

**To: New York Insurance Department**  
**From: American Academy of Actuaries Life Reserves Work Group**  
**Re: Summary of 10/25/05 discussion**

Thank you for the excellent discussion we had with you on 10/25 to discuss various issues related to the Academy's Life Reserve Work Group (LRWG) proposal. We had a particularly robust discussion surrounding the asset issues raised by item #4 of your September 26 letter to the Life and Health Actuarial Task Force (LHATF). As a follow-up to that discussion, we'd like to recap the two major issues where we appear to have differences, and then provide some of the reasons for our position. We will also recap why we think our proposal addresses New York's concerns. The two major issues are:

- 1) Discount rates should equal the net accumulation rates used to project the benefits;
- 2) Both the accumulation and discount rates should be higher than Treasuries to allow, at a minimum, for the spread earned due to illiquidity, more akin to a "default-free" rate than a "risk-free" rate. Further, we believe it will be more practical to start with the actual gross rates on assets and make appropriately conservative deductions for default costs rather than to start from a particular theoretical base such as Treasuries and build upward.

**Background of LRWG Approach**

As a brief reminder before addressing these two issues, we discussed at our meeting that the LRWG's proposal is really a natural progression from asset adequacy analysis, C-3 Phase I testing, and C-3 Phase II. We agree with your characterization that the proposal is akin to a "more advanced AOMR" process and possesses significant advantages to regulators over the current process. While we agree with the need to be aware of and consider the merits of other approaches emerging as potential standards internationally, the LRWG proposal is not intended to be a "fair value," "market consistent," or "risk neutral" approach per se, and it is designed to live within much of the current U.S. statutory framework (such as book value accounting).

That said, we believe the approach outlined in the LRWG proposal should result in statutory reserves that are consistent with the statutory valuation objective to make adequate provision for the company's obligations in light of the assets held by a company, allowing for moderately adverse conditions. This is accomplished by the increased specificity and rigor our approach provides around development of all assumptions (including assets), margins, stochastic variables, and CTE measure, together with a seriatim deterministic reserve floored at cash value, and finally by strong disclosure requirements.

**Issue 1: Discount Rates Equal to Accumulation Rates**

Key points to consider regarding the need for discount rates to equal accumulation rates:

- 1) This condition is necessary so that when starting assets are set equal to the reserves, the accumulated surplus / deficiency at the end of the cash flow model is zero. In other words, this equilibrium is necessary "so that prospective equals retrospective." If the discount rate is set lower than the accumulation rate, more assets would be needed and the resulting cash flow model would accumulate to a large surplus at the end.
- 2) While it may appear on the surface that setting a reserve to accumulate to a zero ending surplus provides no margin, this is not actually the case. Margins are established to produce prudent best estimate assumptions that are used to develop projected benefits, expenses, premiums, and net asset earned rates. To the extent benefits are guaranteed, it's pretty clear that these margins increase the reserve above "best estimate." To the extent non-guaranteed elements (NGE) or par dividends could be used to offset those margins in the model, we realize there's a need to provide some type of additional valuation margin in the setting of modeled NGE's / dividends to preclude premature earnings recognition and provide some release from risk over time. Our most recent draft just released to LHATF addresses this need to delay some of the recognition of "NGE re-determination margins," commonly thought of as "pricing" margins or spreads. (Draft AG PBR, Section VII, of the December LHATF package) This concept still needs further development, but when completed it will allow us to keep the desired equivalence between accumulation rates and discount rates and still provide appropriate margin in the reserve.
- 3) Par whole life provides an example of an outcome that would be inappropriate if the discount rate is set lower than the accumulation rate. If dividends are projected based on a more realistic asset return, but then those higher benefits are discounted at a lower rate such as Treasuries, that's essentially saying that the dividend scale is unsupported by the returns from starting assets, and significant additional assets (reserves) are needed. We find this result illogical. A similar case can be made for universal life credited rates to the extent benefits are non-guaranteed.

## **Issue 2: Level of Accumulation and Discount Rates**

If one accepts that the accumulation rates and discount rates need to be the same, then the question becomes what is the appropriate level of both sets of rates for valuation purposes. We believe there are serious issues with using Treasuries for both sets of rates for a number of reasons:

- 1) Treasury rates are not the proper "risk free" rates. Even if one comes from the point of view that a "risk-free" discount rate is appropriate, there are a number of reasons that a "risk-free" rate for valuing insurance liabilities should be higher than Treasuries and can be thought of as more akin to a "default-free" rate:
  - a. Even for the general financial marketplace, economists often consider the LIBOR swap curve to reflect risk-free rates. Treasuries are far more liquid

than other assets, which drive up their price and lower their yield (the “liquidity premium”).

- b. Since life insurance liabilities are in general not highly liquid, life insurers have a long tradition of investing in less liquid instruments with higher spreads over Treasuries, such as NAIC 2 (BBB) public bonds, private placements and commercial mortgages. We believe it is appropriate to allow an illiquidity spread on such types of investments to be projected in determining an appropriate provision for the company’s obligations (i.e., the reserve), and remain open to discussions on what that spread should be.
  - c. A portion of the “risk premium” reflected in bond spreads is for the potential of bad news about a credit or sector that may cause the price to drop and the spread to widen. Risk of a ratings downgrade, but not necessarily default, is also reflected. “Total return” investors, such as bond mutual funds, view these potential price movements as significant risks, but “buy-and-hold” investors, such as many life insurers, can withstand much of this day-to-day volatility and get paid to do so. We realize not all insurers are in the same boat in terms of trading strategy, but this view is a real factor that merits consideration nonetheless.
- 2) Inconsistency with projected policyholder dividends. Going back to the par whole life example, if one tried to assume that the company’s assets were all in Treasuries with much lower yields than those of the assets the company actually owns, this would result in either projecting a current dividend scale that’s unsupported by those Treasury assets (with commensurately higher reserves resulting), or projecting a significantly reduced dividend scale, solely for valuation purposes, that is supportable by Treasuries. Neither approach seems logical.
- 3) Administrative complexity. From a practical standpoint, it would be extremely difficult to model the investment income on existing assets assuming that the actual earned rate on each investment was replaced by an assumed Treasury rate that was in effect at the time the asset was purchased. This would not generally be doable administratively.

Determining the “right” amount to add back to Treasuries to arrive at a “default-free” rate is of course fairly difficult, and estimates would vary by asset class and market conditions. The LRWG has discussed the appropriateness of spreads like 50-100 bp (after provision for defaults), recognizing that swap spreads over Treasuries are often in the 50 bp neighborhood, and that further addition of at least 25-50 bp would seem reasonable as less liquid investments and other factors are considered. Commercial mortgages are an example of an asset class that probably commands an even higher illiquidity spread. These are all points that could be researched further if necessary. We would point out however, that it’s probably more important to view these considerations from an overall portfolio risk standpoint rather than getting overly hung up on the appropriate add-on for each asset class.

We accept the notion that whether one starts from the gross earned rates and makes appropriate deductions for defaults (“top down”) or one starts with Treasuries and makes appropriate additions for illiquidity and any other items (“bottom up”), the resulting “default-free” rate should be in the same vicinity. In fact, when market spreads are narrow, the top-down approach might be more conservative, but when market spreads are wide, the bottom-up approach might be more conservative.

With the difficulties we noted in determining the proper spread to add back to Treasuries, we believe a top-down approach is much more practical and is more consistent with existing practice as well as with the approach to other assumptions such as mortality. Once a conservative provision for default risk is deducted, any remaining spread above Treasuries on existing assets should be reflected in the accumulation and discount rates. As mentioned further on though, we also require a disclosure item that reflects a more “bottom-up” measure.

### **Controls on Asset Assumptions**

The LRWG acknowledges New York’s concerns about the appropriate level of conservatism in the projected earned rates and potential advance recognition of the reward for taking risks. The LRWG has discussed two ways of providing the regulator with a means to monitor and/or control the effective spread over Treasuries that is used in the asset projection for determination of the discount rate:

- 1) Disclose the aggregate spread on starting assets. For existing assets, our proposal allows the actuary to set a conservative assumption for default risk for each asset, but then requires that the company disclose the spread over Treasuries that is embedded in the overall starting asset portfolio, net of the actuary’s provision for default costs, based on market values at the valuation date. This disclosure requirement is patterned after the default sensitivity test incorporated in New York’s annual letter. A fuller description of the requirement and its intended use is included in Draft AG DIS, Section VII (B)(5), of the December LHATF package. We see this disclosure requirement as a tool to facilitate the comparison between companies and the comparison to spread levels of various asset classes in the marketplace, as well as to provide information about the level of return flowing through into the reserve calculation.

Since this disclosure measure is market value-based, we would expect this measure to widen and narrow with market spreads. The intent is not to require the actuary to change long-term default estimates as market values fluctuate from period to period. Such a requirement would result in considerable volatility in the reserves simply due to market price changes. (Caveat: if the spread widens due to a downgrade to a lower broad rating class, our approach actually does result in a current “loss” as the actuary will increase the estimated default costs with no offsetting increase in the gross investment income generated by the asset, thereby lowering the discount rate and increasing the reserve.)

- 2) Cap the aggregate spread for new investments. While this is not a part of the LRWG proposal, an example of how this cap might be implemented is given in a drafting note to Section VII. A. of Draft AG Mar. The idea here is to limit the net weighted average spread (net of defaults) that can be assumed on reinvested assets. LHATF could set the limit to approximate an assumed illiquidity spread as mentioned earlier or could peg the limit to a particular asset quality level (such as single A bonds or the basket of bonds in the Moody's index).

We also mentioned in our 10/25 meeting that the LRWG proposal is more conservative than current asset adequacy analysis requirements and practice, in that a margin must clearly be added to the best estimate default cost assumption and the Asset Valuation Reserve will not be allowed to offset any of the provision for defaults.

In closing, our meeting with you raised a number of complex and challenging issues. We have tried to recap in this document what we believe are the most important issues. As we told you in Albany, our Asset and Methodology subgroups as well as the overall LRWG have spent many hours over the last year wrestling with these issues. Key participants have represented a wide range of viewpoints, including those coming at this from a “top-down” perspective and others from a “bottom-up” perspective. The LRWG believes the current proposal is well balanced, and we particularly feel strongly on the issues that discount rates should equal accumulation rates, and that the appropriate level of those rates should be closer to a “default-free” concept than a “risk-free” concept. We look forward to further discussions with you of these and other principles-based reserve topics.

**Life Reserves Work Group**

Dave Neve, F.S.A., M.A.A.A., Co-Chair

Tom Kalmbach, F.S.A., M.A.A.A., Co-Chair