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# The State of Wisconsin
# Group Insurance Board

etf
WISCONSIN DEPARTMENT
OF EMPLOYEE TRUST FUNDS

## Long-Term Disability Insurance Plan
## 2012 Premium Development
## Reserve Valuation as of December 31, 2010


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Deloitte Consulting LLP


| Board | Mtg Date | Item # |
|---|---|---|
| GIB | 8.23.11 | 8 |

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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 2010, development of 2012 LTDI premiums, a summary of benefits paid and corresponding reserves, and an estimate of the Plan's Reserve for Future Claims ("RFC", or the fund surplus of the Plan).

The results of our review indicate that the LTDI Plan assets of $258.9 million exceed the estimated liabilities of $175.6 million. The asset balance does not include $19.3 million in deferred market losses which will be smoothed over the next four years. The RFC has steadily decreased from $223.7 million in 2003 to $110.3 million in 2010, primarily due to growth in the paid claim levels of the Plan while receiving no premium contributions for each of those years.

Based on historical considerations for reinstatement of contributions as well as the relationship of the RFC to the regular premium, we recommend that contributions not be reinstated at this time. However, due to the continued erosion of the RFC, we anticipate that premium collections may need to be reinstated beginning in 2013.

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 Gabrel, Roeder, Smith & Company ("GRS") shared the development of the LTDI RFC for December 31, 2010. The results of the GRS work are contained in a separate document. This report contains the Incurred Claims Reserve and the recommended premium rates for 2012, both of which were developed by Deloitte Consulting. Additional items, developed by GRS, are displayed in this report as required to support the recommended premiums.

# II. 2010 Experience and Highlights

| | 2010 | 2009 | 2008 | 2007 |
|---|---|---|---|---|
| **Beginning Balance** | $300,549,620 | $313,852,818 | $325,385,010 | $309,687,976 |
| Closing Adjustments | ($134,555) | ($121,701) | $54,049 | ($2,574,197) |
| **Adjusted Beginning Balance** | **$300,415,065** | **$313,731,117** | **$325,439,059** | **$307,113,779** |
| **Revenues** | | | | |
| Contributions | $0 | $0 | $0 | $0 |
| Investment Earnings | $13,742,607 | $12,634,570 | $10,029,343 | $37,442,701 |
| **Total** | **$13,742,607** | **$12,634,570** | **$10,029,343** | **$37,442,701** |
| **Expenses** | | | | |
| Paid Claims | $26,298,530 | $23,663,985 | $20,443,753 | $17,774,253 |
| Administrative Expenses | $1,981,979 | $2,152,082 | $1,171,832 | $1,397,216 |
| **Total** | **$28,280,509** | **$25,816,067** | **$21,615,585** | **$19,171,469** |
| **Net Income** | **($14,537,902)** | **($13,181,497)** | **($11,586,242)** | **$18,271,232** |
| **Ending Assets** | **$285,877,163** | **$300,549,620** | **$313,852,817** | **$325,385,011** |
| **Incurred Claims Reserve** | **$175,590,410** | **$156,278,012** | **$138,640,973** | **$135,756,290** |
| **Reserve for Future Claims (RFC)** | **$110,286,753** | **$144,271,608** | **$175,211,844** | **$189,628,721** |
| **Regular Premium (% of payroll)** | **0.15%** | **0.16%** | **0.19%** | **0.20%** |
| **RFC Adjustment** | **-0.15%** | **-0.16%** | **-0.19%** | **-0.20%** |
| **Recommended Premium Rate** | **None – 2012** | **None – 2011** | **None – 2010** | **None - 2009** |

RFC Adjustment as presented above reflects an adjustment such that net premium rates are not less than zero.

The funded status of the LTDI plan decreased as evidenced by the approximate $34.0 million decrease in the RFC. The decrease in the RFC from year-end 2009 to year-end 2010 is attributable to a 4.9% decrease in the Plan’s assets and a 12.4% increase in the Incurred Claims Reserve (which includes reserves for both the known and incurred but not reported claims). The increase of the Incurred Claims Reserve is partly explained by an 8.6% growth in the number of open claims, a 2.2% increase in the average net benefit per open claim and a change in the discount rate assumption (The ETF Board reduced the investment return assumption for the Wisconsin Retirement System (“WRS”) from 7.8% to 7.2%. For consistency, and at the direction of ETF personnel, the valuation interest rate is tied to the WRS valuation rate; therefore a 7.2% discount rate was used in the December 31, 2010, valuation).

As premiums have been suspended since 1999, we would expect the fund balance to decrease if the sum of the paid claims and the increase in the Incurred Claims Reserve is more than investment earnings. The RFC does not include deferred market losses of $19.3 million in 2010 which will be smoothed into the asset balance over the next four years. The positive RFC will enable the Plan to continue to suspend premium payments for another year. However, due to the continued erosion of the RFC, we anticipate that premium collections may need to be reinstated in 2013.

# III. Development of 2012 LTDI Premiums

## Based Upon the 5-Year Adjustment of the RFC as of December 31, 2010

| | General | Executive & Elected | Protective With Social Security | Protective Without Social Security | Total |
|---|---|---|---|---|---|
| | | | **$ in Millions** | | |
| **1) Payroll** | $11,195.35 | $101.24 | $1,124.75 | $188.81 | $12,610.15 |
| **2) RFC** | $83.42 | $1.16 | $21.92 | $3.79 | $110.29 |
| | | | **% of Active Member Payroll** | | |
| **3) Regular Premium** | 0.13% | 0.20% | 0.34% | 0.35% | 0.15% |
| **4) RFC Adjustment: 20% x (2)/(1)** | (0.15)% | (0.23)% | (0.39)% | (0.40)% | (0.17)% |
| **5) 2012 LTDI Premium Rate** | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| **Prior Year Premium Rate** | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

Items 1, 2 & 3 provided by GRS

## 2012 Premium Recommendation:

The 2012 premium rates shown above are based upon a continuation of the 20% (5 year) adjustment to the RFC that was adopted by the Board in connection with the development of the 1996 rates and continued thereafter. The assets as calculated under this methodology have been sufficient to temporarily suspend premiums since 1999.

Premium rates merely designate amounts to be transferred from the WRS retirement fund to the LTDI fund, so reductions in premium rates only result in a different allocation of funds and not in a reduction in amounts collected. The Plan continues to be well funded as evidenced by the positive RFC. However, due to the decline in the RFC and the relation of expenses to revenues in recent years, premium collections will likely need to be reinstated next year.

In line with past practices, we are not recommending reinstating premiums, as the RFC is not less than five times the regular premium collected, as determined by GRS. Since 2008 the annual plan cost has exceeded the total plan revenue, which is limited to investment income. Because cost exceeds revenues, the asset balance has begun to decline in order to fund the shortfall. As the asset balance erodes, the opportunity to earn investment income also decreases, thereby limiting future revenue in absence of premium contributions. We anticipate that in 2011, the RFC will, for the first time in many years, fall below the threshold of 500% of regular premium. Preliminary modeling suggests that reinstating premiums in 2013 can maintain a positive RFC balance for years to come.

# IV. Benefits Being Paid and Reserves

## By Year of Incurral as of December 31, 2010

| | 2005 & Prior | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|---|---|---|---|---|---|---|---|
| **General & Teachers** | | | | | | | |
| Number | 402 | 122 | 130 | 148 | 170 | 113 | **1,085** |
| Annual Benefit | $5,931,844 | $1,748,720 | $1,863,982 | $2,171,950 | $2,835,086 | $1,984,979 | **$16,536,561** |
| Act. Present Value | $33,375,609 | $12,215,463 | $13,604,130 | $14,412,003 | $18,232,879 | $13,605,226 | **$105,445,311** |
| **Education Support Personnel** | | | | | | | |
| Number | 103 | 32 | 37 | 39 | 51 | 24 | **286** |
| Annual Benefit | $970,444 | $303,697 | $437,647 | $409,613 | $508,596 | $218,873 | **$2,848,870** |
| Act. Present Value | $5,528,973 | $1,666,172 | $2,083,221 | $2,404,197 | $3,505,307 | $1,406,682 | **$16,594,551** |
| **Prot w/ Social Sec** | | | | | | | |
| Number | 47 | 13 | 15 | 22 | 17 | 12 | **126** |
| Annual Benefit | $651,659 | $195,431 | $227,939 | $294,570 | $282,682 | $229,863 | **$1,882,143** |
| Act. Present Value | $4,552,865 | $1,745,134 | $2,685,158 | $2,322,541 | $2,781,997 | $1,954,977 | **$16,042,672** |
| **All Others** | | | | | | | |
| Number | - | - | - | 3 | 3 | 1 | **7** |
| Annual Benefit | $- | $- | $- | $91,680 | $91,925 | $26,170 | **$209,774** |
| Act. Present Value | $- | $- | $- | $560,185 | $591,596 | $213,378 | **$1,365,159** |
| **Total** | | | | | | | |
| **Number** | 555 | 167 | 182 | 213 | 242 | 150 | **1,509** |
| **Annual Benefit** | $7,619,900 | $2,247,848 | $2,529,568 | $2,996,094 | $3,743,301 | $2,459,884 | **$21,596,596** |
| **Act. Present Value** | $43,896,658 | $15,626,769 | $18,372,510 | $20,127,667 | $25,268,462 | $17,180,263 | **$140,472,328** |

# V. Development of Reserve for Future Claims (RFC)

December 31, 2010

| | |
|---|---|
| LTDI Assets | $ 285,877,163 |
| **Actuarial Present Value of:** | |
| Claims in payment status as of December 31, 2010 | $ 140,472,328 |
| Incurred but not reported claims (IBNR reserve) | 35,118,082 |
| *Total Incurred Claims Reserve* | $ 175,590,410 |
| Reserves for Future Claims (RFC) | $ 110,286,753 |

The IBNR reserve amount is 25.0% of the total LTDI liability for claims in payment status. The total liability increased 12.4% from 2009. The increase is due to a growth in the number of open claims, an increase in average net benefit for open claims, and a reduction in the discount rate.

# Appendix 1

## Assumptions

**Mortality:** The projected future benefit stream is reduced for mortality. The Wisconsin Projected Experience Table – 93 is used; 98% of male mortality and 97% of female mortality.

**Set Forward:** Male mortality is adjusted by incorporating a 12 year set forward (males only).

**Recovery:** No recoveries are assumed in the projected future benefit stream.

**Benefit Period:** Projected benefits cease at age 65.

**Interest:** 4.0% (which approximates a 7.2% valuation rate—reduced 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:** 25% of the Reserve for reported claims (reduced from 30% in 2005 to reflect the pattern of decreasing actual IBNR to total LTDI claims in payment status, the factor was reduced from 35% to 30% in 1999).

**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.)

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