

The Security of the Maryland Retirement and Pension System (SRPS) and some Potential Risks

A number of individuals have asked questions about, or suggested that the Maryland Retirement and Pension System (SRPS) is underfunded, and as a consequence the Town risks incurring significant future costs if it enters the plan, thereby putting pressure on the Town to raise taxes. Others have gone further and indicated that because the SRPS is allegedly underfunded, the future benefits of the employees who enter the system will be put at risk. The purpose of this post is to review these claims and concerns.

Prior to discussing each of the above points, it is useful to introduce some background information and clarify a few points about the Maryland Retirement and Pension System. First, while the SRPS' Annual Report and website present as if the system was a unitary one, it is not. The pension plan that the Town is considering joining is the Employees Combined Plan for Maryland Municipal Corporations (ECPMMC), which is reported on separately.¹ Second, a great deal of confusion exists as to what is meant by the term "underfunded." Public plans differ from private plans in that because of how they are structured, the level of underfunding that they can tolerate without creating unacceptable risks is greater than for private pension plans. Two estimating procedures for determining the lower limit of liability without undue risk have been created, the first of which establishes the lower limit at around 80%²; the second allows for greater variation and relies on the rate of return to determine the lower limit, generally yields more conservative results, and is somewhat easier to calculate.³ Although the second method is more volatile than the former method because it is dependent on a single input indicator, it will be used here because it is easier to compute and understand.

As of July 1, 2008, the Employees Combined System had an actuarial value of approximately 2.9 billion dollars and actuarial accrued liabilities of 3.3 billion dollars, for a funded percent of 88.5 percent.⁴ Using the formula developed by Gene Mumy ($\frac{1}{(1+i)^2}$, where i = the annualized growth rate of the pension fund), it is possible to assess the liability level necessary to sustain stable contribution levels, an important public policy objective. At the assumed growth rate of 7.75% per annum, the minimal funded liability is 86.1%.⁵ At an assumed growth rate of 5% per annum, the minimal funded liability should be 90.7%.⁶ The historical evidence suggests that the Maryland Retirement and Pension Plan fund has an annualized rate of return of around 5.95%, which translates to an 89.1% funding level.⁷ From this evidence, it is reasonable to conclude that the fund is well run and safe.

Of course, this does not answer the concern that the significant downturn in the market since July 1, 2008, has increased the likelihood that the annual contribution rate assessed to the Town would increase. As of March 31, 2009, the Maryland Retirement and Pension System Fund had lost 28.35% of its value since July 1, 2008.⁸ Assuming that the market does not recover this loss, and that it becomes necessary to recover it through an increase in the annual contribution rate, what would this increase be? At an assumed annual growth rate of 7.75%, discounted at 3.5%, the increase would be 4.45%, which works out to be an annual average increase in tax liability to each property in University

Park of \$57.25.⁹ Because of the cushion that was built into the original long-term budgetary savings that would be realized from joining the plan at the 70% level of back service funding, it is unlikely that these cost increases would have a significant impact on the budget or property tax rates for at least 15 years.

A comparative perspective is useful here. Currently, our 401(k) and our life insurance plan add a 7.27% burden to our annual wage bill. If we were to add a long-term disability insurance plan to the Town benefit package to match what would be received through the state pension plan, the burden rate would go up an additional 0.86 percent with a three year fixed certainty of no rate increase; thereafter the cost could increase based on group claims. This would result in our burden costs going up immediately this year to 8.13%, or 0.55% over the pension plan. Further, if the Town were to increase its contribution rate to the 401(k), as some have suggested, to match surrounding jurisdictions and the national average, this would also result in an immediate increase of between 1-3 percent in annualized liability. Assuming only a 1 percent increase in our 401(k) contribution and the purchase of long-term disability insurance, our immediate increase in liability would jump to 9.13%. In addition, the salary freeze would be lifted, increasing the wage bill by 3% for a total increase of 4.86% of pension related costs in the FY2010 budget. If the state pension plan contribution rate is increased from 7.58% (the FY 2010 rate) by the amount of 4.45% that is projected above to 12.03% in FY 2011 that remains less than what the Town would pay immediately and which may increase or need to be increased in the future, particularly if additional improvements are made in the 401(k) plan.

The analysis presented here suggests that the risks of joining the Maryland plan are relatively low. Applying a widely accepted procedure to analyze liability suggests that the fund is safe and appropriately funded, particularly if appropriate counter-measures are adopted to recover the losses of the past year. When a future cost risk analysis is conducted assuming a worst case scenario that the market does not allow for a recovery of funds, future contribution levels rise above the historical norm, but do not require a rise in our taxes in the immediate future and can be absorbed within our budget.

¹ Fiona Liston and Margaret Tempkin (December 2008), "State Retirement & Pension System of Maryland (as of July 1, 2008): Actuarial Valuation for Maryland Municipal Corporations, including the Correctional Officers' Retirement System and the Law Enforcement Officers' Pension System," Cheiron Corporation: McLean, VA.

² Stephen D'Arcy, James Dulebohn, and Pyungsuk Oh (1999), "Optimal Funding of State Employee Pension Systems," *Journal of Risk and Insurance* 66(3): 345-380.

³ Gene L. Mumy (1978), "The Economics of Local Government Pensions and Pension [Funding]," *The Journal of Political Economy* 86(3):517-527.

⁴ Liston & Tempkin, *op. cit.*, 10

⁵ Mumy, *op. cit.*, 521; the 7.75% growth rate or "valuation interest rate" is drawn from Liston & Tempkin, *op. cit.*, Appendix B-1 and is the standard adopted by the Maryland SRPS as of July 1, 2008.

⁶ The 5% annualized growth rate is the estimated long-term growth of the Dow Jones Industrial Average (DJIA) based on the daily closing values from October 1, 1928 to March 1, 2009. This value should not be construed as the value used by the Maryland SRPS.

⁷ D'Arcy, et al, *op. cit.*, 364.

⁸ http://www.sra.state.md.us/investments/Quarterly_Update-31Mar09.pdf Accessed May 1, 2009.

⁹ This calculation represents a different outcome than originally carried out, which resulted in a contribution increase ranging in size between 0.90 and 1.39%. The new calculations are based on information received from the SRPS on Friday, May 1, 2009 as to the methods that would be used to calculate the new rates in light of the market losses suffered by the SRPS Fund.