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Insights Into Life PBR Emerging Practices and Implementation

By Dylan Strother, Ellen Smith and Haley Jeorgesen

After much anticipation and preparation, mandatory implementation of principle-based reserves (PBR) for life insurance has finally arrived, meaning valuation practices must comply with Valuation Manual Section 20 (VM-20).

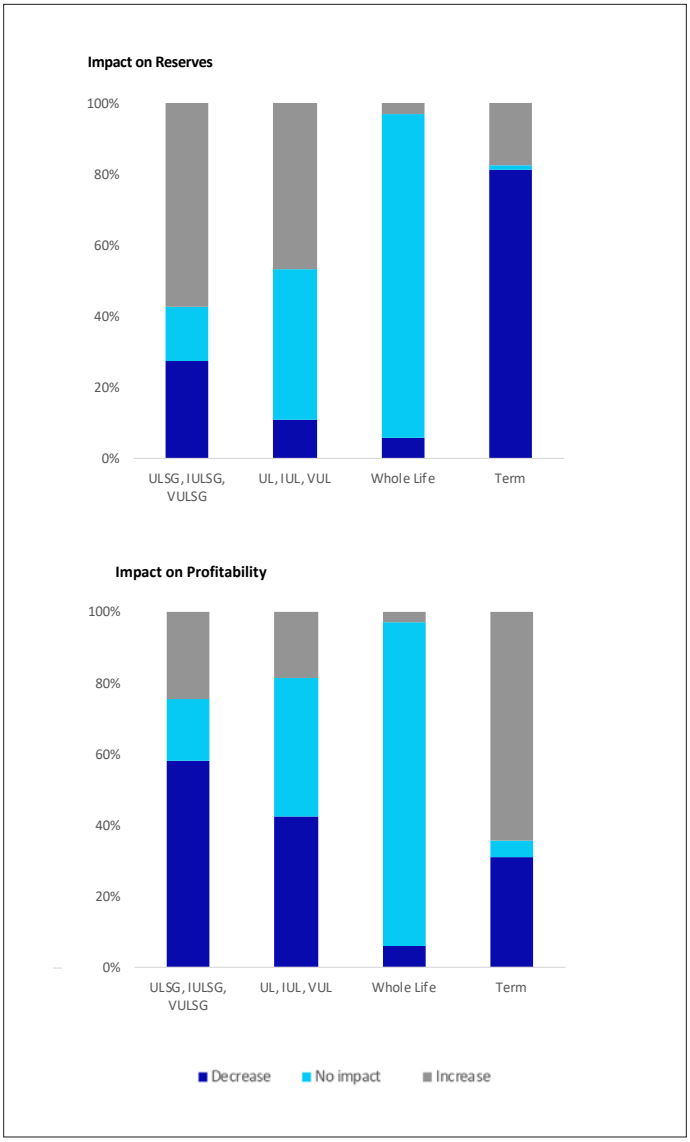
Oliver Wyman recently completed its 2020 Life PBR Emerging Practices survey, which provides a broad industry perspective with more than 50 companies participating representing 95 percent of the individual life market (by written premium).

Key survey insights include the impact of PBR on reserves and profitability in addition to emerging practices related to product design, assumption development, and methodology decisions.

IMPACT OF PBR VARIES BY PRODUCT

Figure 1 illustrates the impact of PBR on reserves and profitability by product type.

Figure 1
Impact of PBR on Reserves and Profitability

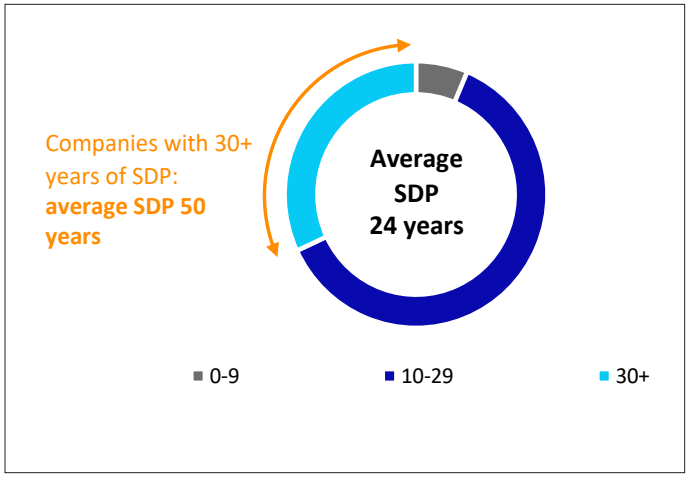


Products most impacted by PBR (protection-oriented interest sensitive life and term) have been the primary focus for robust pricing analysis.

Many term writers have experienced a positive impact on profitability, with more than half of participants reporting an increase to internal rate of return (IRR) in excess of 100 basis points, primarily driven by lower reserves under PBR as compared to pre-PBR. As a result, few writers are considering product design updates beyond updating premium rates.

The opposite is true for protection-oriented interest sensitive products (i.e., ULSG, IULSG, VULSG), where IRRs decreased for most writers, driven by higher reserves under PBR as compared to pre-PBR. Consequently, many writers of these products are considering or have implemented significant updates to their product design and product strategy.

Figure 2
Sufficient Data Period



ASSUMPTIONS AND METHODOLOGY IN LIGHT OF EXPECTED MARGINS

Eighty nine percent of writers report aggregate margin levels (i.e., margin over a best estimate liability) are higher than what they feel is appropriate.

As a result of this deemed excess conservatism, many writers are applying additional scrutiny in areas where more judgment can be applied and supported, such as the use of historical data in setting sufficient data periods for mortality assumptions and modeling decisions around non-guaranteed elements. As seen in Figure 2, 30 percent of participants report a sufficient data period (SDP) over 30 years with an average SDP of 24 years indicating that many participants are rationalizing the use of mortality experience from prior product and underwriting generations in the derivation of their PBR mortality assumption.

Many participants are modeling active management of non-guaranteed elements. Specifically, the portion of participants modeling changes to credited rates and cost of insurance charges increased from prior years, as writers have likely vetted their assumptions and methodology decisions upon moving to PBR. Figure 3 illustrates the proportion of respondents who are making adjustments to common non-guaranteed elements.

LENGTHY RUN TIMES RESULT IN MODELING SIMPLIFICATIONS

Model run time is a growing concern for most writers. The time to complete a full valuation process can range anywhere from a few hours to an entire day, causing writers to resort to run time reduction techniques in order to expedite lengthy model runs. Some insurers are performing nested modeling for the first time in order to project VM-20 reserves, which contributes to the need for more horsepower compared to prior valuation regimes. As seen in Figure 4, expanding grid or cloud computing

Figure 3
Modeling Approaches for Non-guaranteed Elements

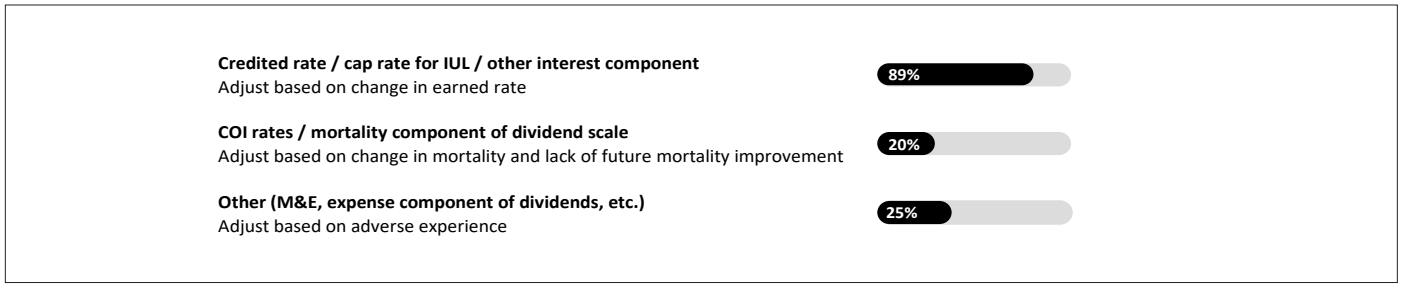
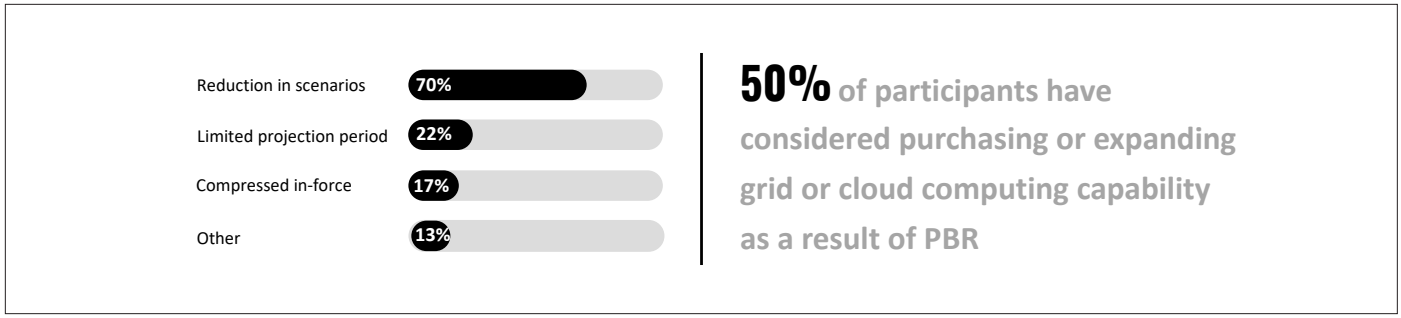


Figure 4
Runtime Reduction Techniques



capabilities, reducing scenario set size, and limiting projection length are the most common run time expedients.

LOOKING FORWARD

Participants still have a long road ahead of them on their PBR journey as every participant anticipates making significant refinements to their PBR implementation. As blocks of business subject to PBR grow, a scalable, controlled production process capable of supporting deep analytics and ad-hoc analysis will be increasingly important to not only support strong financial reporting and strategic decision making, but to also monitor and assess the impact of emerging topics. ■

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LDTI—A Path to Optimizing Compliance and Transformation

By Naxine Chang

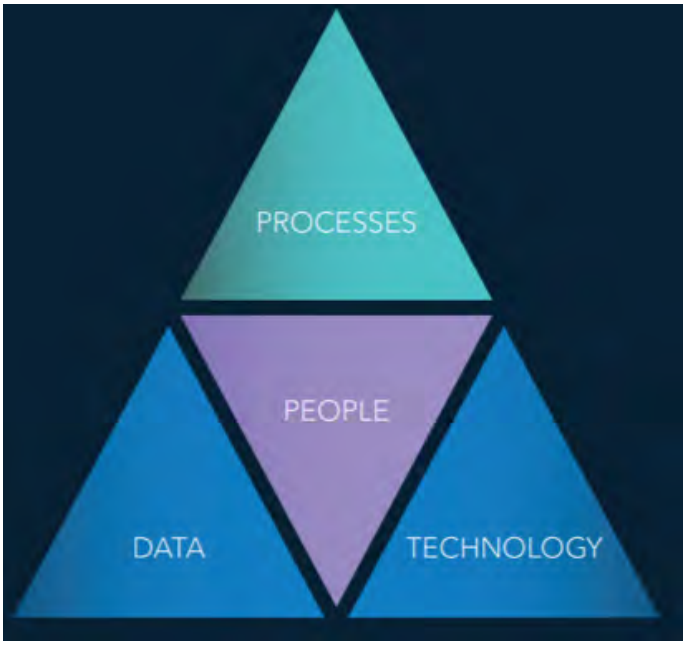
Among the nation's oldest industries, the insurance sector is experiencing a slow-but-sure evolution. The past decade's persistent low-interest rates and shifting demographics challenge insurers—and life insurance companies in particular—in their efforts to keep expanding market share and increasing profits.

Beyond socioeconomic pressures, insurance companies also face intense scrutiny from regulators demanding high-level business transparency. One example is ASU 2018-12, *Financial Services—Insurance (Topic 944): Targeted Improvements to the Accounting for Long-Duration Contracts (LDTI)*,[1] issued by the U.S. Financial Accounting Standard Board (FASB). To provide insurance companies additional time to implement the new standard, a revised effective date of Jan. 1, 2023, applies to U.S. Security and Exchange Commission filers that are not defined as a smaller reporting company; and Jan. 1, 2025, for all others.

LDTI's requirements aim to bring more relevant financial measures and transparency with frequent assumption review, a unified measure of market-based options or guarantees, simplified amortization of deferred acquisition costs (DAC) and enhanced disclosures.[2] The principles of these targeted improvements, in comparison to the current U.S. Generally Accepted Accounting Principles (GAAP), increase the complexity of data requirements, including data storage and management. They also complicate the scope and processes required to produce disclosure requirements.

LDTI's introduction has forced many insurers to examine their existing operations and technologies. They must determine how to optimize compliance efforts while balancing data, analytics and system modernization considerations to achieve maximum value. This article will examine the four key facets—the data, technology, processes, and people—essential to any successful LDTI exercise. It will also comment on the various approaches for tackling LDTI and how an innovative mindset can help insurers realize much greater transformation for the business.

Figure 1
People are Central to any LDTI Implementation



FOUR KEY IMPLEMENTATION CONSIDERATIONS

In compliance with LDTI, companies will need to manage data requirements, automate sourcing, perform LDTI calculations, generate ledger posting entries and fulfill all FASB disclosure requirements. This is a tremendous challenge—but also an enormous opportunity. Companies that modernize their capabilities wisely will do far more than gain the ability to comply with LDTI. Done right, they will create a technology infrastructure and mindset that can position them for future growth.

To succeed, insurers must first understand and consider four key aspects of implementation: data, technology, processes, and people. (See Figure 1)

Data

Common data issues are generally related to the varying granularity, availability, quality, and dispersal of that data. These constraints impact the LDTI transition methodology a company chooses—e.g., full retrospective or modified retrospective transition method.[3] They also impact the level of aggregation or grouping, such as calculation for liability for future policy benefits (LFPB), DAC amortization, cash flow assumption setting and disclosure reporting presentation.

At a minimum, the insurer's data management capabilities should enable the automation of data integration. This includes the ability to retrieve policy data from internal or third-party administration and reinsurance systems; to reconcile source data and then feed it through downstream computation, ledger posting and reporting engines; and to store policy information and financial results in a secure, yet easy to access, data lake or results repository (in a cloud or on-site).

New data architectures and data management capabilities should ultimately provide a single source of truth to enable business forecasts and decisions. Many insurers are expanding their data focus into areas beyond LDTI, including:

- Supporting frequent experience analysis and actuarial assumption setting to align emerging business experience and pricing to the underlying risk;
- enabling risk and profitability management and communication with internal and external stakeholders; and
- enabling connections with other aggregated data sources, such as government and third party data, to facilitate analytics. This can help to enhance the policyholder experience during the sales, underwriting and claim processes.

Technology

Insurers will want to reach a consensus with internal and external auditors regarding their actuarial methodology and accounting policy for LDTI. Once data requirements are defined based on policy decisions, insurers are bound to orchestrate the entire data flow for financial analysis and business insights.

Actuaries should assess the actuarial systems capable of performing calculations with frequent assumption updates to support quantitative and qualitative information for disclosures and analytics. These include such measures as the net premium ratio, LFPB, deferred profit liability, DAC amortization over the expected life of the contract, and fair value valuation of market risk benefits (MRB). The finance teams should assess accounting ledger systems capable of configuring the chart of accounts, sub-ledger posting rules, and accounting event hierarchies to support the management of financial data. Both sides must agree on the scope of financial information required to articulate the financial story to management for discussion and reporting.

Current actuarial and accounting systems are often designed in isolation, with little or no integration capability. Many of these systems have integration points that still rely on manual processes like spreadsheets, Microsoft SQL Server or Microsoft Access databases. These shortcomings hinder scaling and

layering automation needed to deliver the speed, accuracy, and transparency demanded by LDTI.

While companies decide between a modular solution that covers the gap with existing systems, or investing in a strategic end-to-end solution, there are three essential capabilities to consider:

1. An open-box computation engine with integration to data lakes or source systems and a results repository;
2. a full sub-ledger posting infrastructure to bridge actuarial and accounting functions to minimize manual processes; and
3. advance reporting with pre-defined FASB disclosures and user-defined visual financial analytics that provide drill-down capabilities, such as illustrating attributions due to the effect of changes in a) discount rates and cash flow assumptions for the LFPB rollforward, and b) market data or future expected policy behavior for MRB.

Insurers that plan to file financial statements on a dual-accounting standard, such as International Financial Reporting Standard 17 (IFRS 17) and LDTI, can further benefit from technology synergy to save time and cost. The dual-standard requirements can be fulfilled in a centralized environment using a unified technology platform during the financial close.

Processes

An insurer's LDTI process needs to be repeatable in an automated and governed environment. The process is obliged to satisfy auditors' requirements with sufficient controls and documentation. Three capabilities must be paramount:

1. The ease of moving financial information from the actuarial system to the accounting system in a controlled, auditable, and traceable environment;

2. the process fits within the financial closing calendar, complementing the present and future-state ecosystem and staying current with regulation updates; and

3. reduction of existing manual processes and touchpoints with a clearly defined workflow framework.

A similar process should also apply to other financial reporting processes—for example, the U.S. statutory reporting required by the National Association of Insurance Commissioners. A comprehensive accounting reporting process provides a holistic view of business insights within different financial lenses and enables actuaries and accountants to communicate financial results.

A governance process is foundational for evaluating the health of an enterprise risk portfolio. Similar governance disciplines could be adopted and deployed to other functions such as sales, billing, underwriting, claim process, and product development. These disciplines become rewards in the long run.

People

While organizations tend to focus on the data, technology, and process facets of large-scale initiatives, it's important to remember that people are at the center of any LDTI implementation. LDTI will require integrative organizational changes and demand collaboration across the IT, accounting and actuarial departments. The level of staff enablement will vary and demands alignment before developing LDTI requirements. Implementation will also require the full-time attention of a multidisciplinary internal team augmented by external subject matter experts, including a technology provider with robust industry expertise. Companies that act quickly will have an edge in securing the proper resources.

Seizing the opportunity to transform and modernize also presents a valuable opportunity for insurers to begin closing the sector's long-standing talent gap. Promoting the right data, technology and processes can help attract, motivate and empower insurance professionals with a penchant for tech-savvy analytical applications, automation and interface platforms. In turn, attracting and retaining highly skilled and loyal employees—from distribution channels to customer administration and service, underwriters to actuaries and accountants, and technology stewards to data scientists—can become a differentiator from one's competition.

NO TIME TO WASTE

Among many competing priorities for the insurance industry, achieving operational excellence with a smart business model is among the most pressing. At the top of the list are technology modernization and innovation. The industry has been playing catch-up with technology, as replacing legacy systems and processes with new technology across complex ecosystems can be a daunting task.

Buy Versus Build

"Buy versus build" is one of the most critical early decisions that companies will make for LDTI compliance. Building in-house capabilities can provide a sense of control. However, in an ever-changing climate, insurers must ask themselves if they have the appetite for complex application development that must be done correctly and on-time.

Companies that went through a similar regulatory compliance exercise with IFRS 17 learned some valuable lessons about homegrown solutions. Tackling the intricacies of LDTI will require skilled project management, IT, actuarial and accounting resources during the design, development and implementation phases and far beyond. The biggest potential pitfalls include:

- **Ongoing regulation updates:** Is the organization certain it can successfully complete each element required for an end-to-end process while staying current on all existing requirements? Is it also comfortable anticipating (and complying with) future changes to regulatory requirements?

- **Time/resources:** Is the organization comfortable assuming the risk of delivering the capabilities on time? Does it have sufficient governance processes and resources?

- **Costs:** What will the development of in-house capabilities ultimately cost the organization? Competing organizational priorities and unpredicted requirement changes can make implementation and operational costs uncertain.

Taking these factors into account, most insurers favor the "buy" strategy or a hybrid approach, which enables them to mix internally developed components with external solutions. Using in-house development and aligning external partners can optimize the speed and flexibility with which companies transform.

The Path to Transformation

As consumer behavior and demographics shift across markets, insurers ought to find ways to demonstrate value to an ever-broadening clientele with diverse needs and preferences. This makes pricing to the right level of risk and building long-term financial strength and trust among the insured more important than ever. Insurers are applying the LDTI-inspired financial transformation mindset to other scalable business transformations to win customer loyalty while achieving operational excellence with initiatives like:

- Adding predictive modeling and artificial intelligence tools to target new markets with culturally and financially relevant outreach,

- shortening the insurance application process with digital automation and online customer interfaces,

- simplifying and accelerating the underwriting process,

- streamlining claim processes to improve policyholders' experience, and

- friction-free strengthening of fraud detection and protection algorithms throughout the policy life cycle.

The insurance industry has proven its value to the market over the past decades, but to thrive in a competitive market, insurers must create new value propositions to increase market share and profitability through innovation. LDTI is one of many exciting opportunities for life insurance companies to transform, and the time to start is now. ■

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ENDNOTES

1 *www.FASB.org.* The FASB issued the new accounting standard ASU2018-12 - Financial Services – Insurance (Topic 944): Targeted Improvements to the Accounting for Long-Duration Contracts (LDTI). The new standard applies to all public and private US companies, and US companies with international business that have certain long-duration life Insurance contracts and GAAP regulatory compliance requirements.

2. FASB's In Focus, Aug. 15, 2018. *https://www.fasb.org/cs/ContentServer?c=FASBContent_C&cid=1176171063168&d=&pagename=FASB%2FFASBContent_C%2FGeneralContentDisplay*

3. *www.FASB.org.* ASU 2018-12 944-40-65-2 requires measuring market risk benefits using a full retrospective transition approach.

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Accounting for Ceded Reinsurance Under LDTI—A Fresh Look

By Steve Malerich

Editor's note: The views expressed in this article are those of the author and do not necessarily reflect the views of the author's firm.

Despite little change to explicit reinsurance accounting provisions, GAAP's Targeted Improvements to the Accounting for Long-Duration Contracts (LDTI) will complicate the relationship between direct and ceded reinsurance accounting. In the September issue of *The Financial Reporter*, I gave an overview of ceded reinsurance accounting under LDTI.[1] In this article, I examine the amended standards as if there were no precedent and with a focus on products that require net premium reserves. Conclusions could differ for other products, such as universal life with no additional liabilities.

OBJECTIVES

This article considers only interpretations that satisfy the following objectives. Other interpretations will be addressed in a future article.

Compliance

The first objective of accounting for reinsurance must be to comply with the standards. Any set of standards, however, is a combination of principles and rules. Though its very name suggests that GAAP is a set of principles, its level of detail includes a substantial element of rules. Finding the balance between principle and rule can be challenging, for the people writing the standards and for the people who must comply with them. This is especially true of accounting for ceded reinsurance and opinions do vary around this distinction.

Performance

Beyond compliance, LDTI's Background Information and Basis for Conclusions noted in paragraph BC10 that "the Board decided to retain the existing net premium reserving model." In paragraph BC50, "The Board observed that under the existing net premium insurance accounting model, total cash inflows and outflows over an entire contract's life are aggregated to calculate a net premium ratio that is used to derive a constant profit margin over the entire contract life."

Given the decision to retain the net premium model as described, it seems unlikely that the Board would want accounting for reinsurance to counter that effect unless the economics of the treaty itself were significantly different from the reinsured contracts. Short-duration reinsurance, for example, would affect performance for only a portion of the underlying contract life.

In practice, therefore, I look for long-duration reinsurance accounting to preserve the constant margin inherent in accounting for the reinsured contracts. The net cost of the long-duration reinsurance should affect only the size of the margin. Also, for assumption updates, remeasurement of the reinsurance

asset or liability should, to the extent cash flows are reinsured, align with remeasurement of the corresponding direct liability.

Simplicity

Though not required, companies might prefer a method that can be applied consistently to a variety of reinsurance contracts. Besides the practical benefit, this could ensure that differences in results reflect differences in contract characteristics rather than differences in accounting.

A CLEAN SLATE

Accounting Standards Codification (ASC) defines reinsurance recoverable in the ASC 944-40-20 glossary. The definition includes "estimated amounts receivable for … policy benefits." ASC 944-40-25-34 requires recognition of reinsurance recoverable "in a manner consistent with the liabilities (including … future policy benefits)" using "Assumptions … consistent with … the related liabilities." Together, these suggest that it would be correct to recognize a reinsurance recoverable asset corresponding to the direct liability for future policy benefits.

There is no definition of cost of reinsurance other than the reference in ASC 944-605-30-4 stating that it includes "The difference, if any, between amounts paid for a reinsurance contract and the amount of the liabilities relating to the underlying reinsured contracts … ." ASC 944-605-35-14 requires "Amortization of the estimated cost of reinsurance … over the remaining life of the underlying reinsured contracts if the reinsurance contract is long-duration … ." The standards do not prescribe a manner of amortizing the cost of reinsurance, but ASC 944-605-35-15 does require "assumptions … consistent with those used for the reinsured contracts."

Some reinsurance treaties permit net settlement of cash flows between the ceding and assuming companies. This "right of setoff," defined in the ASC master glossary, could support a decision by the ceding company to net reinsurance recoveries and premiums into the calculation of a single asset or liability for the net recoverable or cost.

The following analysis does not include the special considerations involved in accounting for new reinsurance of existing contracts. These will be addressed in a future article.

Reinsurance Recoverable

A reinsurance recoverable amount relating to the liability for future policy benefits will include estimated amounts recoverable in the future. For now, I consider only recoverable benefits without regard to any right of setoff. Recoverable amounts include future benefits and any allowances corresponding to non-level expenses included in the direct liability.

To be consistent with the related liabilities, reinsurance recoverable must be calculated using a net premium method with retrospective update for assumption changes and actual experience. To achieve the performance and simplicity objectives described above, direct and ceded reserves need to accrue on the same base—direct premiums.

Cost of Reinsurance

With reinsurance recoverable as described above, the performance and simplicity objectives also require that the "estimated cost to be amortized" (ASC 944-605-30-4) includes all reinsurance premiums, and that these costs be amortized on a direct premium base using a net premium method with retrospective updates for assumption changes and actual experience.

Net Recoverable or Cost

"A right of setoff … by contract or otherwise" (ASC Master Glossary) could justify netting reinsurance premiums and recoveries into the calculation of a single ceding reserve. Again, to achieve the desired objectives, this must accrue on the same direct premium base as the liability for future policy benefits, using a net premium method with retrospective update for assumption changes and actual experience.

For coinsurance, reinsurance premiums are already proportional to direct premiums and the asset will be the same as if it were accrued only for recoverable benefits. For yearly renewable term, the contribution of reinsurance premiums will substantially offset the contribution of recoverable amounts, producing a much smaller reserve that could be either an asset or a liability.

Expense Allowances

In the above calculations, reinsurance premiums should not be reduced for most coinsurance allowances.

Non-level allowances are mostly subtracted from deferred acquisition costs or added to recoveries. Level allowances (including inflation-adjusted maintenance allowances) mostly correspond to costs that must be charged to expense as incurred.

Only the remaining allowances would be applied to reduce reinsurance premiums.

… remeasurement of the reinsurance asset or liability should, to the extent cash flows are reinsured, align with remeasurement of the corresponding direct liability.

Precedent

Looking at standards as they are written, together with current knowledge about the dynamics of various calculation methods, can help to visualize an ideal. The approaches described in this article are all aimed at that ideal. They are not, however, universally recognized as proper interpretations of GAAP and they differ from some established practices in ways that go beyond updating for LDTI.

Since the reinsurance accounting provisions themselves have not changed, we can't ignore precedent. In the next article, I will look at some established practices and consider how they might change. ■

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ENDNOTE

1 "Accounting for Ceded Reinsurance under LDTI—Introduction" by Malerich, *The Financial Reporter*, September 2020