions are warranted in the P/C RBC formula.

There are several differences in the current treatment of preferred stocks between the life insurance and P&C formulas. These include:

1. Different statutory requirements for the carrying value of Class 3 preferred stocks – life insurance companies record these at amortized cost, P&C companies record these at the lesser of amortized cost and market value.
2. Different RBC factors for Class 1 – 5 preferred stocks.
3. Existence of an Asset Valuation Reserve for life insurance companies, but no equivalent reserve for P&C companies.

At this time, the P/C RBC Committee has not been asked to review any of these differences. The scope of the current charge is restricted to evaluating whether a separate (and higher) set of charges should continue to be applied to preferred stocks than is applied to bonds with an equivalent Class rating in the P&C RBC formula.

Summary of recommendation

The P/C RBC Committee recommends eliminating the separate preferred stock table of charges, and using P/C bond charges instead. This achieves two purposes: most importantly, it eliminates the double charging of preferred stocks and secondly, it maintains consistency in process with the life insurance RBC formula. The impact of this change on the ten P/C companies with the largest dollar amounts of unaffiliated preferred stock holdings is negligible (see Recommendation section below.)

The Life Insurance RBC Working Group has recommended that preferred stocks be assigned the same RBC charges as bonds – i.e. elimination of a separate preferred stock table of charges. This has been done in response to changes made by the credit rating agencies in the way they rate preferred stocks (see "notching" explanation below). The current process double-charges companies for holding preferred stocks – once because the credit rating of a preferred stock is notched lower than that of a bond from the same issuer, and secondly by having a higher RBC charge applied against the preferred stock than would be applied against a bond of similar credit quality issued by a different company. The treatment recommended for the Life insurance RBC formula eliminates this double charging.

Rating Agency treatment – explanation of notching

For the past several years, rating agencies have used the same credit scale for both bonds and preferred stocks. Historically this was not the case – rating agencies used to have different scales for bonds and preferred stocks. Fitch eliminated the two-scale system in 1996, S&P in 1999, Moody's in 2000. Instead the rating agencies employ what is known as a "notching" treatment for preferred stocks.

The following explanation of notching has been taken from a non-confidential memorandum to regulators, specifically addressed to Tom Streukens, chair of the Invested Asset Working Group from Bob Carcano, Senior Counsel at the NAIC Securities Valuation Office on December 3, 2003:

Notching Defined: Notching refers to the process by which rating distinctions are made between the different liabilities of a single entity or of closely related entities. Although there are nuances in the way the different nationally recognized statistical rating offices ("NRSROs") handle the process and in the language they use, the overall methodology and approach is virtually the same. The methodology consists of two steps. In the first step, the agency determines the benchmark rating for the senior unsecured obligation (or its industry equivalent). The agency then adjusts the benchmark rating up or down to reflect the difference in risk between the benchmark security and any given specific liability under consideration. The process of adjusting the benchmark rating up or down is referred to as notching since the focus is on finding a rating difference that is smaller than a whole grade. NRSROs use plus (+) and minus (-) signs in their rating scales and so a notch refers to this incremental movement in credit quality. For example, a change from AA to AA- would be one notch down and a change from AA to AA+ would be one notch up. Notching practices only make sense in the context of a given capital structure. Actual notching decisions are therefore highly dependent on assumptions about the actual capital structure of the issuer *at default*. The typical capital structure presented by the NRSROs for purposes of discussion and illustration of notching concepts is as follows.

Senior secured	– notch up from benchmark
Senior unsecured	– benchmark rating
Senior subordinated	– notch down from benchmark
Junior subordinated	– notch down from benchmark
Preferred stock	– notch down from benchmark

Generally, the NRSROs expect that a company will default on all of its obligations at about the same time. The key factor that will distinguish the rating (and performance) of a company's various liabilities is the differences in expected loss (i.e., severity) upon the occurrence of a default. Differences in the expected loss rates of an issuer's obligations are determined by their relative priority of claim in bankruptcy. Notching translates these differences in expected loss to differences in rating in a way that is correlated to statistical differences in historical loss rates associated with differing rating categories.

Life Insurance RBC practices – past, present and proposed

1992 to 1996

Like bonds, preferred stocks are graded into six classes. Classes 1 – 3 are recorded at amortized cost. Classes 4 – 6 are recorded at the lower of amortized cost and market value.

During this time period, preferred stock charges were equal to the bond charge plus 0.02 – i.e. if the charge for a NAIC Class 1 bond was 0.003, the charge for a NAIC Class 1 preferred stock would be 0.023. (This is the practice that has been place for the P&C formula from its inception.)

Chris Anderson of Merrill Lynch remarks in a letter of November 18, 2003 to Tom Streukens, the Chair of the Invested Assets Working Group at the NAIC, that rating agency research has "strongly suggested that a flat premium (e.g. 0.02) is inappropriate. They have found that, in general, the lower the rating of the senior unsecured asset the greater the notching should be." This would imply that relative spread between the bond and preferred stock RBC charges should increase as one goes from one class to the next.

ASSET VALUATION RESERVE

Life insurance companies also carry an "asset valuation reserve" (AVR) on class 1 – 3 preferred stocks. According to the Asset Valuation Reserves and Interest Maintenance Reserves Blue Book Report to the NAIC[1] of December 2002, the purpose of the AVR is to "provide for fixed income asset credit or default risks with the same probability or level of confidence as that of all other statutory valuation reserves held and developed for book value based asset values for life insurance products. This reserve accumulates the risk portion of each investment yield payment to provide for future credit losses as they occur and builds toward a desired reserve objective. When a company purchases an asset, there is a risk that the promised cash flow from the asset will not be achieved, and it is proper accounting to require the company to reserve against such risks. Without such reserving, financial income is overstated from time to time. In fact, in doing cash flow testing, the [life insurance] actuary is required to deduct an appropriate amount from the promised cash flow to provide for the possibility that some interest will not be paid, or that there will be a loss of some of the principal...The AVR's objective is to provide for these asset credit or default risks with the same likelihood or probability as that of other statutory reserves held."

This Blue Book report goes on to note that the existence of the AVR requirement reduces minimum Risk Based Capital requirements significantly and that at the end of the RBC calculation the AVR is added to Total Adjusted Capital in the Risk Based Capital requirements comparison. Through this treatment, the AVR shows up on a life insurance company's financials as a liability, but for the purposes of life insurance RBC it acts more as a segregation of surplus, due to its being added into Total Adjusted Capital.

[1] It should be noted that the Blue Book report is not an official NAIC document. It was an industry report that was presented to the NAIC but not adopted by the NAIC.

1997 to 2000

The life insurance RBC charges applied to bonds and preferred stocks were revised in 1997 to be as follows:

Table 1: Life insurance RBC charges 1997 - 2000

Class	Bond charge	Preferred stock charge	Differential
1	0.003	0.009	0.006
2	0.010	0.025	0.015
3	0.040	0.060	0.020
4	0.090	0.135	0.045
5	0.200	0.250	0.050
6	0.300	0.300	0.000

The revised charges put in place the concept of an increasing differential between preferred stock and bond charges. The only place this does not continue is for Class 6 items, which are in default. In this class both bonds and preferred stocks are recorded at market, all write-downs that will need to occur have already happened, and as such no additional charge needs to be levied on Class 6 preferred stocks over that which is levied on Class 6 bonds.

2001 and subsequent

The life insurance RBC factors were again revised in 2001. The numbers were first adjusted on a pre-tax basis, and then on a post-tax basis. The post-tax factors are the ones currently in use.

Table 2: Life Insurance RBC Charges, 2001 to present

Pre-Tax Basis			
Class	Bond charge	Preferred stock charge	Differential
1	0.004	0.011	0.007
2	0.013	0.030	0.017
3	0.046	0.072	0.026
4	0.100	0.150	0.050
5	0.230	0.250	0.020
6	0.300	0.300	0.000
Post-Tax Basis			
Class	Bond charge	Preferred stock charge	Differential
1	0.003	0.008	0.005
2	0.010	0.022	0.012
3	0.034	0.053	0.019
4	0.074	0.111	0.037
5	0.170	0.184	0.014
6	0.195	0.195	0.000

It is interesting to observe that the concept of the increasing differential remains in place for classes 1-4, but not class 5. There is nothing in the materials we have to indicate why this change was made for class 5 bonds and preferred stocks.

Current Life Insurance RBC proposal

The proposal before the Life RBC Working Group is to use the bond charges for both bonds and preferred stocks. The argument in support of this is that the current process double-charges preferred stocks. First, preferred stocks are notched down so that they end up in a riskier class than related bonds. Then a higher RBC charge is levied against them. In the past, the rationale for the higher RBC charge was that preferred stocks were riskier than comparable bonds, so they ought to get a higher RBC charge. However, with the notching changes made by the rating agencies, this is no longer the case. Now a BB bond from one company is viewed as having the same level of risk as a BB preferred stock from a different company. Hence the life insurance RBC Working Group proposal to use the bond charges for both bonds and preferred stocks.

P&C Insurance versus Life Insurance

Background

There are a few differences in the way that P&C companies treat preferred stocks versus our life insurance counterparts.

1. P&C companies use amortized cost as the carrying value for classes 1 and 2 and the lower of amortized cost and market for classes 3-6. Life insurance companies that maintain an AVR use amortized cost for classes 1-5 and the lower of amortized cost and market for class 6. However, Life insurance companies that do not maintain an AVR use the same procedure as P&C companies, i.e. amortized cost for classes 1-2 and the lower of amortized cost and market for classes 3-6.
2. There is no P&C equivalent to the Asset Valuation Reserve.
3. The P&C Risk-Based Capital formula has a straight 0.02 additive element to the preferred stock charges versus the bond charges for the same class.

A comparison of the current P&C versus life insurance RBC charges is as follows:

Table 3: Comparison of Life Insurance vs. P&C Insurance RBC charges

Life, Pre-Tax Basis			
Class	Bond charge	Preferred stock charge	Differential
1	0.004	0.011	0.007
2	0.013	0.030	0.017
3	0.046	0.072	0.026
4	0.100	0.150	0.050
5	0.230	0.250	0.020
6	0.300	0.300	0.000

P&C			
Class	Bond charge	Preferred stock charge	Differential
1	0.003	0.023	0.020
2	0.010	0.030	0.020
3	0.020	0.040	0.020
4	0.045	0.065	0.020
5	0.100	0.120	0.020
6	0.300	0.300	0.000

Impact of Change

The NAIC has reviewed the impact of this recommendation on the ten companies with the largest dollar amounts of unaffiliated preferred stock holdings. The impacts on these companies were negligible as shown in Table 4 below.

Table 4: Impact of change on ten largest P&C holders of preferred stocks

Company	RBC Ratio	Recalculated RBC Ratio
1	272.61%	272.61%
2	296.88%	296.90%
3	297.09%	297.36%
4	225.27%	225.27%
5	210.70%	210.71%
6	288.36%	288.39%
7	69.35%	69.39%
8	292.33%	292.37%
9	282.90%	283.21%
10	167.41%	167.48%

Recommendation for P&C RBC

As can be seen in Table 3 above, there are substantial differences between both the bond and preferred stock charges. The question currently posed by the NAIC to the P/C RBC Committee relates to the preferred stock charges, not the bond charges. A review of the bond charges themselves, which is outside the scope of the current project, is a logical next step. A review of the reasons underlying the different usage of amortized cost versus market value and the existence (or lack thereof) of an AVR are also considerations for future study.

The P/C RBC Committee recommendation is to mirror the current life insurance RBC factor change, i.e. to eliminate the separate table of charges for preferred stocks and apply the bond charges to both bonds and preferred stocks. This achieves two things:

1. It eliminates the double-charging that currently exists for preferred stocks
2. It retains consistency in process between the life insurance and P&C RBC approach to preferred stocks.