



October 18, 2013

Hon. Monica Lindeen Commissioner of Securities and Insurance 840 Helena Avenue Helena, MT 59601

RE: Montana State Fund Review

Dear Commissioner Lindeen:

Montana State Fund (MSF) wishes to express our thanks to the Commissioner of Securities and Insurance (CSI) and to Financial Risk Analysts (FRA) for their review of MSF loss reserves as of June 30, 2012 and rates effective for the period July 1, 2012 through June 30, 2013. We also appreciate the opportunity to provide MSF's perspective to the findings and recommendations contained in the report. Our overall response to the findings and recommendations are contained in the following paragraphs. We have included the more technical response and comments from the MSF independent consulting actuary, Towers Watson (TW), since the FRA report is a review of the work performed by TW.

MSF is pleased and agrees with FRA's findings that MSF rates and reserves are reasonable and are neither inadequate, excessive, nor unfairly discriminatory.

We appreciate FRA's findings as to the risk that Old Fund (OF) liabilities may exceed Towers Watson's (TW) central estimate. We concur with FRA that OF liabilities are more likely to fall within the upper end of TW's range.

The following summarizes MSF's response to the specific FRA recommendations as found on pages 32-33 of their report.

• MSF is not opposed to conducting another claim study and we will present the option and discussion to the MSF Board of Directors. Our concern with claim reserve review relates to the cost-benefit of such a project insofar as no claim study would ever be definitive with respect to determining whether current case reserves are adequate, redundant or inadequate to quantify a level of case reserve redundancy. Previous claim studies of MSF claim management processes have found nothing about MSF reserve practices to be inappropriate. Another claim study is unlikely to materially reduce the level of uncertainty nor significantly add to our current understanding of case reserve adequacies. A similar recommendation was included in the previous review completed by FRA dated May 18, 2012. Our response to the recommendation contained in that report is also appropriate as comment to the recommendation contained in this current report as follows:

"We are aware of the difference between individual case reserves and actuarial reserves on older accident years, (generally accident years 12 years in maturity and older, including the Old Fund). We also understand the nature and source of the differentials. FRA identified what is known as negative IBNR (Incurred but not reported). Negative IBNR is atypical but not unheard of in the workers compensation line. According to National Council on Compensation Insurance (NCCI) data, Montana has an unusually long medical tail relative to other states. MSF has a relatively high number of claims from the late 1980s and early 1990s where the negative IBNR is most prominent. MSF had its highest market share during these years. Therefore, the long medical tail in Montana disproportionately affects MSF case reserves and manifests as negative IBNR.

Claim examiners establish their estimates for individual claims, given the known facts of each case. The case reserve enables the claim examiner to anticipate and manage likely claim outcomes. Much of the difference between case and actuarial reserves involves lifetime medical benefits. In nearly all instances, the claim examiner assumes a life expectancy applicable to the general population because treating physicians are reluctant or unable to opine to a different life expectancy. The case reserve also attempts to reasonably anticipate end of life medical treatments. However, the actuarial analysis suggests that, in the aggregate, mortality rates will likely exceed what is being assumed on an individual claim basis and that not all potential end of life medical costs will materialize or will not materialize as a workers' compensation liability. Case reserves are primarily a claim management tool. While case reserves are an important data component in actuarial estimates, they should not necessarily substitute for sound actuarial judgment."

It is important to note there are now approximately 782 claims remaining open in the Old Fund with remaining loss reserves of approximately \$44 million. Only six of these claims account for 45% of the total remaining loss reserves and the reserve estimates for these claims are driven by lifetime domiciliary care, end of life medical care and prescription medications. With a decreasing number of remaining open claims, the potential for individual claims to have a significant effect on the estimated loss reserves increases each year and increases the volatility of estimates.

• We believe TW's central estimate for MSF liabilities is appropriate. The fact that MSF books somewhat higher than TW's central estimate does not indicate lack of confidence in TW's central estimate for MSF liabilities. Rather, it represents an explicit margin of risk to protect against uncertainty such that MSF reserves are more likely than not to be sufficient to meet our obligations. The amount of additional reserve is 7% above the TW estimate and represents uncertainty in the expected savings identified in the HB 334 legislative. If all the savings expected in the HB 334 legislation are not realized, MSF will be prepared to absorb any increases in the loss estimates so that MSF customers are not adversely impacted. MSF believes this is a prudent business practice until we are assured the savings have been fully realized.

- MSF would generally agree with FRA's observation to review the Old Fund reserves. We will discuss and analyze the FRA findings with TW. While we would concur that OF liabilities are more likely to fall within the upper end of TW's range, we will work with TW in analyzing the amount of additional reserves, if any should be considered.
- MSF partially concurs with FRA's recommendation to give weight to incurred loss indications. It is important to note that TW is using standard incurred loss development methods in selecting their indemnity loss reserves. TW is not using the incurred loss development methods to select their medical loss reserves because of the historical instability in the medical loss reserves. We are encouraged to see tentative evidence that that medical incurred loss development patterns are stabilizing but we think we need to wait 3-5 years before we conclude that medical incurred loss patterns are sufficiently stable to be reliable as a basis for actuarial selections.

The report of FRA will be provided to the MSF Board of Directors and the recommendations discussed with them. As always, MSF is prepared to discuss these or any other issues to provide additional information to assist in providing greater understanding of MSF procedures and practices.

Sincerely,

Laurence A. Hubbard

President/CEO

Enclosures

cc: Governor Steve Bullock

Legislative Audit Committee

Economic Affairs Interim Committee



T +1 404 365 1600 F +1 404 365 1663

One Alliance Center 3500 Lenox Road, Suite 900 Atlanta, GA 30326-4238

towerswatson.com

October 17, 2013

Mr. Laurence Hubbard President Montana State Fund 855 Front Street Helena. MT 59601

Dear Mr. Hubbard:

Financial Risk Analysts Review of Montana State Fund's Loss Reserves and Rates

As you requested, we have reviewed the October 2, 2013 report (the FRA Report) prepared by Robert W. Van Epps and Daniel A. Reppert of Financial Risk Analysts (FRA) on the adequacy of Montana State Fund's (MSF's) rates effective July 1, 2012 and July 1, 2013 and the adequacy of MSF's loss and loss adjustment expense (LAE) reserves as of June 30, 2012. This letter provides several comments, all of which presume that the reader has access to, and has read and understood, the FRA Report.

Much of the FRA analysis as documented in the FRA Report is based on FRA's review of various analyses and reports that have been prepared by Towers Watson (Towers Watson or we or our) for the management of MSF in the course of our ongoing engagement as consulting actuaries to management and the Board of MSF. In many cases, FRA derived its numerical results by judgmentally modifying a selected set of methodologies or parameters or judgments that had been made in the Towers Watson analyses, specifically Towers Watson's analysis of unpaid loss and loss adjustment expense as of June 30, 2012; and Towers Watson's analysis of rate level indications effective July 1, 2012 and July 1, 2013 based on data as of December 31, 2011 and 2012 (the Towers Watson Reports dated September 6, 2012, May 4, 2011 and April 18, 2013). In order to provide context for our responses, we will also make reference to some of the Towers Watson Reports in this letter. We presume that the reader also has access to, and has read and understood, the Towers Watson Reports.

There will also be references to Casualty Actuarial Consultants, Inc. (CACI). CACI was retained by the Montana Legislative Audit Division to provide a review of our MSF Actuarial analyses.

This letter is based on our review of the written FRA Report.

Commentary – Overall Conclusions

We appreciate FRA's discussion of key issues relating to loss reserves and rates. This discussion can be useful to the understanding of what types of issues can affect the adequacy of loss reserves and of rates.

The specific numerical findings and conclusions in the FRA Report differ from the numerical findings and conclusions in the Towers Watson Reports. We will discuss some of those differences later in this letter.

We concur with the conclusions in the FRA Report that:



 "...the MSF carried reserves for the New Fund are within FRA's range of reasonable estimates on an undiscounted basis." (page 13 of the FRA Report).

Towers Watson notes that the provision for undiscounted unpaid loss and LAE in MSF's June 30, 2012 New Fund financials is indeed within Towers Watson's range of reasonable estimates.

 "For the Old Fund booked reserves are below the bottom end of our undiscounted range of estimated, but within our discounted range (albeit slightly so)." (page 15 of FRA Report)

We note that the provision for undiscounted unpaid loss and LAE approved by the MSF Board of Directors and included in the state of Montana's June 30, 2012 Old Fund financials is within Towers Watson's actuarial central to high range.

"CACI concluded that the selected rate change of 0.0%, effective July 1, 2012, was within a
reasonable range on a discounted basis, and given our loss selections, we agree." (page 17 of FRA
Report). "Both TW and CACI appear to have used approaches that follow generally accepted
actuarial ratemaking principles." (page 16 of FRA Report)

Towers Watson notes that MSF adopted a 0.0% average manual rate change effective July 1, 2012, and did so with the intent that the rates provided for future loss and LAE on a discounted for investment income basis. We concur that MSF's rates effective July 1, 2012 are reasonable. The rate change adopted by MSF is within the range suggested by FRA, and the rates adopted by MSF include a 5% provision for adverse deviation precisely to allow for the situation in which actual results in the coming year are more unfavorable than management's projections. Including a provision for adverse deviation is an appropriate response to uncertainties surrounding ultimate losses and changes in MSF's mix of business.

 "We believe that replacing an approach that relies on subjective underwriting judgment to assign clients to rating tiers with a predictive model that can be periodically reviewed and adjusted when appropriate improves the equity of MFS' pricing model." (Page 18 of FRA Report)

FRA provides (pages 14-15 of the FRA Report) several comments regarding the estimated unpaid loss and LAE for the New Fund on a basis discounted for investment income. We note that MSF's management's reserve for unpaid loss and LAE for the New Fund is presented on the more conservative undiscounted basis. Likewise, Towers Watson's analysis of unpaid loss and LAE for the New Fund is presented on an undiscounted basis. We concur with FRA's comment (page 14 of the FRA Report) that establishing loss reserves on an undiscounted basis provides a margin for error since future investment income can be used to offset future adverse development.

Commentary – Numerical Results

The FRA Report produces numerical indications for both unpaid MSF loss and LAE at June 30, 2012 and for MSF rates effective July 1, 2012 and July 1, 2013 that are higher than the range suggested by the Towers Watson methodologies. After having had an opportunity to review the FRA Report, we have revisited our specific analyses and results. Based on our subsequent review, we have concluded that our original analyses, findings, and conclusions, as documented in the Towers Watson Reports, remain appropriate and reasonable. We would not alter our methodologies, assumptions, or selections based on our review of the FRA Report.

We would like to specifically address several important issues that relate to numerical differences between the results presented in the Towers Watson Reports and the results in the FRA Report.



Estimate of Unpaid Loss

In our analysis and projection of ultimate losses for each historical accident year, we reflect the changes in payment patterns that were and are expected, and that we have observed to result from several significant changes in the statutorily-defined structure of injured worker benefits. These restructurings had substantial effects on the Montana claims environment; the overall impact on indemnity losses is estimated as follows: July 1, 1987, a 32.6% benefit reduction, July 1, 1991, a 10.0% benefit reduction and July 1, 1995, a 27.4% benefit reduction; the overall impact on medical losses is estimated to be a 27.8% reduction effective July 1, 2011. Given the magnitude of these changes, we believe that historical data from periods prior to each of these significant benefit restructurings requires adjustment prior to using that historical data as a basis for anticipating the likely pattern with which recent years' claims will pay out. Towers Watson made explicit recognition of these environmental changes in our selection and projection of payout patterns for the more recent years. We continue to believe our resulting selection of development patterns, different for each set of years during which different benefit structures and benefit levels prevailed in Montana, is prudent and appropriate.

FRA notes (page 27 of the FRA Report) that it did not make explicit adjustments to the development patterns in response to MSF's changing environment. Instead, FRA selected low, mid and high range development patterns for medical losses. In our opinion, the estimation of the future loss payout on recent accident years should reflect the benefit structure prevailing in those recent accident years. Thus, we believe that FRA's estimates are likely to be overstated to the extent that FRA relied on unadjusted historical data for its projection of recent years.

When two actuaries use similar assumptions within each of the various actuarial methods, and thus arrive at similar results for each of the individual methods, the two actuaries may still arrive at different actuarial central estimates because of placing different implicit weights on the results of those various different actuarial methods.

We recognize and respect FRA's exercise of independent actuarial judgment in its review. We have no comment on FRA's selection of an actuarial central estimate from within a range of methodologies. However, we do believe that the methodologies themselves should reflect loss development parameters and selections appropriate to the Montana environment and MSF operations in which the claims will be handled and paid.

Rate Indications

Note that most of the difference in rate indications is due to the difference in the projection of ultimate losses in the unpaid loss analyses.

Commentary - FRA's Recommended Actions

FRA recommends that MSF conduct a claim study that focuses specifically on quantifying the level of case reserve adequacy. Before undertaking this review, MSF should consider the likely impacts of such an exercise i.e., that it could potentially introduce significant changes in the case reserving process and will likely increase volatility.

FRA recommends that MSF discuss with its actuary whether selecting toward the lower end of estimates is appropriate or should be adjusted. We have regular discussions with MSF management on the rationale for our independent actuarial judgment. FRA's recommendation implicitly assumes that all the projection methods should get equal weight in the selection process. We disagree with that assumption, as the various methods have different strengths and weaknesses and thus suit different situations differently, and we are comfortable with our selection of ultimate losses.

We concur with FRA's recommendation that MSF considers its carried reserves for the New Fund and Old Fund in light of the actuarial projections and its case reserves.



We concur with FRA's recommendation to consider reintroducing the incurred loss development projection methods for medical losses, subject to the concern that a claims review could potentially increase volatility just when the medical case reserves are starting to show enough stability to be used in the incurred loss development methodology.

Sources of Uncertainty

The ultimate liability for claims is subject to the outcome of events yet to occur, e.g., the likelihood of claimants filing, inflation in medical costs, statutory changes, and the attitudes of claimants towards settlements of their claims. The three primary risks of inaccurate estimates defined in Actuarial Standard of Practice No. 43 – Property/Casualty Unpaid Claim Estimates are:

- Process Risk The risk associated with the projection of future contingencies that are inherently variable, even when the parameters are known with certainty.
- Model Risk The risk that the methods are not appropriate to the circumstances or the models are not representative of the specified phenomenon.
- Parameter Risk The risk that parameters used in the methods or models are not representative of future outcomes.

All of these risks are inherent in the loss reserving and rate setting process for MSF and as a result, there is a limitation upon the accuracy of loss projections for prior periods and rate indications for prospective periods. In our judgment, we have employed techniques and assumptions that are appropriate, and the conclusions presented in our reports are reasonable, given the information currently available. However, it should be recognized that future loss emergence will likely deviate, perhaps materially, from our estimates.

The tables on pages 14, 15, 16 and 17 of FRA's Report show comparisons of undiscounted unpaid losses, discounted unpaid losses, underwriting profits and ultimate losses. These tables illustrate the variability in conducting actuarial analyses of workers' compensation exposures.

* * * *



Reliances and Limitations; Distribution

In preparing this letter, we relied on data and information supplied by the MSF and FRA, without audit or verification. The information from MSF is the same information used in our reports, which contain a more extensive discussion of Reliances and Limitations that is equally applicable to this analysis.

This letter is intended for internal use by the MSF and its Board of Directors. Anyone receiving a copy of this letter should be made aware that Towers Watson is available to answer any questions that may arise with respect to these comments.

I, Russell Greig, am a member of the American Academy of Actuaries and meet its qualification standards to render the actuarial opinion contained herein.

We are available to continue the dialogue regarding MSF's loss reserves and rate indications.

Sincerely,

Ryssell Greig, FCAS, MAAA, CFA

Direct Dial: 404.365.1707

RG:sh