



AMERICAN ACADEMY of ACTUARIES

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Legislation-in-Brief

The Standard Valuation Law and Principle-based Reserves

The American Academy of Actuaries is an 18,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

The Life Practice Council (LPC) of the American Academy of Actuaries supports the adoption of the revisions to the National Association of Commissioners (NAIC) model Standard Valuation Law (SVL) that will be considered by states in upcoming legislative sessions. These revisions introduce a new framework for calculating life insurance policy reserves,¹ which are in the best interests of consumers, the insurance industry, and regulators.

The American Academy of Actuaries has been integral to the multiyear effort to develop the new Principle-based Reserving (PBR) framework for the calculation of life insurance policy reserves as proposed in the newly-revised and proposed SVL, and its implementing Valuation Manual (VM). It is expected that this new approach to calculating life insurance policy reserves will accomplish the following:

- Better capture the risks of a life insurance company by requiring the company to directly reflect its business strategies in the calculation of reserves;
- Better capture the risks of many complex products offered in today's life insurance market;
- Preserve the long-standing principle of statutorily requiring conservative reserve levels for life insurance;
- Utilize company experience and economic conditions instead of prescribed assumptions;
- Lead to a more appropriate "right-sizing" of reserves—establishing appropriate reserve levels is important for consumers because reserves that are too high can lead to higher prices for insurance products, and reserves that are too low can jeopardize an insurer's ability to pay claims;
- Will make reserves self-adjusting based on changing experience and economic conditions, which will allow the principle-based statutory reserve requirement to adapt to changes in a rapidly evolving financial landscape;
- Allow reserve standards for new products to be defined according to principles, thus keep reserve standards in sync with product changes, rather than adapting rules that do not contemplate new product features.

It is important to recognize that this new PBR framework will require more resources and additional training for both regulators and companies for it to be successfully implemented and maintained. The Academy is committed to working with the NAIC, state insurance departments and state legislators to provide technical advice and support that ensures the successful implementation of the new PBR framework.

¹ Reserves are the amount of funds or assets necessary at any given time for a company to meet all claims on insurance then in force. Valuation" is the process of establishing such reserves.

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Supplement: Frequently Asked Questions

Q: When does the PBR framework take effect and to what policies will it apply?

A: The new Standard Valuation Law (SVL) and Valuation Manual incorporating the PBR requirements must first be enacted by a particular state.² The Valuation Manual will be effective on the January 1 following a point in the prior year (July 1) by which 42 states constituting greater than 75% of all direct premiums written have enacted the SVL. Once effective in a state, the PBR requirements apply to all life products (except credit life and pre-need) issued after the effective date.* Companies may elect to phase in the PBR requirements for policies to which they apply over a period of three calendar years from the effective date.

**It is important to note that the reserving basis and methodology for all life products issued prior to the effective date of the PBR requirements in a state remain unchanged and are unaffected by the adopted PBR requirements.*

Q: How will PBR reserves compare to current reserves?

A: When compared to current statutory reserve levels, PBR reserves will be higher for some insurance products and lower for others. This is because PBR uses a process that more accurately reflects the actual risks assumed by life insurers rather than the current more formulaic approach that is product specific. The more important consideration is that, whether reserves increase or decrease under PBR, the reserves will more accurately reflect the risks assumed by the insurer (that is, the reserves will be “right-sized”). An estimate of the decrease or increase in reserve levels is only one factor and is not necessarily good or bad in and of itself; such estimates are only useful when considered relative to the current statutory reserving requirements.

Q: Various estimates have been made of major reductions in reserves due to PBR. Can a specific estimate be developed for the overall expected change in reserve levels?

A: Because of the many assumptions that would need to be made (including, but not limited to, when companies would choose to implement PBR, what changes they might make in their product portfolios, and how the economic environment might change) and the potential variability of differing assumptions, it is not possible to develop a specific numerical value for the expected change in reserves levels. Therefore, it would be helpful to understand the assumptions that went into any estimate before drawing any conclusions from it.

To provide some idea of the general direction reserves might take, the Academy’s Principle Based Reserving Strategy Subgroup was able to develop a very rough estimate of the percentage change in total industry life insurance reserves due to PBR five years after implementation,

² The SVL is also being introduced in U.S. territories in addition to the 50 states, and references to “states” are usually meant to include those jurisdictions as well.

based on previous studies of the impact on a sample of products affected by PBR, and additional assumptions related to the current volume of in force and new issues of all products. Based on these assumptions, the Subgroup estimated a decrease in reserves of less than 5%, five years after implementation. A description of the assumptions that went into the calculation of this estimate follows:

- **The effect on reserves of the products subject to PBR was taken from the low end of the range (i.e., reflecting the greatest decrease) of NAIC’s 2012 Impact Study.**³ The Impact Study shows lower reserves for competitive level premium term insurance and both lower and higher reserves for universal life policies with secondary guarantees. The Study was performed before both the Valuation Manual and the most recent changes to current reserve requirements were finalized; covered a small, but diverse sample of companies; and measured reserves at a point in time five years after the implementation of PBR. It showed:
 - **For term life insurance products** - a projected decrease in reserves of 38% to 64%
 - **For Universal Life with Secondary Guarantee (ULSG)** – reserve impacts ranging from a decrease of 44% to an increase of 63% (The wide range of outcomes for ULSG is not unexpected given the variations in company interpretations of the reserve requirements for this product type that were in effect when the Study was done.)
- **Reserves for products not subject to PBR were assumed to remain unchanged** (e.g., reserves for whole life and current assumption universal life – which currently represents the majority of the industry total reserves).
- **Reserves for business in force at the time PBR is implemented were assumed to remain unchanged**
- **Current designs and pricing for all products were assumed to remain unchanged from the date of the Study.** Based on past experience, it is very likely that product designs will change going forward. It not possible to estimate the impact of these changes on reserve levels, but the risk-based approach under PBR is designed to ensure that any changes in reserve levels will be appropriate.

The “less than 5% after five years” estimate is largely driven by PBR only applying to policies issued on or after the effective date of the Valuation Manual and has no impact on the large block of in force policies that are not subject to the new PBR requirements. The percentage of reserve level change will be different in future years due to a variety of counteracting forces. As a block of policies ages, any percentage decrease in PBR reserves will tend to decline. That is because reserves are relatively low during early policy durations, and even a small reduction can be a large percentage of the reserves. However, this will be offset by the fact that, as new policies are issued, a larger block will be subject to PBR, which will tend to make percentage decreases larger. This process will take many years and, for any given company, will depend upon the type and nature of its life insurance portfolio.

The Academy’s Life Practice Council underscores that estimated impacts should be viewed with a great deal of caution since many companies are expected to choose to delay implementation under the three-year phase-in option. Further, many companies will change their product offerings over the next five years. The actual impact will be a function of these changes.

³ “The National Association of Insurance Commissioners Presentation and Analysis for Results of VM-20 Impact Study on Principle-Based Reserves for Life Insurance Products,” generally referred to as the “NAIC’s 2012 Impact Study.”

It is also important to keep in mind that reserve assumptions will be adjusted as experience emerges that is different than originally assumed and/or as future changes are made to the Valuation Manual. This is an improvement over the current system that sets assumptions for reserve factors based on the requirements in effect when the business is issued.

Q: Are there any regulatory safeguards built into the PBR approach that would provide assurance that reserves are adequate?

A: The PBR approach is subject to numerous safeguards:

- It only applies to new business, meaning it will take effect gradually, giving regulators time to make changes to the Valuation Manual if necessary.
- It involves a dynamic process where assumptions (and therefore reserve levels) change as the economic environment and other risk factors change. This is unlike the current reserve framework where assumptions are prescribed and locked in at issue.
- There are prescriptive and limiting elements that will add some conservatism to PBR reserve levels.
- There is a minimum reserve floor based on assumptions set by the NAIC.
- Reserve levels will remain subject to an asset adequacy analysis (a form of stress testing of reserves) and the actuarial opinion that accompanies such analysis. If the actuary determines as the result of asset adequacy analysis that additional reserves are required beyond the aggregate reserve held by the company, the company is required to establish such additional reserves. This is a requirement that has been in place for more than 20 years and will remain in effect.
- Reserve assumptions are subject to significant disclosure requirements and regulatory oversight.
- A new group, the NAIC Actuarial Resource, has been established to work with the states to facilitate the refinement, revision, development, and implementation of PBR reserve requirements and review of models as necessary. For example, the group will address the need to adjust margins as appropriate to maintain conservatism, to recognize improvements in modeling techniques, or to affect changes in assumptions due to emerging experience.

Q: What would have been the impact of PBR if it had been in effect during the financial crisis of 2008?

A: The response to this question assumes PBR had been in effect for all years of issue prior to 2008, which is a hypothetical assumption since, as noted above, PBR will only apply to new business issued on or after the effective date.

It is difficult to estimate the impact on PBR reserve levels between 2007 and 2008 since there is a requirement under PBR to reset reserve assumptions when risk factors are anticipated to change. Because of this requirement, it is likely that certain changes to reserve assumptions would have been made in calculating 2008 year-end PBR reserves versus 2007 year-end reserves due to the impact of expected future changes to various risk factors. Expected future interest rates are one risk factor reflected in reserves that were affected significantly by the financial crisis. A decrease in the interest rate assumption, all other assumptions remaining unchanged, would have increased PBR reserves as of year-end 2008 from their year-end 2007 levels. The magnitude of the increase would depend not only on the change in the initially assumed interest rates, but on how those interest rates were expected to flow in the future (e.g., grade back to

long-term levels, remain constant at the lower level, etc.). Similar considerations would apply to changes in other risk factors that affect reserves relative to their pre-financial crises levels.

It should also be noted that, under the PBR stochastic reserve methodology,⁴ although reserves as of the end of 2007 would have reflected an increased number of unfavorable economic scenarios, the methodology would still include some favorable economic scenarios. If, in the years that follow such a financial crisis, the actual interest rates continued to stay low, the number of low interest rate scenarios utilized in the reserve calculations as a portion of the total would increase. Therefore, any increase in reserves related to a sudden shift in economic risk factors would be expected to emerge over time. Given the long term nature of the life insurance business, this is an appropriate result.

If the implementation of PBR was, on the other hand, in its early stages when the financial crisis of 2008 hit, the increase in reserves expected for business subject to PBR between 2007 and 2008, would have had a lesser effect on total reserves.

Q: Will PBR eliminate the need for captives?

A: To the extent that PBR accomplishes the goal of right-sizing reserves, the need for captives⁵ will be diminished. However, it is unclear at this time of the implementation of PBR, as currently structured with certain prescriptive and limiting elements, that it will go far enough to alleviate the need for a captive for this purpose.

⁴ Reserves based on a projection of multiple sets of future cash flows under a wide variety of economic scenarios, where each economic scenario is a randomly derived pattern of future interest rates and equity returns. Each company will determine the appropriate number of economic scenarios needed to capture the full range of risks in their business. The reserve equals the average of the highest 30% of outcomes from all the scenarios, where the outcome for each scenario equals the starting asset amount in the cash flow model, minus the present value of the lowest accumulated asset amount (could be positive or negative) over the entire projection period.

⁵ An insurance company established by a parent firm for the purpose of insuring the parent's exposures, often under laws distinct from those applying to traditional insurers and reinsurers.