



Stable Employer Contribution Policy Plan Proposal

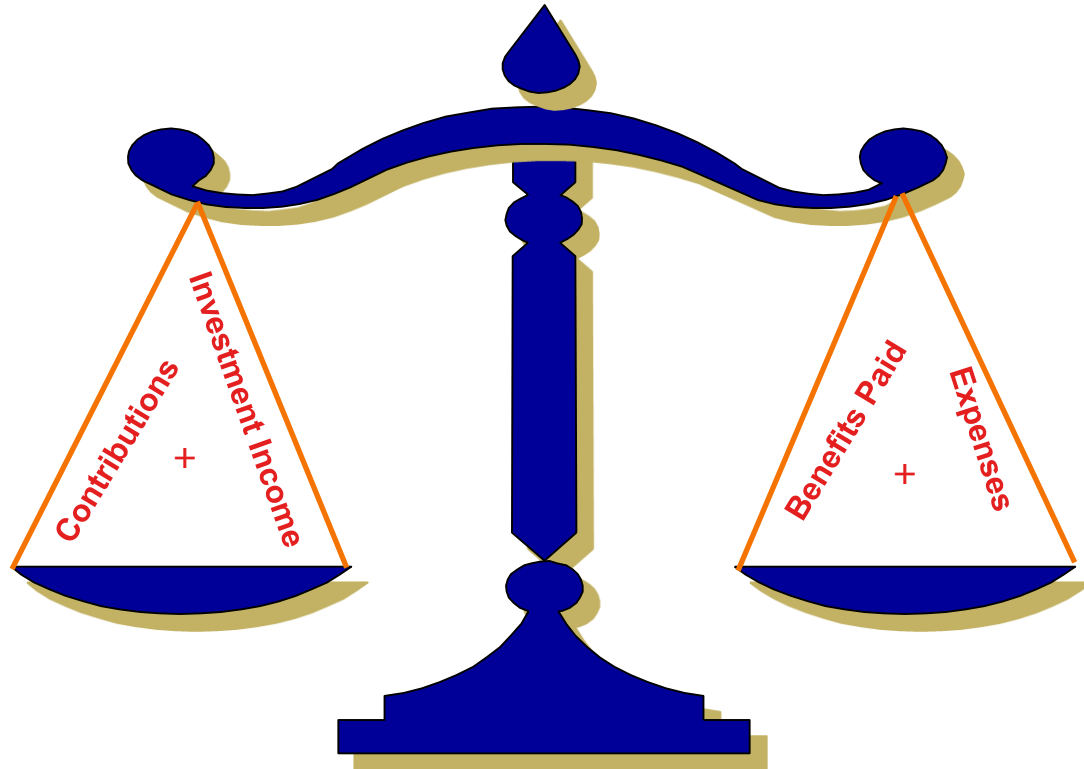
Presented by:

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Actuary for the Employees' Retirement System of the City of Milwaukee

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Universal Retirement Funding Equation



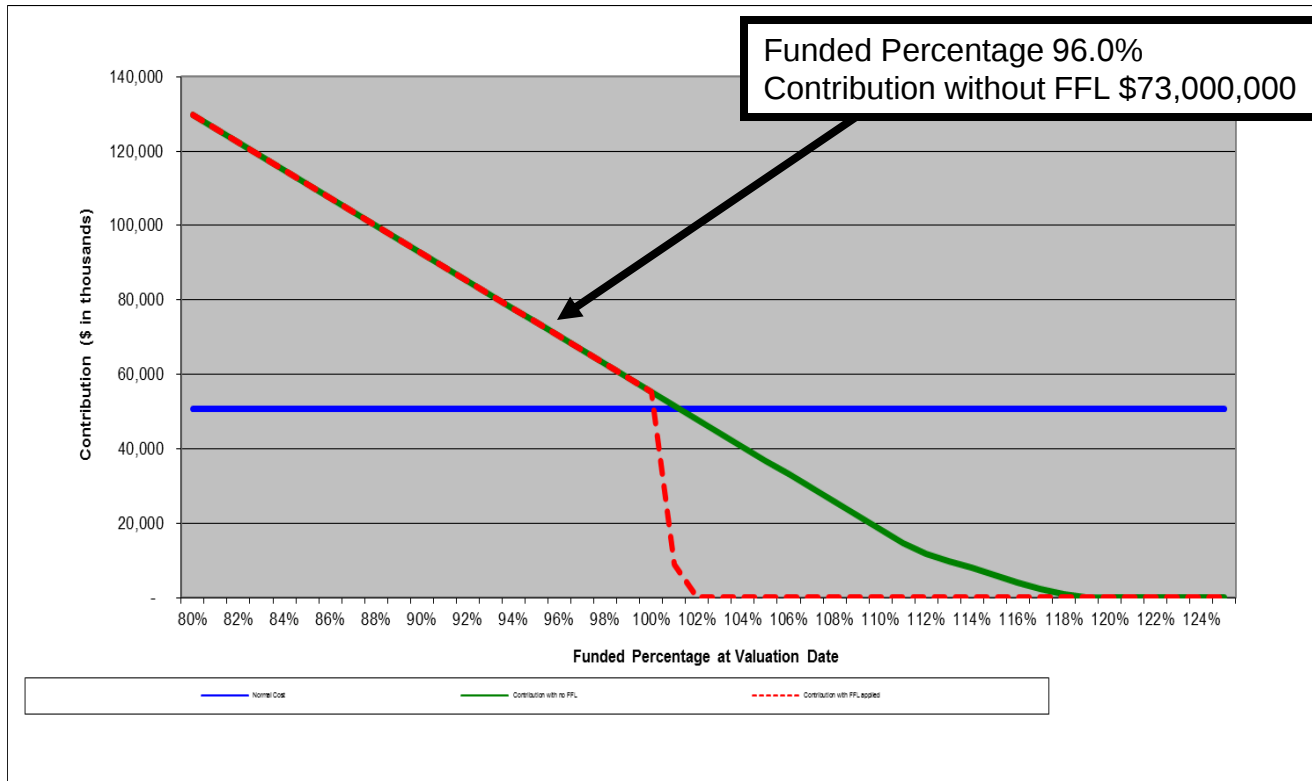
$$\text{Contributions} + \text{Investment Income} = \text{Benefits Paid} + \text{Expenses}$$

Study Purpose & Background

- Purpose: Determine the feasibility of a fixed level percent of payroll employer contribution policy for the ERS
- What Buck has heard about the current employer contribution policy
 - Hyper-responsive to each year's investment results
 - Policy is not conducive to budget planning
 - Policy is inconsistent with reality of market cycles (full funding limit; volatile funding requirements)
- Use study results as a basis for changes to Chapter 36

Employees' Retirement System of the City of Milwaukee

Combined Fund contributions under various funded statuses as of January 1, 2012:
With and without the full funding limit



The full funding limit has not reduced the employer contributions for at least the last 15 years other than the amounts due January 31 2011 and 2012, where the full funding limit reduced the employer contribution to zero. In the period leading up to the 2011 contribution amount, the contributions were zero due to the future lifetime amortization of "excess" assets completely offsetting the employer normal cost." In 2011 and 2012 the City made a combined total of \$44 million of voluntary contributions to the Employer's Reserve.

Contributions do vary significantly from year to year due to changes in the funded status of the ERS, which is driven by market results that differ from the assumed return of 8.25%.

Note: Contributions described above do not include the members' portion that the city contributes on their behalf.

Policy Objectives

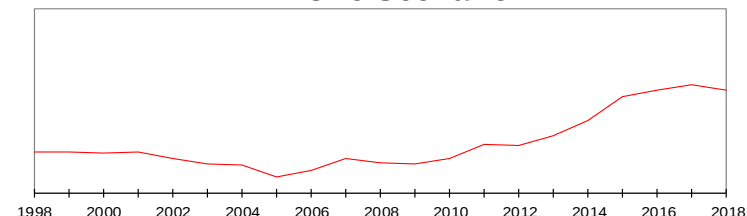
- Given volatility of the current contribution policy, staff requested that Buck review a contribution policy with the following objectives:
 - Compliance with Actuarial Standards of Practice
 - Budget annually for the normal cost
 - Make progress on reducing unfunded liability at least as fast as the current funding policy at the median
 - Maintain asset coverage = or > retired lives' liabilities
 - Achieve stable and predictable contribution levels over a period that maintains the actuarial integrity of the ERS
 - No change to member contributions
- To review this policy, we need to make use of Asset Liability Modeling (ALM) techniques

Introduction to ALM Analysis

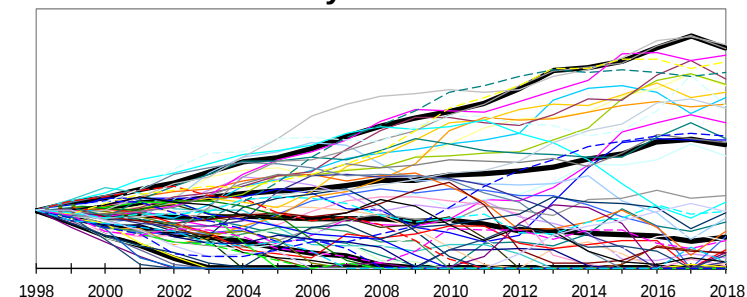
What is Asset Liability Analysis?

- In an Asset Liability Model (ALM), actuarial valuations are projected into the future under different scenarios to identify cash contributions, funding levels and other financial information
- Scenarios reflect variability in:
 - Inflation
 - Treasury yields
 - Corporate bond yields
 - Asset class returns, volatility and correlation
 - Investment strategies
- Results show:
 - likelihood of events
 - Funding levels below x%
 - Annual or cumulative contribution above \$x
 - range of possible outcomes
 - 5th, 25th, 50th, 75th, 95th percentile results

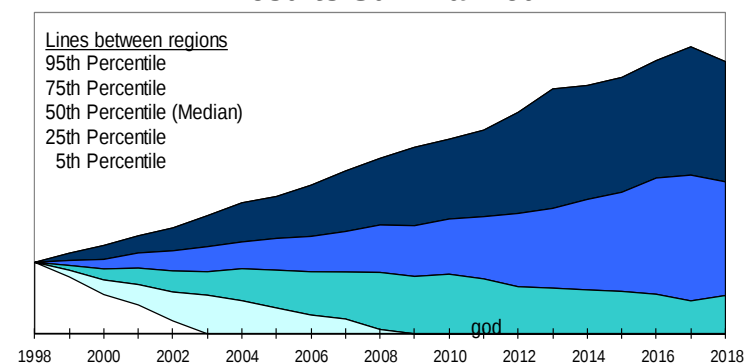
One Scenario



Many Scenarios



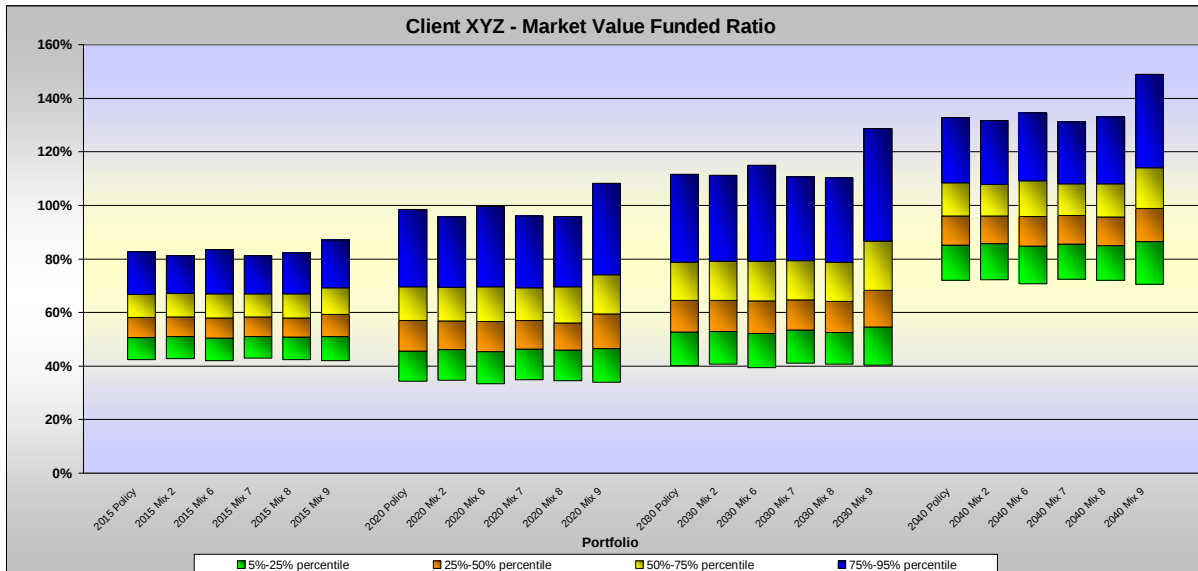
Results Summarized



Interpreting ALM Analysis

Understanding the Results

- 999 random scenarios evaluated (up to 5,000 scenarios can be run)
- 75% percentile means 75% of scenarios produced a result that is less than the threshold
- “Good” versus “bad” results depend on the metric being evaluated
 - Contribution results above the 95% percentile are the worst case scenarios
 - Funded status results above the 95% percentile are the best case scenarios
- Smaller bars indicate less volatility
- The scenarios with results in the 50%-75% percentile for 2014 are not the same scenarios with results in the 50%-75% percentile for 2015
- The scenarios with results in the 50%-75% percentile for 2014 when looking at one metric (e.g. contribution results) are not the same scenarios with results in the 50%-75% percentile for 2014 when looking at another metric (e.g. funded status)



Each bar summarizes the range of the outcomes for the financial metric for that year of the projection

- The blue section is the 750-950 highest outcomes
- The yellow section is the 500-750 highest outcomes
- The red section is the 250-500 highest outcomes
- The green section is the 50-250 highest outcomes

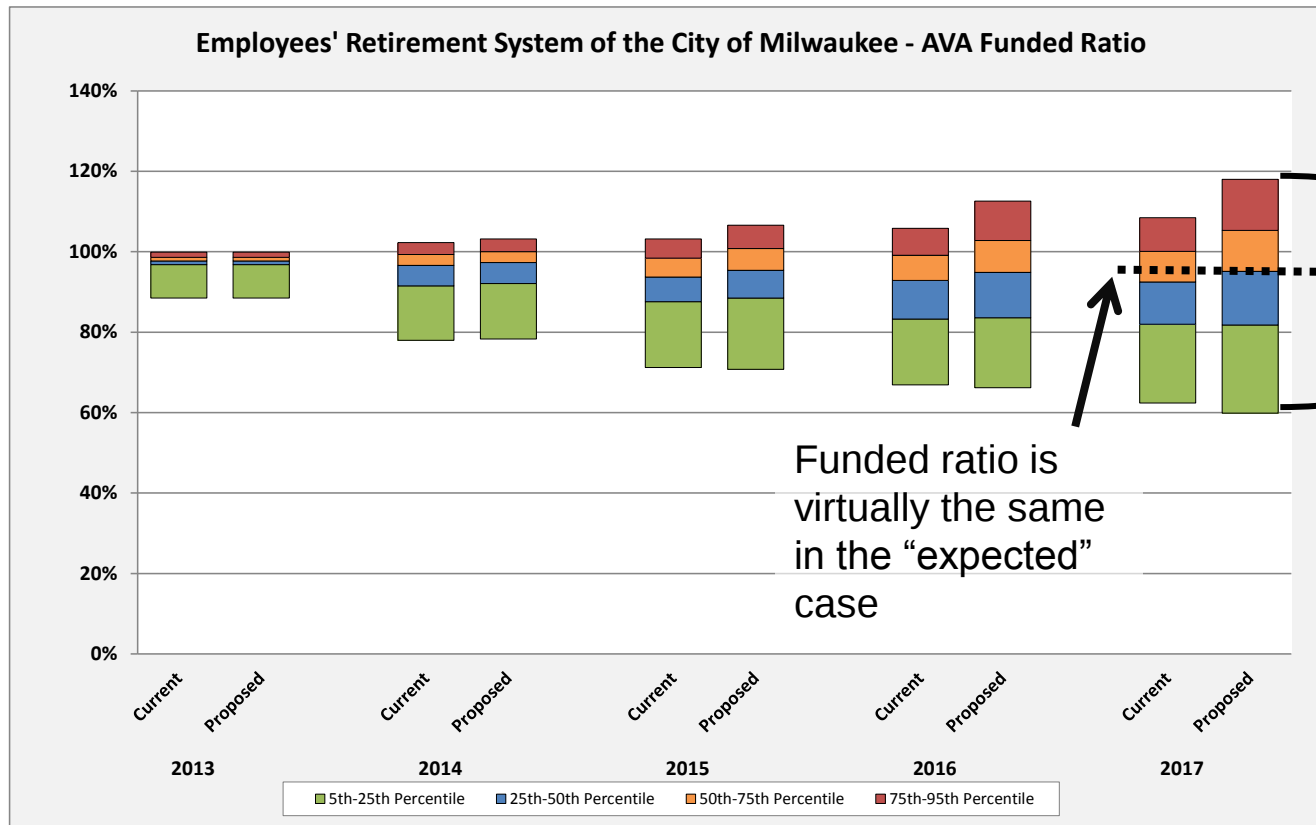
Study Process

- Using ALM, we modeled
 - The current funding policy based on current provisions, census, and portfolio
 - Various fixed contribution policies
- We narrowed our search to ‘blended’ fixed contribution rates which represent the total employer contribution rate which results from adding the proportionately weighted rates of the 3 employee groups
- As the study evolved, we focused on determining the period of time between resetting the contribution
 - Current policy calls for resetting the contribution every year with the annual actuarial valuation

Proposed Potential Stable Contribution Policy

- 18% of payroll, comprised of approximately 9.54%, 25.46% and 27.94% for General, Police and Fire
 - This level of contribution achieved policy objectives
- Five year period between contribution resets
 - Longer periods resulted in funded status that strayed too far away from progress towards 100% funding
 - The five year period is consistent with the current period between experience reviews
 - Initial rate to be used for five annual contributions made January 31, 2014 through January 31, 2018
 - Future rates to be reset every five years after completion of future 5-year experience reviews based on policy objectives
- Supporting analysis is on the following two slides

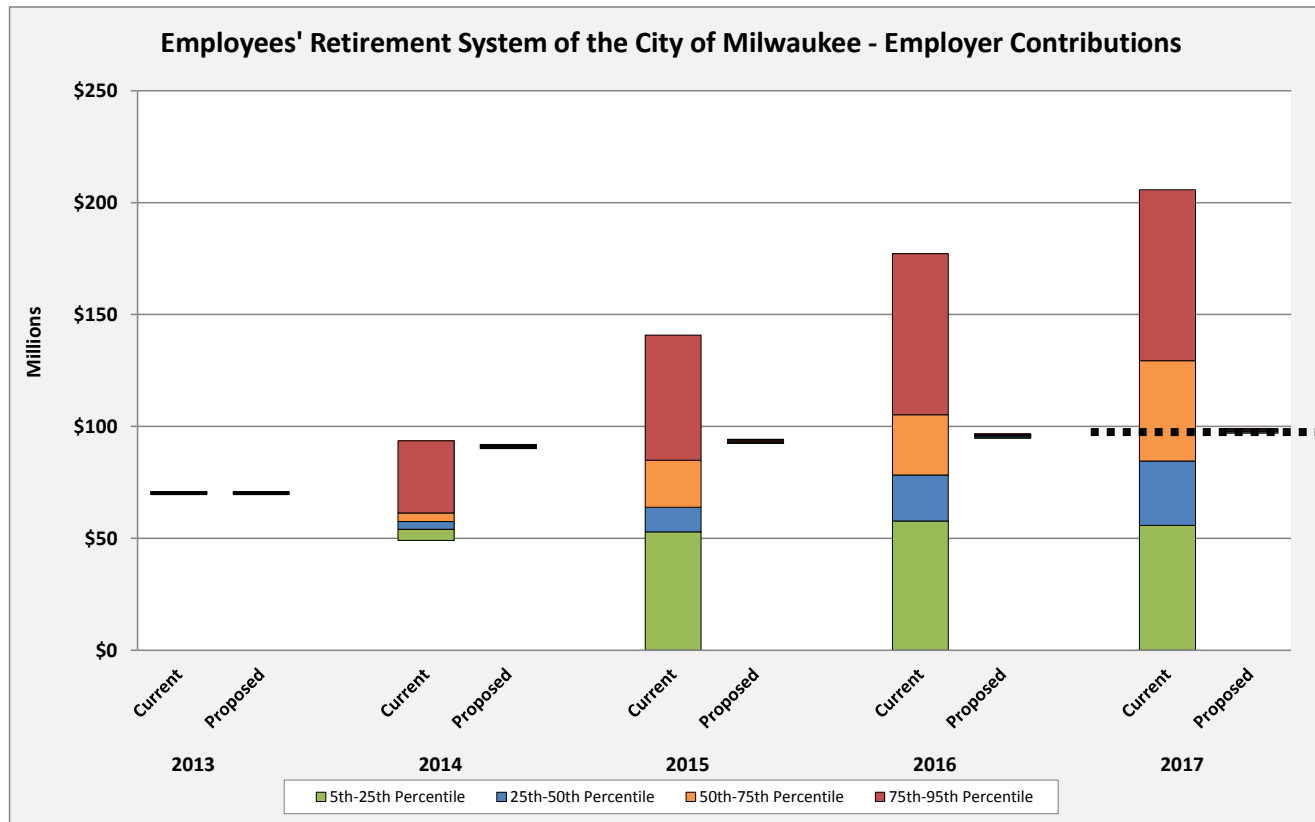
Stable Employer Contribution Policy is projected to have an overall slight positive impact on the Funded Ratio when compared to current funding policy



Under a wide range or portfolio return scenarios the funded ratio is not appreciably different, in fact somewhat higher in most cases. The funded status range is 60%-118% for new policy compared to 62% to 108% for the current policy.

Based on a blended 18% employer contributions, the January 1, 2012 actuarial valuation and recently adopted assumptions.

Employees' Retirement System of the City of Milwaukee



Employer contribution under alternative is virtually the same or greater as the “expected” case under the current policy throughout the time period. The proposed funding policy is highly predictable however, only varying by payroll, until it is reset in five years.

Based on a blended 18% employer contributions, the January 1, 2012 actuarial valuation and recently adopted assumptions.

Observations

- Actual investment returns are the biggest driver of funded status
- Current funding policy results in tighter range of funded status outcomes, but relies on annual contributions changes that are potentially very volatile and difficult to plan
- Median funded status is higher under the proposed 18% stable contribution policy than the current funding policy
- Fixed contribution policy can provide for funded status comparable to the current funding policy
- Over the next 5 years, the stable contribution policy provides for sufficient assets to cover retiree liabilities over 95% of the time
- Elimination of full funding limit under the stable contribution policy:
 - Reduces contribution volatility
 - Provide funding cushion
 - Maintains discipline of paying for benefits as they accrue

Conclusion

The proposed Stable Contribution Policy achieves stable and predictable contribution levels and maintains the actuarial integrity of the ERS

Questions?

Thank you