



SOCIETY OF ACTUARIES

Article from:

# Taxing Times

May 2006 – Volume 2, No. 1

# Tax Implications of Applying Principles-Based Reserves Retroactively

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As many are aware, there is a growing movement for statutory reserves to be based on “principles” rather than the current formulaic approach. These principles-based reserves (PBR) are generally comprised of a stochastic reserve with a deterministic floor.

Variable annuities were the first product for which PBR was developed. After years of trying to reserve for variable annuity guarantees according to a fixed formula CARVM approach, a stochastic approach was developed, based on the concept in RBC C-3 Phase 2. Since the emergence of PBR for variable annuities, it has spread to life insurance products and more recently to all annuity products.

An item under current discussion is whether the application of PBR for life insurance should be retroactive, either fully or partially. Statutory retroactivity creates many concerns among tax practitioners. To begin, we need to have a high-level understanding of the draft reserve requirements<sup>1</sup> and key issues in the tax law.

## Life Reserves

The draft reserving requirements for life insurance products incorporates a gross-premium valuation that includes an aggregate stochastic (modeled) reserve with a deterministic (seriatim) reserve floor. The stochastic reserve would include at least stochastic interest rates, whereas the deterministic reserve would have a single interest rate scenario. Both calculations would start with the current U.S. Treasury yield curve.

All other assumptions are set based upon the concept of Prudent Best Estimate (PBE). Prudent Best Estimate is defined as “the deterministic valuation assumptions used for projections that are developed by applying a margin for estimation error and adverse deviation to the best-estimate assumption.” The PBE concept calls for reevaluating your assumptions at each valuation date.

In essence, the assumptions for PBR are not locked-in at issue, and can change with each valuation. This is a change from the current statutory reserving requirements. The current requirements have the mortality table and interest rate set at issue and are generally not changed for the life of the policy.

## Federally Prescribed Reserves

IRC Section 807(d)(3) stipulates that the federally prescribed reserves (FPR) for life insurance contracts would generally be calculated according to CRVM. It further defines CRVM as “the Commissioners’ Reserve Valuation Method prescribed by the National Association of Insurance Commissioners which is in effect *on the date of the issuance* of the contract.” Therefore, once the CRVM reserving methodology is determined for a policy at issue, it will not change.

The interest rate and mortality table used for the FPR is set at issue and locked-in. Any change to these assumptions generally results in an IRC Section 807(f) change-in-basis and results in a 10-year spread of the reserve difference.

## Retroactivity Impact

Until now, tax and statutory methodology and assumptions have been reasonably “parallel,” with the result that the FPR is generally somewhat lower than the statutory reserve in almost all cases. Retroactivity would cause a sharp break in this relationship on the entire existing in force block at the moment that retroactivity would take place.

If PBR is made retroactive for statutory reserves, this will not impact the FPR assumptions or methodology, which are established at issue. It most likely will impact the final tax reserve, which is the greater of the FPR and the

<sup>1</sup> The draft PBR reserving requirements for life products are included in the following NAIC exposure documents: Principles-Based Reserves for Life Products Model Regulation; Actuarial Guideline PBR, Determining Valuation Assumptions for Principles-Based Life Insurance Products; Actuarial Guideline DIS, Documentation and Disclosure Requirements when Determining Reserves Based on the Principles-Based Life Reserves Model Regulation; Actuarial Guideline MAR, Requirements for Establishing Margins for Prudent Best Estimate Valuation Assumptions when Determining Reserves Based on the Principles-Based Life Reserves Model Regulation.

net surrender value, but in no case greater than the statutory reserve. This “statutory cap” on the FPR will fluctuate along with the statutory reserve changes based on PBR methodology. Such a change in the statutory cap may be subject to a 10-year spread.

The fluctuations will result from the mismatch in both methodology and assumptions between the FPR and the statutory reserve. These fluctuations will have a “whipsaw” effect on the final tax reserve. The “whipsaw” effect is created because an increase in statutory reserves from existing methodology usually will not increase the final tax reserve, whereas a decrease from existing methodology usually will decrease the final tax reserve.

The three examples to the right help illustrate the “whipsaw” effect that can be created. Example 1 shows a typical relationship for the tax reserves of different policies under the current reserving structure. The FPR is usually less than the statutory reserve; however the FPR for some policies may be greater than the statutory reserve. Ultimately the FPR is capped by the statutory reserve.

In Example 2, the statutory reserve after application of PBR is less than the current statutory reserve. In this case, the FPR is drastically capped by the new lower statutory reserve. This would create a lower final tax reserve even though the policy and the FPR have not changed.

In Example 3, the statutory reserve is higher after the application of PBR. Note that the tax reserve increases for contract Y, as it was previously capped by the statutory reserve. Even with the increase in the tax reserve for contract Y, the tax reserves are considerably lower than the statutory reserves.

Example 2 is expected to be the most common. Thus, in most cases the final tax reserve will only decrease. If the tax reserve does increase, the increase will most likely be small compared with the change in the total statutory reserve.

These examples illustrate that, given the non-parallel nature of PBR statutory methodology and assumptions versus tax methodology and assumptions on the entire in-force block, retroactivity can potentially result in severe statutory capping on some blocks of business and severe overhangs (statutory reserves in excess of FPR values) in others.

**Conclusion**

There has been very limited modeling done so far of the new reserve proposals—let alone the effect of retroactivity. Some statutory modeling has been performed by an American Academy of Actuaries group involved, but no tax basis modeling has been completed yet. Although a tax group has been looking at PBR, the PBR movement appears to be forging ahead with little attention given by the actuarial community as a whole to a possibly significant post-tax impact. The

**Example 1**  
Prior to PBR

Policy Number	Statutory Reserve	FPR	Final Tax Reserve
X	100	95	95
Y	95	98	95
Total	195	193	190

**Example 2**  
After PBR with a lower statutory reserve

Policy Number	Statutory Reserve	FPR	Final Tax Reserve
X	85	95	85
Y	80	98	80
Total	165	193	165

**Example 3**  
After PBR with a higher statutory reserve

Policy Number	Statutory Reserve	FPR	Final Tax Reserve
X	110	95	95
Y	105	98	98
Total	215	193	193

testing that has been done to date has shown that small changes in assumptions and margins can have a dramatic impact on the reserve. Moreover, as financial reporting actuaries know, small percentage changes in tax reserves can have a significant effect on taxable income. With the changing assumptions and different methodology between statutory reserves and the FPR, there is only a downside for tax reserves if the application of PBR for life products is made retroactive. The ultimate impact could potentially be a major financial loss to the insurance industry. ◀

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