SOCIETY OF ACTUARIES

Article from:

Small Talk

December 2008 – Issue 31

Principle-Based Reserves (PBR)—More Trends, But Not Resolution

By Norman E. HIll

In an earlier 2008 article on the same topic, I wrote that Principle-Based Reserves (PBR) has evolved over two-plus years from "an onerous theoretical construct over to proposed procedures that fit small insurers' needs more reasonably … the rigor of proposed procedures now varies with riskiness of products offered." At this point, in late 2008, the situation in those terms has not changed. However, various trends can be observed, which are worth mentioning.

Overview

It is possible that the National Association of Insurance Commissioners (NAIC) will adopt a new Standard Valuation Law (SVL) this year. If so, it would very likely be adopted by itself, without the accompanying Valuation Manual (VM), containing several defacto model regulations for PBR. Current emphasis seems to be on completing SVL first, with major, controversial issues left for resolution in VM at some future date.

An actuary for the American Council of Life Insurers (ACLI) described what would happen from passing a form of SVL with limited controversial issues, leaving the latter addressed elsewhere: "When state legislatures adopt SVL, they have in fact adopted VM, even if it is not yet completed." While some states do require advance legislative approval of model regulations, I believe they are a distinct minority.

It should be kept in mind that VM so far contains substantial work on life and variable annuities (VM20). However, no work suitable for insertion in the manual has been completed at all for non-variable annuities (VM21) and health insurance, including long-term care (VM25). If SVL was adopted among the states, completely new VM sections for these latter products could become effective automatically, once adopted by the NAIC for VM purposes.

Recent Developments

During the Fall National NAIC meeting, an educational session was held on PBR. One speaker, the ACLI's chief actuary, made two significant comments:

1. A recommendation that the NAIC limit current application of PBR to three products, variable annuities, term life and universal life with secondary guarantees.

2. A statement that, for tests made so far on reserves for permanent life products, PBR reserves differ little from formulaic statutory reserves.

After the Life and Health Actuarial Task Force (LHATF) session, a revised exposure draft of the new SVL was exposed for comments. The provision for seriatim reserve floors was watered down somewhat, but was admittedly unresolved. Therefore, this draft does not constitute a stable product.

Unresolved Issues

In SVL, one unresolved issue remains, the minimum floor (seriatim or otherwise) for reserves. As described above, the trend seems that details of any reserve floor and their application would be left to VM. However, some regulators want some mention of a floor to remain in SVL. Words might be something like, "The floor must be the greatest of zero, cash value or present value of cash flows with details in the Valuation Manual."

In VM, there are a host of unresolved issues, such as:

1. Discount Rate—The basic dispute about this rate is between the American Academy of Actuaries (the Academy) and the New York Department. The Academy wishes to use net asset earned rates, as

Continued on page 8

long as and to the extent that the current asset portfolio remains on the books. For reinvested assets, the Academy seems to support a risk-free rate. New York wishes to use a more conservative rate from day one, tied to Treasury bond or risk free rates, plus some small margin, yet to be specified. The choice of discount rate has a very significant impact on the size of reserves for permanent policies. Using a risk-free rate, as proposed by New York, would probably keep reserves on permanent products close to current statutory levels.

As a compromise, the Academy has proposed that net asset earned rates be eligible only for investment grade securities (grades 1 and 2 of the NAIC). Even those assets must not be of some kind of exotic nature, a definition itself that must be specified.

The concept of discount rate is normally thought of as applicable to deterministic reserves. Also, it could be applicable to stochastic reserves, once the greatest value of accumulated deficiencies is determined so as to be discounted. In fact, it could be applicable to the accumulation rate itself.

2. Reserve Floors—Currently, VM contains the possibility of three reserve floors. All of them could be required to be tested on a seriatim basis. They are:

   a. Cash value, on products providing such values.
   b. Present value of cash flows, using a risk-free (or risk-free plus 50 basis points or equivalent) discount rate. This is a longstanding New York proposal. It is not entirely clear if the discount rate here would be in addition to the risk free discount rate used in reserves themselves.
   c. A form of net premium reserve, as proposed by the ACLI. So far, very little specifics have been revealed about this reserve. Apparently, it was intended to aid in FIT calculations, and to answer some of the concerns raised by the Treasury in its earlier release, 2008-18. Very likely, the net premium would be locked in at issue and would have significant formulaic elements.

3. Nonguaranteed elements (NGEs), including policyholder dividends—C.9 1 of VM20 contains a key sentence for NGEs: "Where NGEs are based on some aspect of experience, reflect future changes in the level of NGE in the cash flow models based on the experience assumed in each scenario." This wording seems subject to different interpretations, including:

   a. If no experience is assumed in cash flows to justify NGEs, do not project them at all.
   b. If experience assumed in cash flows justifies only the current level of NGEs, project them.
   c. If a portion of NGEs is not based on experience, such as unusual, nonrecurring NGEs stemming from capital gains or other, do not project this portion.

In an attempt to clarify these points, amendment No.17 to VM was recently presented. It was deferred, pending discussions with the Academy's LRWG. Also, C.9 1 contains a drafting note, "The LRWG (Life Reserve Work Group) is considering…a simplified procedure (for NGEs) … for policies that do not have material tail risk."

The point is, both aspects of the unresolved nature of NGEs could further delay VM20.

4. Aggregation of reserve results by lines, such as poorer performing lines combined with better performing ones. New York insists on separation of reserve results. Probably, product lines could be separated, such as fixed premium vs. universal life, term vs. permanent, etc.

5. Aggregate margins or separate margins for each assumption. New York insists on separate margins, even though some have complained that the resulting aggregate margin is illogical or overstates reserves.

6. Reinsurance—New York and other regulators want to require separate cash flow projections for direct and reinsurance ceded portions.

7. Numerous other substantive, unresolved issues of VM20 were summarized in a June 23, 2008 letter by Bob Meilander, FSA, MAAA, of Northwestern Mutual. This letter was included in a recent NAIC mailing. Issues include:

   a. Lack of definition of a CTE level. In a recent LHATF call, its subgroup leaned to 70CTE as a recommendation to LHATF. This is higher than the Academy's recommended 65CTE, which the ACLI also advocated.
   b. Lack of definition of the threshold for the Stochastic Exclusion Test (formerly the MTR test), measuring the volatility and riskiness of products. In the above call, the subgroup recommended 4 percent (Amendment 33) to LHATF. Many believe that more tests are needed to measure the suitability of 4 percent for permanent nonpar products.

c. Margins for mortality, lapse, etc. are undefined, even though mortality methodology seems closer to stability.

Other unresolved issues remain for other portions of the VM, and elsewhere, including key small company issues. See No.1 through No. 3 below:

1. Experience Reporting—Currently, Forms VM50 and VM51 cover this topic. Calendar year reporting is called for, rather than the traditional, more rigorous policy year. Some degree of more limited reporting is allowed for small companies, although small companies is not defined here.

   During the summer National NAIC Meeting, a proposal was made to provide further exemptions from experience reporting for small companies. Either:

   a. Complete exemption if under $75 million premiums, or similar size description.
   b. Limitation of experience reporting to mortality experience only.
   c. For any extent of experience reporting, utilize valuation runs for denominators of rates to the greatest extent possible.

2. Deferral from PBR Calculations—Another VM section allows deferral for five years after state PBR adoption. Wording states that all products without exception can be elected (or not) to be covered under PBR. So far, no objections have been raised to this approach,

3. Expenses—Many small companies have not reached critical mass, so that actual current unit expenses may be significantly above pricing expenses. The question is whether gradual progression can be made from current to ultimately assumed (pricing or other) expenses, based on a going concern approach and a track record of reasonable growth.

Summary of Where We Are

Since two-plus years have elapsed in the PBR project, it might be appropriate to sit back and contemplate where we are. The entire project arose because of concerns expressed that the current SVL does not work satisfactorily, at least for certain products. These products are term insurance that gives rise to statutory deficiency reserves and universal life with secondary guarantees. In the latter case, the dissatisfaction apparently arises from any humpbacked reserves after account values are zero and minimum defacto term premiums kick in.

Another product with widespread insurer dissatisfaction with statutory reserves is variable annuities with minimum guarantees, where the standard scenario is mandated. Guideline VACARVM, retaining the standard scenario, has been under discussion for around five years and was recently adopted by LHATF. Therefore, procedures for variable annuities are a part of current statutory requirements.

PBR, if implemented, would only be applicable to new issues. If any credit crisis in the term/secondary guarantee market exists—related to asset problems due to mark to market requirements—then existing in-force needs of securitization, lines of credit or other reinsurance outlets would not be alleviated.

> "Since two-plus years have elapsed in the PBR project, it might be appropriate to sit back and contemplate where we are."

The new CSO Table with preferred mortality is almost completed, although it has to go through the state adoption process. Some have said that, because of PBR, there is no need to add margins to the already completed basic portions. For new issues, especially if X factors continue, deficiency reserves should virtually be eliminated for this portion of the market. Significant relief should already have been provided from the preferred unbundled version of CSO2001, with X factors. However, sizable deficiency reserves and humpbacked reserves would remain on older term and secondary guarantee products.

Statutory reserving in general has often been denounced, with terms varying from antiquated, redundant, obsolete, atrocious and even stronger epithets. Excellent arguments can be made that the process is not working as well as it should for the above types of special products. However, in fairness, the following characteristics of statutory reserves should be remembered:

1. The process traditionally is one of applying preset factors to current, actual in force. In other words, this in force reflects actual mortality and lapse experience of in-force business, even if the preset factors do not. An excellent argument can be made that this approach

Continued on **page 10**

wipes out much of the factor redundancy and includes a substantial dynamic element. This argument applies equally to fund reserves.

2. For new business, statutory interest rates are automatically adjusted based on published bond indices. Even though they remain conservative and locked in at issue, such interest rates represent a form of dynamic adjustment.

3. When new mortality tables are adopted by legislatures—and become effective for new issues—they also represent the same form of adjustment.

4. Deficiency reserves, of course, are a different case. They are set up at issue, as a special form of loss recognition. The problem is that these are not economic losses, but, rather, are based on conservative assumptions which can produce onerous results and severe statutory surplus strain. Even so, deficiency reserves, using preset factors, are released according to actual experience of mortality and lapse.

Conclusion

The abovementioned letter to the NAIC contained one blunt comment. Many practitioners don't yet take PBR seriously, because of its moving target status and utter lack of a stable product. There is no doubt that many actuaries from industry and insurance departments and other professionals are still working very hard to bring the project to completion.

The outcome is certainly unclear.

Norman E. Hill, FSA, MAAA, CPA, is president of Noralyn, Ltd, an Arizona business and consulting firm. Prior to that, he was executive vice president and chief actuary for a small Southeastern life and health insurance company. During his 40-plus year business career, he has engaged in a wide variety of financial, product, analysis and regulatory projects, both as an executive and consultant, for large and small firms, and has written and spoken extensively on these issues. He can be reached at nhill@noralyn.com.

Norman E. Hill, FSA, MAAA, CPA, is president of Noralyn, Ltd, an Arizona business and consulting firm. He can be reached at *nhill@noralyn.com.*