SOCIETY OF ACTUARIES

Article from
The Modeling Platform
November 2019
Issue 10

Play Ball! Modernizing for LDTI

By Tim Koenig

Over the past couple of years, companies have been gearing up to comply with new long-duration targeted improvements (LDTI) guidance from the Financial Accounting Standards Board (FASB). Some waited too long to start discussing accounting policy decisions and their resulting impact on actuarial model(s), thereby increasing execution risk, and have felt like they're down in the bottom of the ninth inning. On the other hand, some started early. Having already made planning progress and now nearing an execution phase, perhaps they feel like it's a tie game in the top of the fourth, unsure of what the future innings have in store.

RAIN DELAY

In mid-July, regardless of the ballgame status, it rained. On July 17, FASB announced a deferral of the compliance deadline: "a one year deferral for larger SEC [Securities and Exchange Commission] filers and a two or three year deferral for all other entities."[1]

What does this mean?

For the companies in the bottom of the ninth, their game plan doesn't change, they just get some rest before those last few at-bats, as they now have more time for testing model capabilities and planning for the scenario of a longer-than-expected implementation. The companies in the top of the fourth, however, have an opportunity to treat this rain delay as a downpour. In this extended metaphor, it is conveniently the fourth inning, so a long rain delay results in a new game, a pivot to modernization.

> FASB announced a deferral of the [LDTI] compliance deadline … companies have an opportunity to treat this rain delay as a downpour.

What does using LDTI to modernize look like?

- Converting valuation and projection processes to a new modeling platform poised for LDTI compliance
- Building a new "one-source-of-truth" database solution
- Automating feed of data and assumptions to model
- Feeding post-processing calculation engine and automated results to LDTI disclosure templates
- Automating reporting dashboards of LDTI metrics using new technology such as Tableau or Power BI

These are very high-level bullets, and one could write entire articles on each. Rather than hitting on each of these, here are two brief pieces of advice for "managers" to consider as they strive to improve their team—although not as profound as Yogi Berra's "Baseball is 90 percent mental; the other half is physical," or "When you come to a fork in the road, take it."

ESTABLISH SIGNS AND KNOW THE STRIKE ZONE: IDENTIFY DEPENDENCIES

Smack! The ball hits the catcher's mitt for a called strike three on the outside corner. This all happened due to a string of dependencies. For instance, the pitcher depended on the catcher to signal for a pitch that exploited the batter's weaknesses, and the catcher depended on the umpire to maintain consistency in his strike zone. Furthermore, these dependencies may have been identified the hard way. Perhaps the catcher struck out looking at an outside pitch his last at-bat and noted this for the future.

When it comes to complying with LDTI, companies can't afford to strike out or forfeit home runs to realize they did not properly identify and act upon dependencies. Rather, they must identify them early, before the implementation phase of the project. Many modernization projects involve multiple workstreams. Just as the pitcher and catcher must communicate, the modeling workstream must communicate with the accounting policy workstream, the accounting policy workstream with the data workstream, and so on. Consider this scenario. The accounting policy workstream is deciding to set the discount rate using either a forward curve or average rate. Based on impact estimations and other discussions, they decide to go with forward rate. A few months later, when the modeling team goes to incorporate this decision, they discover the model has limitations and can only accept an average rate. Other project tasks were dependent on this task, and one missed communication point ultimately resulted in a project delay.

Utilizing project management tools to identify dependencies among several tasks and workstreams before implementation begins is crucial. Not only does this improve project flow, but it also identifies pain points early. If a lack of model capability is consistently the limiting factor, perhaps the company should strongly consider a conversion to a modeling platform poised for LDTI compliance.

To successfully identify and address dependencies, communication is key. Under the vast umbrella of communication, it is vital that management place emphasis on 1) employee education and 2) cross-workstream collaboration. Employees should take time to thoroughly understand the new guidance. This can be accomplished by watching instructive videos or reading detailed outlines such as PwC's In-Depth Manual[2] or the Accounting Standards Update (ASU)[3] itself. Regardless of the means, a strong base will enhance dependency identification abilities. For instance, an employee would not appreciate the important role historical data plays in the market risk benefit (MRB) calculation if they do not learn that the attributed fee must be calculated from inception. Once educated, team members from different workstreams must frequently collaborate to gain understanding of other team's perspectives and ensure teams prioritize tasks that impact other workstreams. Introducing cross-workstream oversight can help to enforce a culture of workstreams joining forces to reach common goals and to prevent anything from "falling through the gaps."

HIT THE CUTOFF MAN: THE ASSUMPTIONS DATABASE

Crack! The ball pops off the hitter's bat, just clears the leaping shortstop's glove and splits the sprinting left and center fielders as it makes its way to the warning track. As the runner on base rounds third and heads for home, the outfielder does not attempt to throw home, but instead targets the cutoff man. By doing so, the cutoff man can make a more accurate throw home as he is much closer. Although a long throw from outfield to home is exciting, it has a low success rate and high risk of error. With each long base hit, this risk reappears, and the cutoff man runs out to mitigate this risk every time.

FASB's new requirements greatly increase the number of assumptions a company must review, update and maintain. Each assumption introduces additional risk. The ball (assumption) is hit to the wall, and it somehow needs to make its way to home plate (embedded in the final required disclosures). We recommend to hit your cutoff man, the assumptions database. An assumptions database helps to address the new implication of having to maintain many more assumptions at granular levels. A few examples are:

- **Requirement.** Periodically update Financial Accounting Standards (FAS) 60[4] assumptions for reserve unlocking
- **Implication.** Rather than maintaining one set of locked-in assumptions, store multiple sets of assumptions for each unlocking valuation date
- **Requirement.** Update the liability for policyholder benefits (LFPB) discount rate every quarter, but calculate its underlying net premium ratio (NPR) using its original discount rate from inception or transition date
- **Implication.** Store original curve—either a forward curve, spot curve or average rate depending on company's account policy decisions—and curve at each quarter moving forward in order to build required LFPB disclosures and rollforwards
- **Requirement.** Calculate an attributed fee percent (AF%) at inception for each contract with an MRB
- **Implication.** Store this locked-in AF%, which equals the ratio of the fair value of expected MRB benefits to the fair value of expected total fees, at a seriatim level for every single policy containing an MRB

Having one source of assumptions will mitigate risks of errant handoffs from assumptions teams to modeling teams to valuation teams. This can also enhance process efficiency, as maintaining all assumptions in a consistent structure period over period allows companies to automate the process of updating the database and feeding the models.

These assumptions will also be applied at different levels. An LFPB may be calculated at a cohort level that was determined based on issue year, while an MRB will be calculated at the policy level. Thus, assumptions must not only be maintained at a granular level but also map to higher level groupings such as cohorts.

PLAY BALL!

The end of the game may seem far away as we sit in the dugout during this rain delay, but the final pitch will be here before we know it. In the meantime, if your company gets the signs right and hits a few cutoff men, along with a few other things, it can enjoy some great success:

- Modernizing an end-to-end process, ultimately increasing efficiency and effectiveness
- Complying with FASB LDTI regulations by the deadline while establishing strong controls and management practices for the future
- Learning from project challenges and pitfalls to develop better practices and strategies for future endeavors

If your company can accomplish that, it will have crossed home plate with the winning run. But for now, it's time to come out of the dugout, play ball and start to modernize because it won't be raining for long. ■

Tim Koenig, FSA, MAAA, is a senior associate at PwC based out of Philadelphia. He can be reached at *timothy.koenig@pwc.com*.

ENDNOTES

1 PwC. 2019. FASB Proposes Standard Deferral of Long-Duration Standard. Aug. 21. *https://www.pwc.com/us/en/cfodirect/issues/insurance-contracts/fasb-deferral-long-duration-standard.html*

2 For a video and outline, see PwC. 2018. Detailing the New Accounting for Long-Duration Contracts of Insurers. May 16. ***https://www.pwc.com/us/en/cfodirect/publications/in-depth/long-duration-contracts-asu-2018-12.html***.

3 Financial Accounting Standards Board (FASB). 2018. Financial Services—Insurance (Topic 944): Target Improvements to the Accounting of Long-Duration Contracts. *Accounting Standards Update*, no 2018-12. *https://www.fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1176171066930&acceptedDisclaimer=true*.

4 Financial Accounting Standards Board (FASB). 1982. Statement of Financial Accounting Standards No. 60: Accounting and Reporting by Insurance Enterprises (FAS 60). *https://www.fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1218220127121&acceptedDisclaimer=true*