

Asset Liability Management (ALM) Quarterly Webinar

Understanding the Discount Rate

August 3, 2021

Welcome



Michael Cohen
Chief Financial Officer



Scott Terando
Chief Actuary



Sterling Gunn
*Managing Investment
Director*



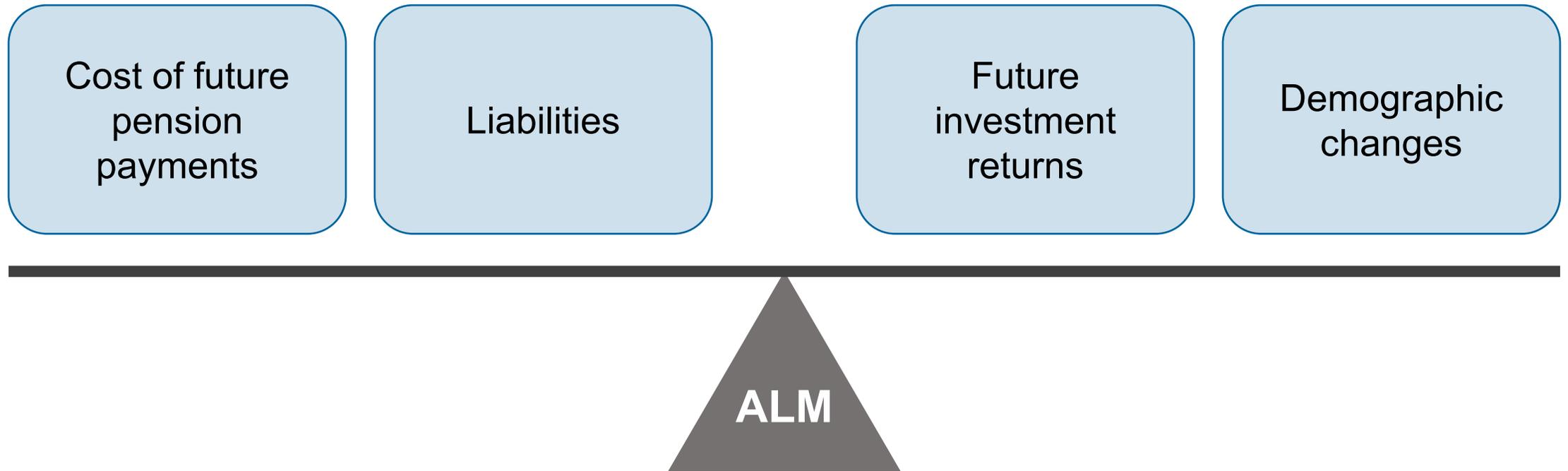
Brad Pacheco
*Deputy Executive Officer,
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Stakeholder Relations*

Agenda

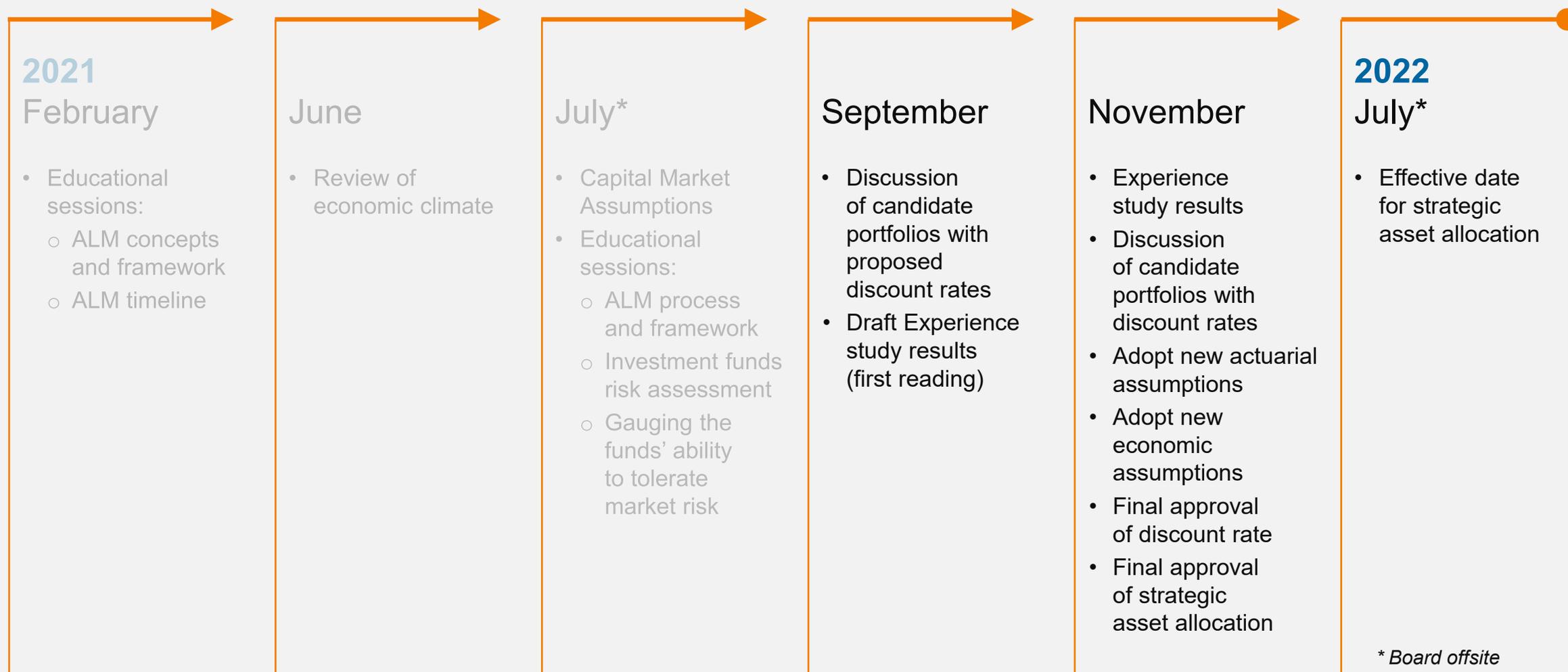
- ALM Process review
- Review of the Funding Risk Mitigation Policy
- Discount rate – definition, impacts and industry approaches
- Other industry viewpoints
- Capital Market Assumptions
- Key upcoming CalPERS Board decisions

What is the ALM Process?

ALM – a Balancing Act



Key Decisions in ALM Process



Quarterly stakeholder webinars throughout the ALM process:
January 20, April 27, August 3, and November 2021

Funding Risk Mitigation Policy

Funding Risk Mitigation Policy



If
investment returns outperform discount rate by:

+2 pp → 9%

+7 pp → 14%

+10 pp → 17%

+13 pp → 20%

+17 pp → 24%



then
resulting discount rate will be:

6.95%

6.90%

6.85%

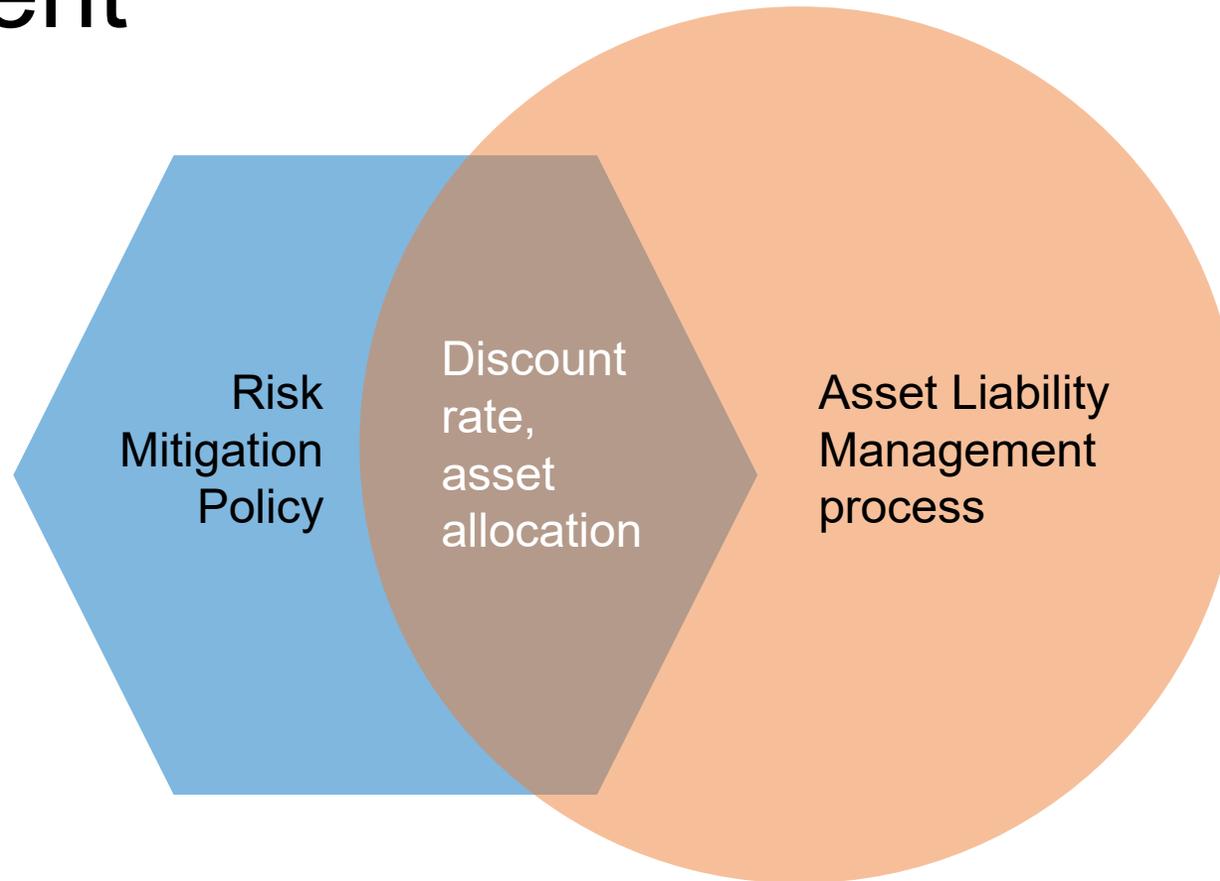
6.80%

6.75%

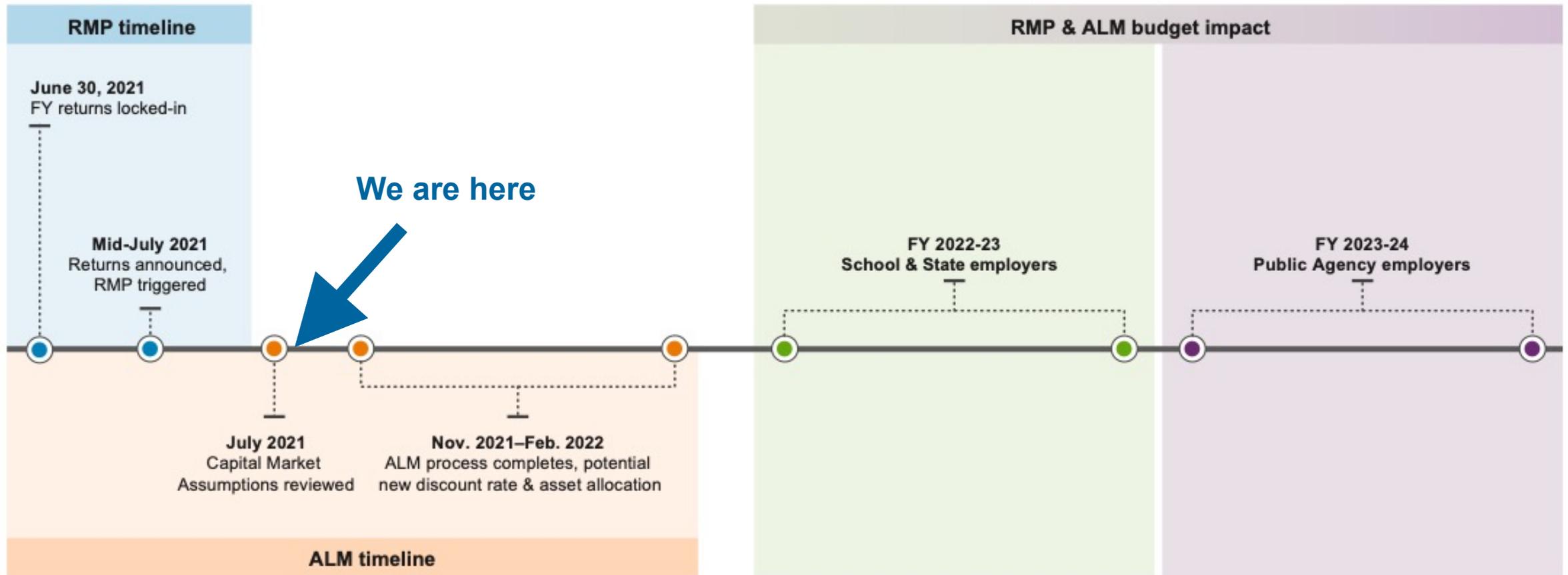
From Risk Mitigation Policy triggering



Risk Mitigation Policy and Asset Liability Management



Implementation

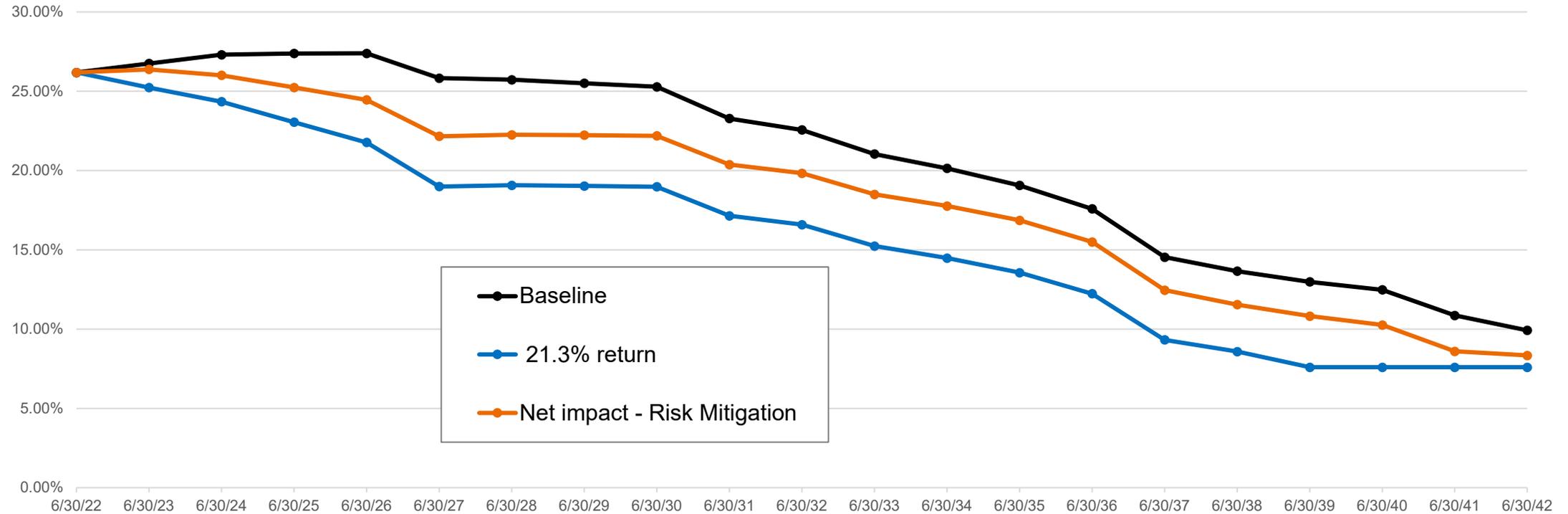


Impact of Risk Mitigation Policy on Employer and PEPRA Employee Contributions

— final results determined by ALM outcome

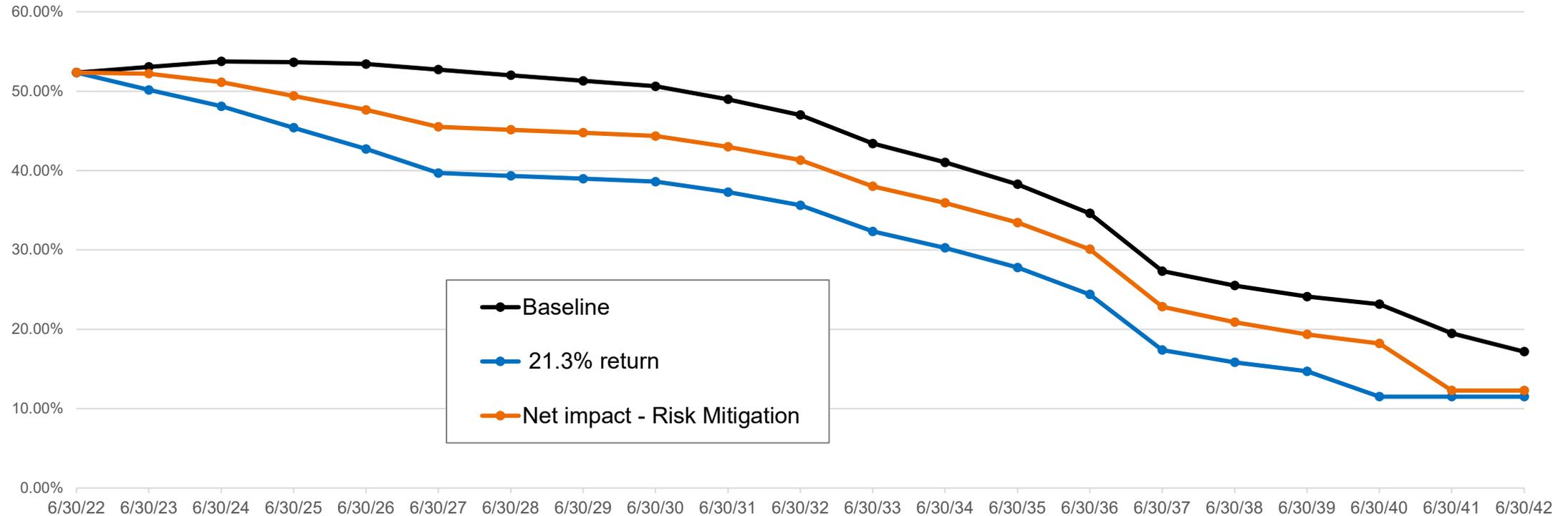
Sample City – Miscellaneous Plan

Total Employer Rate – Miscellaneous Plan



Sample City – Safety Plan

Total Employer Rate – Safety Plan



Sample PEPRA Member Impacts

Example 1	Base Rate	Discount Rate 7%	Discount Rate 6.80%
Total Normal Cost	13.50%	14.35%	15.10%
Employee Rate	6.75%	6.75% →	7.50%

Example 2	Base Rate	Discount Rate 7%	Discount Rate 6.80%
Total Normal Cost	14.20%	14.35%	15.10%
Employee Rate	7.00%	7.00% →	7.00%

The Discount Rate

What Is the Discount Rate?

§ 20014: Interest rate fixed by the Board for the purposes of actuarial valuation of assets and liabilities

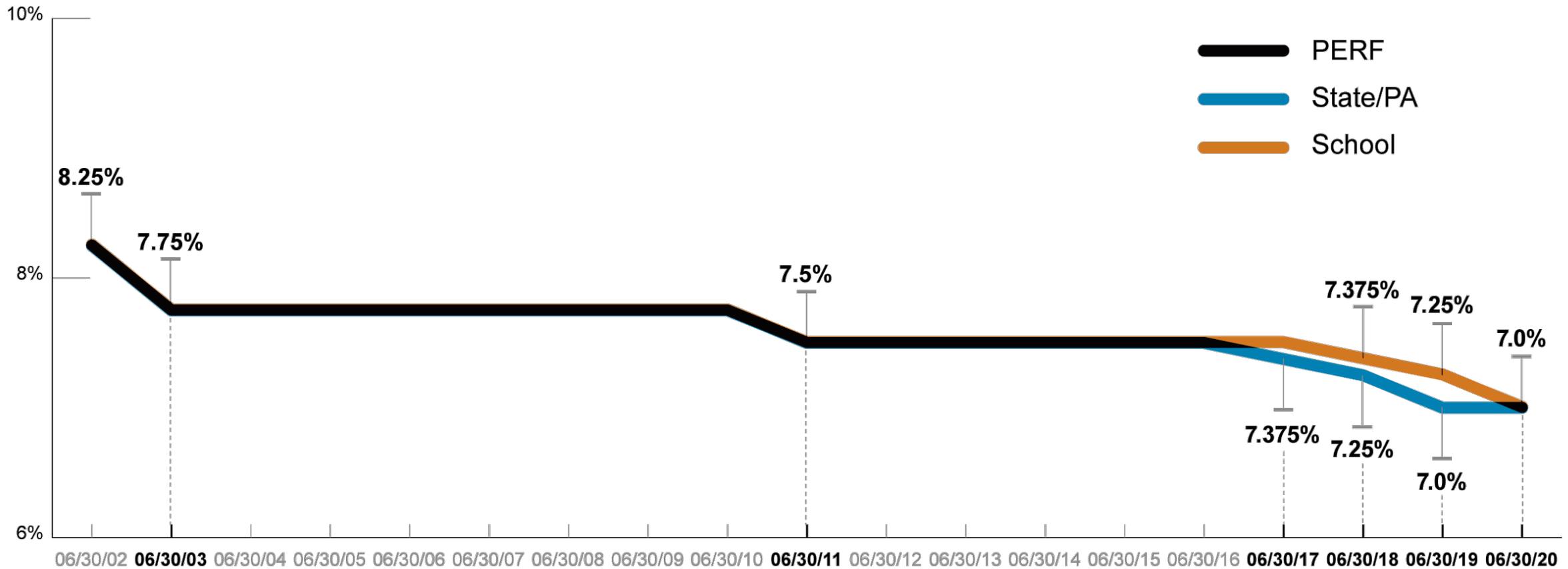
Calculates present value of expected future-plan payments

Synonymous with assumed rate of return

Informed by Capital Market Assumptions

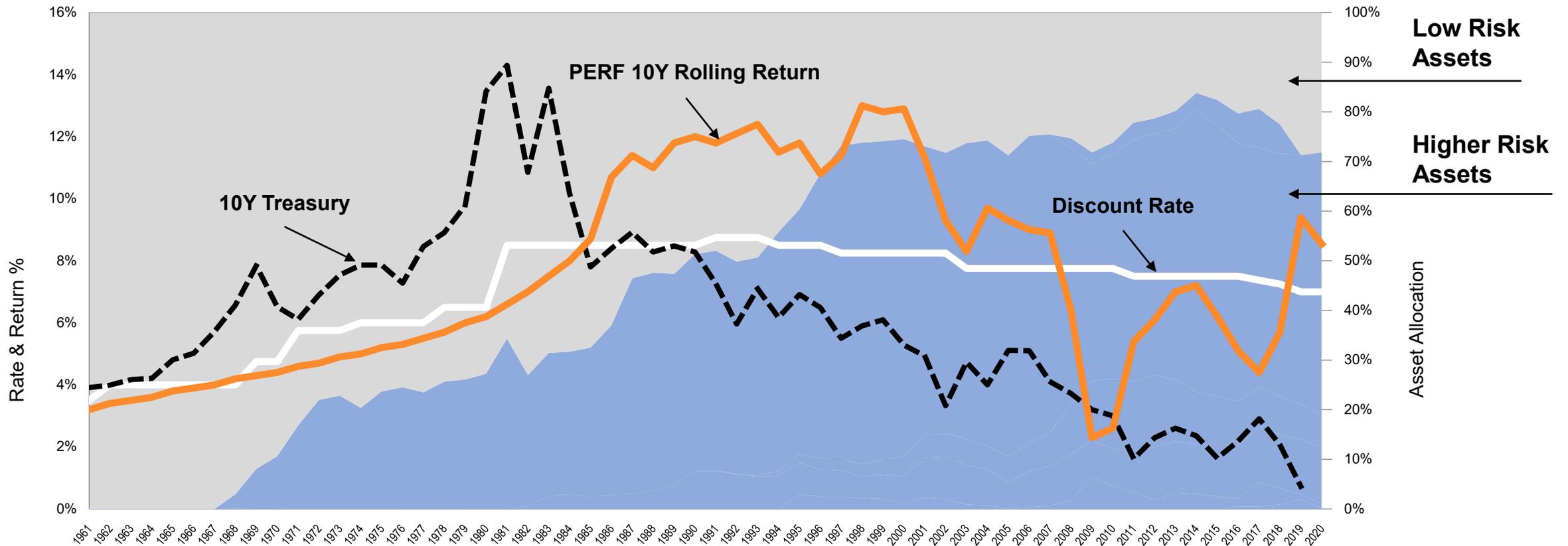
Selected by the Board from a range of actuarially-sound options

History of CalPERS Discount Rate

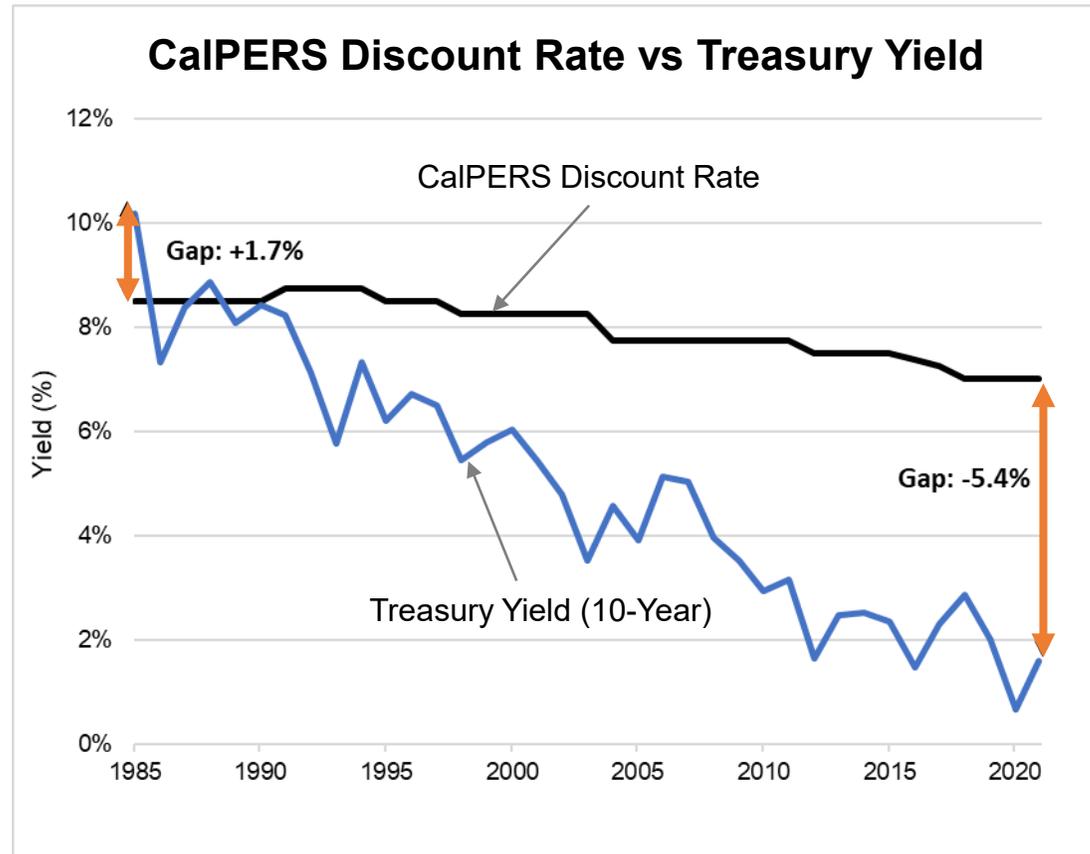


Challenges to Achieving Target Returns

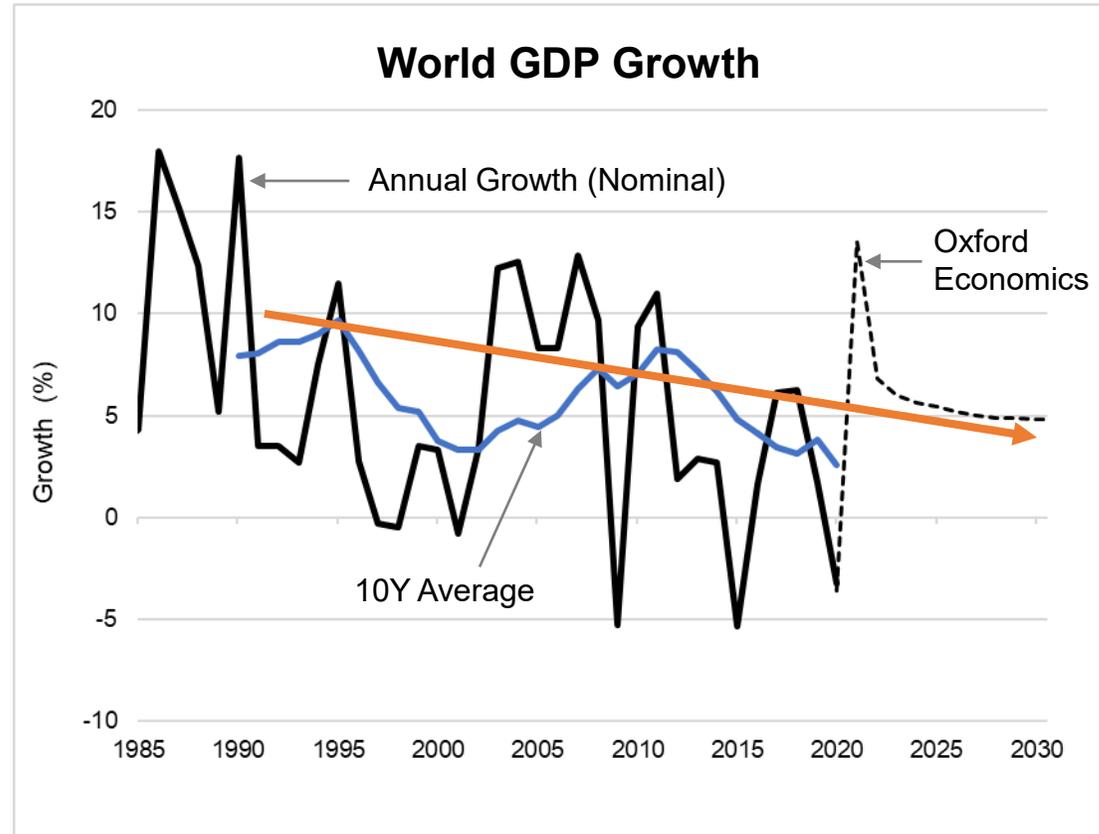
US Treasury Yields Reduced to Near Zero



The Challenge: Low Return Environment



Financial Challenge: Low Return Environment



Impacts of Lowering the Discount Rate

Probability of meeting investment return assumptions increases



No changes for Classic members & retirees



PEPRA Normal Cost increases for some plans

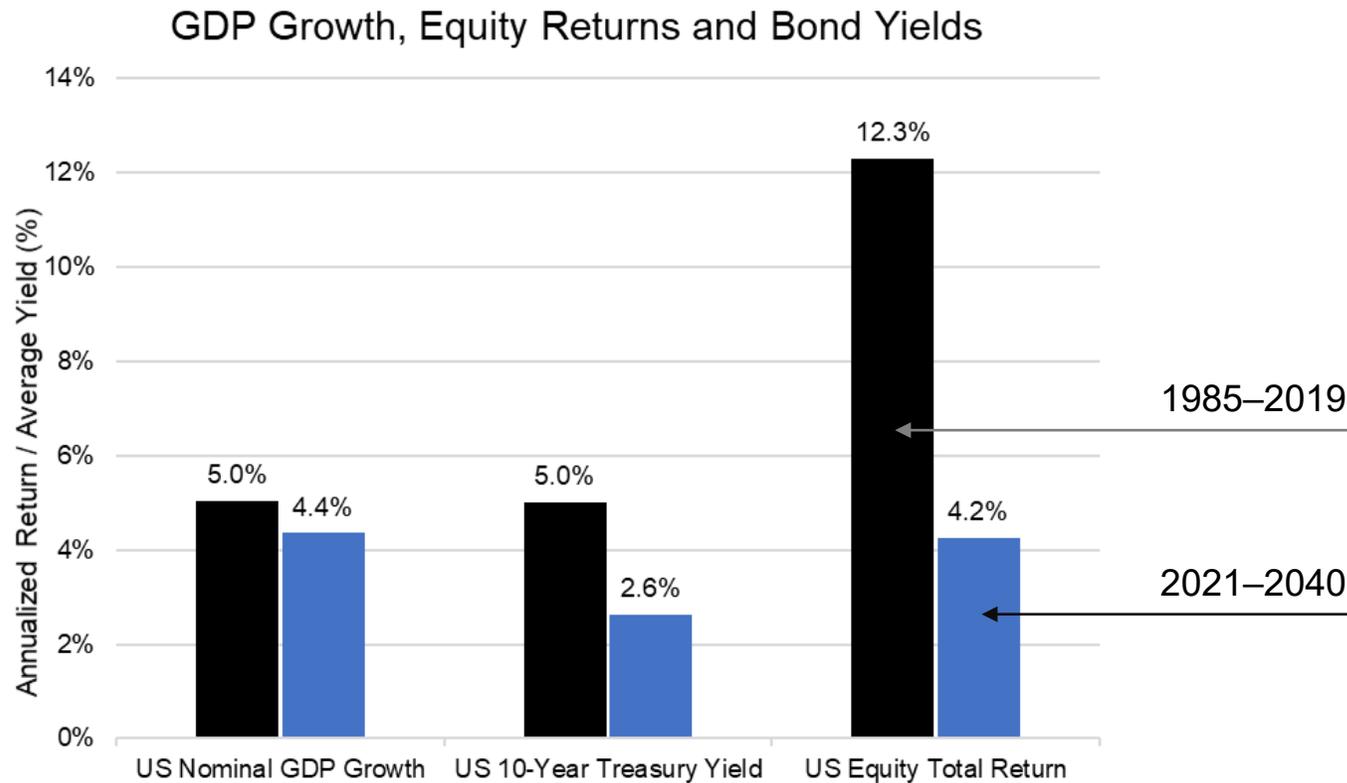


UAL & Normal Cost increases

What Are Other Industry Experts Saying and Doing?

What the Experts Are Telling Us

Decline in Future Expected Returns & Yields



What the Experts Are Saying: Goldman Sachs

Factors impacting changes in assumptions

Supportive factors

Fiscal / monetary stimulus – Near-term

Global GDP growth

Global GDP growth

Risk factors

Higher expected rates / inflation

Less accommodative Fed – Medium-term

Higher starting public equity valuations

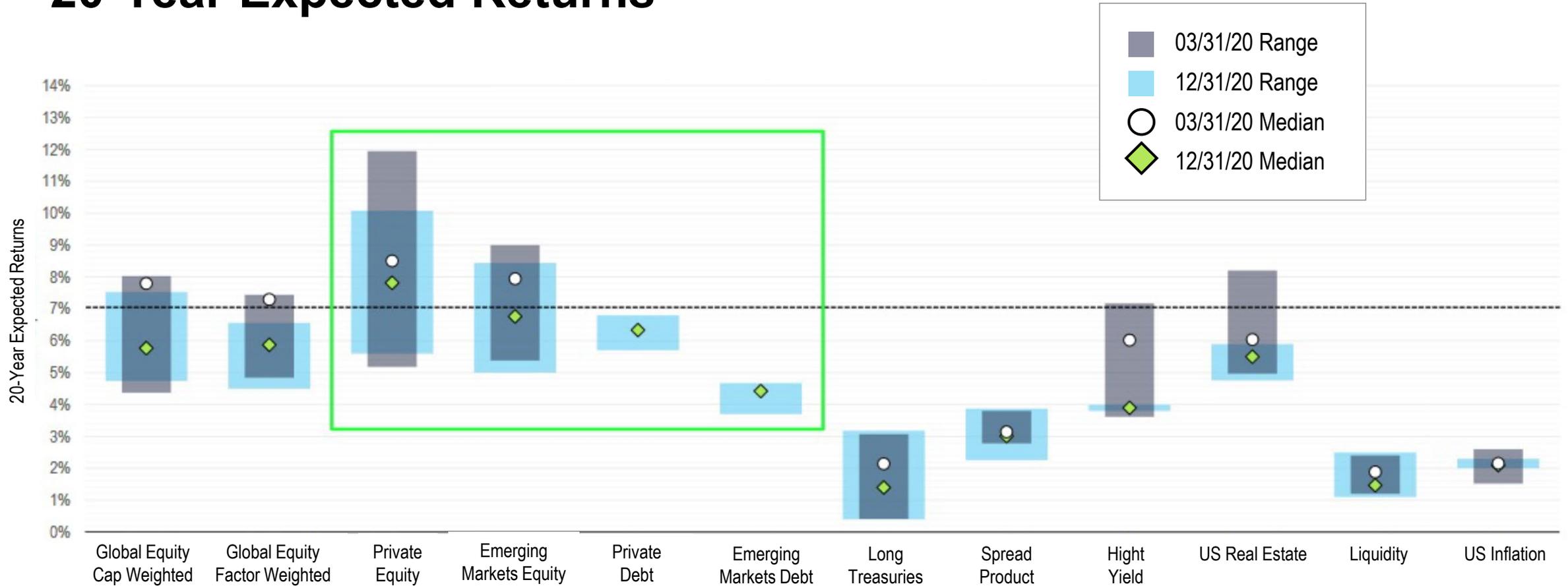
Higher likely corporate / individual taxes

Ongoing geopolitical risks

Ongoing COVID / pandemic risks

Capital Market Assumptions: Survey Results

20-Year Expected Returns

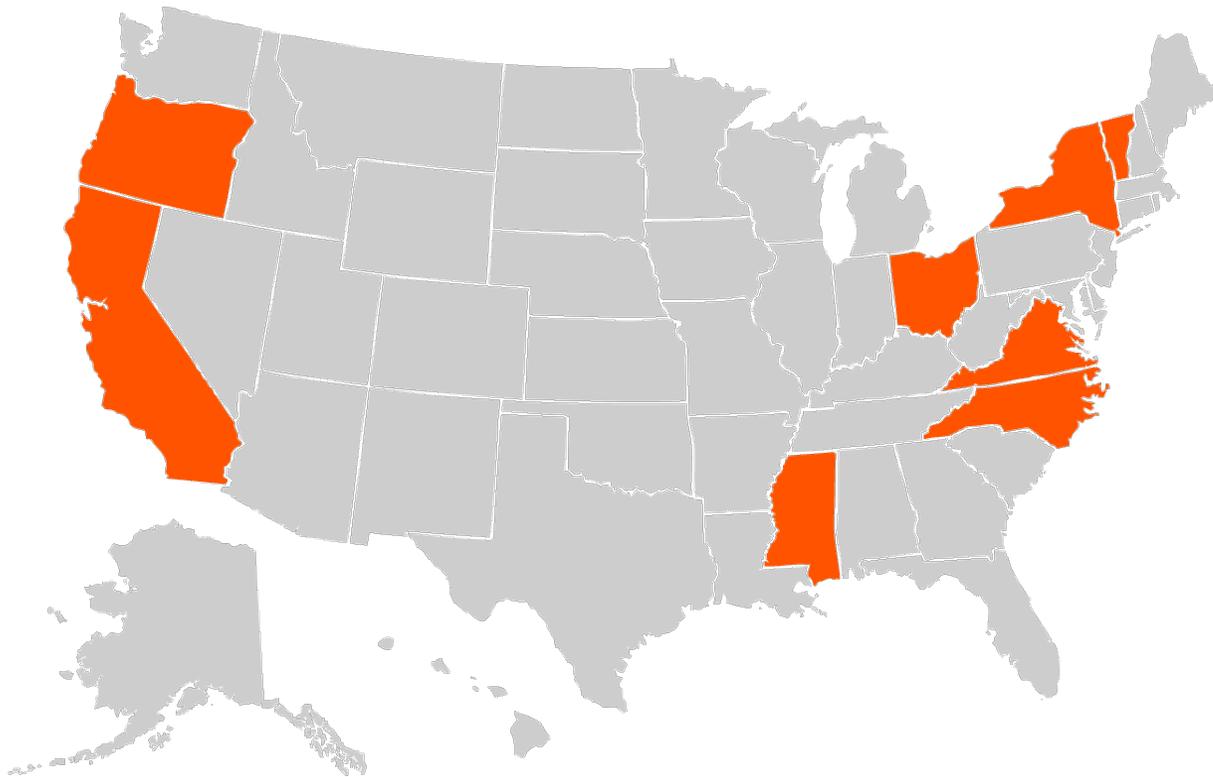


Capital Market Assumptions: Survey Results

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

What Other Pension Funds Are Doing

Significant developments



Vermont	7.5%	→	7.0%
New York State Common	7.0%	→	6.8%
Virginia	7.0%	→	6.75%
North Carolina	7.0%	→	6.5%
Ohio School	7.5%	→	7.0%
Mississippi*	7.75%	→	7.0%
Oregon	7.2%	→	6.9%
CalPERS	7.0%	→	6.8%

* proposal

What's Next in the ALM Process?

Board Review of Candidate Portfolios (Sept.)

Range of investment portfolios

Portfolios have attached discount rates

Asset allocations will range from current mix to more aggressive

Some portfolios will include private equity, direct lending, and/or leverage

Trade-off: higher numbers mean higher risk and volatility

Demographic Changes Also Impact Pension Costs

Life expectancy

Salaries

Inflation

Disability rates

Retirement rates

Opportunities for Stakeholder Engagement



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Q & A