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CORRESPONDENCE MEMORANDUM

DATE: August 27, 2014

TO: Employee Trust Funds Board

FROM: Deb Roemer, Director
Disability Programs Bureau
Division of Insurance Services

SUBJECT: Long-Term Disability Insurance (LTDI) Actuarial Valuation

This memo is for informational purposes only. No Board action is required.

On Tuesday, August 26, 2014, the Group Insurance Board (GIB) accepted the attached *Long-Term Disability Insurance Plan 2015 Premium Development & Liability Valuation as of December 31, 2013,* from its consulting actuary, Deloitte Consulting LLP. The GIB also approved the recommendation that premium contributions remain unchanged at a rate of 0.32% of covered salary for 2015.

Staff will be at the Board meeting to answer any questions.

Attachment: LTDI Actuarial Valuation

Reviewed and approved by Lisa Ellinger, Administrator, Division of Insurance Services

Lisa Ellinger

Electronically Signed: 08/29/2014

Board	Mtg Date	Item #
ETF	9.25.14	5B

Deloitte.

The State of Wisconsin
Group Insurance Board

etf
WISCONSIN DEPARTMENT
OF EMPLOYEE TRUST FUNDS

Long-Term Disability Insurance Plan
2015 Premium Development &
Liability Valuation as of December 31, 2013

Prepared By:
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Deloitte Consulting LLP

Board	Mtg Date	Item #
GIB	8/26/2014	6

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I. Introduction

The purpose of this report is to summarize our actuarial review of the Long-Term Disability Insurance ("LTDI") Plan. Included are a brief review of the Plan's experience during 2013, development of the 2015 LTDI premium recommendation, a summary of benefits paid, an estimate of the Plan's net fund balance and a summary of the December 31, 2013 estimated benefits liability.

The results of our review indicate that the LTDI Plan assets of $215.9 million are less than the estimated liabilities of $233.5 million. The asset balance does not include $13.3 million in deferred market gains which will be smoothed in over the next four years. As expected, the net fund balance has steadily decreased from $218 million in 2004 to $(17.6) million in 2013, primarily due to the suspension of premium contributions from 1999 through 2013, combined with growth in open claims and low investment income recognized over the 2008 to 2012 period.

As outlined in last year's report, at December 31, 2012, it was anticipated that premium contributions may need to be reestablished beginning in 2014. The August 2013 Group Insurance Board ("the Board") meeting resulted in a premium reinstatement effective January 1, 2014, in an effort to begin to return the plan to the target funded status. The premium contribution rate implemented for 2014 was 0.32% of covered payroll. The initial impact of the premium reinstatement on the net fund balance will not be realized until year-end 2014.

As a result of the 2013 experience, we are recommending that the LTDI Plan continue to collect premium in 2015 at the rate of 0.32% of covered salary, which is the same as the premium rate effective January 1, 2014. Future plan experience may deviate from that currently projected and result in a nessessary premium contribution level different from that recommended here. As plan experience emerges each year, the plan's net fund balance and the need for changes to the premium contribution rate should continue to be monitored.

Our premium recommendation is based on current and projected assets and liabilities. The 2013 net fund balance as a percent of the incurred claim liability is (8%). Traditionally, a long-term objective of maintaining a net fund balance of 15% to 25% of estimated liabilities has been considered reasonable. The proposed premium structure is anticipated to return the net fund balance to approximately 15% of liabilities over the short-term and produce a more stable net fund balance for the longer-term. Section III discusses the contribution rate recommendation in more detail.

In preparing this report, we have relied on claim information provided by Aetna and the Department of Employee Trust Funds ("ETF"), and on payroll information provided by GRS. We have not audited this information, but have relied on it as submitted after making reasonableness checks as we deemed appropriate under the circumstances.

Deloitte Consulting LLP ("Deloitte Consulting") and Gabriel, Roeder, Smith & Company ("GRS") shared the development of the Wisconsin Retirement System ("WRS") employer contribution rate. The LTDI plan contributes to this rate based on the level of the net fund balance. Continuing the collection of premium for the LTDI plan would result in an allocation of a portion of contributions collected by WRS. Deloitte

[redacted]

Consulting relied upon the LTDI Plan covered payroll provided by the State to project total premium revenue in our financial projections. The results of the GRS work are contained in a separate document.

II. 2013 Experience and Highlights

	2010	2011	2012	2013
Beginning Balance	$300,549,620	$285,877,163	$262,265,728	**$232,381,871**
Closing Adjustments	($134,555)	($526,896)	($4,085,687)	($4,854,393)
Adjusted Beginning Balance	**$300,415,065**	**$285,350,267**	**$258,180,041**	**$227,527,478**
Revenues				
Contributions	$0	$0	$0	$0
Investment Earnings	$13,742,607	$4,077,789	$5,130,023	$22,919,771
Total	**$13,742,607**	**$4,077,789**	**$5,130,023**	**$22,919,771**
Expenses				
Paid Claims	$26,298,530	$25,040,196	$28,732,557	$32,067,487
Administrative Expenses	$1,981,979	$2,122,132	$2,195,636	$2,441,219
Total	**$28,280,509**	**$27,162,328**	**$30,928,193**	**$34,508,706**
Net Income	**($14,537,902)**	**($23,084,539)**	**($25,798,170)**	**($11,588,935)**
Ending Assets	**$285,877,163**	**$262,265,728**	**$232,381,871**	**$215,938,543**
Incurred Claim Liability	**$175,590,410**	**$189,004,196**	**$213,067,974**	**$233,508,752**
Net Fund Balance	**$110,286,753**	**$73,261,532**	**$19,313,896**	**($17,570,209)**

During 2013, the net fund balance decreased from $19,313,896 to $(17,570,209). Total revenues were $22,919,771 with paid claims and administrative expenses totaling $34,508,706. As shown above, investment earnings increased by approximately $17.8 million in 2013 compared to 2012. The total claims and administrative expenses combined increased by approximately $3.6 million. Although there was positive investment earnings, the total expenses of the plan outweighed the plan revenue, resulting in a continued erosion of the plan assets.

The approximate $36.9 million decrease in the net fund balance is attributable to a 7.1% decrease in the Plan's assets and a 9.6% increase in the Incurred Claims liability (which includes provisions for both the known and incurred but not reported claims). The increase of the Incurred Claims liability is primarily driven by a 9.5% growth in the number of open claims and a change in the composition and characteristics of the average claimant in the open claim cohort.

The net fund balance does not include deferred market gains of $13.3 million which will be smoothed into the asset balance over the next four years. The (8%) net fund balance in 2013 is below the net fund balance target as a percentage of the liability. Traditionally a long-term objective of maintaining a net fund balance of 15% to 25% of estimated liabilities has been considered reasonable. Thus, we recommend that the Plan continue premium collection in 2015. The development of the premium rate recommendation is discussed in the next section.

III. 2015 LTDI Premium Recommendations

Based on historical net fund balance targets, from 1999 to 2011 the LTDI assets were sufficient to suspend premium contributions for the plan. Since 2008, cash flow has been negative for the Plan, implying the total paid claims and administrative expense balance has exceeded the investment earnings of the Plan. Through 2013, investment earnings were the only revenue source of the Plan. A premium contribution rate of 0.32% of covered payroll was put into place effective January 1, 2014. The impact of the premium reinstatement on the net fund balance will not be realized until year-end 2014.

Because cost exceeds revenue, the asset balance has declined over time in order to fund the revenue shortfall. As the asset balance erodes, the opportunity to earn investment income also decreases, thereby limiting future revenue in absence of premium contributions.

Considerable year-to-year fluctuations can occur under long term disability plans, even for a plan as large as that of the State. Thus, maintaining a fund balance in excess of estimated liabilities is prudent. A reasonable long-term funding objective is to maintain a net fund balance of 15% to 25% of estimated liabilities to hedge against future adverse experience. Expressed as a percentage of the incurred claims liability, the net fund balance has decreased from 228% in 2005 to (8%) in 2013. The ending asset and liability balances as of December 31, 2013, are $215.9 million and $233.5 million, respectively, resulting in a net fund balance of $(17.6) million.

At December 31, 2012, the net fund balance was 9%, and given the current and projected net fund balance relative to the long-term net fund levels, we recommended that premium collections be reinstated in 2014. The 2013 experience and resulting projected future experience indiciate that the plan is currently below the low-end of the target net fund balance range of 15%. In order to return the net fund balance to the targeted level, we are recommending the LTDI Plan continue premium collection in 2015.

The LTDI program is supported by insurance premiums paid via inter-fund transfers from WRS rather than direct contributions from participants and employers. The reinstatement of premium for the LTDI plan would result in an allocation of the contributions collected by WRS to the LTDI plan assets. In order to establish the appropriate LTDI premium level, we considered the projected 2014 net fund balance shortfall (relative to a 15% target) and the anticipated 2014 costs of the plan, including the increase in claim liabilities, paid claims, and administrative expenses. The projected net fund balance shortfall relative to a 15% target is assumed to be amortized over a 3 year period. The resulting premium contribution rate is 0.32% of covered payroll. Based on projected covered payroll in 2015, this is approximately $44.8 million in contributions.

Future plan experience may deviate from that projected and result in a nessessary premium contribution level different from that recommended here. As plan experience emerges each year, the plan's net fund balance and the need for changes to the premium contribution should continue to be monitored.

IV. Benefits Being Paid and Liabilities

By Year of Incurral as of December 31, 2013

	2008 & prior	2009	2010	2011	2012	2013	Total
General & Teachers							
Number	809	175	228	280	334	174	**2,000**
Annual Benefit	10,736,461	2,753,067	3,474,313	4,442,684	5,563,322	2,963,532	**29,933,378**
Act. Present Value	70,516,544	18,900,417	24,087,254	29,598,400	37,965,094	17,932,807	**199,000,516**
Prot w/ Social Sec							
Number	16	2	2	4	-	-	**24**
Annual Benefit	202,532	43,594	29,546	58,601	0	0	**334,272**
Act. Present Value	2,279,220	443,014	334,413	688,996	0	0	**3,745,644**
Prot w/o Social Sec							
Number	2	-	-	-	-	-	**2**
Annual Benefit	39,274	0	0	0	0	0	**39,274**
Act. Present Value	304,929	0	0	0	0	0	**304,929**
Total							
Number	827	177	230	284	334	174	**2,026**
Annual Benefit	10,978,266	2,796,661	3,503,859	4,501,285	5,563,322	2,963,532	**30,306,924**
Act. Present Value	73,100,693	19,343,431	24,421,666	30,287,397	37,965,094	17,932,807	**203,051,089**

V. Estimated Liability and Summary of Funding Levels

December 31, 2013

LTDI Assets	$215,938,543
Actuarial Present Value of:	
Claims in payment status of as December 31, 2013	$203,051,089
Incurred but not reported claims (IBNR)	$30,457,663
Total Incurred Claims Liability	**$233,508,752**
Net Fund Balance	$(17,570,209)

The methodology for calculating the actuarial present value of future disability payments uses the 1987 Commissioner's Group Basic Disability table ("87 CGDT") adjusted for the State of Wisconsin's own claim termination experience. The 87 CGDT is a commonly referenced source for group LTD claim termination rates and incidence rates. When estimating disability liabilities, it is a common actuarial practice to develop adjustment factors to apply to the 87 CGDT to reflect a group's experience, rather than develop completely new rates. The adjustment factors reflective of the State's actual LTD experience are summarized in the Appendix.

We completed a historical recast analysis of the LTDI IBNR. The LTDI IBNR recast results indicate that our historical established IBNR has been sufficient and therefore the LTDI IBNR factor remained at 15% of the actuarial present value of claims in payment status.

The total liability increased 9.6% from 2012 to 2013. The increase is largely due to a growth in the number of open claims and a change in the composition and characteristics of the average claimant in the open claim cohort.

Appendix

Assumptions

Methodology: The projected future benefit stream is reduced for both mortality and recovery from disability, using the 1987 Commissioner's Group Basic Disability table adjusted for the State of Wisconsin's own termination experience.

Termination Rates: The percentages of the 1987 Commissioner's Basic Disability Table termination rates based on the State of Wisconsin's own experience are shown below:

Duration of Disablement	Termination Rate Adjustment
First Year	60%
Second Year	60%
Third Year & Beyond	70%

Interest: 4.0% (which approximates a 7.2% valuation rate—consistent with the reduction from 7.8% during 2010—with 3.2% annual benefit increases) is used to discount the projected future benefit stream to the valuation date.

IBNR: 15% of the liability for reported claims (reduced from 25% in 2011 based on a study of the historical sufficiency of the recorded IBNR)

Eligibility: 1) Employees who begin or resume covered WRS employment on or after October 16th, 1992 or 2) employees who have been continuously employed under the WRS since before October 16th, 1992, and are eligible for coverage under the WRS disability program, but elect coverage under the LTDI program. (At the 2007 Group Insurance Board meeting, the Board voted to extend the open election between programs indefinitely.)

Benefit Period: The maximum duration of benefits for disabled employees is outlined below.

Age at Disablement	Benefit Period
Before age 61	End of the month in which you reach age 65
Age 61 or 62	End of the month in which you reach age 66
Age 63 or 64	End of the month in which you reach age 67
Age 65 or 66	End of the month in which you reach age 68
Age 67	End of the month in which you reach age 69
Age 68	End of the month in which you reach age 70
Age 69 or older	12 months after LTDI benefit effective date

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