
Independent Actuary's Proposal To Amend the ERS Funding Policy Recommended by Annuity & Pension Board October 23, 2017

- ERS Funding Policy Codified in MCC 36-15-15
- Current Funding Policy Provides for
 - Projected Unit Credit Actuarial Cost Method
 - Rolling Aggregate Amortization Period – 16 years at 1/1/2018
 - 20% Asset Corridor for Market Value v. Actuarial Value
- Proposed Best Practice Funding Policy
 - Entry-Age Normal Actuarial Cost Method (utilized by 80% of public pension plans and required by GASB 67 for financial disclosure)
 - Closed Layered Amortization Periods with Payments for Each Base Increasing 2% per annum:
 - 25 Year Period for Changes in UAAL Due to Changes in Assumptions, Actuarial Cost Method, or Plan Provisions
 - 15 Year Period Changes in UAAL Due to Actuarial Gains or Losses
 - Remove Asset Corridor

Entry Age Normal (EAN) versus Projected Unit Cost (PUC)

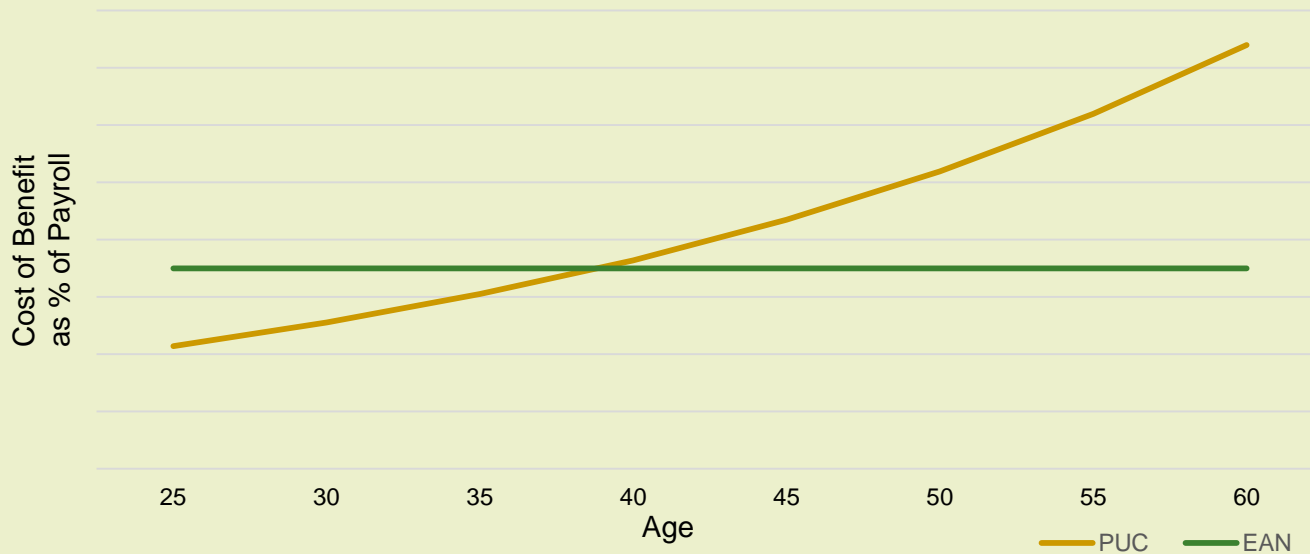
EAN

- Spreads the cost of the benefit over the career of the employee
- Recognition of liability and funding is level for better intergenerational equity compared to PUC

PUC

- Funds the cost of the benefit as it accrues
- Back loads liability and funding compared to EAN, but incremental costs increase steeply in later years

Cost of Funding Benefits
(hypothetical cost of individual member)

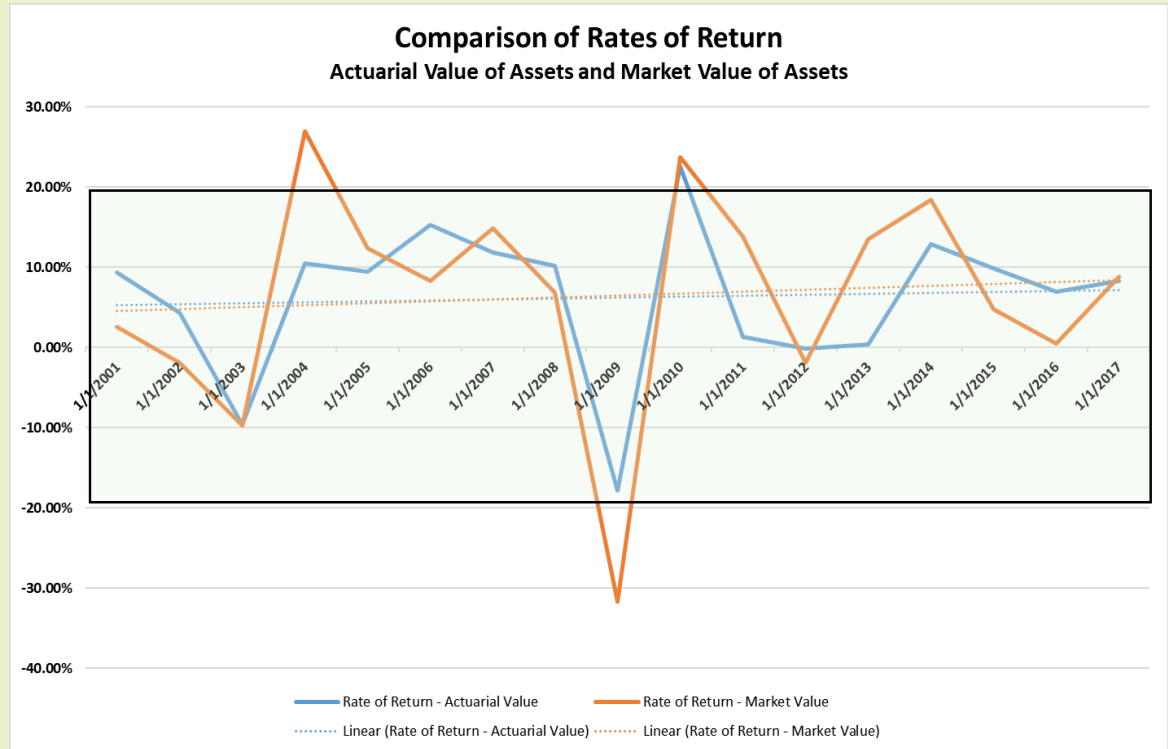


Amortization

- An idea similar to financing a loan, the unfunded actuarial accrued liability (UAAL) is “financed” over a period and paid down
- There will be two different items that will be “financed” reflecting the best practices as recommended by actuaries:
 - The UAAL as of 2018 will be amortized over 25 years. Any subsequent changes to the UAAL due to changes in assumptions, methods, or plan provisions will also be amortized over 25 years
 - All other changes to the UAAL between the 5 year experience studies (actuarial gains/losses) will be amortized over 15 years

Corridor

- Corridors are used to keep the actuarial value of assets within a certain range of the market value, smoothing out any market volatility
- ERS has recently utilized a 20% corridor
- The chart shows the rates of return based upon the market and actuarial calculations over the past several years



- We are proposing to eliminate the 20% corridor as this will eliminate the need to seek changes if the actuarial value fell outside of the corridor. This has only occurred three times since 2001. Under the current 5-year smoothing method, asset gains/losses are recognized quickly enough that a corridor is typically not needed.

Estimated Financial Impact of Proposed Amendment to Funding Policy

Impact on Employer Contribution to Combined Fund



Item	Baseline	Funding Method Changes - EAN and Amortization Method	EAN and Amortization Method + All Assumption Changes except interest rate	EAN and Amortization Method+All Assumption Changes +Interest rate=8.00%	EAN and Amortization Method +All Assumption Changes +Interest rate=7.50%	EAN and Amortization Method +All Assumption Changes Select & Ultimate - 8.0% for 5 years, then 8.5%	EAN and Amortization Method +All Assumption Changes Select & Ultimate - 8.0% for 5 years, then 8.25%	EAN and Amortization Method +All Assumption Changes Select & Ultimate - 7.75% for 5 years, then 7.98%
	Total	Total	Total	Total	Total	Total	Total	Total
1. Active Members	11,004	11,004	11,004	11,004	11,004	11,004	11,004	11,004
2. Covered Compensation	\$ 580,902	\$ 580,902	\$ 580,902	\$ 580,902	\$ 580,902	\$ 580,902	\$ 580,902	\$ 580,902
3. Normal Cost								
a. Total	88,135	77,894	78,535	86,940	97,130	80,518	82,948	86,363
b. Estimated Member Contributions	36,274	36,274	36,274	36,274	36,274	36,274	36,274	36,274
c. Employer Normal Cost	51,861	41,620	42,261	50,666	60,856	44,244	46,674	50,089
(a) - (b), not less than zero								
4. Active Actuarial Accrued Liability	1,625,630	1,748,508	1,772,941	1,902,909	2,047,870	1,803,443	1,853,982	1,930,489
5. Assets								
a. Actuarial value	1,400,097	1,400,097	1,338,312	1,185,786	1,011,826	1,325,804	1,257,427	1,170,051
b. Market value	1,231,634	1,231,634	1,169,849	1,017,323	843,363	1,157,341	1,088,964	1,001,588
(Net of Inactive Liabilities)								
6. Unfunded Accrued Liability								
a. Actuarial value	225,533	348,411	434,629	717,123	1,036,044	477,639	596,555	760,438
b. Market value	393,996	516,874	603,092	885,586	1,204,507	646,102	765,018	928,901
(4) - (5)								
7. Amortization of UAL								
a. Actuarial value	19,476	24,273	31,674	50,076	69,236	34,173	42,170	52,067
b. Market value	34,023	36,009	43,951	61,840	80,494	46,225	54,079	63,600
(Closed Amortization Years)								
8. Full Funding Limit*								
a. Actuarial value	302,269	425,007	519,656	836,640	1,195,264	568,683	700,911	883,211
b. Market value	485,840	608,577	703,225	1,020,211	1,378,835	752,252	884,480	1,066,781
(3) + (6), not less than zero, with interest to 1/31/2018								
9. Annual Contribution Payable January 31, 2018								
a. Actuarial value	\$ 77,734	\$ 71,802	\$ 80,566	\$ 109,777	\$ 141,757	\$ 85,448	\$ 96,811	\$ 111,317
b. Market value	\$ 93,585	\$ 84,590	\$ 93,943	\$ 122,595	\$ 154,025	\$ 98,583	\$ 109,788	\$ 123,884
(3) + (7), with interest to 1/31/2018, but not more than (8)								
10. Employer rate as of January 1, 2017 based on								
a. Stable Employer Contribution Policy	14.13%	14.13%	14.13%	14.13%	14.13%	14.13%	14.13%	14.13%
b. Prior Contribution Requirement	12.28%	11.34%	12.73%	17.34%	22.39%	13.60%	15.29%	17.59%
c. Market Based Prior Contribution Requirement	14.78%	13.36%	14.84%	19.37%	24.33%	15.57%	17.34%	19.57%

\$5.932 million difference

October 23, 2017

Impact shown is as if the assumption changes were effective with the January 1, 2017 valuation

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