



SOCIETY OF ACTUARIES

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# SmallTalk



## Principles-Based Liabilities—Just When You Thought it Was Safe to Go into the Reserves

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This article is a follow-up to my recent article on the principles-based reserves (PBR) movement in the life and health insurance industry. In it, I made the following points:

1. There is a lot of momentum in favor of the NAIC's adoption of PBR.
2. Whenever a movement is so rapid, it is often advisable to step back and analyze ALL the implications of adoption.
3. A minority of actuaries are also pushing for mandatory use of stochastic processing for calculation of all reserves for all products by all companies (possibly, just possibly, small companies could apply for exemption here). This means hundreds or thousands of reserve runs.
4. No solid evidence has been produced in favor of general superiority of stochastic processing since:
  - a. All scenarios depend on a distribution of assumptions, just like any deterministic scenario.
  - b. The so called "worst case" scenarios produced by stochastic routines also depend on the distribution, and logically can't be expected to illustrate the impact of nuclear or related disasters.
5. The requirement for peer review would represent a significant additional expense,

especially for small insurers. Therefore, the benefits of PBR must be weighted carefully against the possibility of reduced statutory reserves, especially the elimination of deficiency reserves.

6. Federal income tax qualification of PBR reserves is still up in the air, and a cash value floor for some products should not be relied on as a panacea.

Since then, some industry attention has focused on a new version of the 2001 CSO Table (the "interim" table), with unbundled tables of preferred and super preferred mortality tables.

Small companies should still watch the PBR movement carefully. New developments include:

1. In an Academy webcast presentation, at least one prominent actuary said that stochastic processing is the "THE correct way to calculate reserves." Since no qualifications were made to that statement, we have to conclude that this statement meant the only way for reserving all products without exception is the stochastic route.

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2. Recently, at the June NAIC Life and Health Actuarial Task Force meeting, one consultant said that the stochastic method would be extended to risk-based capital calculations for all products. This has to mean that no exceptions would be allowed and the traditional RBC formulas would eventually give way to stochastic.

### Possible Remedy

So far, NAIC drafts for changes to the Standard Valuation Law and Regulation have been worded sensibly. For principles-based reserves, they mention use of either the traditional deterministic or the newer stochastic approaches, without stating a preference or requirement for either. An additional sentence could be added to provide protection for either method, “Reserves under the deterministic or stochastic approach that otherwise comply with this law/regulation are deemed to be reserves under acceptable actuarial standards of practice.” Several times, the New York Department has said their laws take precedence over actuarial standards. Up to this point, regulators have generally not been involved so directly with actuarial standards. However, there may be no other way to head off the stochastic momentum.

### 2001 CSO Interim Table— Possible Alternatives

The ACLI has proposed as an interim step a new version of the 2001 CSO Table. One criticism of the table’s current

form is that it does not provide separate rates for preferred and super preferred mortality. In fact, large writers of term insurance, where this type of underwriting classes are so predominant, made little or no contributions to underlying CSO experience. Therefore, only nonsmoker versus smoker splits were made, the same as for the 1980 CSO. Currently, the Society of Actuaries is gathering data from term writers on this type of mortality experience, both from nonsmokers and smokers. One very unique part of the process is formulating consistent underwriting definitions of what is preferred versus super preferred versus residual standard mortality. A new mortality table will undoubtedly result from this data, but is at least several years away.

The interim table uses updated experience studies and other sources to make theoretical splits of the CSO 2001 basic data (VBT) into three categories of nonsmoker and two categories of smoker (super preferred, preferred, and residual for nonsmoker, and preferred and residual for smoker). Weights assigned to each subclass cause the combination of separate mortality rates to balance back to CSO 2001 rates themselves (after applying the same loading formula to basic data).

The ACLI used a prominent consulting firm to unbundle the 2001 Table and make necessary tests for consistency and reconciliation back to the table itself.

One advantage of the interim table is that it is derived from a mortality standard. Since the CSO 2001 is recognized for federal income tax purposes, chances of an unbundled version of the 2001 Table being recognized are considered high. This is similar to the evolution of the 1980 CSO, where splits between nonsmokers and smokers are considered tax-qualified.

The interim table seems to provide reserves that fit with industry experience for super preferred and preferred issues. While data is not available, it seems likely that it could solve concerns of many insurers over deficiency reserves.

Therefore, why not make the interim table into a permanent standard and serve as an alternative to principles-based reserves? The interim table seems to answer the same type of industry concerns, while still providing greater FIT comfort.

## Hidden Agenda?

It is reasonable to ask about actuarial motives behind the push for principles-based reserves and even more, for stochastic processing. Will it help the actuarial profession, in terms of prestige or even licensed prerogatives in reserve calculations?

Leaders of the actuarial profession are apparently concerned over what they view as threats from other professions. These might endanger professional tasks that, implicitly or explicitly, are now empowered to actuaries by American Academy of Actuaries or Society of Actuaries membership. The profession is attempting to have actuaries recognized as the premier “risk managers” for the insurance industry.

With this in mind, one question is, does required stochastic processing increase actuarial prestige, consistent with the above paragraph? Does covering “high risk” scenarios constitute proper risk management, where the “coverage” is really a blend of actuarial assumptions?

Instead, why not amend this question slightly? Do proper and extensive choices of scenarios constitute proper risk management? Is the actuary the logical professional to choose the complete range of scenarios that will provide adequate reserve levels for reasonably expected adverse results? For many, if not all products, can these scenarios be calculated equally as well with either deterministic OR stochastic techniques?

Today, calculation of statutory reserves from preset tables and prescribed interest ranges may be seen by some as “grunt work.” Some view it as a mundane task that other professions or even non-professionals could perform just as well as professional actuaries. However, today, with asset adequacy and reserve adequacy requirements, reserve calculation itself is only the initial part of the process. A variety of scenarios is required for reserve testing. Gross premium reserves, liability-asset duration matching, and other tests usually demand more professional time and skill than reserves themselves. The intensity of reserve testing varies with the type of product, but can be great indeed.

In summary, today, statutory reserve calculations under current laws and regulations seem to demand the unique expertise of professional actuaries.

## Conclusions

The outcome of pending legislation and regulations for principles-based reserves and CSO 2001 Interim Table is not certain today. However, small insurers have a big stake in these matters. Actuaries and other officers of these companies are advised to keep a keen eye on all developments, whether trial balloons, or explicit proposals. ●

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## On the cover



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