2017 Valuation Actuary Seminar
October 18-19, 2017
Boston Marriott Copley Place
Boston, MA

Session 05PD: PBR: Statutory and Tax Considerations

Moderator:
Mary Elizabeth Caramagno, FSA, MAAA

Presenters:
Paul S Graham III, FSA, MAAA
Mary Elizabeth Caramagno, FSA, MAAA
Dylan Strother, FSA, MAAA

2017 Valuation Actuary Seminar

PAUL GRAHAM, FSA, MAAA, ACLI

DYLAN STROTHER, FSA, MAAA, POLYSYSTEMS

MARY ELIZABETH CARAMAGNO, FSA, MAAA, PRUDENTIAL

October 18, 2017

SOCIETY OF ACTUARIES®

SOCIETY OF ACTUARIES
Antitrust Notice for Meetings

Active participation in the Society of Actuaries is an important aspect of membership. However, any Society activity that arguably could be perceived as a restraint of trade exposes the SOA and its members to antitrust risk. Accordingly, meeting participants should refrain from any discussion which may provide the basis for an inference that they agreed to take any action relating to prices, services, production, allocation of markets or any other matter having a market effect. These discussions should be avoided both at official SOA meetings and informal gatherings and activities. In addition, meeting participants should be sensitive to other matters that may raise particular antitrust concern: membership restrictions, codes of ethics or other forms of self-regulation, product standardization or certification. The following are guidelines that should be followed at all SOA meetings, informal gatherings and activities:

- DON'T discuss your own, your firm's, or others' prices or fees for service, or anything that might affect prices or fees, such as costs, discounts, terms of sale, or profit margins.
- DON'T stay at a meeting where any such price talk occurs.
- DON'T make public announcements or statements about your own or your firm's prices or fees, or those of competitors, at any SOA meeting or activity.
- DON'T talk about what other entities or their members or employees plan to do in particular geographic or product markets or with particular customers.
- DON'T speak or act on behalf of the SOA or any of its committees unless specifically authorized to do so.
- DO alert SOA staff or legal counsel about any concerns regarding proposed statements to be made by the association on behalf of a committee or section.
- DO consult with your own legal counsel or the SOA before raising any matter or making any statement that you think may involve competitively sensitive information.
- DO be alert to improper activities, and don't participate if you think something is improper.

If you have specific questions, seek guidance from your own legal counsel or from the SOA's Executive Director or legal counsel.

Presentation Disclaimer

Presentations are intended for educational purposes only and do not replace independent professional judgment. Statements of fact and opinions expressed are those of the participants individually and, unless expressly stated to the contrary, are not the opinion or position of the Society of Actuaries, its cosponsors or its committees. The Society of Actuaries does not endorse or approve, and assumes no responsibility for, the content, accuracy or completeness of the information presented. Attendees should note that the sessions are audio-recorded and may be published in various media, including print, audio and video formats without further notice.

PBR Statutory Considerations

SOCIETY OF ACTUARIES

PBR Statutory Considerations

- Agenda
  - PBR Regulatory Update
  - VM-20 Overview
  - VM-20 Implementation Challenges

PBR Regulatory Update

SOCIETY OF ACTUARIES

PBR for life insurance

- Current statutory reporting is highly prescriptive. PBR emphasizes process over prescription.

CRVM	PBR
Limited consideration of product risk factors	Designed to better reflect product risk factors and company risk practices
Fully prescribed industry-wide assumptions	Companies can use their own experience where relevant and credible
All assumptions are deterministic	Stochastic interest and equity
All assumptions are locked in	Assumptions are regularly reviewed and unlocked
Annual asset adequacy testing	Annual asset adequacy testing

PBR adoption status

- The Valuation Manual effective date is 1/1/2017. There is a three-year transition period during which companies can more all of some of their applicable new business.
- Potential adoption challenges
  - VM currently not adopted in NY, AK, MA, and DC
  - Could create duplicate reserve calculations
  - Adoption caveats

Updates to VM

- Each summer, the NAIC plans to adopt a new version of VM effective Jan 1 of the following year
- Process for VM Updates
  - Life Actuarial Task Force (LATF) collects, exposes and reviews proposed updates to VM
  - Proposed updates are substantive or non-substantive
  - LATF decides whether to adopt or reject proposed changes and makes recommendations to NAIC
  - The NAIC decides whether to adopt LATF's proposed changes at their summer meeting
- Minor updates for 2018
  - Definitional updates
  - Small company exemption

PBR – AG43 / QIS update

- PBR is not only for life insurance, VM21 is AG43
- There exist some known pain points / non-intuitive results under the current version of AG43
- QIS (quantitative impact study) was initiated to understand and address exposed items
  - Three phases for QIS, currently in phase two
  - QIS2 Update presented to NAIC VA Working Group on July 20th, 2017

VM-20 Overview

SOCIETY OF ACTUARIES

What is the PBR calculation?

- Three components to evaluate:
  - Net premium reserve (NPR)
  - Deterministic reserve (DR)
  - Stochastic reserve (SR)

The booked reserve will be the maximum of these components

- Exclusion tests
  - *SR* – products may be exempt from the SR calculation if there is little interest or equity risk
  - *DR* – UL without SG products may be exempt from the DR calculation if future net premiums are less than future gross premiums

PBR Assumptions

- Prescribed (e.g., defaults, spreads)
- Prudent estimate = anticipated experience + margin, where
  - Anticipated experience
    - Use industry experience to extent own experience is not credible, or other accepted actuarial practices or actuarial judgement (including sensitivities) if neither is credible
    - Dynamic across scenarios as appropriate
  - Margins
    - For adverse deviation and estimation error
    - Must be in proportion to the uncertainty in experience
    - Must increase the modeled reserve (demonstrate with sensitivity tests)

Net Premium Reserve (NPR)

- Term and ULSG use NPR calculations newly defined in the Valuation Manual, while other products use the same method as contained in the previous SVL for life insurance.
- Term and ULSG NPR is determined on a seriatim basis with prescribed assumptions:
  - Mortality: 2001 CSO or 2017 CSO
  - Interest: Max (SVL + 0.015, 1.25 * SVL), locked in
  - Lapse: Prescribed based on product type.
  - Cash Value and Unearned COI Floors

Modeled reserve

- Determine model segments (e.g., term, ULSG)
- For each segment:
  - Determine inforce policies (compression allowed)
  - Determine the composition and level of starting assets
  - Determine assumptions
  - Prepare the cash flow model
  - Calculate DR and SR, if necessary
  - The modeled reserve is the greater of DR and SR (if calculated)
- If aggregate starting assets are < 98% of aggregate modeled reserve or > max (102% of aggregate modeled reserve, aggregate NPR), then provide assurance minimum reserve is not understated, or iterate using the revised level of starting assets.

Deterministic Reserve (DR)

- DR uses scenario 12 from the 16 prescribed for the stochastic exclusion ratio test
- Two theoretically equivalent calculation methods:
  - Gross Premium Valuation (GPV)
    - PV (benefits, expenses, and related amounts), Minus
    - PV (gross premiums and related amounts)
  - Direct Iteration Method (DIM)
    - The value of starting assets required to fully liquidate all policy obligations (i.e., assets at end of projection = 0)

Stochastic Reserve (SR)

- Consider the aggregation groupings
- Generate and determine the number of scenarios
- Calculate the stochastic reserve:
  - Project cash flows using stochastically generated scenarios and calculate GPVAD for each scenario. The scenario reserve is the GPVAD + starting asset amount
  - Calculate CTE 70
  - Determine any additional amount needed to capture any material risk not reflected in the cash flow model
  - Reserve = CTE 70 + additional amount

Minimum reserve

- Use the component reserve calculations for each product group to determine the minimum reserve:
  - Minimum reserve = NPR +

    max (DR + DDPA - NPR, SR + DDPA - NPR),

    assuming both exclusion tests failed and where DDPA = due and deferred premium asset
  - Allocation of minimum reserves to the policy level

VM-20 Implementation Challenges

SOCIETY OF ACTUARIES

PBR Challenges: Assumptions

- Establishing assumptions and risk margins
- Setting asset default/ spread assumptions
- Reflecting policyholder behavior
- Reinsurance
- Experience studies
  - Establish process
  - Sources of information
  - Credibility
- Sensitivity testing

PBR Challenges: Pricing

- Roll forward a block of business using scenario or scenarios
  - Model future revaluation points, e.g. mortality improvement
- Use of stochastic scenarios in pricing
- Mapping of underwriting classes
- Reconciliation of pricing and valuation models
- Impact of tax reserves and 2017 CSO table

PBR Challenges: Valuation

- Reporting considerations
- Building Exclusion Test
  - Deterministic Exclusion Test: Demonstrate sum of the valuation net premiums for all future years for the group of policies is less than the sum of the corresponding guaranteed premiums for such policies
  - Stochastic Exclusion Test: Demonstrate that the stochastic reserve on standalone basis would not increase the minimum reserve
- Determining Stochastic Scenarios
- Determining approach for valuation of Riders
- Interpreting VM-20 for EIUL and ULSG products

PBR Challenges: Systems and Data

- Evaluating valuation, projection, and pricing systems
  - System capabilities
  - Integration
- Developing IT infrastructure around data management and reporting
  - Do data feeds include the necessary information?

PBR Challenges: Governance

- Updating Governance Framework
- Roles and Responsibilities
  - Board
  - Senior Management
  - Qualified Actuary

PBR and Taxes

SOCIETY OF ACTUARIES

PBR and Taxes

- Basic Tax Reserve Rules
- IRS Notices Prior to 2016
- Tax Issues Arising Under PBR
  - Policyholder Tax Issues
  - Issues Affected by Transition Period
  - Substantive Reserve Issues
    - Industry Issue Resolution

Basic Tax Reserve Rules

SOCIETY OF ACTUARIES

Tax Reserves – Section 807

- Section 807(d) provides rules for determining life insurance reserves for any contract
  - Greater of Net Surrender Value or Federally Prescribed Reserve
  - In no event greater than “amount which would be taken into account with respect to such contract . . . in determining statutory reserves” (aka “Stat Cap”)

Federally Prescribed Reserve ("FPR")

- *Tax reserve method* under section 807(d)
  - For contracts covered by the CRVM, the CRVM prescribed by the NAIC which is in effect on the date of the issuance of the contract
  - For contracts covered by the CARVM, the CARVM prescribed by the NAIC which is in effect on the date of the issuance of the contract
  - In the case of any noncancellable accident and health insurance contract (other than a qualified long-term care insurance contract), a 2-year full preliminary term method
  - For contracts not covered by the above, the reserve method prescribed by the NAIC which covers such contract as of the date of issuance
  - If no reserve method has been prescribed by the NAIC, a reserve method consistent with defined FPR reserve methods under section 807(d)(3)(A)(i), (ii), (iii) or (iv) (I) as appropriate
- *Interest rate* – "using" greater of applicable Federal interest rate or prevailing State assumed interest rate as of beginning of year in which contract was issued
- *Mortality tables* – "using" prevailing commissioners' standard tables (adjusted as appropriate) when the contract was issued

Life Insurance Reserves under Section 816

- Requirements for life insurance reserves under Section 816(b) and Treas. Reg. § 1.801-4
  - Computed or estimated on the basis of recognized mortality and morbidity tables and assumed rates of interest
  - Set aside to mature or liquidate future unaccrued claims arising from life or annuity contracts and noncancellable health and accident insurance contracts
  - Involving life, health or accident contingencies at the time the reserve is estimated
  - Required by law

Cross-Reference in Section 807(c)(1) to Section 816(b)

- Section 807(c), “Items taken into account”, cross-references “(1) The life insurance reserves (as defined in section 816(b))”
- This cross-reference is to the substantive requirements for life insurance reserves (i.e., the type of contract for which the reserve is held and the purpose of the reserve – to mature or liquidate future unaccrued claims), and is not a reference to the computational requirements under Section 816(b); the FPR computational requirements are dictated by Section 807(d)
  - See S. Prt. No. 98-169, Vol. I, at 539-40; H. R. Rep. No. 98-432, pt. 2 at 1414 (1984); Staff of the Jt. Comm. on Tax’n, 98th Cong., 2d Sess., *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*, at 598 (1984) - “This cross-reference is intended merely to identify the type of reserve for which increases and decreases should be taken into account . . .”

Section 811(a) and the NAIC method

- Section 811(a) requires the life insurance company to begin with the reserve as reported on the annual statement and make adjustments required by the Internal Revenue Code
  - "To the extent not inconsistent with the preceding sentence or any other provision of this part, all such computations shall be made in a manner consistent with the manner required for purposes of the annual statement approved by the National Association of Insurance Commissioners."

IRS Notices Prior to 2016

SOCIETY OF ACTUARIES

Notice 2008-18

- Issued by IRS in Feb. 2008, when PBR was still in development stages for both life and annuities
- Anticipates new rules would apply for tax purposes only to contracts issued after the date of adoption, regardless of transitions permitted for statutory reserves
- Identifies areas of concern to IRS
- Request for comments
- Treasury/IRS indicate it would be inappropriate to:
  - Cause life companies to be taxed as nonlife companies due solely to changes in statutory reserve guidance
  - Effect a wholesale change in the standards for qualification of "life insurance contracts"

Notice 2010-29 (Interim Guidance)

- Issued by IRS in March 2010 as interim guidance, shortly after AG 43 became effective
  - Safe harbor delaying implementation for statutory reserving has no effect on FPR calculation
  - Delayed implementation is reflected in statutory cap
  - Impact due to change in statutory cap on in-force business spread over 10 years (not under Section 807(f))
- Safe harbor provided that standard scenario amount of AG 43 is permitted as the FPR of variable annuity contracts, adjusted for mortality and interest requirements under section 807(d) for contracts issued on or after 12/31/2009
- Anticipated more study and follow-up guidance
- "No inference should be drawn from this notice" on any other federal tax issues, including those arising from Life PBR

Tax Issues Arising Under Life PBR – Policyholder Taxes

SOCIETY OF ACTUARIES

Section 7702

- **Section 7702**: Qualification as a life insurance contract
  - Contract must be a life insurance contract under the applicable law
  - Contract must either:
    - Meet the cash value accumulation test, or
    - Meet the guideline premium requirements AND fall within cash value corridor
- Section 7702(c)(3)(B) sets forth basis for determining the guideline single premium
  - Determination is based on “reasonable mortality charges” that meet the requirements (if any) prescribed by regulations
- Previous guidance issued as new mortality tables become “prevailing”
  - Notice 88-128 provides guidance upon the adoption of 1980 CSO tables
  - Generally relies upon section 7702 effective date rules to determine when a contract is treated as newly issued and therefore tested under most recent tables

Notice 88-128

- Provided guidance upon the adoption of 1980 CSO tables
- Generally relied upon section 7702 effective date rules to determine when a contract is treated as newly issued and therefore tested under most recent tables

Notice 2006-95

- Provides guidance upon the adoption of the 2001 CSO tables
  - Generally builds upon the approach of Notice 88-128
  - Optional three-year transition period
  - Sets forth as safe harbors a number of circumstances that are not treated as resulting in the issuance of a new contract or as requiring testing under new tables

Notice 2016-63

- Issued by IRS on 10/19/16 and addresses 2017 CSO transition
- Supplements Notice 88-128 and updates Notice 2006-95
  - Retains requirement that changes be “pursuant to the terms of the contract” in order to retain issue date for the purposes of determining “reasonable mortality charge” safe harbor
- Addresses prevailing tables for section 7702 purposes
  - Provides safe harbors concerning the use of the 2017 CSO tables as prevailing tables
- Provides guidance as requested by the industry concerning reductions in death benefits
  - If the only change to an existing contract is a reduction or deletion in benefits, the change will not affect the determination of the contract’s issue date for purposes of the safe harbor
- Accommodation of routine, non-tax motivated changes that are pursuant to policyholder expectations – Retain original issue date for:
  - Changes in death benefit
  - Reconsideration of ratings (smokers who stop smoking)
  - Reinstatements within 90 days or pursuant to state law
  - Addition of qualified additional benefits, change in death benefit option, addition/removal of rider

Tax Issues Arising Under Life PBR – Transition to PBR

SOCIETY OF ACTUARIES

Transition Rules: Valuation Manual

- Generally, Life PBR is effective for contracts issued on or after 1/1/2017 – but there are exceptions
  - Initial three-year transition period
    - Companies may elect to use existing requirements for business issued during 2017-2019
  - Life PBR exemption permits companies to use prior reserve requirements if they meet defined criteria for size, capitalization, and product mix
  - Single-state exemption available in many states, with permission from commissioner
  - Not all states have adopted Life PBR effective 1/1/2017

Transition Issues: Tax Reserve Question #1

- **How are the tax reserves valued after a company elects to value statutory reserves under PBR?**
  - The tax reserves are valued based on the Commissioner's Reserve Valuation Method ("CRVM") defined as the "…the reserve method prescribed by the National Association of Insurance Commissioners which covers such contract (as of the date of issuance)…"
  - Under Notice 2008-18, life insurance reserves calculations are defined as "…(1) computed or estimated on the basis of recognized mortality or morbidity tables and assumed rates of interest…"
  - The IRS Notice from 2008 references the deterministic reserve but VM-20 introduced the Net Level Premium ("NLP") calculation after that point in time for Life PBR.

Transition Issues: Tax Reserve Question #2

- **Are PBR tax reserves required if PBR is not elected for statutory reserves?**
  - In the absence of VM-20 tax reserve guidance, we observe that interim Notice 2010-29 for VA CARVM states:
    - "…to the extent that a taxpayer delays implementation of AG 43 with permission of its domiciliary insurance commissioner under section V of AG 43, it must consistently delay implementation for purposes of determining the amount of statutory reserves under § 807(d)(6)."
  - VM-20 is based on a method that is implemented prospectively and not retrospectively. Since the update of VM-20 is prospective only in nature, the standard guidance is 807(d)(3)(B)
    - "The term "CRVM" means 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."
      - Since this is governed by VM-20 directly by the Insurance Company election, the applicable method is determined upon statutory method election.
      - Complete exemption from VM-20 would also fall into this category.

Transition Issues: Tax Reserve Question #3

- **What is the tax reserves statutory cap under PBR?**
  - In the absence of VM-20 tax reserve guidance, we observe that interim Notice 2010-29 for VA CARVM states:
  - "…to the extent that a taxpayer delays implementation of AG 43 with permission of its domiciliary insurance commissioner under section V of AG 43, it must consistently delay implementation for purposes of determining the amount of statutory reserves under § 807(d)(6)."
    - Based on the standard IRC guidance and the interim Notice 2010-29 guidance, the industry may interpret that the statutory cap is based on the elected statutory reserve calculation.
    - Since Notice 2010-29 is silent on the treatment of the CTE on the statutory cap, companies will be left to their own VA CARVM tax and accounting policies and to determine the appropriate treatment.

Substantive Reserve issues

SOCIETY OF ACTUARIES

Reserve Components under Life PBR

Valuation Manual (VM-20)

Three components of CRVM:

Net premium reserve (**NPR**)	• Seriatim and formulaic • Prescribed assumptions • Floored at net surrender value
Deterministic reserve (**DR**)	• Aggregate, using cash flow modeling • Company-specific assumptions, some developed using prescribed method
Stochastic reserve (**SR**)	• Aggregate, using cash flow modeling • Company-specific and stochastic assumptions • CTE 70 (average of 30% worst scenarios)

Minimum reserve = NPR + Excess { Greater of **DR** or **SR** over **NPR** minus due/deferred premium }

Reserve Components under VA PBR

Valuation Manual (VM-21)

Two components of CARVM:

Standard Scenario (SS)	• Seriatim and modeled single scenario • Prescribed assumptions for many assumptions • Floored at net surrender value
CTE Amount	• Aggregate, using cash flow modeling • Company-specific assumptions, stochastically modeled • CTE 70 (average of 30% worst scenarios)

Minimum reserve = Standard Scenario + Excess { CTE Amount over Standard Scenario }

The $64K Question

- What is the basis for the FPR under PBR?
  - Are the deterministic reserve and stochastic reserve, as defined by VM-20, the basis for the FPR?
  - Is the CTE Amount, as defined by AG 43/VM-21, the basis for the FPR for variable annuities?
  - If so, how are adjustments made for mortality and interest?
  - If not, what is the basis?

IRS and Industry Issue Resolution

- Priority Guidance Plan – “Guidance under §§ 807 and 816 regarding the determination of life insurance reserves for life insurance and annuity contracts using principles-based methodologies, including stochastic reserves based on conditional tail expectation.”
- Industry Issue Resolution Request submitted August 23, 2016, by the industry and ACLI seeking guidance on AG 43/VM-21 and VM-20
  - Accepted by IRS on November 10, 2016
  - Added as an IRS Campaign in March 2017, Deferred Variable Annuity Reserves & Life Insurance Reserves IIR Campaign
- IIR Progress and Timing

Potential Issues to Address in IIR

- Qualification of PBR reserves as life reserves under Section 816
- Mortality assumptions/Prevailing Mortality Tables
- Interest assumptions/Prevailing State Assumed Interest Rate
- Consideration of expenses/GPV methodology
- Prudent estimate assumptions/actuarial discretion/moderately adverse conditions
- Contract-by-contract comparisons
- Integration of tax adjustments with other reserve components

What does the Future Hold?

- Will Published Guidance Solve all Future Issues that Might Arise?
  - VAIWG and Oliver Wyman Work on AG 43
  - Future methodology changes
- Dynamics under 807(f) if VM-20 has future changes to assumptions (unlocking)

Questions?

SOCIETY OF ACTUARIES

SOCIETY OF ACTUARIES