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GAAP Targeted Improvements—Unlocking Persistency

By Steve Malerich

In two earlier articles ("Retrospective Noise" and "Unlocking 2.0," *The Financial Reporter*, September and December 2017) I illustrated the noise that can result from the retrospective method when experience is consistently better or worse than assumed and I described a technique for substantially reducing that noise. Both articles examined effects when mortality deviates from the original valuation assumption.

At the end of the December article, I noted that lapses and surrenders typically have a greater effect on subsequent cash flows than on immediate cash flows. In this article, we consider what to do when lapses and surrenders differ from expected.

LAPSE VARIANCES

In Figure 1, with early lapses much lower than expected, earnings are close to ideal without any adjustment to the reserve assumption. Since lapses align with the ultimate assumption after a few years, there is no need for an assumption change. If early lapses were instead higher than expected, the requirement to write off a portion of unamortized deferred acquisition costs (DAC) could significantly distort the earnings pattern, but DAC amortization is outside the scope of these articles.

[As in the earlier illustrations "Expected" shows what would happen if experience exactly follows the original assumption, "Ideal" shows what would happen if the original assumption had correctly anticipated actual experience, and "Retrospective" shows the effect of actual experience when different from the original assumption.]

Figure 1
Favorable Early Lapse Experience

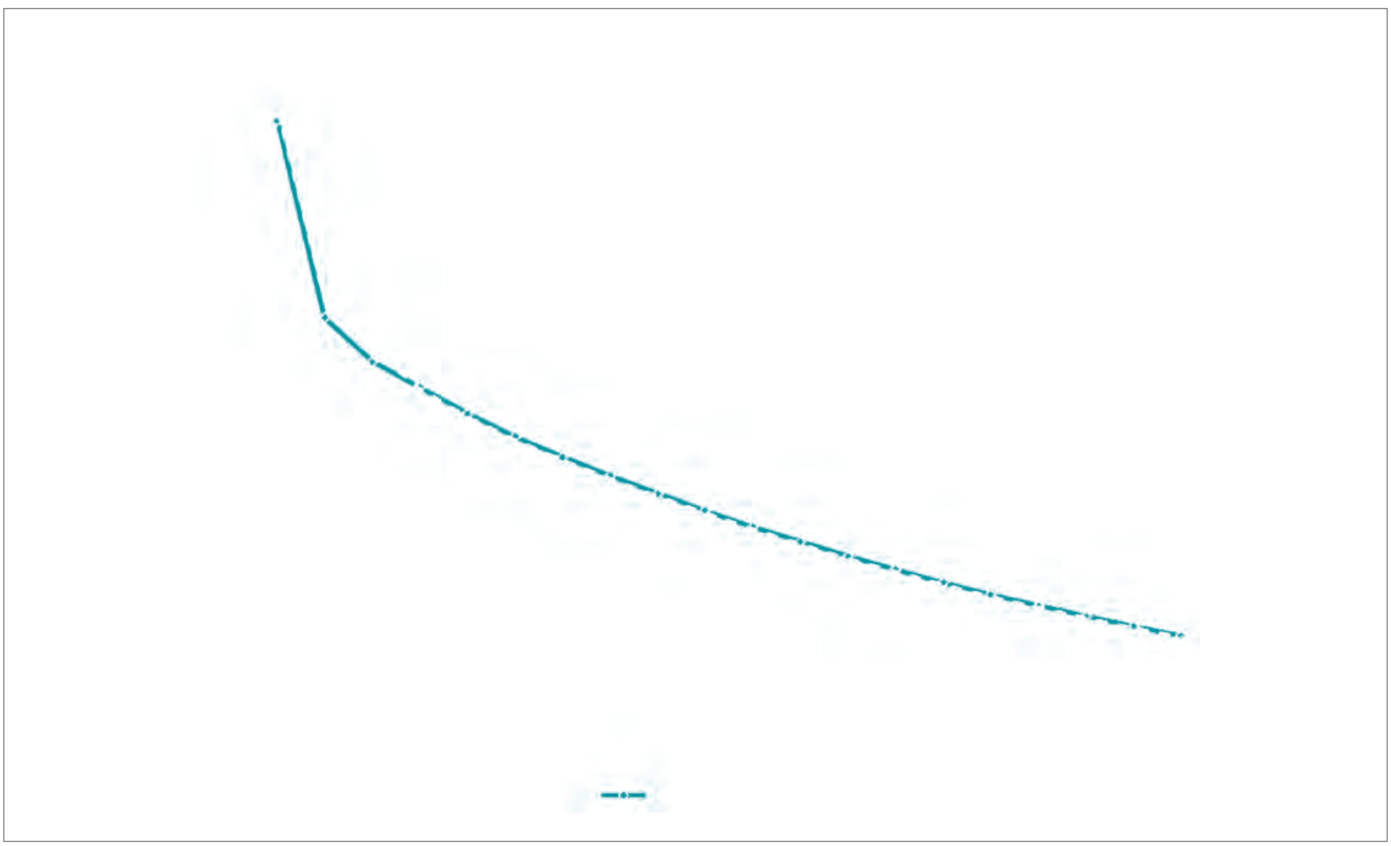


Figure 2
Persistent Adverse Lapse Experience

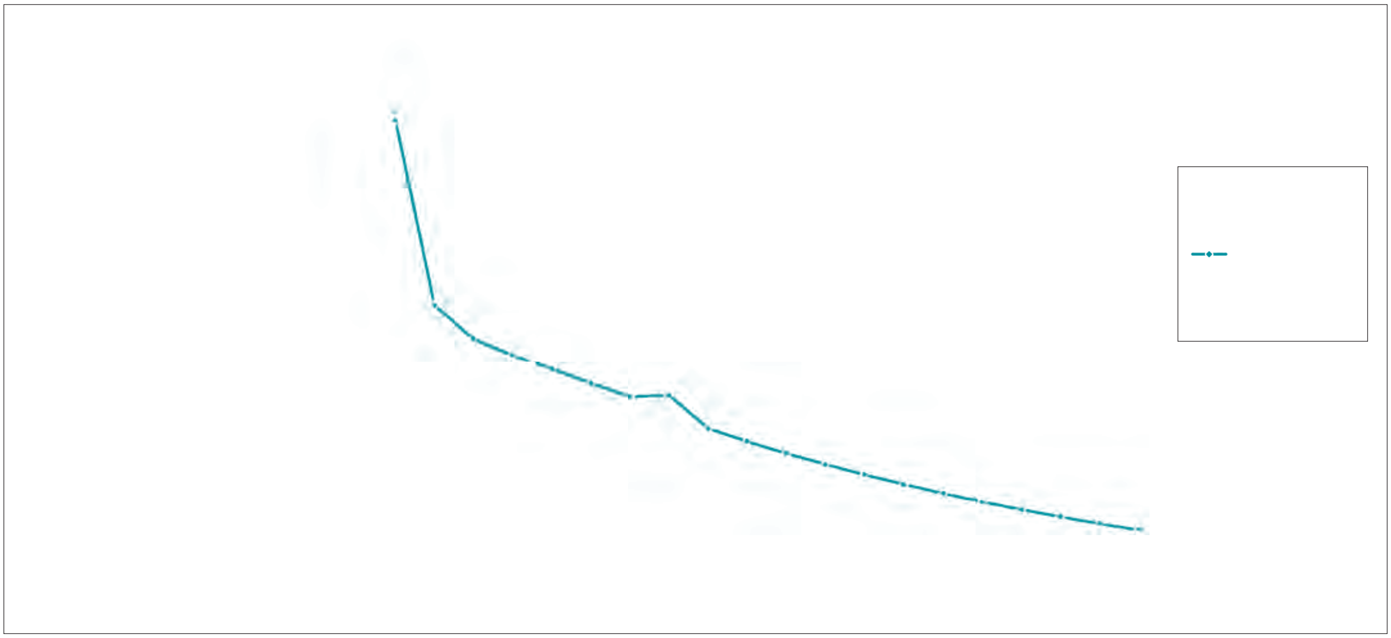
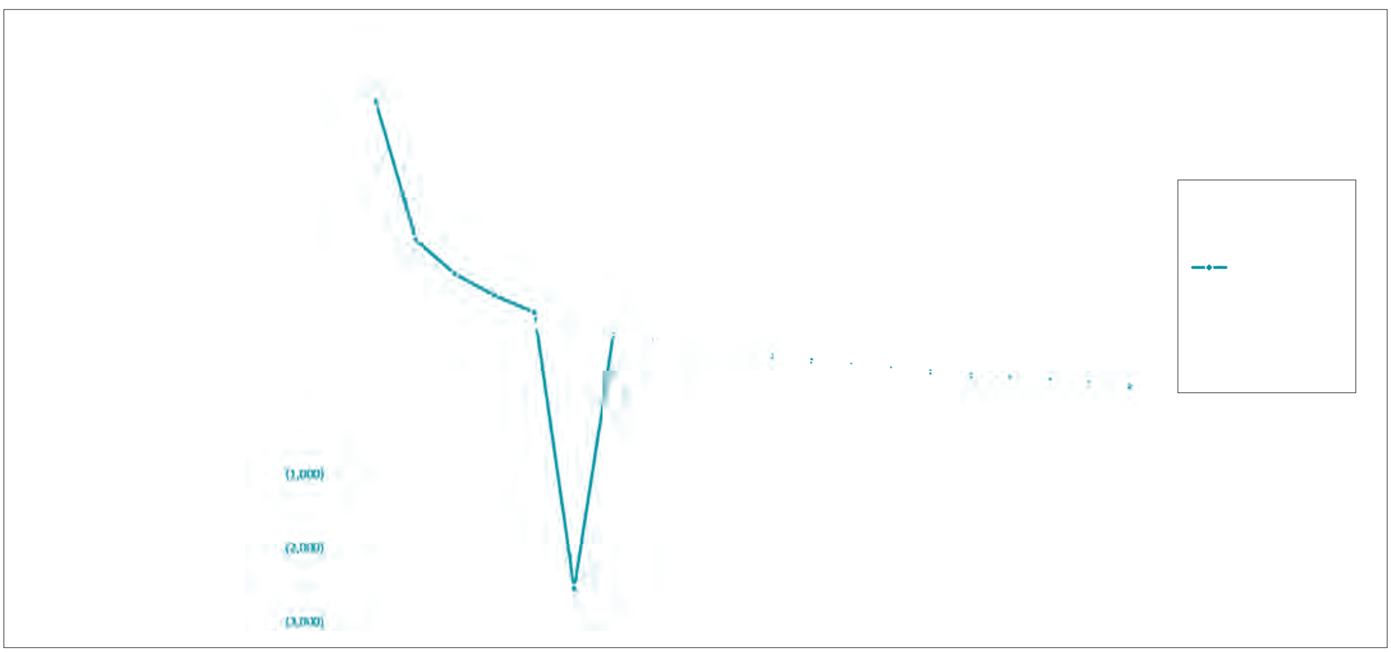


Figure 3
Persistent Adverse Lapse and Mortality



In Figure 2, lapses are higher than expected by 1 percent of the amount in force each year. Recognizing the pattern in year 8, we unlock the assumption.

In contrast to earlier illustrations of mortality, persistent lapse variances and the eventual assumption update have little effect on net income. Even if we could extrapolate from actual experience, we wouldn't see much benefit.

On a whole life contract, where surrenders affect cash flows immediately and far into the future, similar experience is even less significant to profit emergence. For the sample whole life contract illustrated in the earlier articles, the difference between retrospective and ideal is too small to illustrate.

COMBINED LAPSE AND MORTALITY VARIANCES

Figure 3 (page 11) illustrates the effects of persistent adverse mortality and lapse variances, and of unlocking both assumptions in year six. Before the assumption change, only mortality is extrapolated; actual lapses are reflected as they occur.

Having seen insignificant distortions in applying the retrospective method to lapse variances, it should be no surprise that this looks much like December's Figure 3.

Given these illustrations, it seems likely that a formulaic extrapolation from actual lapse experience would cause more problems than it would solve.

PUTTING IT INTO PRACTICE

GAAP will not specify exactly when we should update our calculations for actual experience, except that we cannot delay beyond the annual assumption review.

Unlocking for universal life has shown us that not updating immediately for actual experience can create confusion by separating its effect on DAC (and SOP 03-1 reserves) from its effect on cash flow. If anything, the problem will get worse if applied to traditional contract reserves.

With unlocking 2.0, the reserve is less sensitive to excess claims and there is little to gain from an immediate update for actual claims. The net premium ratio, however, is more sensitive and frequent updates could add volatility to new disclosures.

To realize the benefits of unlocking 2.0 without adding volatility to the disclosures, I expect that many of us will find it best to hold the net premium ratio constant in between annual assumption reviews, updating it earlier only for especially large lapse variances. True up for actual experience, including the ratio of accumulated excess claims to accumulated basis[1], would be done only during the annual assumption review process. That would minimize disclosure volatility and have little effect on the reserve and net income. ■

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ENDNOTE

1 See PV (Excess Claims) in "Unlocking 2.0", *The Financial Reporter,* December 2017, page 30.