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November 30, 2015

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 November 19, 2015 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, 2014 and July 1, 2015 and the adequacy of MSF's loss and loss adjustment expense (LAE) reserves as of June 30, 2015. 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, 2015; and Towers Watson's analysis of rate level indications effective July 1, 2014 and July 1, 2015 based on data as of December 31, 2013 and 2014 (the Towers Watson Reports dated September 2, 2015, April 17, 2014 and April 20, 2015). 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 AMI Risk Consultants, Inc. (AMI). AMI 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:

- “Accordingly, for the New Fund, we agree with TW that booked reserves are reasonable.” (page 17 of the FRA Report).

  Towers Watson notes that the provision for undiscounted unpaid loss and LAE in MSF’s June 30, 2015 New Fund financials is indeed within Towers Watson’s range of reasonable estimates.

- “Based on their analysis, AMI concluded that the rates effective July 1, 2014 were not excessive, inadequate or unfairly discriminatory. We reviewed these rates in our 2014 report for CSI and EAIC, and we concurred with the AMI that rates effective from July 1, 2014 to June 31, 2015 were reasonable. ” (pages 19 & 20 of FRA Report). “TW appears to have used approaches that follow generally accepted actuarial ratemaking principles. TW’s methodologies, assumptions, adjustments, and results appear to be reasonable.” (page 18 of FRA Report)

  Towers Watson notes that MSF adopted a 0.0% average manual rate change effective July 1, 2014, 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, 2014 are reasonable. 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 the rates resulting from the selected -5.0% rate decrease effective July 1, 2015 are reasonable.” (page 19 of FRA Report).

  Towers Watson notes that MSF adopted a -5.0% average manual rate level change effective July 1, 2015.

- “We believe the procedures and methodologies used by TW in class ratemaking are reasonable.” (page 20 of FRA Report).

FRA provides (pages 16-17 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 16 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 the unpaid MSF loss and LAE at June 30, 2015 for both the New Fund and Old Fund that are higher than estimates 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. 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 14 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 considers the elevated uncertainty and the position of TW's selection relative to the range of their methods. 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.

FRA recommends that MSF should remove the provision for adverse deviation in future rate analyses. At each rate level analysis, TW and MSF discuss all key assumptions, components and the emerging loss experience. TW and MSF will continue those discussions, and we will jointly evaluate whether to continue to include the provision for adverse deviation as usual. It is worth noting that MSF's policyholder equity has had to absorb approximately $200 million of adverse loss development over the last decade.

We concur with FRA's recommendation that MSF should consider 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 that any policyholder equity above target be returned to policyholders through dividends.

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 as well as FRA estimates.

The table on page 16 of FRA's Report shows a comparison of estimates of undiscounted unpaid losses. This table illustrates the variability in conducting actuarial analyses of workers' compensation exposures.

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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,

Russell Greig, FCAS, MAAA, CFA
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