

PENSION PLANS UNFUNDED LIABILITY

Does the legislature need to take action in the 2011 session?

One of the key fiscal issues in front of the legislature over the past four biennia has been the unfunded actuarial liability (UAL) of the state pension plans. In two different sessions (the December 2005 special session and the 2007 special session) the legislature approved cash contributions totaling \$175 million to reduce unfunded liabilities and shore up plan assets that had been impacted by reduced equity market values and a downturn in investment earnings generally. In FY 2007, the equity markets regained value and at the end of June 2007, all of the pension plans were actuarially sound as defined in state statute (discussed below). At the end of FY 2008, the equity markets dropped in value in the last month of the year, all but one of the plans still met the criteria of being actuarially sound. Only the Teachers' Retirement System was determined to be actuarial unsound. In FY 2009, the bottom fell out of the equity markets and pension asset values tumbled, showing losses of about 22%. As of the year ended June 30, 2009 and again as of June 30, 2010, four of the nine pension plans had "negative" actuarial valuation reports. About half of the loss in asset value has not yet been recognized in determining the unfunded actuarial liability. Similarly, only about one-quarter of the gains of FY 2010 have been recognized.

Does the legislature need to take action in the 2011 session? If no action is taken or if there is not a continued and dramatic recovery of the equity markets, future legislatures will be faced with significant issues concerning the long-term health of the retirement systems. These fiscal issues are a part of the entire budget debate because the fiscal health of the retirement system is an important component of state and local government fiscal stability.

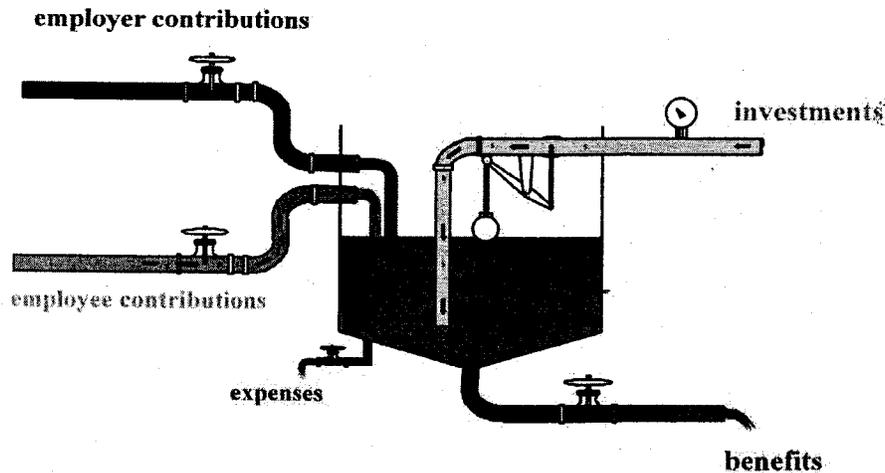
There are three parts to this discussion. The first focuses on the actuarial valuations of each plan as the tool that reports whether or not a retirement plan is actuarially sound. This is an important discussion because of its relevance to a constitutional requirement. The second part focuses on the "annual required contribution" (ARC) of the pension plans, which are an indication of the long-term health of the pension plans. The third part discusses other risks to consider. The fourth part discusses the legislation that is anticipated for the 2011 Session.

BACKGROUND

This section discusses some key concepts concerning pension systems.

How Pension Systems Work

The following is a simple schematic of a pension system. Employer and employee contributions and investment earnings flow in, and retirement benefits and administrative expenses flow out.



What this schematic does not show is that fluctuations in the equity markets can cause the asset values to increase or decrease. In other words, the investments pipe can flow both ways, depending on the markets. For the most part, the employer and employee contributions are a percentage of employee payroll. However, as mentioned earlier, on a couple of occasions, the legislature approved a direct cash infusion to shore up pension assets. The workings of this simple schematic become more complex when discussions turn to actuarial valuations.

Actuarial Valuation

An actuarial valuation is an analysis of the expected liabilities or retirement payments that will be owed in the future compared to the value of funds (assets) held by the fund and expected contributions and investment earnings into the future.

Actuarial Value of Assets

The actuarial value of assets differs from market value in one way. Actuarial value includes a technique of “smoothing” that spreads gains and losses of the pension plans investments over a 4-year period rather than recognizing a gain or loss in the year it occurs. Market value is the amount of money that could be acquired if the asset were exchanged on the open market. The smoothing method simply attempts to account for fluctuation in the investment market.

Actuarial Liability

The actuarial liability of a pension plan is the amount that is projected to be needed to pay obligations in the future. It can be likened to a mortgage amount, although unlike a mortgage, the pension liability is determined annually (by the actuarial valuation) based upon what is currently known about the pension fund and what is assumed for the future. Theoretically, like a mortgage, the amount owed for future benefits should be paid for in a specified time by the contributions and investment earnings that are collected or expected to be collected. If the actuarial liabilities exceed the actuarial value of assets of the pension fund, then there is an **unfunded actuarial liability**. In other words, unfunded actuarial liability is the present value of benefits earned to date not covered by the current plan

assets, or in the mortgage analogy, the mortgage cannot be paid off with the current level of payment.

Actuarially Sound

Article VIII of the State Constitution states that “public retirement systems shall be funded on an actuarially sound basis.” State law defines actuarial soundness by stating that the “unfunded liability contribution rate...must be calculated as the level percentage of current and future defined benefit plan members' salaries that will amortize the unfunded actuarial liabilities of the retirement plan over a reasonable period of time, not to exceed 30 years, as determined by the board.” In other words, the contribution rate for a particular plan must exceed the level needed to cover the normal costs of benefits and administration for the retirees and be sufficient, when amortized, to cover the unfunded liability within 30 years (i.e., pay off like a mortgage over 30 years).

MOST RECENT ACTUARIAL VALUATIONS

An actuarial valuation, by statute, is required annually for each plan. The valuations are prepared after the end of the fiscal year and are available to the respective retirement boards around October 1 of each year. The following figure summarizes key points of actuarial valuations for the year ending June 30, 2010 and 2009. The four plans that are shaded are those pension plans that were the focus of attention over most of the past decade as they were considered “actuarially unsound” much of that time.

The key item to focus on in the FY 2010 data is the “Years to Amortize Unfunded Liability.” This is an important indicator because the definition of “actuarial soundness” is tied to the pension plan ability to pay down its unfunded liability within a 30 year period. As the following figure shows, the four pension plans exceed the 30-year amortization.

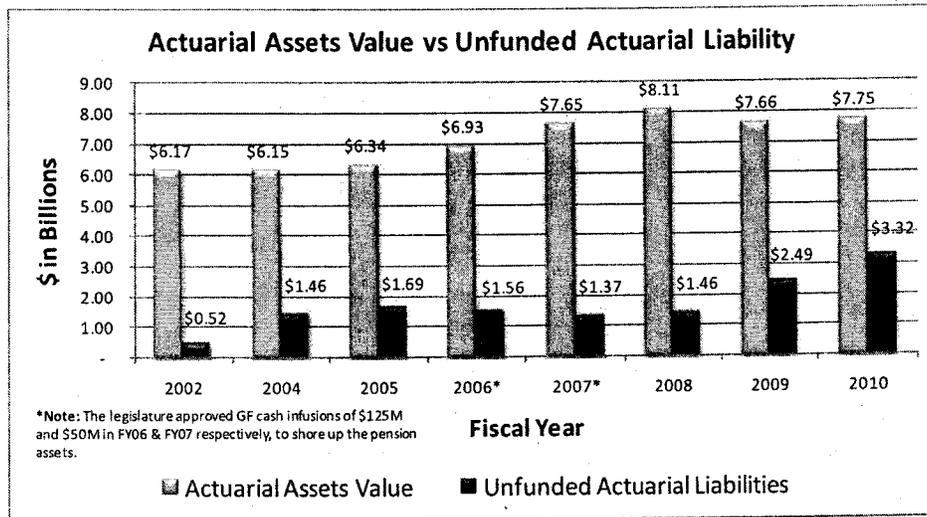
There are two points that need to be noted. First is that this data does not include all of the losses that occurred in FY 2009 or all of the gains that occurred in FY 2010. The valuation process applies a technique called “smoothing” that spreads gains and losses out over a period of time. Therefore, losses that occurred in FY 2009 are not totally realized in this current valuation, but rather are spread out over a four-year period. Second, actuarial valuations are snapshots as of June 30. The current valuation does not take into account the impact of economic events since June 30, 2010, where retirement investments have experienced some recovery.

Pension Plan Unfunded Actuarial Liability									
2010 Actuarial Valuation versus 2009 Actuarial Valuation									
(Dollars in Millions)									
	TRS	PERS-DB	SRS	GWPORS	HPORS	MPORS	FURS	JRS	VFCA
2010 Valuation (as of 6/30/2010)									
Actuarial Accrued Liability (AAL)	\$4,518.2	\$5,241.8	\$246.7	\$113.9	\$151.2	\$380.4	\$335.5	\$42.5	\$34.5
Actuarial Value of Assets (AVA)	2,956.6	3,889.9	200.7	85.2	97.2	217.5	213.8	61.3	26.6
Unfunded Actuarial Liability/(Surplus)	\$1,561.6	\$1,351.9	\$46.0	\$28.7	\$54.0	\$162.8	\$121.7	(\$18.8)	\$7.9
Funded Ratio (AVA/AAL)	65.4%	74.2%	81.4%	74.8%	64.3%	57.2%	63.7%	144.1%	77.0%
Years to Amortize Unfunded Liability	49.7 yrs	Does not amortize	Does not amortize	Does not amortize	26.3 yrs	19.9 yrs	13.8 yrs	0 yrs	n/a
	TRS	PERS-DB	SRS	GWPORS	HPORS	MPORS	FURS	JRS	VFCA
2009 Valuation (as of 6/30/2009)									
Actuarial Accrued Liability (AAL)	\$4,173.8	\$4,792.8	\$223.9	\$92.2	\$137.8	\$345.3	\$306.2	\$41.8	\$33.5
Actuarial Value of Assets (AVA)	2,762.2	4,002.2	200.7	81.2	99.6	214.3	209.8	61.9	27.2
Unfunded Actuarial Liability/(Surplus)	\$1,411.6	\$790.6	\$23.2	\$11.0	\$38.2	\$131.0	\$96.4	(\$20.1)	\$6.3
Funded Ratio (AVA/AAL)	66.2%	83.5%	89.6%	88.1%	72.3%	62.1%	68.5%	147.9%	81.2%
Years to Amortize Unfunded Liability	Does not amortize	Does not amortize	Does not amortize	Does not amortize	21.5 yrs	22.1 yrs	12.7 yrs	0 yrs	6.9 yrs
Key									
TRS - Teachers' Retirement System					MPORS - Municipal Police Officers' Retirement System				
PERS-DB - Public Employees' Retirement System - Defined Benefits					FURS - Firefighters' Unified Retirement System				
SRS - Sheriffs' Retirement System					JRS - Judges' Retirement System				
GWPORS - Game Wardens and Peace Officers' Retirement System					VFCA - Volunteer Firefighters' Compensation Act				
HPORS - Highway Patrol Officers' Retirement System									

The next scheduled valuations will occur after June 30, 2011 and will not be available until around October 1. How the equity markets and other investments perform before the end of FY 2011 is unknown, but it is how they perform that will determine the relative soundness or unsoundness of the retirement plans in the next valuation, assuming that the actuarial assumptions remain relatively unchanged. The assumptions used in the valuation are subject to review, and in fact, some changes occurred prior to the 2010 valuation.

Total Unfunded Actuarial Liability

The net unfunded liability of the nine defined benefit pension plans collectively increased from \$2.5 billion in 2009 to \$3.3 billion in 2010. The collective funded ratio, which was about 75.5%, dropped to 70% percent. A look at the unfunded actuarial liability for the past decade adds more significance to the magnitude of these numbers. As the chart below shows, the unfunded liability has increased six-fold since FY 2002 while the actuarial assets increased 25%.



There are two primary reasons for the increase in the UAL in the 2010 valuation: 1) For all nine pension plans, they are in the second year of the 4-year smoothing cycle for the losses that occurred in FY 2009 investment returns. The downturn was so significant that even with "smoothing," the impact in each valuation is dramatic. 2) For the eight plans under the Public Employees Retirement Board, the assumption for investment returns for the FY 2010 actuarial valuation was reduced from 8 percent to 7.75 percent. The seemingly small change, when applied to pension plan values and spread over the 30-year amortization period, also has a dramatic impact.

ANNUAL REQUIRED CONTRIBUTION

However, the above does not tell the whole story. The actuaries also provide estimates of what the "annual required contribution (ARC)" should be to ensure that the actuarial unfunded liability can be amortized within the 30-year threshold. The ARC is a determination based upon the assumptions that are used in the actuarial valuation. Accounting standards require its calculation but it is not typically used to determine funding. It does, however, provide a link between the valuation statement that "the unfunded liabilities of a given plan does not amortized in 30 years" and the obvious question of "what will it take to get there?" While a contribution increase is not the only answer, calculating the cost of the ARC does place a value on the problem.

The following figure shows the difference between the statutory employer contribution rate and the estimated ARC. The difference or shortage would translate to the increase in contributions needed to ensure that the unfunded liabilities of the pension plans can be amortized within 30 years.

When the ARC rate is applied to the projected wage data of state and local government employees and teachers for the FY 2012 and FY 2013, the estimated state general fund impact is \$31 million for FY 2012 and \$37 million for FY 2013.

This calculation also includes a potential adjustment to the contribution rates of the university system's Optional Retirement Plan, specifically the portion that the employer must pay to TRS to pay down unfunded liabilities (future costs) resulting from TRS members being in the ORP plan rather than the TRS plan. A recent study suggests that 3.82% be added to the current supplemental rate of 4.72%.

Pension Plan Unfunded Liabilities Annual Required Contribution (ARC) ARC Rate versus Current Statutory Rate					
Fiscal Year	TRS	PERS	SRS	GWPORS	HPORS
Statutory Employer Rates					
2012	9.96%	7.17%	10.12%	9.00%	36.33%
2013	9.96%	7.17%	10.12%	9.00%	36.33%
2014	9.96%	7.17%	10.12%	9.00%	36.33%
2015	9.96%	7.17%	10.12%	9.00%	36.33%
Annual Required Contributions (ARC) Rate to Attain 30-Year Amortization					
2012	12.16%	15.33%	17.07%	13.90%	41.37%
2013	14.18%	15.39%	17.07%	13.87%	40.79%
2014	15.13%	15.61%	17.23%	13.92%	40.54%
2015	15.13%	15.84%	17.39%	13.99%	40.28%
Rate Shortage					
2012	2.20%	8.16%	6.95%	4.90%	5.04%
2013	4.22%	8.22%	6.95%	4.87%	4.46%
2014	5.17%	8.44%	7.11%	4.92%	4.21%
2015	5.17%	8.67%	7.27%	4.99%	3.95%

Data Source: June 30, 2010 actuarial valuations - for TRS 2014-15, LFD analysis uses the ARC determined for FYE 2012 from market value as proxy for unavailable data.

What the Data Shows

Using the estimated ARC rates discussed above, the total impact is \$296 million for the 2013 biennium, including impact on the state general fund, other state funds (state special, federal, etc.), local governments, and schools.

The figure below shows the potential impact for the next two biennia.

The analysis assumes that local governments and schools would be responsible for their costs except where the guaranteed tax base (GTB) comes into play. GTB costs are shown in the figure as part of the state general fund costs. In addition, the general fund estimated costs include estimates of the portion of university system current unrestricted funds that would come from the general fund. It also includes a portion of the proprietary funds that translate to general funds when agencies are billed for internal service fund services such as information technology services. The estimated cost to the general fund in the 2013 biennium is \$68 million. The cost to other state funds would be \$101 million.

Potential Pension Cost Increases FY 2012 - FY 2015 (Dollars in Millions)				
	FY 2012	FY 2013	FY 2014	FY 2015
State Costs				
General Fund	\$ 31	\$ 37	\$ 41	\$ 44
Other Funds	48	53	58	62
Local Schools	18	29	36	37
Local Government	39	40	43	46
	<u>\$ 136</u>	<u>\$ 160</u>	<u>\$ 178</u>	<u>\$ 189</u>

Local Schools

Each county has high school and elementary county retirement accounts for employees employed by school districts. These accounts collect revenue to pay for the employer

contributions to the TRS and PERS on behalf of school employees. It also collects revenue to pay for the Social Security, Medicare and unemployment insurance on behalf of school district employees. Each school district reports its retirement, Social Security, Medicare and unemployment insurance requirements to the county superintendent. The county superintendent sums these requirements for districts within the county. The state by law pays a portion of the contribution and the counties pay the remainder. For instance, for TRS, the state contributions into TRS for FY 2010 and FY 2011 are 2.38% of wages plus 0.11% of wages for a total of 2.49%⁴. The counties pay 7.47% of wages. The figure shows that the cost to schools overall would be \$47 million for the 2013 biennium and \$73 million in the 2015 biennium.

The county has three main sources of revenue to pay for the increased retirement costs: Non-levy revenue (such as oil and gas revenue, coal gross proceeds, interest earnings), property taxes, and, if eligible, state GTB payments. A county is eligible for state GTB payments if its taxable value per pupil is below 121% of the statewide average taxable value per pupil. Once a county has received the revenue to pay for the required contributions for the school districts within its boundary, it sends the revenue to each school district that then pays the contributions, as well as social security, Medicare and unemployment insurance. If local contribution rates increase and the state does not increase its share, then the retirement revenue requirements for counties will also increase. Some counties may have enough revenue from non-levy sources so that property taxes and state GTB will not increase. In the absence of sufficient non-levy revenue or an increased state supplemental contribution as discussed above, when local contribution rates increase, a county must raise the additional local revenue through property taxes and GTB.

Local Government

MCA 15-10-420 limits the increase from year to year of a local government's revenue from property taxes to one-half the rate of inflation averaged over the prior three years without a vote. This applies to county governments and city governments, but not to school districts, and the county retirement account discussed above is considered to be exempt from 15-10-420, MCA.

The result from applying the potential ARC rates as future contribution rates to local government jurisdictions are shown in the figure above for FY 2012 through FY 2015. The analysis shows the cost to local government would be \$79 million for the 2013 biennium, which might result in property tax increases if room exists under the limit, or the reduction of current service levels in order for counties or municipalities to cover the increased costs. The estimated \$79 million is about 3% of total county and municipality 2-year spending statewide. For the 2015 biennium, the estimated cost of \$89 million would also fall into the 3% to 3.5% range.

⁴ The contributions by the state are transferred from the state general fund to the Teachers' Retirement Fund in a statutory appropriation (19-20-607, MCA). The 2.38% state supplemental rate was added by HB 63 of the 2007 session to address the unfunded liability and the 0.11% was added in HB 72 of the 1999 session to fund the guaranteed annual benefit amount (GABA) of 1.5% for TRS. There is a similar state contribution by statutory appropriation to the Public Employees Retirement fund on behalf of local government and schools (19-3-319, MCA) to address the unfunded liability (HB 131 of 2007 session).

FURTHER RISKS

There are other considerations to keep in mind regarding pension plans:

- The analysis discussed above is based upon the pension plan actuarial valuations as of June 30, 2010. Although the equity markets have made big gains over the past two years, they continue to experience volatility. In addition, there are still two more years in which the losses of FY 2009 will be recognized. What the next valuations will show at the end of the current fiscal year is unknown. Without strong investment returns and/or some other action, the expectation is that at least four pension plans will still not be actuarially sound.
- In the Teachers' Retirement System 2010 Actuarial Valuation, the plans actuary shows that without some corrective action, projections cash flow will trend downward beginning in FY 2012, turning into a negative cash flow around FY 2021 or FY 2022. A negative cash flow means that payments out of the pension fund would exceed the contributions and investment income coming into the fund. The same is likely for the Public Employees' Retirement System (but the analysis is not available). If cash flow goes negative and stays negative, it is just a matter of time before the fund runs out of money.
- The fiscal health of public pension plans is looked at by bond rating agencies. If the state does not have a viable action plan for fixing an underfunded pension plan, bond ratings may suffer.

IS LEGISLATIVE ACTION NEEDED?

By definition and based upon the most recent actuarial valuation, four of the public pension funds are not actuarial sound. In addition, the actuarial soundness of these plans are based upon assumptions that measure the long-term trends of various factors, with investment returns certainly being a key one. When the legislature convenes in January, there will still be six months remaining in FY 2011 and the session will end 5-months prior to the availability of the FY 2011 valuation. Historic economic cycles and the logic of actuarial valuations would suggest that time might resolve the pension plan unfunded liabilities to the degree needed for actuarial soundness, but the downturn of the equity markets in FY 2009 were unprecedented in recent history. Even the retirement boards have a policy that provides that after two consecutive "negative" valuation reports, the boards are obligated to pursue legislative remedies. The question then becomes: How long might a recovery take? The answer to that question will not likely be evident in the near future. In fact, economic experts are forecasting a slow recovery. To whatever extent the economy recovers, it may not be enough to add needed stability to the pension plans.

The retirement boards have a policy that provides that after two consecutive "negative" valuation reports, the boards are obligated to pursue legislative remedies. In addition, 2011 Legislature can expect to see recommendations from the State Administration and Veterans' Affairs Interim Committee (SAVA), the retirement boards, various stakeholders, and others intended to enhance and stabilize the respective plans. The proposals will vary. Many are directed at new hires, some would raise employer contribution rates for the plans and change benefit calculations, and the SAVA committee is proposing two plans for newly hired teachers that reduce the state's funding risks, and there are a couple of "housekeeping" bills. There appear to be many bills in the works to address pension plan

issues. Many have little to offer the issue of unfunded liability but can offer some long-term solutions to those issues. A few might have the potential to reduce the unfunded liability but may see court challenges if enacted.

TRANSFERS TO THE GENERAL FUND FROM OTHER FUNDS

There are several proposals in the executive budget to transfer moneys to the general fund as part of the solution to solve budget gap. These transfers total \$95.2 million for the general fund. The following provides information regarding the impacts of the transfers:

HB 5 – LONG-RANGE PLANNING PROGRAM

The Governor recommends the reduction or elimination of certain Long-Range Building Program (LRBP) projects and the transfer of \$11.7 million of LRBP capital project funds to the general fund. The planned LRBP project reductions/eliminations include:

- The Receiving Hospital Renovation at MT State Hospital (\$4.5 million)
- The Expansion of Food Services at Montana State Prison (\$1.2 million)
- the New Building for Youth Transition Center, Great Falls (\$1.3 million)
- A new Office of Public Assistance, Wolf Point (\$2.2 million)
- Statewide Facilities Planning (\$0.4 million)
- Infrastructure Repairs at the State Capitol, Helena (\$0.5 million)
- Auto Tech Center Design at MSU-Northern (\$0.6 million)
- LRBP Additional Capital Project Fund transfer, without accompanying project reduction (\$1.0 million)

For more information on the transfer of funds see Vol. 7, page F-8 of the Legislative Budget Analysis.

HB 10 – LONG-RANG INFORMATION TECHNOLOGY PROJECTS

The Governor recommends the reduction or elimination of certain Long-Range Information Technology Program (LRITP) projects. The planned LRITP project reductions and transfers to the general fund amount to \$10.7 million and include:

- The Montana Automated Child Welfare Information System (MACWIS) (Child and Adult Protective Services, CAPS) Project (\$10.3 million)
- The Judicial Branch Information Technology Project (\$0.3 million)
- The Efficiency through Imaging, Department of Revenue (DOR) (\$0.1 million).

For more information on the transfer of funds see Vol. 7, page F-16 of the Legislative Budget Analysis.

HB 11 – TSEP AND REGIONAL WATER TRANSFER

The executive proposes two transfers from the Treasure State Endowment Programs (TSEP) to the general fund in HB 11. The first proposed transfer is from the TSEP interest earnings from the local government water infrastructure grant program state special