Significant Risk Factors
Considerations for MPL Reserves

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Actuaries must deal with uncertainty in calculating loss projections and estimating loss and loss adjustment expense (LAE) reserves. We can assess how actuaries view the riskiness of different lines of business by examining specific disclosures in the Statement of Actuarial Opinion (SAO) which provide loss and LAE reserve information. For insurers specializing in medical professional liability (MPL) insurance, actuaries appear to report more uncertainty in estimating unpaid losses, which is consistent with the higher volatility evident in historical loss development. There is also a maze of state-specific issues that actuaries have to work through when performing their loss reserve analyses.

MPL losses are uncertain—the evidence
A loss development comparison reveals that MPL is a risky line of business relative to other insurance lines. Schedule P, Part 2, of the statutory annual statement shows estimates of net incurred loss and defense and cost containment expense (DCC) over time for 10 accident years. Figure 1
shows the percentage change in the initial loss estimate for an accident year compared to the estimate 10 years later. These estimates consist of paid loss and DCC, case reserves, and held IBNR at year end.

Note that for accident years in the early 1990s and the late 2000s, loss estimates for MPL decreased considerably, which indicates that initial loss estimates were too high. However, for accident years 1998–2001, loss estimates increased substantially and in some years exceeded 20%. While homeowners/farm-owners (HO/FO) and private passenger auto liability (PPAL) experienced some volatility in loss estimates, the magnitude of the adjustments was minor when compared to MPL.

Since they work with greater uncertainty, insurers writing MPL have less premium leverage than others. Table 1 shows the average net written premium (NWP) to policyholder surplus (PHS) ratio (IRIS 2) for companies with more than 50% of premiums in a single line. Given that personal auto insurance is relatively more predictable than MPL, it is likely that less surplus is needed to protect policyholders, and personal auto writers can be more aggressive in taking on more underwriting risk per dollar of surplus.

**Actuarial disclosures in SAOs**

As part of the statutory annual statement, insurers’ appointed actuaries must file an SAO opining on the reasonableness of held loss and LAE reserves on the balance sheet. The opinion includes disclosures that provide insight on the level of uncertainty in the estimated unpaid losses. Many of these disclosures are tied to the Risk of Material Adverse Deviation (RMAD). The RMAD is a “yes or no question,” to which the actuary must respond to the question of whether he believes that there are significant risks that could result in a “material” adverse deviation in reserves. The definition of what is a material adverse deviation is also determined by the appointed actuary. We can gain further insight into the differences between MPL writers and other insurers by comparing these disclosures.

Before responding to the RMAD question, the appointed actuary must first choose a materiality threshold that reflects the unique nature of the insurer. For example, the actuary may decide an insurer with impaired policyholder surplus would not be able to withstand much adverse loss development. In this case, the actuary could determine that if reserves increase by more than 5% of surplus, the adverse development would be “material.” Separately, if the insurer writes riskier lines (like MPL) where considerable adverse development is possible (Figure 1), a larger threshold...
might be used to designate loss development as material.

Table 2 shows the choice of threshold by the appointed actuaries at insurers that had more than 50% of premiums in a single line of coverage. In fact, it appears that actuaries for MPL insurers do choose a higher materiality threshold, since small changes in loss estimates, in relation to PHS, are not as meaningful as they are for more predictable lines like HO/FO.

Once the appointed actuary selects the materiality threshold, he must then say whether or not there is an RMAD. Table 3 shows the RMAD disclosures by insurer type.

Actuaries are more likely to acknowledge that MPL reserves can move significantly by stating that there is an RMAD, despite the fact that the materiality threshold is higher, on average, for MPL insurers. The results also show that workers' compensation insurers disclose affirmative RMAD more frequently than MPL companies; however, Table 2 shows that the selected thresholds also tend to be lower.

**What are the risk factors for MPL writers?**

SAOs contain a significant amount of qualitative information that can be valuable in understanding uncertainty and in assessing the financial strength of an insurance company. The SAO contains a required section in which the appointed actuary must disclose risk factors—the combinations of risk factors or conditions relevant to the statutory entity. Understanding the risks faced by the MPL writer can help the company and its appointed actuary determine if there is an RMAD given its selected materiality threshold.

We reviewed several SAOs of the top MPL insurance writers, as well as several opinions from writers whose MPL book of business had adverse development in 2017. Among the largest MPL writers, there was substantial focus on its long-tailed reserves, the high coverage limits, and concentration risk by line and geographically. There were many additional risk factors mentioned across the opinions, but we’ll review these three key factors in more detail.

**Long-tailed.** MPL is considered a long-tailed line of insurance because claims can take a long time to be reported and, once reported, may take a long time to reach final settlement (Figure 2). There is also exposure to substantial amounts of LAE arising from the duty to defend a claim, even if the claim is ultimately settled for $0 of indemnity. For most MPL insurers, the latency in realizing the ultimate claims settlement value is a key consideration in determining whether their reserves have a significant RMAD.

The longer-term nature of MPL has a direct effect on ratemaking uncertainty. For short-tailed lines, losses are paid out quickly and the insurer can use the prompt feedback to adjust premiums. With long-tailed lines like MPL, it may take many years for an insurer to accurately estimate its ultimate claims once an exposure period expires. In the event that its reserves were deficient, the insurer’s financial results could suffer from underpricing for several years.

**High limits.** The high-severity nature itself of MPL claims can cause uncertainty in regard to a company’s held reserves. Consider a company that writes MPL coverage with $1 million per-claim limits. The company will have potential for late reported claims up to the claims limit and/or exposure on a direct basis to the extent its reinsurer fails. The MPL coverage that purchasers will most likely desire has high coverage limits, so offering lower ones isn’t a suitable remedy for this risk factor.
Concentration risk. Concentration risk can refer to the fact that a company has a large percentage of its writings in MPL or in a particular state or region (Table 4). In MPL, the fact that several companies write only MPL and only in a single state is a combination of risk factors often mentioned in SAOs. Writing within a particular state exposes the insured to risks such as adverse court decisions and other jurisdictional risks. Writing only MPL coverage can mean an absence of the diversification many large insurers have in the event their overall experience of the MPL book of business starts to deteriorate.

The presence of these risk factors does not imply a company is unhealthy; on the contrary, these are risk factors most of the country’s major MPL insurers face. Sometimes these risk factors can actually indicate a solid company due to the focus inherent in their operations. For example, barring an adverse court decision, a company specializing in writing MPL in a particular state may have a breadth of legal and insurance knowledge that makes it possible to offer its insureds the highest-quality coverage.

In our review of the companies with the highest dollar amounts of adverse deviation in 2017, we noticed that many of these insurers mentioned risk factors that were unique to their books of business. This makes some sense, as their reserves are deteriorating. Among risk factors cited by this group are change in mix of business, tort reform (or lack thereof), and specific factors such as opioid-related risks.

For companies whose reserve position is deteriorating, more specific risk factors will better communicate the risk of RMAD to their boards of directors and regulators. Specific legislative changes would affect writers in specific states and perhaps have substantially different impacts on insurers that write specific specialties. Multiple SAOs cited an example involving recent New York legislation. A bill known as “Lavern’s Law” lengthened the statute of limitations for certain cancer diagnosis-related claims. The ambiguity related to this law was listed as a specific risk factor that could lead to material adverse deviation.

**Conclusion**

MPL may be considered risky when compared to other lines of business; in particular, Figure 1 shows that MPL loss and LAE reserves are inherently uncertain. Additional information disclosed by appointed actuaries in SAOs underscores the relative risk of MPL. Actuaries appear to select higher materiality thresholds, more often disclose the RMAD, and mention unique risk factors that are specific to MPL. These disclosures provide an important communication tool for actuaries, insurance company management, and regulators.

**Footnotes**

1. Schedule P shows incurred loss patterns by accident year separately for MPL-occurrence and MPL-claims-made. The loss development patterns illustrated in Figures 1 and 2 are similar for the two coverage types.
2. The results shown here are from SAOs for insurers with more than $20 million of net earned premium for 2015, or 1,110 insurers.