



AMERICAN ACADEMY *of* ACTUARIES

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## MEMORANDUM

**To:** Philip Barlow, Chair, Life Risk Based Capital (RBC) Working Group  
**From:** American Academy of Actuaries' Life Capital Adequacy Subcommittee  
**Subject:** Issues on Modco for the Life RBC Working Group  
**Date:** June 7, 2005

## **Proposal Summary:**

The proposal is detailed in the attached report. Essentially, it says that the dividend credit (normally  $\frac{1}{2}$  the dividend liability) to TAC should be reduced if the company can't realize that credit. In most reinsurance situations, this would result in no credit to either the ceding or the assuming company. However, because situations involving closed blocks and/or experience rated refunds appear to be unique, in these situations we would leave the calculation of an appropriate credit for the ceding company to actuarial judgment. There would still be no credit for the reinsurer.

## **Issues to consider:**

Before proceeding, the LCAS subcommittee on Modco would appreciate the input of the Life RBC working group on the following issues:

- 1) This proposal relies on actuarial judgment for determining the reduction in credit when reinsurance is involved. Is this approach acceptable? It should be noted that there are a number of other places where actuarial judgment is used in setting RBC, such as in calculating the formula based C3 phase I amounts for fixed annuities.
- 2) The main principle on which the use of actuarial judgment in determining the dividend credit is based is that the credit must be "realizable". To quote from the document:

"...the amount of the dividend liability credit included in TAC by the ceding company (should) be reduced to the extent the ceding company cannot realize the credit associated with the dividend liability. "To realize the credit" means the company has an opportunity to benefit from dividend actions. In general, this will mean that the TAC credit will not be allowed (when the product is reinsured)."

There is no "how to" guidance on how to make this determination other than this statement of principle. Is this acceptable? Is more guidance needed? There is no common practice in this area but some may exist on "realization." If suitable, reference could be included in the practice note on reinsurance (which is currently being developed).

- 3) Should the actuarial judgment used be disclosed in some form, either to regulators or publicly? Is an actuarial certification or opinion needed? Again, there are a number of places where actuarial judgment is used currently. Some of these are supported by certification such as the AOMR.
- 4) Is the elimination of credit to the reinsurer acceptable? One alternative to complete elimination may be to allow actuarial judgment in determining

whether the credit is available. If this option is pursued, would any additional disclosure or reporting be needed?

We appreciate any guidance from the Life RBC Working Group on these items.



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## MEMORANDUM

**To:** NAIC Capital Adequacy Task Force  
**From:** Academy Life Capital Adequacy Subcommittee  
**Subject:** Modco Status Report  
**Date:** 3/12/05

## **Total Adjusted Capital Adjustments for the Dividend Liability Related to Reinsurance**

### **Recommendation**

The calculation of total adjusted capital (TAC) allows a credit of ½ the dividend liability established by the company. We recommend that when reinsurance is involved (coinsurance, modified coinsurance (modco) or coinsurance with funds withheld), the amount the dividend liability credit included in TAC by the ceding company be reduced to the extent the ceding company cannot realize the credit associated with the dividend liability. “To realize the credit” means the company has an opportunity to benefit from dividend actions. In general, this will mean that the TAC credit will not be allowed. However, in situations involving a closed block or experience rated refunds, actuarial judgment should be applied to determine the appropriate amount of the credit.

At the same time, we recommend that the reinsurer should not be allowed TAC credit for half of the dividend liability, even if the direct writer cannot take the TAC credit.

### **Coinsurance and the NAIC Life Risk-Based Capital Formula**

Since its origins, the Life Risk-Based Capital (RBC) formula has recognized the transfer of risk that accompanies coinsurance transactions by reducing the ceding company’s C-1, C-2, and C-3a for the appropriate amount of risk transferred to the reinsurer, and by increasing the assuming company’s C-1, C-2, and C-3a by similar amounts. Beginning in 1999, the Life RBC formula was modified to recognize the risk transfer that accompanied modco (and coinsurance with funds withheld) transactions as well. Since the ceding company under modco agreements reports all of the assets and liabilities on its balance sheet, the ceding company needs to provide the assuming company with the appropriate detail for the assuming company to complete its RBC calculation correctly.

The present RBC formula also transfers the TAC adjustment reflecting the dividend liability for participating business from the ceding company to the reinsurer under coinsurance but does not do so for modco or coinsurance with funds withheld. These types of reinsurance should be treated the same. Further, there may be accounting practices for coinsurance that result in inappropriate TAC credit for dividend liability.

### **Liability for Policyholder Dividends as an Element of TAC**

Since the introduction of the Life RBC formula in 1992, 50 percent of the liability for policyholder dividends has been an element of TAC. Rationale for this treatment can be found in the November 27, 1991 Report of the Industry Advisory Committee to the Life Risk Based Capital Working Group:

“It is widely recognized that dividends provide a general cushion against potentially adverse future experience. To reflect this cushion, the Committee recommends that 50% of the dividend liability be included in Total Adjusted Capital. The 50% factor can be supported by the fact that, on participating policies, the insurer records a full liability on December 31 for all dividends to be paid the following calendar year. No equivalent liability is required for other products, so an adjustment is deemed appropriate. However, in recommending the 50% factor, the Committee is not suggesting that 50% of the dividend liability is truly surplus nor that annual statement accounting should be changed to reduce the dividend liability by half.”

But while “it is widely recognized that dividends provide a general cushion against potentially adverse future experience”, this cushion is only meaningful if the company taking credit for it can realize the credit to support adverse events within the company. Further, there is a qualitative difference between a cushion that can be applied to any business and one that can only be applied to certain business.

#### Implications of the Current Approach for Modco Reinsurance Agreements

Earlier, we observed that the current Life RBC formula reflects the risk transfer inherent in modco agreements, but makes no adjustment to TAC as a result of the agreement. The following example should help to illustrate the inappropriate situation that can result from the current rules.

Consider the RBC impact for a monoline life insurance company that implements a 100 percent modco reinsurance transaction. Its RBC amounts will be reduced, as the risks will be transferred to the modco reinsurer. Its TAC will continue to be calculated in the same manner as before. Thus, the monoline company not only benefits from the reduction of C-1, C-2, and C-3a, but it continues to enjoy unchanged TAC, even though the liability for policyholder dividends is generally included in the modco reinsurance agreement. This result seems to provide the monoline company with a benefit from the reinsurance, i.e., a reduction in the RBC amount, while maintaining its TAC credit. The TAC credit may be inappropriate if the company has no opportunity to realize any benefit from dividend actions.

This situation also looks inappropriate from the modco reinsurers’ point of view. The reinsurer has agreed to assume the investment, mortality, expense, and other guarantee risks as well as the liability for dividends on this book of business. As noted earlier, dividends provide a cushion against adverse experience in these risk areas, yet the reinsurer does not currently receive TAC credit for the portion of the dividend liability it has agreed to assume.

We note that the ceding company cannot realize the credit associated with the dividend scale in this situation. Because the requirement to pay dividends has, in effect, been transferred to the reinsurer through the reinsurance arrangement, any change in the dividend scale will also accrue to the reinsurer. At the same time, the ability of the reinsurer to realize the credit due to the dividend liability is limited to funding needs within the reinsured block. Furthermore, the ability of the reinsurer to realize the credit at all is dependant on a dividend action taken by the direct writer. Thus the only company that can realize the credit is the reinsurer but that ability is limited and therefore of less value than it would be if it was unfettered.

### Complicating Factors

The Life Capital Adequacy Subcommittee (LCAS) considered two complicating factors in developing its recommendation: the presence of an Experience Rated Refund (ERR) provision in a reinsurance treaty and the presence of a closed block. These situations can affect both the risk sharing and the responsibility for dividends. In addition they can add restrictions on company activity. While we reviewed a number of situations (some outlined below) we note that there are a myriad of possible arrangements and it is impractical to develop rules covering them all. Therefore, our recommendation relies on actuarial judgment for determining the credit to TAC that is taken for the dividend liability.

### Recommended Solutions

The recommended changes place limits on the amount of TAC credit associated with the dividend liability when reinsurance is involved, intended to reflect the ability of the company taking credit to realize that credit. In all situations involving reinsurance, the ability to realize the credit should be based on actuarial judgment. In addition, the changes eliminate any possibility that the reinsurer can take credit for the dividend liability.

The recommendation also disallows credit for any assumed dividend liability for the reinsurer. The reinsurer cannot realize this credit without action by the ceding company, and that amount cannot be used for other blocks of business. These facts are the reasons for this recommendation.

The proposed change will bring risk and TAC measures more into line for these transactions, and should be easy to implement. Note that this recommendation does not alter Annual Statement Instructions; it only impacts the Life RBC calculation.

The same adjustments and implications exist for modco or coinsurance agreements, including coinsurance with funds withheld. Hence, this recommendation covers all forms of reinsurance that transfer dividend liability.

## Further Considerations

### (a) Situations involving experience-rated refunds

The example above used a simple reinsurance arrangement that does not include an ERR provision. Under a treaty with an ERR the reinsurer is obligated to pay experience refunds to the direct writer based on a pre-defined formula. If the direct writer reduces the dividend scale on the reinsured line, all other things being equal, the size of the refund typically will increase and those additional funds would be available to meet needs on other lines. In this way, the ERR provision enables the direct writer to continue to use the dividend scale of the reinsured block to support other lines of business of the direct writer, as though the business were not reinsured.

The ability to use TAC in support of all lines of business, as opposed to a specific line, adds value to that surplus. For example, there is more value to a dollar of TAC that can support a number of lines than there is to one that can only support a single line. In deliberating the issues associated with reinsurance we noted a number of situations where the ability to use TAC may be restricted. For example, in a reinsurance situation, the dividend liability credit available to the reinsurer may only be realizable in the reinsured line.

### (b) Situations involving closed blocks

The presence of a closed block further complicates the situation. When a block of business is protected by a closed block arrangement, the ability of the ceding company to change the dividend scale may be restricted by the covenants of the closed block. However, we note that, closed block arrangements may exist which do not have these provisions or their application may differ depending on particular facts and circumstances (e.g., a liquidator may override closed block covenants in insolvency proceedings).

As a result, the ability to use the TAC credit associated with the dividend liability to fund needs in other product lines may be limited. In particular, in a closed block situation, a company may be restricted in its ability to use a cut in the dividend scale in the closed block to fund a need for surplus in another line.