

PBR Resources from the Life Practice Council of the American Academy of Actuaries



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Academy Involvement in PBR

- The Academy's Life Practice Council has been working with regulators and industry to replace the current formula-based system for years
- Hundreds of volunteers on all aspects of PBR



PBR Page on Academy Website

- Go to [actuary.org](https://www.actuary.org) and click on Principle-Based Reserving (navigation bar on right)

OR

- <https://www.actuary.org/content/pbr-practice>

- Page includes a PBR Toolkit



Academy PBR Toolkit

ACADEMY PBR TOOLKIT

- [Model Governance Checklist](#)
- [Model Governance Practice Note](#)
- [Life Principle-Based Reserves Under VM-20](#)
- [ASoP: Principle-Based Reserves for Life Products](#)
- [Economic Scenario Generators](#)

ACADEMY COMMENTS ON PBR

- [Life Insurance Issues \(VM-20\)](#)
- [Variable Annuity Issues \(VM-21\)](#)
- [Fixed Annuity Issues \(VM-22\)](#)
- [Long Term Care Issues \(VM-25\)](#)
- [RBC Requirements Under PBR](#)
- Read [reports](#) from Life Practice Council groups to the NAIC on the principle-based project.

NAIC RESOURCES

- [Valuation Manual](#), adopted August 2016
- [SVL Model Law](#)
- [NAIC Impact Study of VM-20 on PBR for Life Insurance](#)
- [Life Actuarial \(A\) Task Force of the NAIC](#)

ACADEMY PUBLICATIONS ON PBR

- [SVL Legislation in Brief](#)
- [PBA Perspectives](#)
- [PBR Essential Elements](#)



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Academy PBR Toolkit (cont.)

PBR PRACTICE NOTES

[Life Principle-Based Reserves Under VM-20](#) (May 2017)

[Model Governance](#) (April 2017)

[More Practice Notes](#)

PBR QUALIFICATION STANDARDS

[Qualification Standards Response on PBR](#)

What are the minimum requirements an actuary should consider to be qualified to render opinions related to PBR under the U.S. Qualification Standards? This question and answer came from the Academy's Committee on Qualifications, which developed a list of [frequently asked questions](#) for actuaries.



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Actuarial Standard of Practice No. 52

- ASOP No. 52 – *Principle-Based Reserves for Life Products under the NAIC Valuation Manual* – has been released
- The standard will be effective for valuation dates on or after Dec. 31, 2017 - Both company and regulatory actuaries need to comply
- Necessary to provide guidance for compliance with SVL since more reliance will be placed on the actuary in determining PBR



Actuarial Standard of Practice No. 52 (cont.)

- Scope includes actuaries performing actuarial services in connection with the calculation or review of reserves subject to VM-20.
- Includes guidance on cash flow models, assumptions, margins, and other aspects of PBR for life insurance.



VM-20 Practice Note

- The current practice note on *Life Principle Based Reserves Under VM-20* was published on 5/18/2017
- It is available on the Academy's website at the following address:
 - ▣ https://www.actuary.org/files/publications/VM_20_PN_051817.pdf



VM-20 Practice Note: Table of Contents

- Introduction
- PBR Calculation Schematic
- Sections:
 1. Exemptions, Transition Rules, and Details on Products Covered
 2. Available Information on Common Practice
 3. VM-20 Calculation
 4. VM-20 Calculation Overview – Part A. Net Premium Reserve (NPR)
 5. VM-20 Calculation Overview – Part B. Deterministic Reserve
 6. VM-20 Calculation Overview – Part C. Stochastic Reserve
 7. Stochastic Exclusion Test
 8. Deterministic Reserve Exclusion Test
 9. Difference from Cash Flow Testing – Scenario Reserve Calculation



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VM-20 Practice Note: Table of Contents (cont.)

10. Considerations When Performing Work on Other Than the Valuation Date
11. Detail on Starting Assets and Asset Modeling
12. Details on Scenarios / Scenario Generators / Economic Assumptions
13. Setting Prudent Estimate and Anticipated Experience Assumptions
14. Setting Margins
15. Setting Mortality Assumptions
16. Setting Premium Assumptions
17. Setting Policyholder Behavior Assumptions Other than Premiums
18. Setting Expense Assumptions
19. Setting Non-Guaranteed Element Assumptions
20. Treatment of Reinsurance
21. Treatment of Hedging / Derivative Programs



Model Governance Checklist

- ❑ Intended as a resource for practicing life actuaries and others involved in actuarial model governance
- ❑ In response to the need for good model governance addressed in PBR requirements
- ❑ Useful beyond PBR valuation modeling wherever actuarial modeling is performed
- ❑ A collection of question-based considerations for the purpose of fostering awareness of multiple model governance concerns
- ❑ Non-exhaustive



Model Governance Practice Note

- Sections of Practice Note
 - ▣ Model
 - ▣ Model Development
 - ▣ Model Governance Policy and Standards
 - ▣ Model Risk
 - ▣ Model Governance
 - ▣ Model Processes and Controls
 - ▣ Model Validation
 - ▣ Model Documentation
 - ▣ Principle-Based Reserve Model Governance Considerations



Risk-Focused Examination PBR Practice Note

- Objective is to develop the “Common Practices of Examining Actuaries” note for RFE
- Will cover common approaches of an actuary's participation in a RFE as well as some examples
- Will include examination considerations for PBR



Assumptions Governance Resource Manual

- Resource with examples of inforce update process
 - ▣ Example roadmap for updating valuation assumptions
 - ▣ Step-by-step considerations
- Focus
 - ▣ Assumption governance
 - ▣ Controls and review
 - ▣ Non-mortality assumptions
- Examples and case studies
 - ▣ Margin examples
 - ▣ Credibility examples
 - ▣ Decision points
- Expected release in mid-2018



PBR Boot Camps

- Last session in September 2017 was regulatory focused
- 2½ days of intensive review of PBR
- Next one will likely be in early 2019



Academy Work Groups Did/Are Doing Substantial Work on PBA

- Life Reserves
- Annuity Reserves
- Variable Annuity Reserves
- Governance
- Economic Scenarios
- Life Reserves and Capital Practice Note
- Credibility Practice Note
- Consistency
- Reinsurance
- Tax
- Experience Studies Research
- Valuation Manual
- Website
- Model Efficiency



Some of the LPC's Other Efforts

- VM-20 (Life Reserves WG), including additional work needed on:
 - ▣ Group insurance
 - ▣ Substandard policies
 - ▣ Non-term riders
- VM-22 Annuity Reserves Work Group
- VM-25 LTC PBR Work Group
- PBR Governance
- “The Role of the Actuary” in PBR subgroup
- Participation in VM Review (drafting) Group



Question

- Anything else the Academy can help with PBR?

