

Pension Funding

Hayward, CA



Understanding Pension Funding



Pension Basics



Hurdles and Other Considerations



How is your agency doing relative to your funding targets?

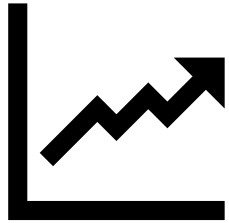


Next Steps

Pension Basics

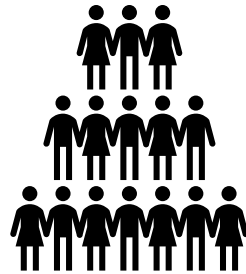


Assumptions Set Future Cost & Funding Expectations



Economic

- Inflation
- Investment Return
- Salary Growth



Demographic

- Retirement
- Disability
- Death
- Termination

Funding a Pension Plan

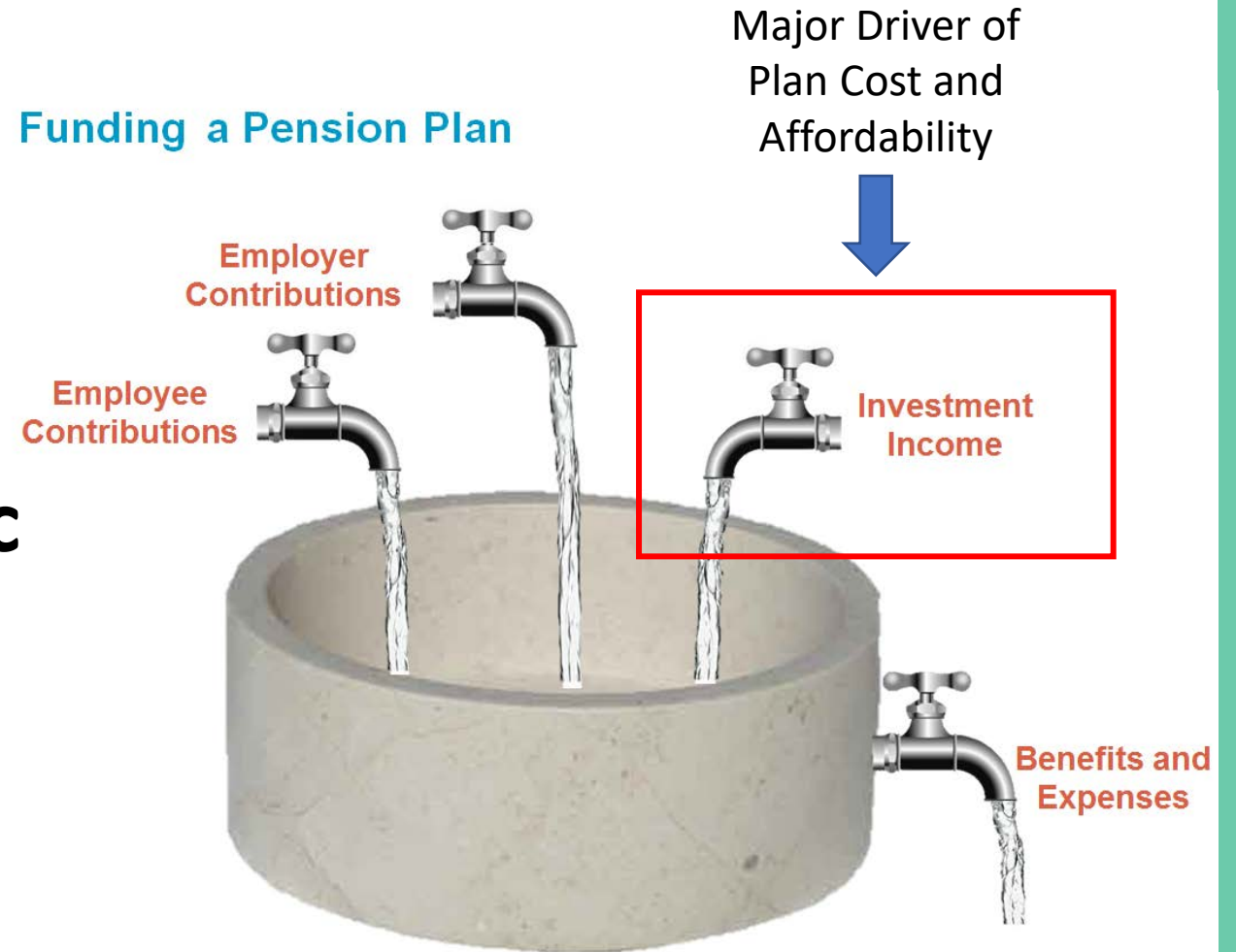
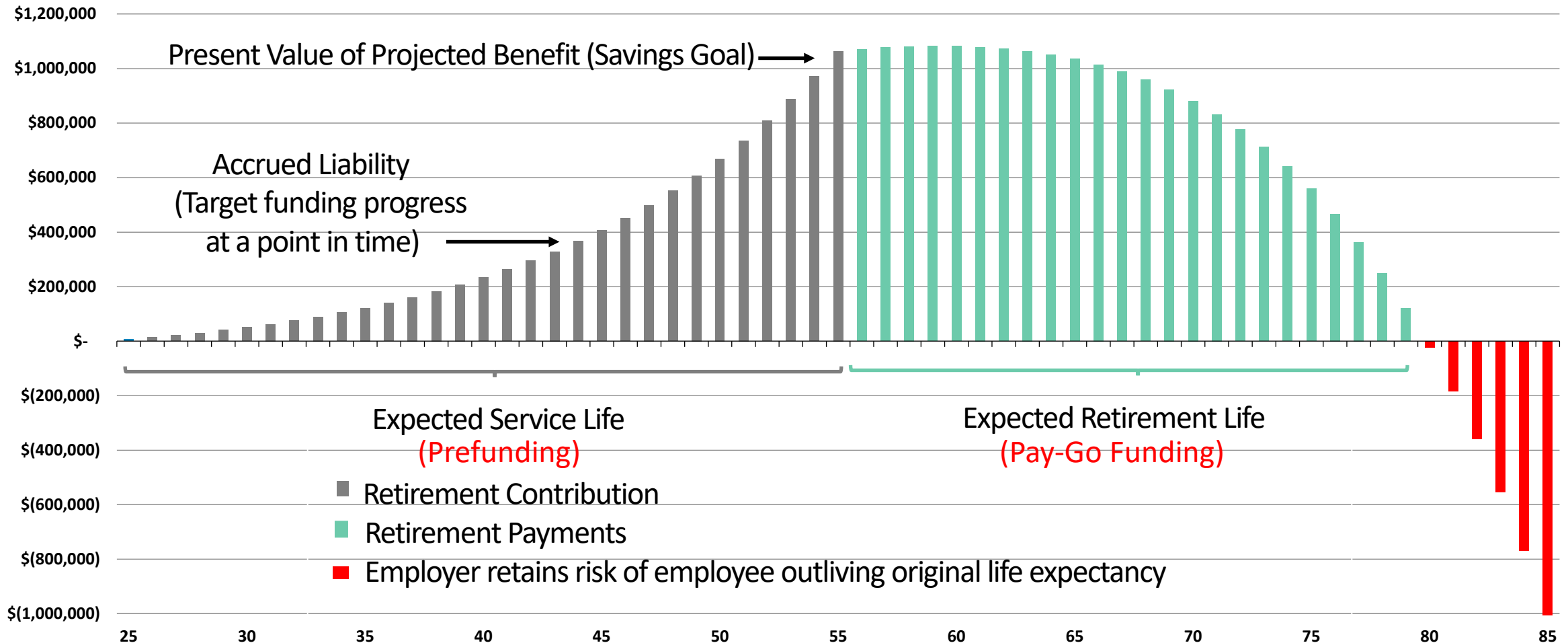
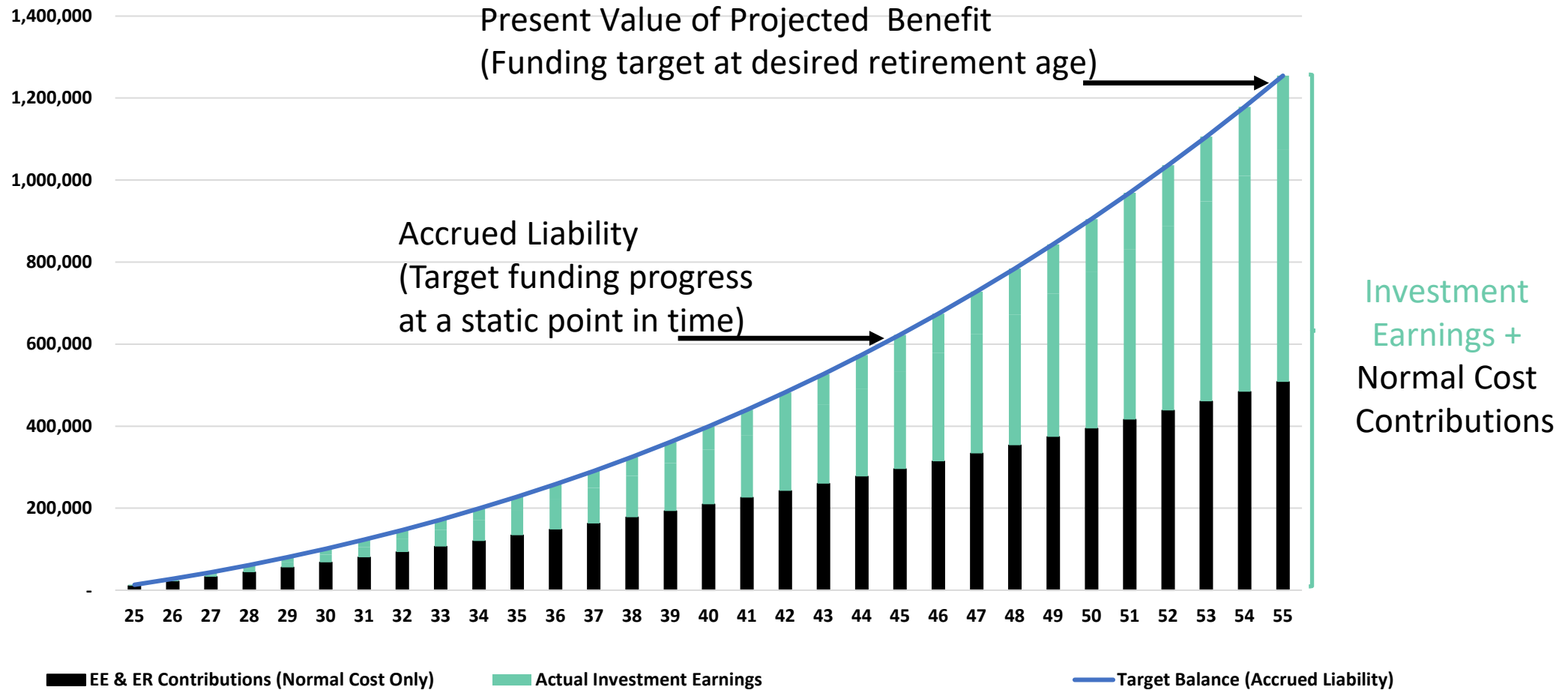


Illustration Pension Funding for an Individual Employee

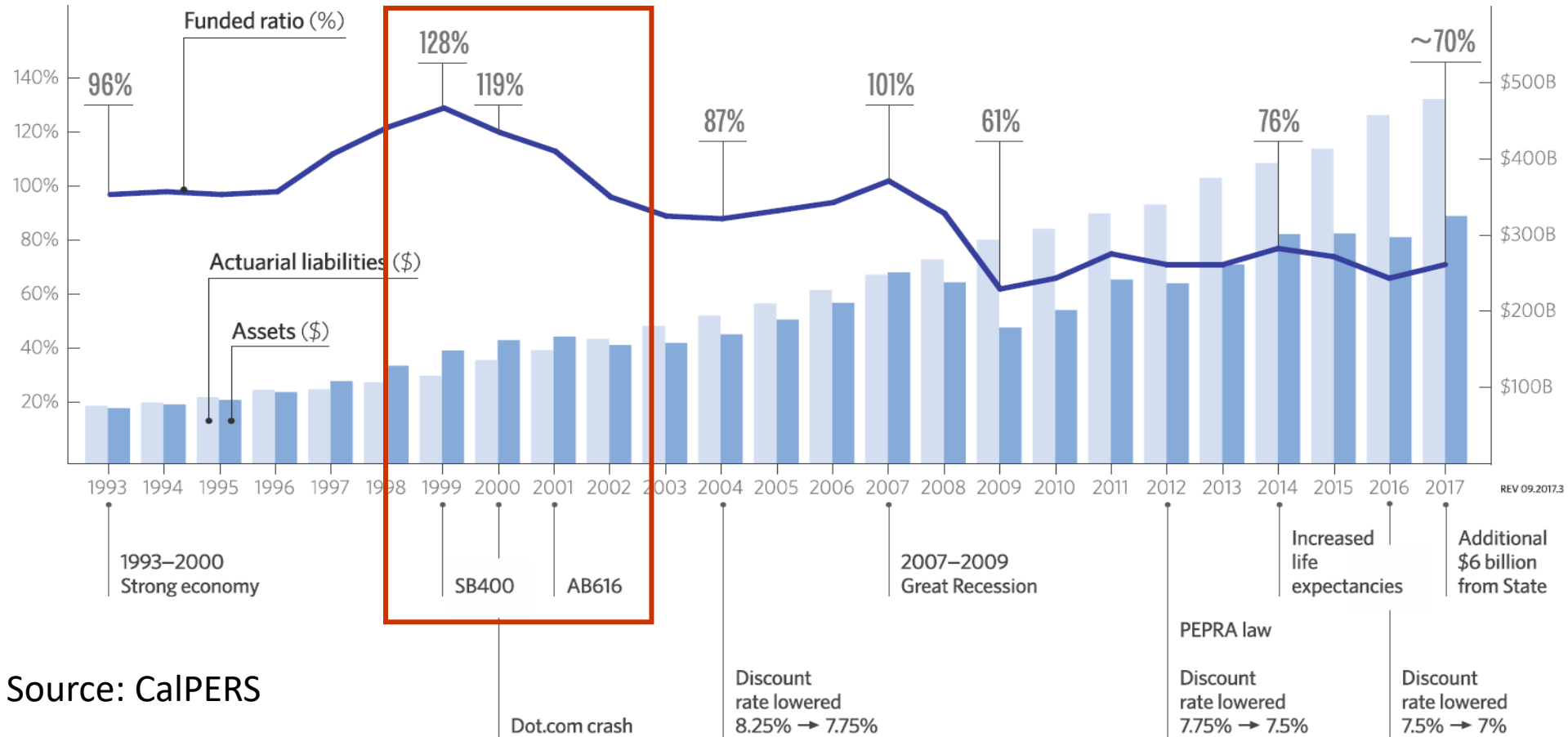


Retirement Plans Are Sensitive to Investment Earnings



Historical Factors Impacting Funded Status

Challenge Yourself to Look Beyond What You See Today



Source: CalPERS

Hurdles & Considerations



CalPERS Investment Return:

21.3%

(Preliminary Estimate)

Investment Return Triggers Lower Discount Rate Provision of Funding Risk Mitigation Policy

New Discount Rate 6.8% Heading into ALM Deliberations

Final Decisions Expected November 2021

<https://www.calpers.ca.gov/docs/funding-risk-mitigation-policy.pdf>

Funding Risk Mitigation Policy - Still in Place*

6.8% Discount Rate Heading Into ALM Deliberations Nov 21

Excess Investment Return	Reduction in Discount Rate	Reduction in Expected Investment Return
<i>If the actual investment returns exceed the discount rate by:</i>	<i>Then the discount rate will be reduced by:</i>	<i>And the expected investment return will be reduced by:</i>
2.00%	0.05%	0.05%
7.00%	0.10%	0.10%
10.00%	0.15%	0.15%
13.00%	0.20%	0.20%
17.00%	0.25%	0.25%

* While the CalPERS Board may elect to implement something different, the current policy suggests that the board should reduce the discount rate 20 bps to 6.8%. <https://www.calpers.ca.gov/docs/funding-risk-mitigation-policy.pdf>

Range of Candidate Portfolios Narrowed Some

1. 6.375% - 6.8%
2. Board Rejected 6.25% Discount Rate (Current Portfolio)
3. CalPERS Board Directed Staff to return with a 6.5% Option
4. Some insider speculation that the discount rate may stay at 6.8%

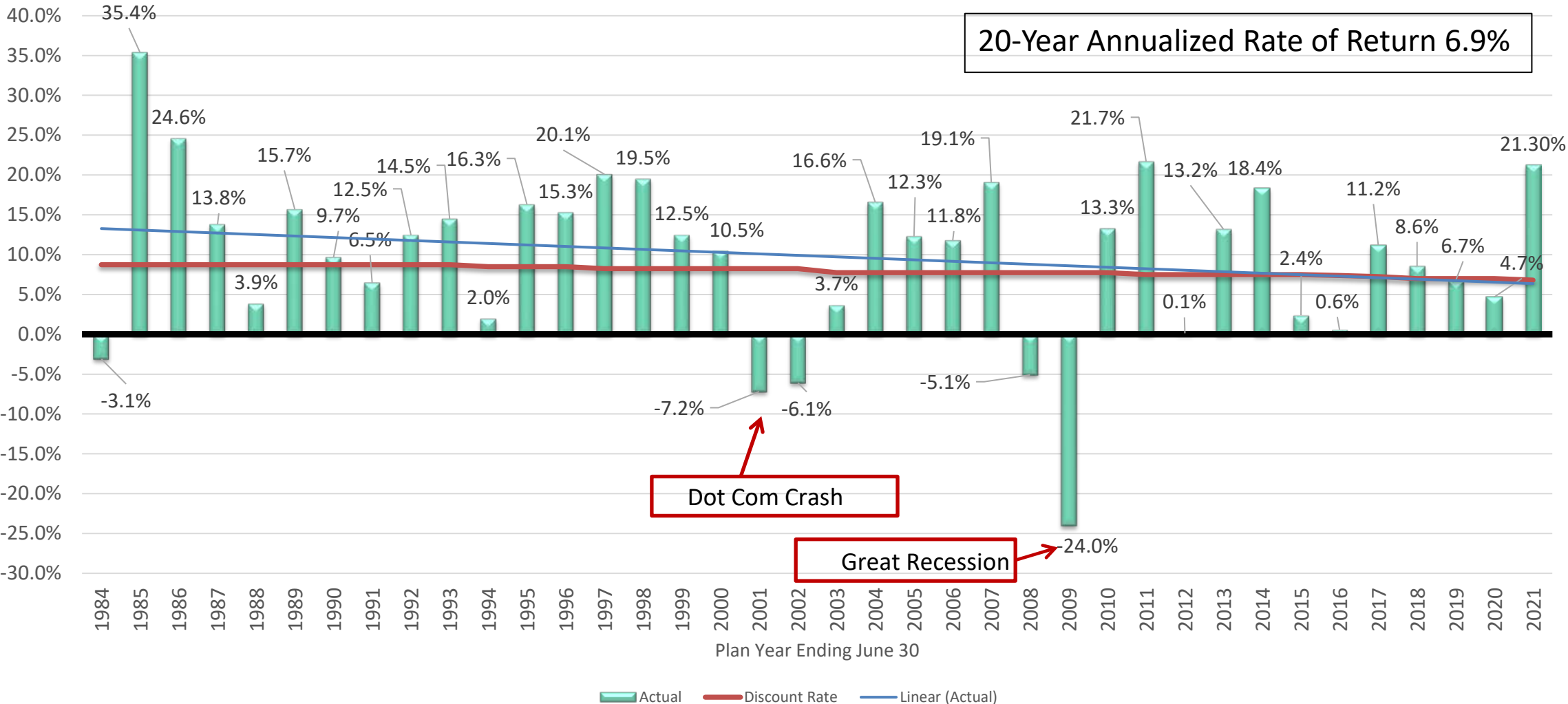
November Board Meeting Dates:

Nov 15th – Investment Committee

Nov 16th – Finance & Administration Committee

Nov 17th – Full Board Meeting (Ultimate Decision)

CalPERS Historic Investment Returns



Capital Market Survey

	Survey Parameter	2017 ALM*	2020 Mid-Cycle ALM Survey Median Value 03/31/20	2021 Initial ALM Survey Median Value 12/31/20	2021 Second ALM Survey Median Value 03/31/21
10-Year Expectations	Expected Return	6.1%	5.7%	4.9%	5.3%
	Expected Risk	11.4%	10.5%	11.5%	11.3%
	Expected Return/Risk	0.54	0.54	0.43	0.47
20-Year Expectations	Expected Return	7.0%*	6.6%	5.4%	6.2%
	Expected Risk	11.4%	10.5%	11.5%	11.3%
	Expected Return/Risk	0.73	0.63	0.47	0.55

Applying the survey results to our current portfolio mix, we do see lower expected returns and higher expected risk. Note the December 2020 survey results indicated a much steeper decline in our portfolio expected returns. This variability reflects both the degree of uncertainty in the projections, and the pace of events that influence those projections.



How is Your Agency Doing?

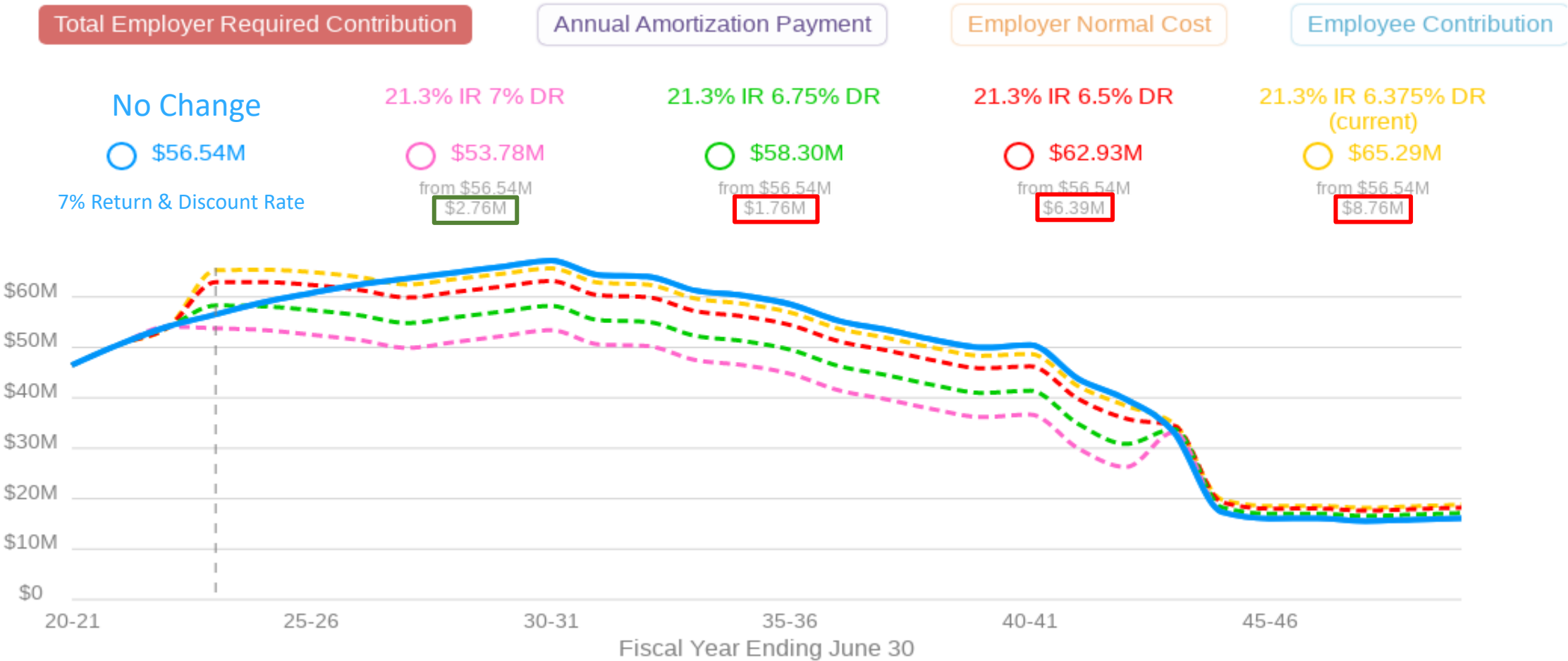
Plan Funded Status

(21.3% Return, Discount Rate Assumptions: 7% through 6%)

As of July 1	Funded Percentage (Market Value of Assets)				
	No Change	21.3% IR 7% DR	21.3% IR 6.75% DR	21.3% IR 6.5% DR	21.3% IR 6.375% DR
2020 *	60.83%	60.83%	60.83%	60.83%	60.83%
2021	61.87%	70.14%	68.08%	66.05%	65.04%
2022	63.23%	71.81%	69.56%	67.34%	66.25%
2023	64.74%	73.63%	71.17%	68.76%	67.56%
2024	66.35%	75.39%	73.04%	70.73%	69.60%
2025	68.06%	77.08%	74.85%	72.66%	71.58%

*The funded ratio provided is based on actual demographic changes, such as early retirements, and higher or lower wage growth rather than an estimate at a point in time as included in the CalPERS Actuarial Valuation report as of 6/30/2020.

Potential Impact to Total Required Employer Contributions (21.3% Return, Discount Rate Assumptions: 7% through 6%)



Next Steps



Advocate on Behalf of Your Agency



- Submit Letter to the Board on Agenda or Non-Agenda Items
Written comments can be emailed to board@calpers.ca.gov
The entire Board will receive the comments from their direct support staff for review in advance of the meeting.
- Oral Comments at September Board Meeting by calling:
(800) 259-4105

<https://www.calpers.ca.gov/page/about/organization/facts-at-a-glance/asset-liability-management>

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Questions



Disclaimer

While tested against actuarial valuation results, the software results will not necessarily match actuarial valuation results, as no two actuarial models are identical. The software offers financially sound projections and analysis; however, outputs do not guarantee compliance with standards under the Government Accounting Standards Board or Generally Accepted Accounting Principles. The software and this presentation are not prepared in accordance with standards as promulgated by the American Academy of Actuaries, nor do outputs or this presentation constitute Statements of Actuarial Opinion. GovInvest has used census data, plan provisions, and actuarial assumptions provided by Customer and/or Customer's actuary to develop the software for Customer. GovInvest has relied on this information without audit.

Reference Material



Resource Links

CalPERS Asset Liability Management (ALM) Resource Page

<https://www.calpers.ca.gov/page/about/organization/facts-at-a-glance/asset-liability-management>

CalPERS Asset Liability Management (ALM) March 15 Stakeholders Forum Video – Risk Concepts & Examples

<https://www.youtube.com/watch?v=EYOetWyKDwc>

CalPERS ALM Risk Concepts and Examples PDF

https://www.calpers.ca.gov/docs/board-agendas/202103/invest/item08a-01_a.pdf

CalPERS September 13 Investment Committee Video – Candidate Portfolios

<https://www.youtube.com/watch?v=EYOetWyKDwc>

CalPERS September 13 Investment Committee -Candidate Portfolio PDF

https://www.calpers.ca.gov/docs/board-agendas/202109/invest/item08a-01_a.pdf

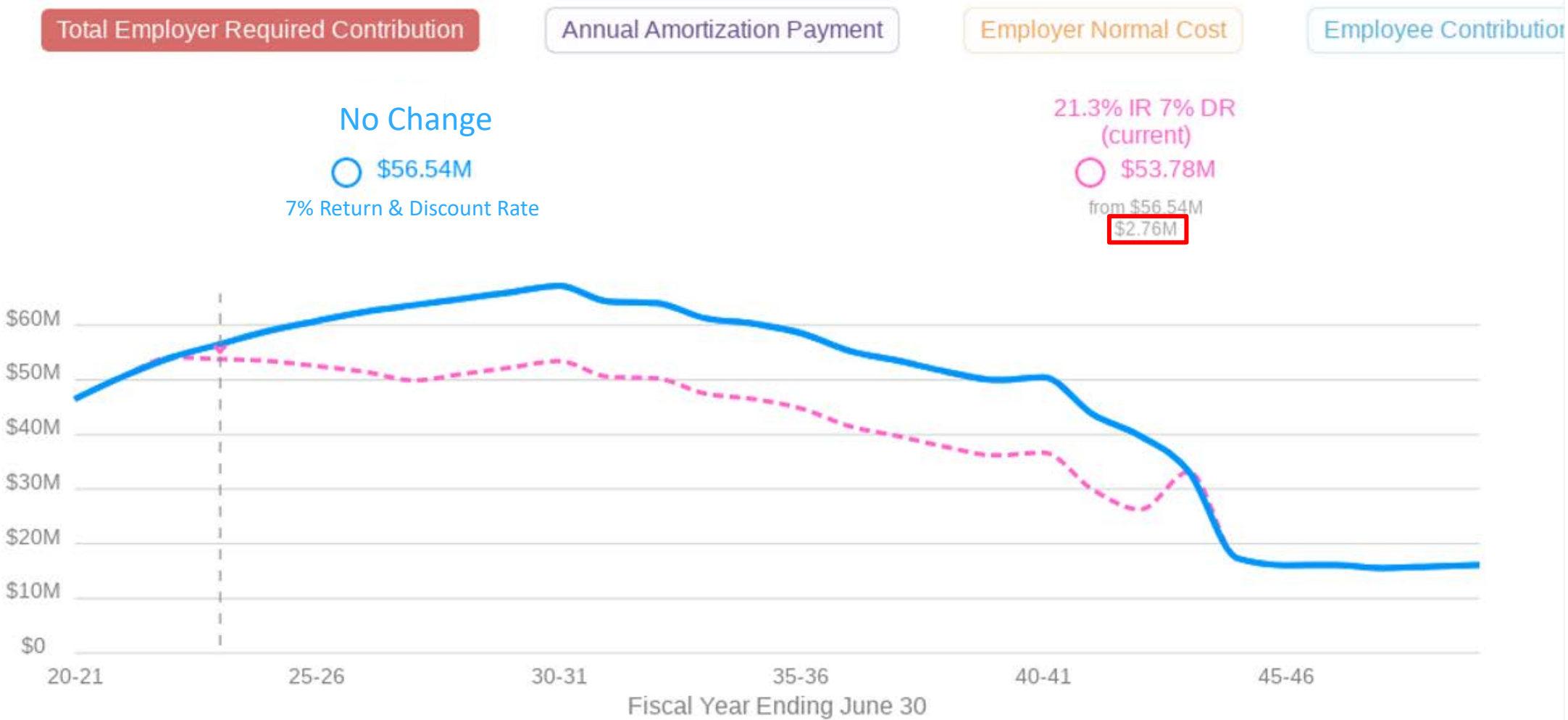
Source: CalPERS

Pension Jargon Glossary

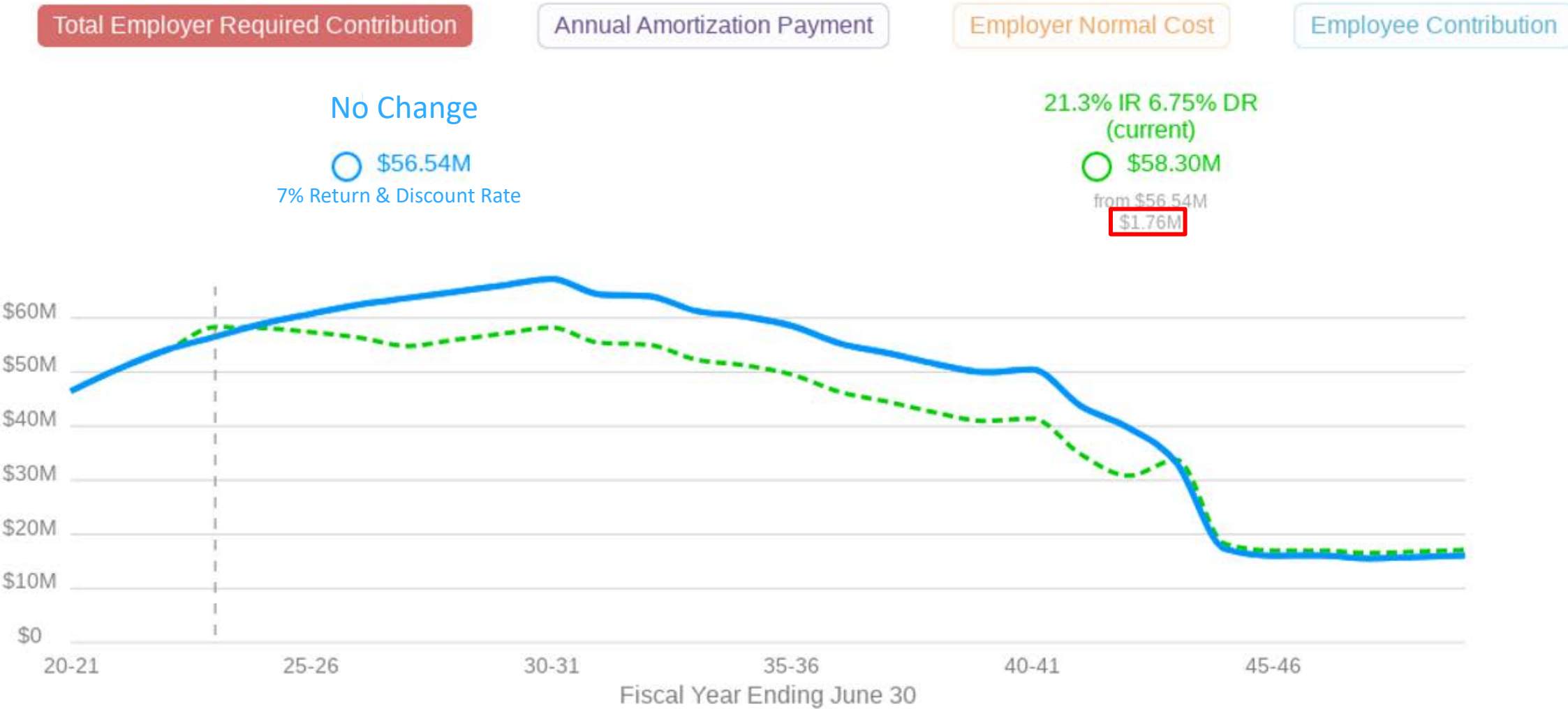


- Assumption = Target, Goals or Expected Results
- Experience = Actual Results
- Normal Cost = Initial savings rate (Employee and Employer contributions)
- Present Value of Projected Benefit (PVPB) = Savings goal at desired retirement age
- Accrued Liability (AL) = Target funding progress at a given point of time
- Unfunded Accrued Liability (UAL) = Amount actual savings falls short of funding goal
- Amortization of UAL = Annual amount needed to get back on track
- Annual Required Contribution = Normal Cost + Amortization of UAL
- Discount Rate = Long-term *assumed* Investment Rate of Return

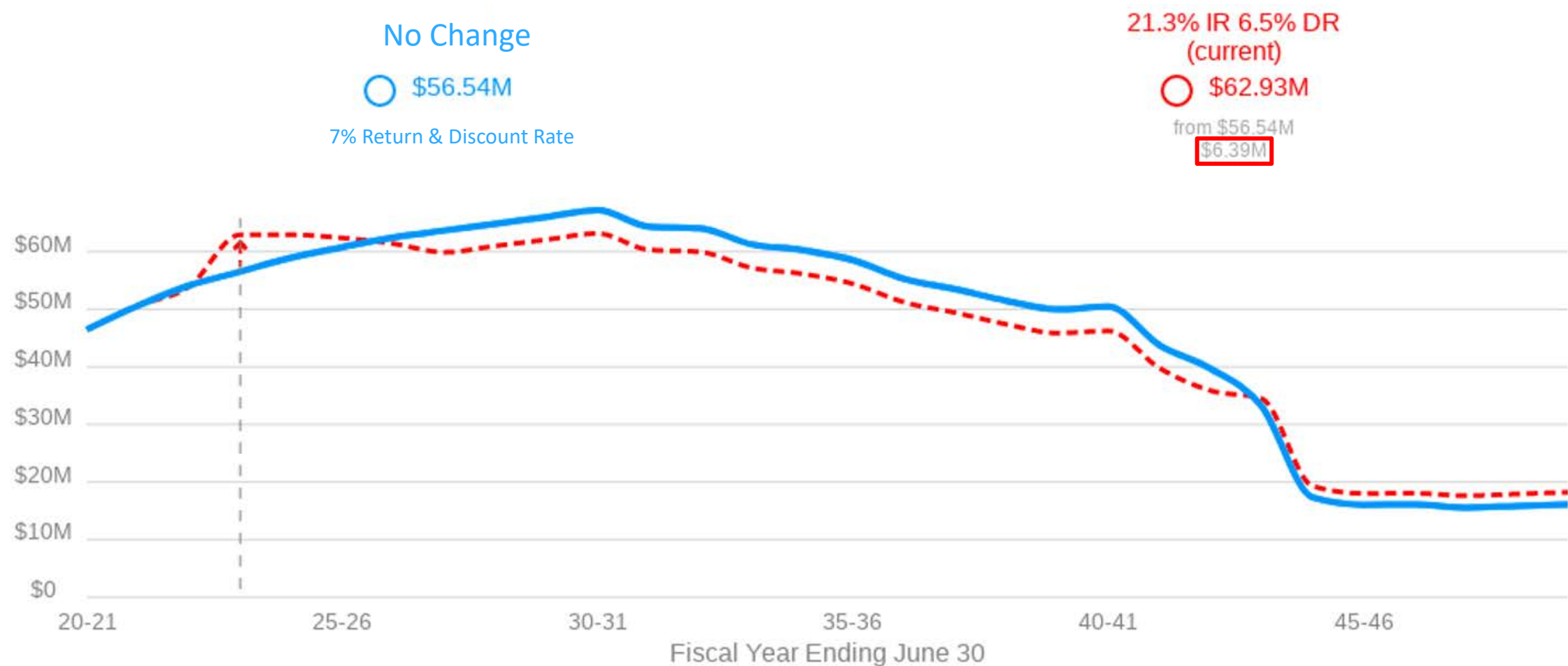
Potential Impact to Total Required Employer Contributions (21.3% Return, No Change to Discount Rate Assumptions: 7%)



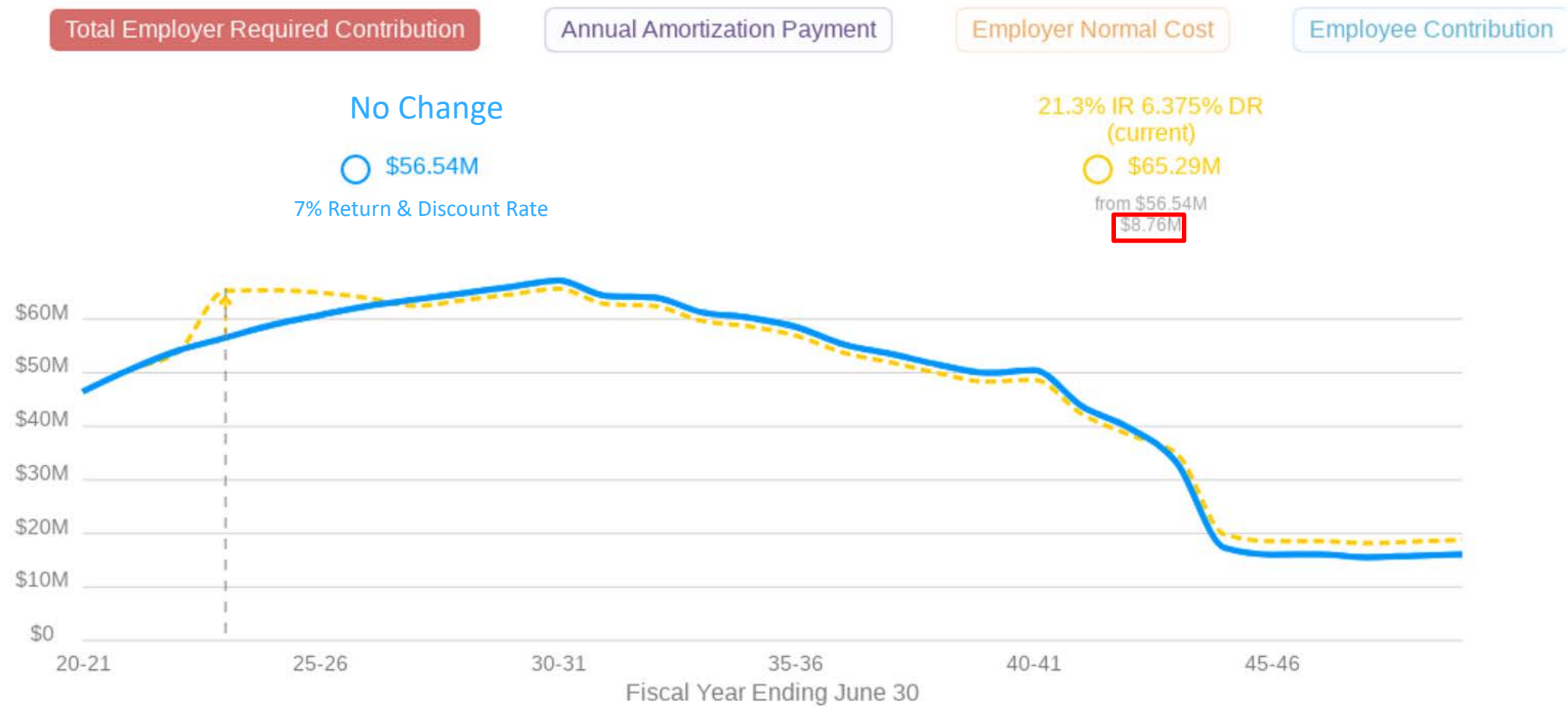
Potential Impact to Total Required Employer Contributions (21.3% Return, Discount Rate Assumptions: 6.75%)



Potential Impact to Total Required Employer Contributions (21.3% Return, Discount Rate Assumptions: 6.5%)



Potential Impact to Total Required Employer Contributions (21.3% Return, Discount Rate Assumptions: 6.375%)

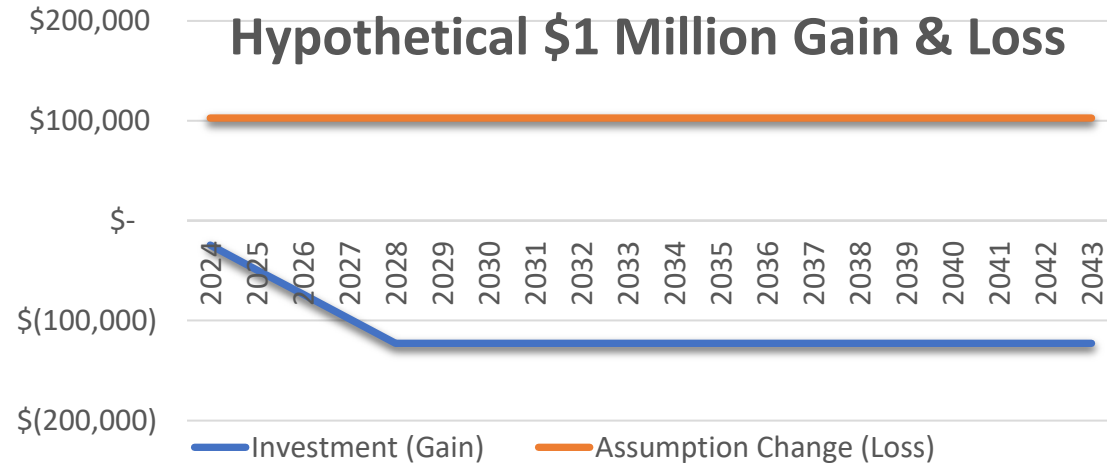


How Investment Gains Are Amortized Differently Than Assumption Changes, Typically!

PER \$1 Million

	Investment Gain/Loss		Assumption Change		Difference
	Level \$ 5Yr Ramp Up		Level \$ No Ramp Up/Down		
FYE	Balance	20 Payment	Balance	20 Payment	
2021	\$ (1,000,000)	\$ -	\$ 1,000,000	\$ -	
	\$ (1,068,000)	\$ -	\$ 1,068,000	\$ -	
2024	\$ (1,140,624)	\$ (24,517)	\$ 1,140,624	\$ 102,569	\$ 78,052
2025	\$ (1,192,849)	\$ (49,035)	\$ 1,112,187	\$ 102,569	\$ 53,534
2026	\$ (1,223,288)	\$ (73,552)	\$ 1,081,817	\$ 102,569	\$ 29,017
2027	\$ (1,230,460)	\$ (98,069)	\$ 1,049,382	\$ 102,569	\$ 4,500
2028	\$ (1,212,783)	\$ (122,587)	\$ 1,014,741	\$ 102,569	\$ (20,018)
2029	\$ (1,168,566)	\$ (122,587)	\$ 977,744	\$ 102,569	\$ (20,018)
2030	\$ (1,121,342)	\$ (122,587)	\$ 938,232	\$ 102,569	\$ (20,018)
2031	\$ (1,070,907)	\$ (122,587)	\$ 896,033	\$ 102,569	\$ (20,018)
2032	\$ (1,017,042)	\$ (122,587)	\$ 850,964	\$ 102,569	\$ (20,018)
2033	\$ (959,515)	\$ (122,587)	\$ 802,831	\$ 102,569	\$ (20,018)
2034	\$ (898,076)	\$ (122,587)	\$ 751,424	\$ 102,569	\$ (20,018)
2035	\$ (832,459)	\$ (122,587)	\$ 696,522	\$ 102,569	\$ (20,018)
2036	\$ (762,380)	\$ (122,587)	\$ 637,887	\$ 102,569	\$ (20,018)
2037	\$ (687,535)	\$ (122,587)	\$ 575,264	\$ 102,569	\$ (20,018)
2038	\$ (607,601)	\$ (122,587)	\$ 508,383	\$ 102,569	\$ (20,018)
2039	\$ (522,232)	\$ (122,587)	\$ 436,954	\$ 102,569	\$ (20,018)
2040	\$ (431,058)	\$ (122,587)	\$ 360,668	\$ 102,569	\$ (20,018)
2041	\$ (333,683)	\$ (122,587)	\$ 279,194	\$ 102,569	\$ (20,018)
2042	\$ (229,688)	\$ (122,587)	\$ 192,181	\$ 102,569	\$ (20,018)
2043	\$ (118,620)	\$ (122,587)	\$ 99,250	\$ 102,569	\$ (20,018)
	\$ (2,206,563)		\$ 2,051,379		\$ (155,183)

Typical (Gain)/Loss Amortization Hypothetical \$1 Million Gain & Loss



Important Caveat

CalPERS Amortization Policy - Funding Risk Mitigation § 15)

In the event of a risk mitigation event as outlined in the Funding Risk Mitigation Policy, investment gains due to that event will be amortized to offset the impact of the discount rate change.

<https://www.calpers.ca.gov/docs/actuarial-amortization-policy.pdf>