MINUTES OF THE

WV CONSOLIDATED PUBLIC RETIREMENT BOARD ACTUARIAL ASSUMPTIONS REVIEW COMMITTEE MEETING OF SEPTEMBER 28, 2015

A meeting of the West Virginia Consolidated Public Retirement Board's Actuarial Assumptions Review Committee was held in the Legal Conference Room located at 4101 MacCorkle Avenue, SE, Charleston, West Virginia, on September 28, 2015. Chairman Vascik called the meeting to order at 10:03 a.m.

Roll Call

Committee Members present were:

Brittany Vascik, Chairman
Joe Bunn, Esquire
Andy Richardson
Jeffrey Vallet

No Committee Members were absent.

Others present were:

Jeff Fleck, CPRB Executive Director
Terasa Miller, Deputy Director
Candi Kinslow, CPRB Executive Assistant
Harry Mandel, CPRB Actuary
Melody Bailey, CPRB Actuarial Analyst
Heather Drake, CPRB Administrative Assistant

A quorum was present, and due notice had been published.

Item #1: Approval of May 20, 2015 Minutes

Mr. Bunn made a motion to approve the May 20, 2015 meeting minutes. The motion was seconded by Mr. Richardson. The motion carried unanimously.

Item #2: Annual Interest Rate Review - Harry Mandel, Board Actuary

Harry Mandel, Board Actuary reviewed the 2015 Annual Actuarial Interest Rate Review for all of the CPRB Plans with the Committee.

He announced, as directed by the Board, the actuarial valuation interest rate assumptions is reviewed annually. This includes an experience review of the interest return for the PERS trust fund, the expected returns based upon projections by investment professionals and national public plans' practices.

Overview

This report summarizes the interest rate review results and the assumption being recommended by the Board Actuary effective with the July, 2015 actuarial valuation applicable to each of the eight defined benefit plans administered by the Board. The review was completed by the Board Actuary. Investment experience for FY2015 was reported by the West Virginia Investment Management Board (WVIMB) for each plan. Future return projections were completed by WVIMB and Buck Consultants based on June 30, 2015 assets. National practice averages were summarized from the Public Fund Survey – August 2015.

Details of the Annual Interest Rate Review and Recommendation

All defined benefit plans' trust fund assets are invested similarly by the WVIMB and therefore a single interest rate is applied to all eight plans administered by the Board. Some differences in the actual returns is a result of the timing of deposits and the level of benefit payments impacting the cash flow for each plan. Historical and expense analysis focuses upon the results for PERS as the flagship plan for West Virginia public employees.

- 1. Exhibit: Interest Rate Analysis and Recommended Assumption.
 - a. PERS FY2015 experience after administration expenses of 3.49%.
 - b. PERS 20 Year historical return average after expenses of 7.03%.
 - c. WVIMB expected 10 year return analysis at the 50th percentile arithmetic rate of 8.20%, adjusted to 8.08% after expenses.
 - d. Buck Consultants expected arithmetic return projections based on investments.
 - i. Ten year arithmetic projection of 8.23%; after expenses of 8.11%.
 - ii. Long term arithmetic projection of 9.63%; after expenses of 9.51%.
 - e. Public Fund Survey average rate of 7.92%.
 - f. Weighted Return Rate Analysis 6/302015 of 7.92%.

- g. Recommended Interest Rate Assumption of 7.50%, unchanged from 2014. It is noted that this year continues the increased projected level noted last year.
- 2. Additional Exhibits Providing Details of the Review.
 - a. Summary of Historical Return Rates by Plan June 30, 2015.
 - b. Key Items Summary from: Public Plans Survey August 2015.
 - c. West Virginia Investment Management Board CPRB Asset Return Update July,
 2015 prepared by Strategic Investment Solutions, Inc.
 - d. WVIMB email September 10, 2015 Craig Slaughter regarding "manager alpha" estimated basis increase adjustment expected.
 - e. Buck Consultants letter of September 9, 2015; West Virginia Pension Fund Expected Return on Assets Summary.

Mr. Mandel recommended that the Actuarial Assumption Review Committee approve the continuation of the 7.50% valuation interest return rate and discount assumption for all of the defined benefit plans' July 1, 2015 actuarial valuations administered by the CPRB.

Mr. Richardson made a motion the Actuarial Assumption Review Committee accept the recommendation of the Board Actuary and recommended to the full board the continuation of the 7.50% valuation interest return rate and discount assumptions for all of the defined benefit plans for the July 1, 2015 actuarial valuations. Mr. Bunn seconded the motion. The motion carried unanimously.

Item #3: PERS Experience Study – Harry Mandel, Board Actuary

Harry Mandel, Board Actuary reviewed the 2015 PERS Experience Study Summary and Recommended Assumptions with the Committee.

He announced, WV Code Section 5-10-13 requires a PERS experience study be completed at least every five years. The study must develop experience based actuarial assumptions including but not limited to mortality, withdrawal, regular retirement, disability retirement and salary scale. The 2015 Experience Study is intended to meet this requirement. The last PERS experience study was completed in 2010.

The 2015 Experience Study develops the actuarial assumptions to be effective starting with the July 1, 2015 Actuarial Valuation for funding. The Mortality Assumption experience was reviewed and a

new assumption adopted by the Board May 20, 2015. The remaining 2015 Experience Study assumptions shall be first applied as of July 1, 2015 for projection to June 30, 2016 financial disclosure.

Overview

This summary is intended to provide a brief overview of the 2015 PERS Experience Study results including the previously adopted Mortality assumptions.

Changes in actuarial assumptions based on the experience study are jointly recommended by the Board Actuary and David Driscoll, lead actuary with Buck Consultants. The development of the jointly recommended assumptions provides both a peer review of the study and its results as well as the ability for either actuary to certify to the reasonableness of the PERS assumptions as recommended.

Details of the statistical results from the PERS Experience Study are available in the tables and graphs developed by either CPRB staff or Buck Consultants depending upon the assumption being reviewed. The recommended assumptions are developed jointly.

The study period included actuarial valuation data from July 1, 2009 through June 30, 2014.

A summary of the experience results and the recommended actuarial assumptions is contained in a summary of assumptions is contained in a summary of assumptions with recommended changes being highlighted. The assumptions submitted for Board adoption are briefly summarized as follows:

Interest Rate Next of Expenses

No changes from 7.5% return net of expenses.

Salary Scale

State reduced by 140 basis point at all ages but not below 3.0% cost of living assumptions. Non State Reduced by 90 basis points with minor adjustments under 25.

Pre-Retirement Mortality

Already adopted by the Board.

Post-Retirement Mortality

Already adopted by the Board.

Withdrawal

Select 5 year initial period with ultimate rates after 5 years of employment. Adjustments made to each segment based on analysis of graphs and experience. Detailed in attachments.

Disablement Rates

Adjustments are detailed in attachments.

Retirement Rates

Decreased at age 60 from 0.15 to 0.12, age 62 from 0.30 to 0.25 and at age 65 from 0.25 to 0.22.

Noncontributory Service Loadings

Combined sick leave and military service credit loadings as follows:

Male State – Reduced from 10.8% to 10.4%

Male Nonstate – Unchanged from 10.0%

Female State – Increased to 2.8% from 2.4%

Female Nonstate – Increased to 2.475% from 2.40%

The military component of the loadings includes the impact of the Woods decision.

July 1, 2014 Actuarial Valuation Estimated Financial Impact

The financial impact of the new assumptions are measured at the last actuarial valuation date of July 1, 2014. This provides an estimate of the impact of the assumptions on future valuations. The changes include the previously Board adopted mortality assumptions.

The net result is a decrease in the AAL of (1.1) % or \$(66,522,000). The NC decreased (8.4) % \$(12,521,000) for the valuation year. The impact on the required employer contribution rate to exactly meet the ARC is a decrease from 13.22% to 11.65%. This decreases the required employer contribution rate by -1.57% of pay.

Mr. Mandel recommended the Actuarial Assumption Review Committee adopt and approve the recommended assumptions as presented and to recommend approval and adoption to the full Board.

Mr. Bunn made a motion the Committee adopt and accept the recommendations of the Board Actuary, Harry Mandel for the 2015 PERS Experience Study Summary and Recommended Assumptions and to recommend to the full Board for their approval. Mr. Richardson seconded the motion. The motion carried unanimously.

Item #4: Other Business

Chairman Vascik asked the Actuarial Assumptions Review Committee if there was any other business to bring before the Committee. None was heard.

Mr. Richardson made a motion to adjourn the meeting of the Actuarial Assumptions Review Committee. The motion was seconded by Mr. Bunn. The motion carried unanimously.

Chairman Vascik adjourned the West Virginia Consolidated Public Retirement Board's September 28, 2015 Actuarial Assumptions Review Committee meeting at 10:31 a.m.

Respectfully submitted,

Brittany Vascik, Chairman

Jeffrey E. Fleck, Executive Director