


Old Fund – Unpaid Claims Projection
Board of Directors Meeting

**A presentation to Montana State Fund
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Objectives of analysis

- Estimate aggregate amount of unpaid future claims benefits
 - Range of estimates
- Include provision for claim administration expense (LAE)
- Include provision for future DLI assessments
- Forecast timing of payout
 - Required by statute for determining if the Old Fund is adequately funded

This Old Fund analysis encompasses all injuries occurring prior to July 1, 1990

Methodologies – aggregate amount of unpaid claims

- Paid Loss Development
 - Examine historical payout pattern for older years' claims
 - Adjust for known or observed changes (e.g., statutory benefits)
 - Project "tail" beyond oldest observation
 - Apply results to project "newer" years' claims
- Reported Loss Development
- Extrapolation of recent payment activity
 - Sensitivity testing

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Methodologies – aggregate amount of unpaid claims

- Adjusted case reserve method
 - Adjust case reserves based on case reserve review and updated activity
 - Adjustment for factors not captured in case reserves
 - Future developments
 - Reopened claims
 - Medical inflation
- Future developments may include
 - Changing medical condition
 - Improving and more expensive medical technology
 - Qualification for additional indemnity benefits
 - Court cases re-interpreting benefit provisions

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Indemnity observations

- In FY 7/1/14-15, payment activity has been slightly higher than projected

Range of unpaid loss indications (\$ millions)	
Paid projections – low	\$4.1
Paid projections – high	22.3
Reported projection	17.1
Case reserves – unadjusted	16.8
Case reserves adjusted for development potential	19.9

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Indemnity observations

- Actuarial Central Estimate Unpaid Losses – below middle of paid projections

Low	\$ 7.4 million
Actuarial Central	8.2
High	10.1

- Our selected ultimates are increased slightly from last year
 - \$1.3 million increase

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We are projecting a continued decline in indemnity payment activity as the Old Fund claims continue to mature

	Forecast
7/1/15-16	\$1.8 million
7/1/16-17	1.6
7/1/17-18	1.3
7/1/18-19	1.0
7/1/19-20	0.8 etc.

Note: Last payment is forecasted for FY 7/1/50-51

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Medical observations

- In recent fiscal years, actual medical payment activity has been above expectations
 - We have been weighting this higher activity level into our projections
 - Long-term patterns are still given considerable weight in our selections

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Medical unpaid loss indications

Wide range of indications (\$ millions)	
Paid projections – low	\$ 9.3
Paid projections – high	52.3
Case reserves – unadjusted	94.4
Case reserves adjustment for adequacy/development/inflation	50.1

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Medical unpaid loss selection

- Selected unpaid losses – significantly lower than case reserve indications

Low	\$25.1 million
Actuarial Central	27.6
High	68.4

- We are increasing our selected ultimates again this year
 - \$3.5 million increase @ 6/30/15
 - \$2.4 million increase @ 6/30/14
 - \$4.6 million increase @ 6/30/13

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We are projecting a less gradual decline in medical payment activity

	Forecast
7/1/15-16	\$5.4 million
7/1/16-17	4.6
7/1/17-18	3.5
7/1/18-19	2.7
7/1/19-20	1.9

Note: Last payment is forecasted for FY 7/1/50-51

OF medical payments have not been declining as expected over recent FY's, and as a result our estimated unpaid losses have been increased

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Conclusions – aggregate amount of unpaid claims

- Ultimate cost of Old Fund claims, in total, \$4.8 million increase
 - Medical payments – \$3.5 million increase
 - Indemnity payments – \$1.3 million increase
- Total undiscounted future benefit payments

Medical	\$27.6 million
Indemnity	<u>\$ 8.2</u>
	\$35.8 million
- This can be reconciled to last year's estimate

Estimate @ 6/30/2014	\$38.9 million
Actual paid during 6/30/2014-15	- 7.9
Change in estimated future payments	+ 4.8
Estimate @ 6/30/2015	\$35.8 million

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Comparison of open medical claims by accident year as of June 30, 2014, June 30, 2015 and June 30, 2016

Accident Year	Open Claim Count as of June 30, 2014	Forecast of Open Claim Counts as of June 30, 2014	Open Claim Counts as of June 30, 2015	Forecast of Open Claim Counts as of June 30, 2015	Forecast Open Claim Counts as of June 30, 2016
Prior	31	24	28	25	28
1976-1977	12	13	11	13	11
1977-1978	16	15	14	15	14
1978-1979	13	11	12	11	12
1979-1980	31	31	28	31	28
1980-1981	33	35	30	34	30
1981-1982	41	39	42	42	42
1982-1983	52	41	49	52	49
1983-1984	56	58	55	58	55
1984-1985	61	63	57	63	51
1985-1986	76	79	70	78	65
1986-1987	102	98	97	104	92
1987-1988	98	99	89	99	82
1988-1989	76	70	67	71	63
1989-1990	95	93	79	93	72
Total	793	769	728	789	694

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Forecast timing of payout

- Reason for evaluating the timing:
 - Estimation of future investment income on Old Fund assets
 - Provides benchmark to test against following year
- Methodology
 - Review historical payment patterns
 - Long term
 - Recent years
- Consider impact of statutory benefit changes occurring in Old Fund years, June 30, 1990 and prior
- Judgmentally consider impact of prior court cases occurring on Old Fund claims
- Recognize increasing maturity of old claims
- Balance to estimated total unpaid claims

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**Results - forecast timing
of Old Fund benefit payout (\$ millions)**

Fiscal Year	Actual Payment (Loss Only)	Forecast Payment
1998-1999	12.7	\$16.1 [6/30/1998]
1999-2000	13.1	15.3 [6/30/1999]
2000-2001	13.7	14.9 [6/30/2000]
2001-2002	12.6	13.5 [6/30/2001]
2002-2003	13.7	11.7 [6/30/2002]
2003-2004	12.2	10.2 [6/30/2003]
2004-2005	10.7	11.0 [6/30/2004]
2005-2006	10.7	10.3 [6/30/2005]
2006-2007	10.4	9.5 [6/30/2006]
2007-2008	11.0	10.4 [6/30/2007]
2008-2009	10.8	10.8 [6/30/2008]
2009-2010	8.9	11.0 [6/30/2009]
2010-2011	9.0	9.8 [6/30/2010]
2011-2012	8.6	8.8 [6/30/2011]
2012-2013	9.7	7.7 [6/30/2012]
2013-2014	7.3	6.5 [6/30/2013]
2014-2015	7.9	7.4 [6/30/2014]
2015-2016	.	7.3 [6/30/2015]
.	.	.
2050-2051	.	<0.1
Total Future		\$35.8

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Claim administration expense

- Methodology
 - Examine recent relationships between claim payments and claim administration expense
 - Recognize that large part of expense occurs when claim is first reported
- Observations
 - Claim administration expense had been growing as percent of claim payments
 - True for most workers compensation carriers
 - Reflects investment in better claim management
 - Produces more appropriate (lower) claim payments
 - MSF still spending less than industry
- Selected provision: 13.2% of future loss payments

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Future DLI assessments

- Statute imposes DLI assessment
 - Future years
 - Maximum 3% of each year's paid losses
- No offsetting income
- Selected provision: 3% of unpaid loss

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Overall conclusions as of June 30, 2015 for estimated unpaid losses and claims adj. expenses

Unpaid claims benefits	\$27.6 million
Medical	8.2
Indemnity	<hr/>
Total	\$35.8 million
Unpaid claims administration expense	4.7
Future DLI assessment	1.1
Total claim-related unpaid amounts, (undiscounted)	<hr/> \$41.6 million

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- Our analysis and discussion is intended to assist the controlling authority of the Old Fund in evaluating amounts of carried loss and LAE reserves as of June 30, 2015. The analysis is by no means intended to replace or override the decision-making responsibilities and prerogatives of the controlling authority of the Old Fund.
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We relied on information and judgments provided by management

- We relied, without independent audit or verification, on
 - Historical paid and reported loss and claim count data, as provided by MSF
 - Historical and projected premium, payroll and expense data, as provided by MSF
 - Information on statutory benefit changes provided by MSF, and information published or filed by NCCI
 - Information on MSF operations, and changes in those operations
 - Economic statistics and forecasts from various sources provided by MSF

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Sources of Uncertainty

- There is a limitation upon the accuracy of loss projections and unpaid loss indications in that there is an inherent uncertainty involved. The ultimate liability for claims is subject to the outcome of events yet to occur, e.g., the changing medical condition of claimants, emerging medical technology, inflation in medical costs, changes in utilization of medical services, pending litigation, and the attitudes of claimants towards settlements of their claims. In our judgment, we have employed techniques and assumptions that are appropriate, and the conclusions presented herein are reasonable, given the information currently available. However, it should be recognized that future loss emergence will likely deviate, perhaps materially, from our estimates.
- Although the Old Fund has been closed for over 20 years, there is still significant uncertainty about the ultimate payout of the claims that remain open, or may re-open in the future. These remaining claims tend to be the more serious injuries, which are inherently difficult to reserve.
- Three court cases (Murer, Broecker, Stavenjord) have significantly affected the cost of Old Fund claims often necessitating the reopening of previously closed claims. The potential for additional litigation is uncertain at this time and we have made no explicit provision for it.

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Sources of Uncertainty

- There is also additional uncertainty from a recent increase in reported claims stemming from Libby, MT that allege asbestos as the primary cause of injury. The mines that operated in Libby until the early 1990s produced vermiculite that contained tremolite asbestos. The mining process produced dust containing asbestos widely throughout the region. In response to the significant increase in reported claims, MSF is closely monitoring this exposure and is assigning all asbestos claims to specialized claims handlers.
- Estimates discounted for time value of money can be more uncertain than those on an undiscounted basis. In addition to the usual uncertainty in projecting ultimate levels of loss and LAE, discounted estimates are also influenced by:
 - Variations in the timing of actual loss and allocated loss adjustment expense (ALAE) payments versus the rate of payment assumed in discounting estimates to present value; and
 - Variation in the actual investment yield on the assets underlying the liabilities versus the assumed interest rate used in discounting.

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