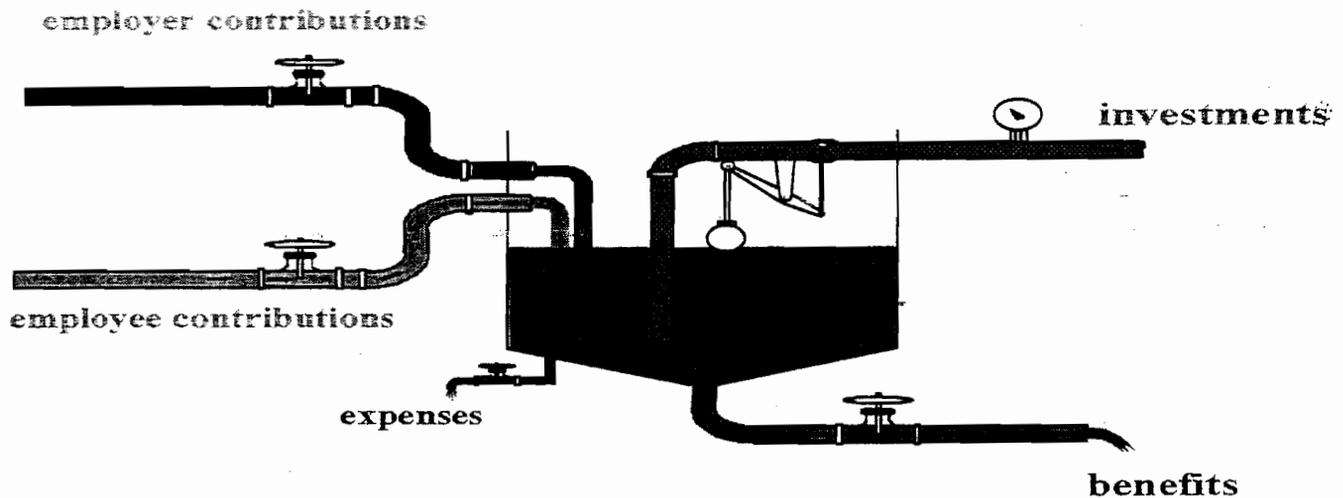


MONTANA TEACHERS' RETIREMENT SYSTEM

STATE ADMINISTRATION AND VETERANS' AFFAIRS INTERIM COMMITTEE

September 9, 2005

FUNDING PRINCIPLE



STATE ADMINISTRATION AND VETERANS AFFAIRS
SEPTEMBER 9, 2005 MEETING
EXHIBIT 1

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STATE ADMINISTRATION AND VETERANS' AFFAIRS INTERIM COMMITTEE

Investing and Managing Funds – Actuarial Analysis

Like nearly all pension plans, the Teachers' Retirement System engages in "smoothing," a practice that takes one-year gains and losses and spreads them out over time. The TRS actuarial asset method smoothes asset gains and losses over 5 years. For Example: If there were a \$10 million asset gain in 2005, it would be recognized in five equal pieces of \$2 million at July 1 of 2005, 2006, 2007, 2008 and 2009. This allows gains and losses to offset each other and promotes less volatility in the funding of the System's liabilities. In bad times, such as 2000 through 2003, smoothing delays the accounting for losses. In good times, such as 1990 through 1999, it delays gains, which will offset future losses or allow the legislature to make benefit improvements.

The actuarial valuation measures the Unfunded Actuarial Accrued Liability (UAAL). The UAAL is the gap between the promised benefits and the amounts that will be available to pay those benefits. It represents an outstanding obligation of the State to the plan and its members. The period of time over which contributions are projected to pay for the UAAL, if future experience follows the actuarial assumptions, is called the Amortization Period and measures the System's actuarial soundness. The acceptable period of time over which to fund the UAAL, established by the Governmental Accounting Standards Board (GASB) in 1996, is 30 years. Previously, the acceptable period of time to amortize the UAAL was 40 years and before that contribution rates simply needed to be sufficient to amortize the UAAL over a calculable period of time. In 1971, the TRS amortization period was 69 years, and at that time, the system was considered "actuarially sound".

The Valuation is a snapshot in time and sometimes experience is better and sometimes worse than the actuarial assumptions. The difference between the actual experience and the assumed experience is reflected in each actuarial valuation. For this reason the TRS Board periodically compares actual experience with the actuarial assumptions. If there are differences, minor corrections are made to the assumptions. However, changes in assumptions can also increase or decrease unfunded liabilities and the amortization period.

Actuarial Standard of Practice (ASOP) No. 27, Selection of Economic Assumptions for Measuring Pension Obligations, provides guidance to actuaries giving advice on selecting economic assumptions for measuring obligations under defined benefit plans. Because no one knows what the future holds, the best an actuary can do is to use professional judgment to estimate possible future economic outcomes. These estimates are based on a mixture of past experience, future expectations, and professional judgment. The actuary considers a number of factors, including the purpose and nature of the measurement, and appropriate recent and long-term historical economic data. However, the standard explicitly advises the actuary not to give undue weight to recent experience. Recognizing that there is not one "right answer", the standard calls for the actuary to develop a best estimate range for each economic assumption, and then recommend a specific point within that range.

The investment return assumption is produced through an analysis of several building blocks: price and wage inflation and the historical annual yields of stocks and bonds. From a short-term viewpoint, the economic experience of TRS is important. However, in the long run, broader economic forces will control the experience of TRS in the area of general wage increases and investment returns. Inflation will drive wages, and investment yields will be governed by national and international markets. Accordingly, the Actuary's analysis of the economic assumptions tends to focus more on national economic statistics than the actual experience of the Board of Investments. Once each year staff of the BOI meets with the TRS Board to present the results of the most recent fiscal year and their prediction for the future.

The TRS investment return assumption through July 1, 2004 was 8.0% net of investment and administrative expenses. Effective July 1, 2004, the Board reduced the investment return assumption from 8.0% to 7.75%. While we found the average return, over at least the long run, had exceeded the 8.0% assumption, a cash flow needs analysis of the TRS based on the aging of the TRS membership and the expected increase in the number of retirees, coupled with the fact that the average return over the past 3 and 5 years has been considerably less than 8.0%, all contributed to the Board's decision to reduce the investment return assumption. This change increased the UAAL \$52.9 million and added 7 years to the amortization period.

The real key to investment returns is "asset allocation." I have often heard it said that asset allocation is responsible for 90% of the investment return. The investment rate assumption used by the actuary is not the target the Board of Investment should use as their benchmark, and should not be the focus of their investment policy. For this reason the retirement boards are charged under the State Constitution to set the actuarial assumptions and the BOI is charged with the investment functions. The best way to establish the correct asset allocation is through an asset/liability study, which the BOI has included in a recently released request for proposals for a "retainer consultant". Once the BOI has completed the asset/liability study and developed a model, the TRS Board may want to again review the investment return assumption.

Retirement Funding Issues

While no single event has caused the amortization period of the TRS to exceed 30 years, several events have contributed to the unfunded liabilities of the Teachers' Retirement System: investment gains and losses, corporate corruption, terrorists, and benefit enhancements funded with excess investment returns and reamortization of unfunded liabilities. In many respects, we are a victim of our own success.

Historically investment gains, contribution rate increases, and reamortization of unfunded liabilities have been used to fund benefit enhancements. For example: In 1989, the legislature expanded the time qualifying for free military service and enhanced other service purchase provisions. In addition, legislation was passed which required that a portion of each year's investment gain in excess of 8.0% be shared with retirees

in the form of a monthly Post Retirement Adjustment (PRA). Consequently, monthly benefits were increased each year between January 1990 and January 1994 an average of 1.5% (no PRA adjustments were made between 1994 and 1999). In 1995, a one-time early retirement incentive, ranging from 14.503% to 43.509% of salary, was offered to state employees participating in TRS. In each case the fiscal note showed the effect on the retirement system, but the basic design of the fiscal note limits the information provided to the impact on the general fund and only for the short term. We agree with the Budget Office that the fiscal note needs to be redesigned and restructured.

In 1999, as investment gains had almost fully funded the TRS, the PRA was repealed and the Guaranteed Annual Benefit Adjustment (GABA) was enacted. GABA was funded using investment gains; employee and state contribution rate increases and extending the amortization period from 9.2 years to 25.5 years. However, even after using part of the investment gains to fund GABA, the 2000 Actuarial Valuation showed we still had unrecognized gains of \$136.8 million and that the amortization period had declined from 25.5 to 15.1 years.

The following chart summarizes investment returns from 1990 through 2005.

Fiscal Year Ending	Market Returns	Fiscal Year Ending	Market Returns
June 30, 1990	9.6%	June 30, 1998	16.6%
June 30, 1991	9.4%	June 30, 1999	11.9%
June 30, 1992	14.3%	June 30, 2000	7.8%
June 30, 1993	11.1%	June 30, 2001	(5.1%)
June 30, 1994	2.3%	June 30, 2002	(7.3%)
June 30, 1995	15.7%	June 30, 2003	6.2%
June 30, 1996	12.4%	June 30, 2004	13.3%
June 30, 1997	19.4%	June 30, 2005	8.04%

All returns are net of both administrative and investment expenses.

Actuarial Valuation

Prior to the 2005 Session the Legislative Audit Division and the Teachers' Retirement Board contracted with an independent Actuary to audit the Teachers' Retirement System Actuarial Valuation. The actuarial audit included a full reproduction of the July 1, 2004 actuarial valuation results prepared by the TRS actuary, Milliman, and a review of recent experience studies, actuarial assumptions and methods used in the valuations. Mellon was selected to perform the actuarial review. Mellon concurred with the results of the July 1, 2004 actuarial valuation. Mellon's full report is available on the TRS Website at www.trs.mt.gov

A new Actuarial Valuation will be completed as of July 1, 2005, and available in early October 2005.