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# IFRS 17—A Paradigm Shift for U.S. Actuaries

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The IFRS insurance accounting standard, IFRS 17, was finally published by the IASB in May 2017 after two decades in the making. IFRS 17 is designed to align insurance accounting across the globe with increased comparability and transparency. More than 120 countries around the world have adopted IFRS. While the United States has not adopted IFRS, and does not expect to “at least for the foreseeable future,” IFRS is expected to be “very significant to both U.S. investors and companies” according to the SEC.<sup>1</sup> Companies that have a multinational footprint are likely impacted by IFRS, whether it is for public financial reporting, or from the perspective of cross-border activities that involve non-U.S. stakeholders. As a result, actuaries who practice in the United States, whether

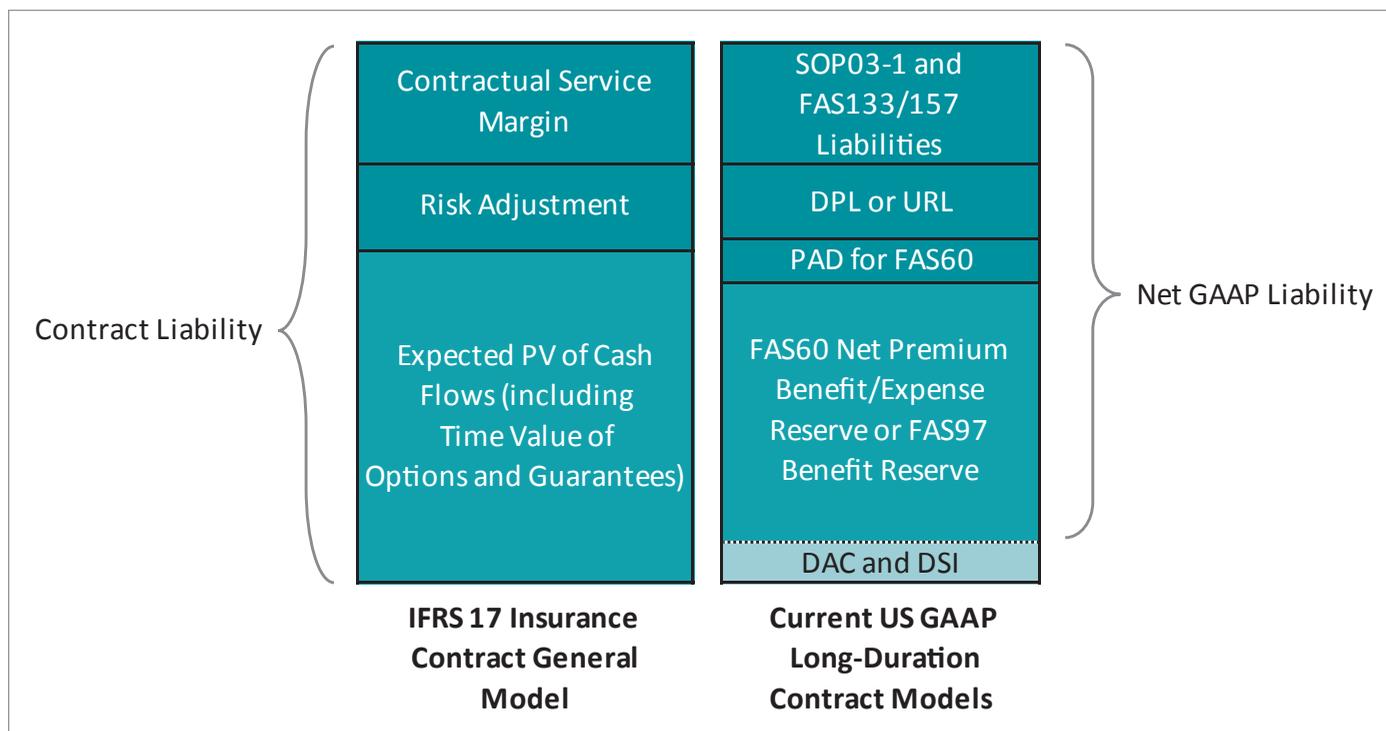
employed by or providing consulting services to these companies, will be impacted and need to be ready for the new standard. The effective date is not until Jan. 1, 2021, but the one-year comparative reporting, implementation efforts, as well as potential financial and business impact assessments that companies will want to conduct in preparation for the transition, will make IFRS 17 a reality sooner for U.S. actuaries. It is important for these actuaries to understand and embrace the changes.

In this article, we will focus on introducing where the IFRS 17 General Model differs from US GAAP conceptually, and key aspects of this paradigm shift from an actuary’s perspective. Unless otherwise noted, we will focus on long-duration insurance contracts.

## MEASUREMENT MODEL

IFRS 17 defines a General Model that is widely applicable to all (re)insurance products, with variations when applying to participation contracts and certain short-term contracts. As illustrated in Figure 1, under IFRS 17, insurance contract liabilities consist of three building blocks under the General Model—unbiased probability-weighted mean present value of future cash flows (expected PV of cash flows)<sup>2</sup>, risk adjustment (RA) and contractual service margin (CSM).

Figure 1  
Illustrative Comparison of Measurement Models—IFRS 17 vs. US GAAP



For U.S. actuaries, the three building blocks under the General Model can be analogized to what we are familiar with under US GAAP as follows:

1. The expected PV of cash flows is essentially a gross premium valuation reserve that is often computed as part of the premium deficiency test in the United States. Unlike U.S. accounting models that employ a net premium valuation approach which produces a zero reserve at inception that essentially pushes the profit loading in the gross premiums to later periods, the IFRS 17 General Model captures all future profits or losses in its initial recognition of the expected PV calculation plus a required risk compensation (i.e., the RA). For those U.S. actuaries who have already dealt with Solvency II, the Best Estimate Liability under Solvency II is also akin to this component of IFRS 17. It is worth highlighting that there is no explicit DAC under IFRS 17, though implicitly acquisition expenses are essentially deferred via the CSM which is discussed below.
2. The RA is defined under IFRS 17 as a provision to account for the compensation required by the issuing entity for bearing the non-financial risks associated with the insurance contracts. Under US GAAP, FAS 60 requires a provision for adverse deviation as a margin for uncertainty which is often set as a fixed percent of best estimate assumptions, whereas IFRS 17 sets out qualitative principles for the RA and a required confidence level disclosure. A closer analogy to the IFRS 17 RA is the risk margin required under FAS 157; however, FAS 157 is a fair value model and its risk margin reflects the view of the market, not the view of the issuing entity.<sup>3</sup> The Solvency II risk margin, which is a cost-of-capital calculation, is also akin to the IFRS 17 RA, despite its different measurement objective (i.e., regulatory). The Solvency II risk margin also reflects risks that are not allowed to be included in the IFRS 17 RA, such as general operational risk, asset liability mismatch risk and financial risk.
3. The CSM is set up at issue if any profit is resulted from the gross cash flow calculation. Conceptually, the CSM can be analogized to the deferred profit liability (DPL) under FAS 97 Limited Pay, or unearned revenue liability (URL) under FAS 97. Mechanically, it is released over time to reflect the services provided on the basis of duration and quantity of services, much like DAC under US GAAP. CSM under IFRS 17 also functions as a shock-absorber to offset favorable or unfavorable changes in future cash flows. The shock-absorbing feature is essentially a prospective unlocking where changes in assumptions related to future services do not result in any current period income statement impact, to the extent the impact can be absorbed by the CSM. In comparison, US GAAP applies a retrospective unlocking



for FAS 97 DAC under which future assumption changes impact the current period income. Under the FASB targeted improvements for long-duration contracts, retrospective unlocking will be eliminated for DAC, but it will be required for benefit reserves of long-duration contracts, according to FASB's latest tentative decisions as of November 2017.

In short, IFRS 17 sets out one comprehensive measurement model that is widely applicable to all contracts with some variations for certain short-duration contracts, and contracts with participation features. This model includes a mechanism to build a risk provision in the liability, recognize losses, and defer and release profits in a systemic way. This fundamentally differs from current US GAAP valuation which has a variety of measurement models depending on accounting classifications. In addition, IFRS 17 can be viewed as a balance-sheet-oriented framework, while US GAAP is often viewed as an income-statement-oriented framework.

## COMPUTATION REQUIREMENT

IFRS 17 requires the expected PV of cash flows to be a current estimate, equal to the unbiased “probability-weighted mean of the full range of possible outcomes considering all reasonable and supportable information available at the reporting date without undue cost or effort” (paragraph B37 of IFRS 17). The implication is that for contracts with embedded options or guarantees, companies will need to justify that the calculated PV of cash flows captures the resultant cash flow asymmetry, whether through a separate time value of options and guarantees (TVOG) or included as part of the expected PV of contract cash flows. This will require actuaries to exercise caution and carefully determine whether a stochastic run is warranted for contracts with optionalities. TVOG can be somewhat analogized to US GAAP liabilities that are supplemental to benefit reserves such as SOP 03-1.

Under existing US GAAP, deterministic valuation is the prevalent approach for both traditional and non-traditional insurance contracts. For guaranteed death benefits, no lapse guarantees, annuitization benefits and other life-contingent living benefits, SOP 03-1 is the applicable accounting guidance under US GAAP which requires the consideration of a range of scenarios. However, most companies still calculate the contract assessments in a deterministic fashion, or use hand-picked scenarios with assigned weights, even for variable products. Stochastic calculation is only common when estimating claims for variable products with dynamic policyholder behavior that is linked to capital market performance. One reason for the prevalence of deterministic approach is the “book value” nature of the SOP 03-1 liability. It is not a “current value” type of liability that is designed to capture future obligations resulted from optionalities embedded in the contracts at a given reporting date. Instead, it accretes over time based on the relationship of anticipated claims and assessments under the “going concern” premise. Hence, the SOP 03-1 liability is less volatile than a “current value” liability and it has not been deemed critical to employ a full stochastic approach to capture the optionality cost. However, under the IFRS paradigm, the contract liability is supposed to represent a current estimate of what is necessary to fulfill the contract, thus it becomes more critical to consider stochastic scenarios to capture cash flow asymmetry when there are embedded options or guarantees.

In addition, the required confidence level disclosure for the RA may also drive the increased use of stochastic modeling. IFRS 17 does not specify any technique, but requires the reporting entity to disclose the confidence level used to determine the RA. To meet this disclosure requirement, it will be necessary for actuaries to understand the probability distribution of cash flows. There may be shortcuts available by leveraging existing Solvency II or economic capital calculations, but it is certain that a traditional deterministic approach will no longer be adequate.

## SOURCE OF EARNINGS

Actuaries are often asked to perform a source of earnings (SOE) analysis to understand the emergence of profits in a way that highlights the impact of significant actuarial and economic drivers. Different companies may have different types of analyses that vary by product, which may range from basic restructuring of the current income statement to sophisticated comparison of actual and projected profit emergence on multiple accounting

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and assumption bases. For instance, under US GAAP, due to the different designs of reporting for FAS 60 and FAS 97 products, the work involved in constructing an SOE analysis varies—US GAAP reporting for FAS 97 products presents a period’s financial results in the income statement in a way that somewhat already aligns with the objectives of an SOE analysis. Additional complexity may exist in order to construct an informative SOE if there is an SOP 03-1 liability. For FAS 60, a typical SOE generally involves disaggregating the reserve change line by using the Fackler recursive reserve formula, and analyzing the changes by profit drivers such as deaths, surrenders, investment income, etc.

What will an SOE analysis look like under IFRS 17, and what type of effort will be required to construct an IFRS 17 SOE? The IFRS 17 income statement plus associated disclosures is very actuarial-driven, unlike the conventional accounting presentation where the actuarial calculation is primarily corralled into the “change in reserve” line. As mentioned, the CSM is established at initial recognition and captures the future profit. If experience emerges exactly as anticipated, its release is expected to be the main profit driver. In reality, profits will not emerge as anticipated, and different dimensions could be used in constructing an SOE analysis under IFRS 17:

1. By assumption drivers—mortality, surrender, premium and expenses. Similar to how SOEs are constructed for US GAAP FAS 60 products, actuaries could continue to attempt to analyze actual to expected deviations around these assumptions. This dimension centers on the first building block of the IFRS General Model. However, given the prominence of the CSM in profit recognition, the CSM should be built into the SOE too, as well as the RA. In addition, the effect of changes in discount rates and other financial assumptions should be considered. Under IFRS 17, companies can choose where to present such effect to minimize accounting mismatch—either in profit or loss, or disaggregated between profit or loss and other comprehensive income. Such decisions will affect the SOE analysis.
2. By liability components—PV of cash flows, the RA and the CSM. Paragraph 101 of IFRS 17 requires disclosure of reconciliations from opening to closing separately for each of the three liability components. This disclosure can be directly leveraged for the SOE.
3. By service periods—IFRS 17 is very specific as to the treatment of services from the past, current and future. For instance, the General Model also applies to the claims reserve valuation, which is related to past services provided. For current period services, one can readily find from the income statement the release of CSM, RA recognized for the risk

expired during current period, and other experience adjustments. For future services, change in estimates will impact all three liability components, and there will be an impact on the income statement if the CSM for certain groups is not sufficient to absorb unfavorable changes related to future services. In addition, paragraph 104 of IFRS 17 requires the disclosure of the reconciliations (required by paragraph 101) to include changes that relate to past, current and future services. The IFRS's Effects Analysis on the standard<sup>4</sup> provided a sample table (Table 3 within Illustration 4 in Appendix B) that can serve as a reference point.

In short, it will take some careful design, but the restructuring exercise may not be a significant effort, on top of the preparation for the already comprehensive IFRS 17 income statement and associated disclosures. It can be further viewed that IFRS 17 provides an opportunity for actuarial and finance professionals to rethink and redesign the SOE.

### COORDINATION WITH OTHERS

As alluded to above, IFRS 17 presentation and disclosure are complicated and will require deep actuarial involvement. Under IFRS 17, there will be fingerprints of actuaries all over the statement of comprehensive income. More than ever, actuaries will need to work with finance professionals.

Even at the beginning of the financial reporting cycle, when products are first being introduced to the market, valuation actuaries will need to get together with pricing actuaries and finance professionals to determine contract grouping. Under IFRS 17, an entity is required to measure the CSM at the group level, and the grouping determination by default is performed based on individual contract level assessment of profitability. However, the contract level calculation may be avoided to the extent the entity has reasonable and supportable information to conclude whether a set of contracts are onerous<sup>5</sup> or have no significant possibility of becoming onerous subsequently (paragraph 17 of IFRS 17). One conceivable source of such information is from pricing. Over the years, U.S. valuation actuaries have coordinated more with the pricing team under the migration to a principle-based statutory framework. With the implementation of IFRS 17, the level of coordination required will only be heightened.

In addition, in the process of implementing IFRS 17, actuarial models and IT infrastructure will require significant enhancement to facilitate alternative assumptions, increase in number of runs, faster processing, more detailed and granular output, tracking of locked-in yield curves and other comprehensive incomes, and storage of cash flows and attributions. Tracking, releasing and unlocking of CSM will involve both finance and actuarial elements. It is fair to say that actuarial inputs will be

sought after throughout the IFRS financial reporting process including the transition exercise.

### CONCLUSION

The adoption of IFRS 17 is a paradigm shift which will effectively result in two mandatory public financial reporting standards for some U.S. companies. IFRS 17 defines a comprehensive measurement model and resultant financial presentation that are both conceptually and technically different from current US GAAP as well as the foreseeable future state of US GAAP. Implementing and reporting under IFRS 17 is going to be a significant challenge for US actuaries whose practice areas intersect with IFRS. However, this compliance exercise can be turned into opportunities for actuaries—it is an opportunity to coordinate with cross-disciplinary professionals, and to become more professionally well-rounded. It is an opportunity to provide actuarial expertise and insights into other areas of financial reporting and internal management to improve the process for your employer and clients. It is also an opportunity to think outside of the “valuation” box as to how to most efficiently standardize and modernize the overall reporting process, incorporating the efforts of actuaries, finance professionals and IT resources to prepare your company not only for IFRS 17, but also for the upcoming US GAAP changes. ■

*The views reflected in this article are the views of the authors and do not necessarily reflect the views of Deloitte.*



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### ENDNOTES

- <https://www.sec.gov/news/speech/keynote-address-2016-aicpa-conference-working-together.html>
- The first block is sometimes also referenced as two building blocks with the time value of money separated out from cash flows.
- FAS 60 is now incorporated in ASC 944 in the updated FASB Codification, along with FAS 97 and SOP 03-1 which are also referenced in the article. FAS 157 is now known as ASC 820.
- <http://www.ifrs.org/-/media/project/insurance-contracts/ifrs-standard/ifrs-17-effects-analysis.pdf>
- According to IFRS 17, an insurance contract is onerous at the date of initial recognition if the fulfilment cash flows in total are a net outflow for this contract.