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# Insights Into Life Principle-Based Reserves Emerging Practices

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In the second quarter of 2018, Oliver Wyman surveyed the life insurance industry on emerging life principle-based reserves (PBR) practices. Forty direct writers and reinsurers with 80 percent market coverage<sup>1</sup> participated. This article highlights key takeaways for product actuaries and provides a deeper dive on select PBR emerging practices to be mindful of, as less than one year remains to optimize all life product offerings for 2017 CSO and PBR requirements.

## KEY TAKEAWAYS

Figure 1 highlights key takeaways from the survey related to analysis and implementation of PBR, emerging practices and the road ahead.

## PBR IMPLEMENTATIONS ARE HEAVILY BACK-LOADED

Figure 2 (pg. 5) summarizes actual PBR implementations through 2017 and planned implementations through the remainder of the optional phase-in period. The percentages were calculated as (number of participants with at least one product in category on PBR) / (total participants with products in category).

Very few products were moved to PBR during 2017. Most of the moves were for term, which is the easiest to implement. Planned go-live implementations remain surprisingly low for 2018 and 2019. We believe that the back-loading of PBR implementation is driven by the following:

- Competitive pressures and prevalence of reserve financing solutions for term and to a lesser extent ULSG, for which reserve reductions decrease tax leverage.
- Resource constraints and the level of effort required to move products to PBR, including additional reporting and disclosure requirements.

While analysis and repricing are taking place, PBR requirements are still an evolving target and many participants are consciously delaying their actual implementation.

Figure 1  
Survey Key Takeaways

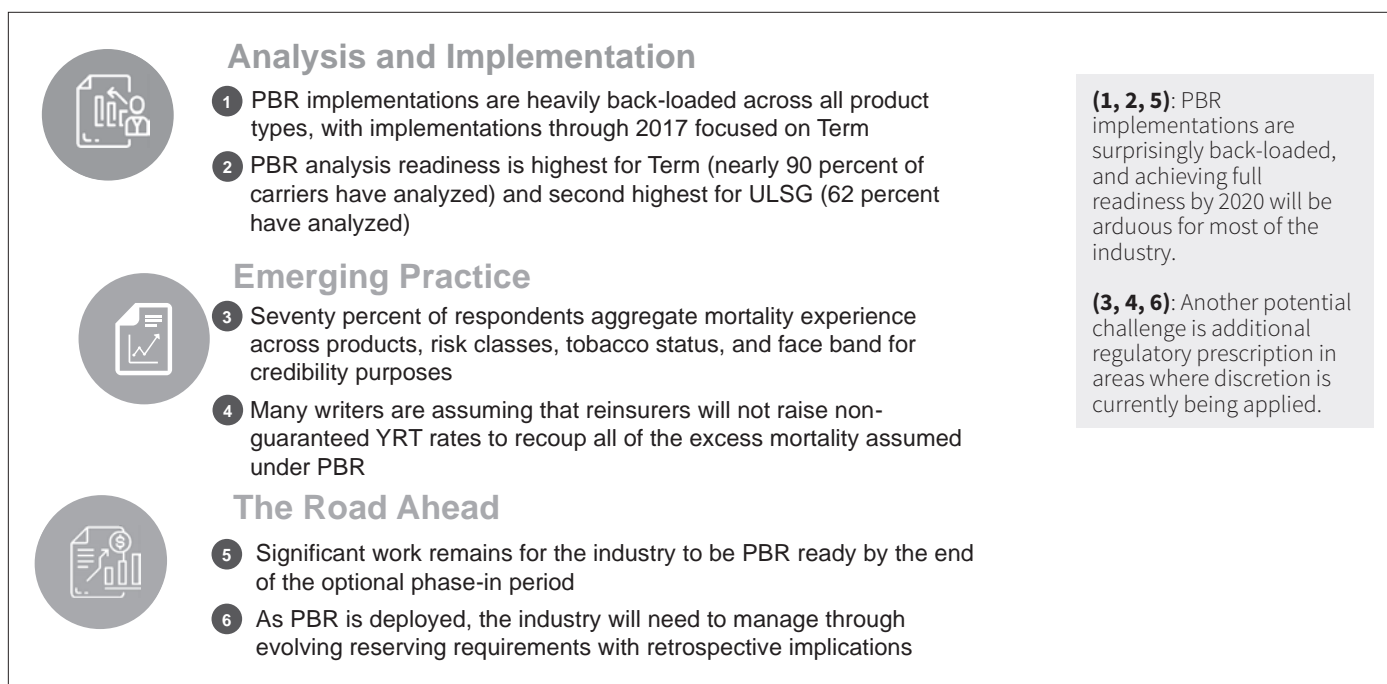
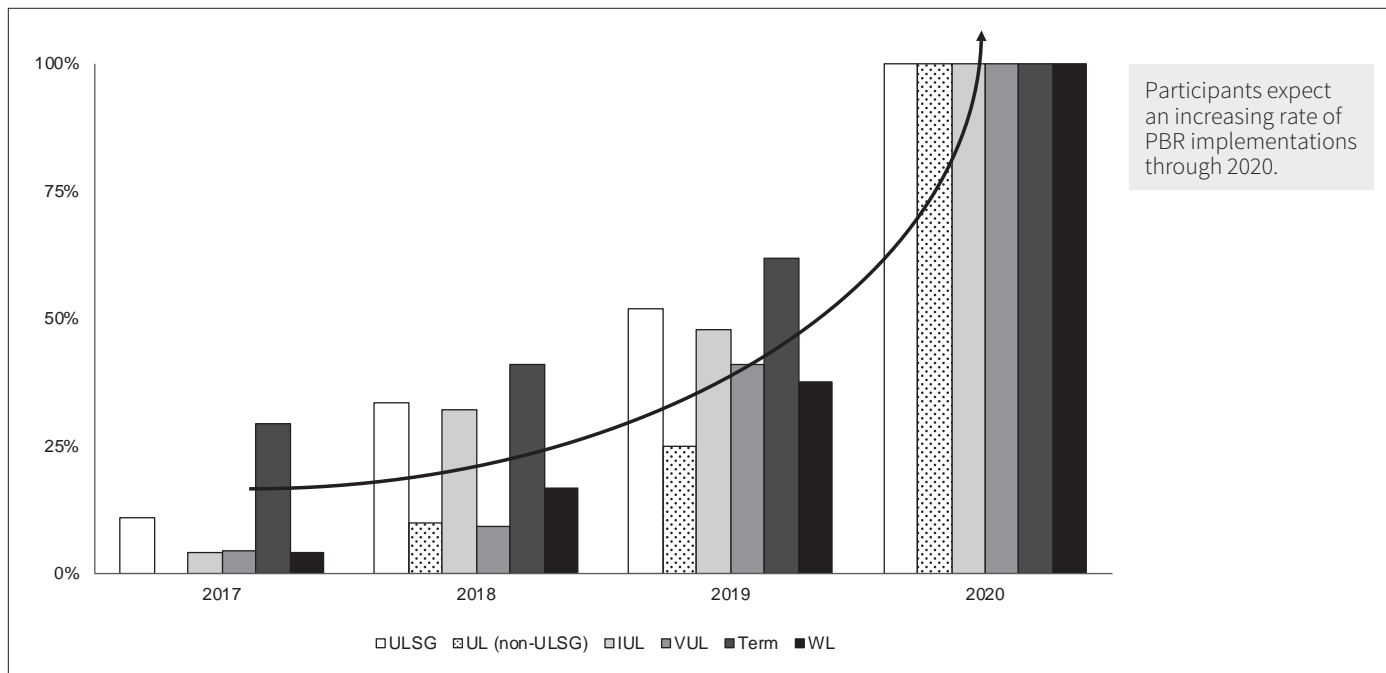


Figure 2  
Percentage of Participants With Products on PBR by Year-End



PBR READINESS IS HIGHEST FOR TERM, FOLLOWED BY ULSG

Table 1 summarizes the percentage of participants that have analyzed the impact of PBR across product types as of year-end 2017.

Table 1  
Percentage of Participants That Have Analyzed the Impact of PBR by Product Type as of Dec. 31, 2017

Product Type	Percentage
Term	86%
Universal Life with Secondary Guarantee (ULSG)	62%
Indexed Universal Life (IUL)	54%
Whole Life (WL)	33%
Universal Life without Secondary Guarantee (UL)	30%
Variable Universal Life (VUL)	27%

Most term writers and almost two-thirds of ULSG writers have analyzed the impact of PBR on these products. Other products are behind, with half of IUL writers and less than a third of WL, UL and VUL writers having performed analyses for these products. We believe these results are driven by the following:

- Reserve relief is expected on protection-oriented products due to elimination of deficiency reserves and increase in the valuation interest rate (100 basis points) for the revised formulaic reserve floor (NPR).
- A portion of the IUL market is protection oriented,<sup>2</sup> making the impact of PBR similar to ULSG.
- Accumulation-oriented products (WL, UL, and certain IUL and VUL) are structured to pass mortality, investment and other margins to the policyholder, making it likely for the NPR to dominate. The NPR defaults to pre-PBR methodology for these products, and PBR has little impact on reserves.

THE INDUSTRY IS EXPOSED TO AREAS WHERE DISCRETION CAN BE APPLIED

The continuous evolution of PBR requirements was listed as a driver of delayed implementation in the previous section. Regulators are actively discussing changes to the *Valuation Manual*, with a goal of making substantial revisions for inclusion in the 2020 requirements.

Two key areas where changes could emerge are 1) mortality experience and 2) the treatment of nonguaranteed yearly renewable term (YRT) rates.

## Mortality Experience

The mortality assumption used in the calculation of the modeled reserve under PBR is developed using a blend of company and industry experience, with prescribed margins based on the credibility of the underlying experience. Discretion can be applied when setting the aggregation level used to determine credibility.

Survey participants were asked if they aggregate their experience across any of the following four attributes when determining their credibility for PBR: product, tobacco usage, risk class, face amount (band).

Seventy percent of participants aggregate across all four attributes, and 90 percent of participants aggregate across three or more, which produces higher (favorable) credibility levels. As most participants view the prescribed mortality margin as being excessive, they are unlikely to adopt a position on credibility, which further increases this margin.

Regulatory discussion on this topic has focused on the potential for vastly different results depending on the level of aggregation used. Additional guidance is expected on the approach to determining what experience can be aggregated together and on the additional supporting analysis and demonstrations that may be required.

## Treatment of Nonguaranteed YRT Rates

PBR requires that insurers calculate their reserves with and without reinsurance, with the reinsurance reserve credit equal to the difference in these two amounts.

For nonguaranteed YRT reinsurance, the current scale of rates is typically based on best-estimate mortality rates with future improvement and insurers must make an assumption about how reinsurers will react to the adverse mortality required under PBR.

VM-20 provides general guidance on the modeling of reinsurance cash flows, stating, “The company shall assume that the counterparties to a reinsurance agreement are knowledgeable about the contingencies involved in the agreement and likely to exercise the terms of the agreement to their respective advantage, taking into account the context of the agreement in the entire economic relationship between the parties.”

Survey participants were asked about the approach they use to model nonguaranteed YRT rates. Two-thirds of participants responded that they assume less than 100 percent reaction from the reinsurer to the adverse mortality, and one-third assumed no change to the current scale of rates.

This issue was discussed by regulators at the Summer 2018 NAIC meeting, with a white paper from the American Academy

of Actuaries and several comment letters on the issue discussed by the Life Actuarial Task Force (LATF). While no definitive guidance was given at this meeting, a desire for a common approach to modeling nonguaranteed YRT rates was shared among the regulators who reacted to the discussion. The chair of LATF said it will be a priority to reach consensus on additional requirements for inclusion in the 2020 version of the *Valuation Manual*.

THE ROAD AHEAD WILL BE CHALLENGING FOR MOST Life PBR is upon us, with less than a year before the optional phase-in period ends and implementation is mandatory. Significant work remains as PBR implementations are back-loaded for all but a handful in the industry.

Requirements will continue to evolve, and the expectation is that changes will be retroactive, making it important to understand the range of subjectivity in decisions made and to stay close to emerging discussions.

With all this activity, it will be important to step back and skillfully manage all areas impacted. This includes creating optionality in the product cycle, modeling and assumption setting, which can be effectively and rapidly acted upon as regulations and practices converge. ■



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### ENDNOTES

- 1 Based on 2016 individual life insurance sales, adjusted to reflect any market exits, mergers and acquisitions that occurred between 2016 and 2018.
- 2 *Wink Sales & Market Report*, second quarter 2018, shows IUL sales with a primary pricing objective of death benefit, guaranteed death benefit or no lapse guarantee account for nearly 12 percent of the market as of 2Q 2018 and nearly 17 percent of the market as of 2Q 2017.