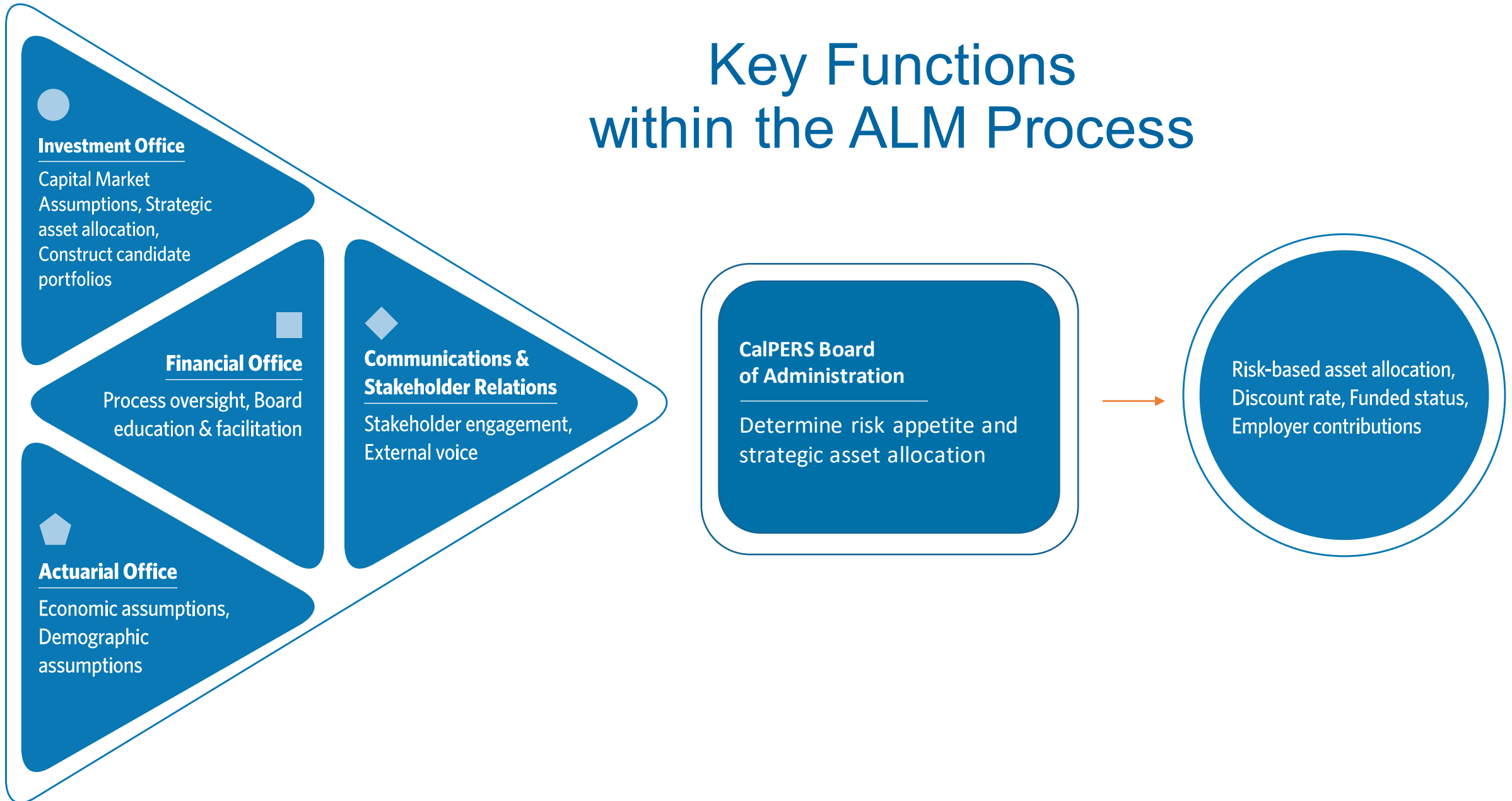


CalPERS – the Charted Course Forward for Pensions

2022 CSMFO Annual Conference

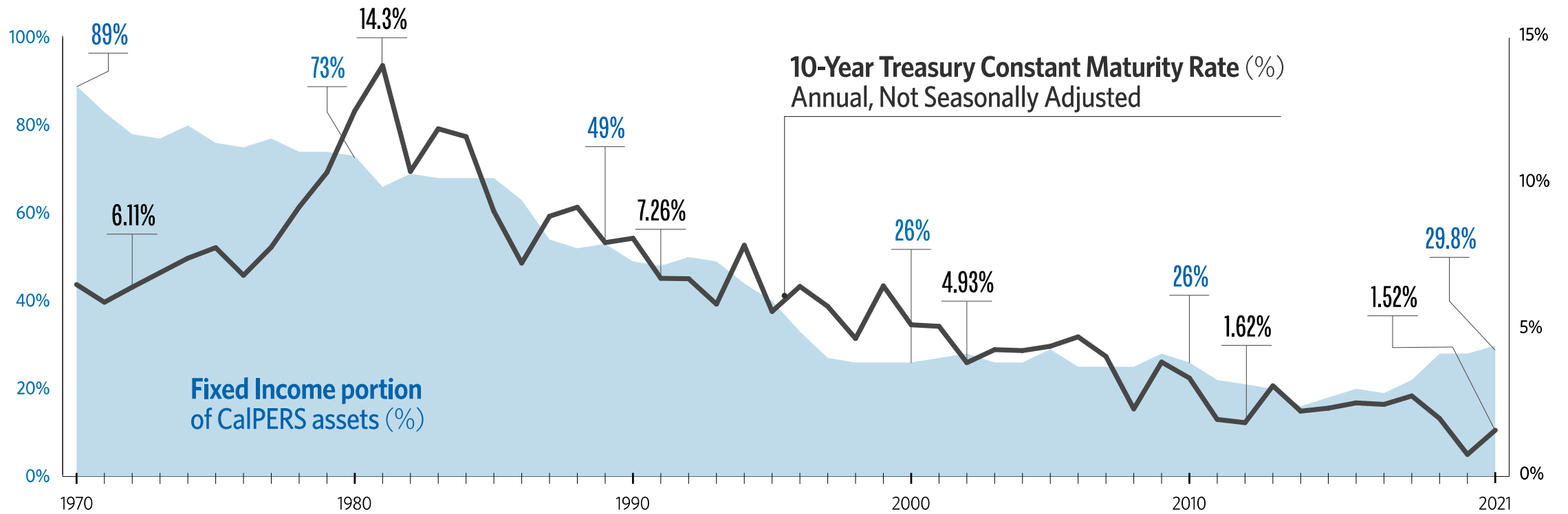
Michael Cohen, Chief Financial Officer, CalPERS

Key Functions within the ALM Process



Challenges to Achieving Target Returns

US Treasury Yields Reduced to Near Zero



Leading Up to the Discount Rate Decision



Risk Mitigation Policy Had Already Lowered Discount Rate to 6.8%



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%

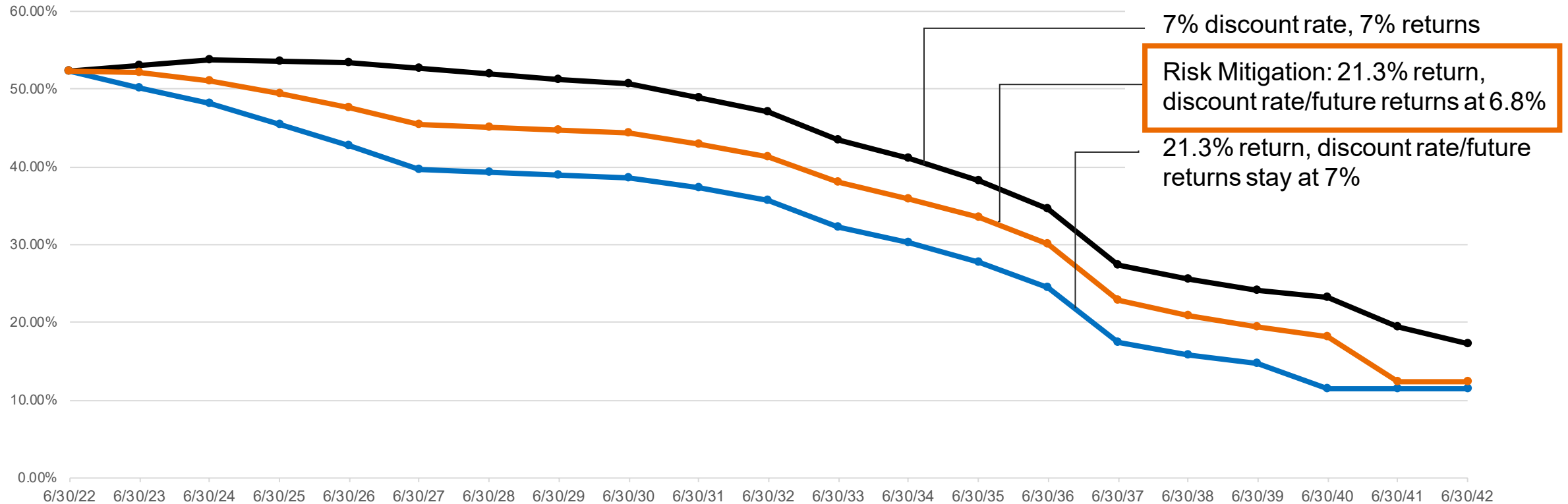
6.80%

6.75%

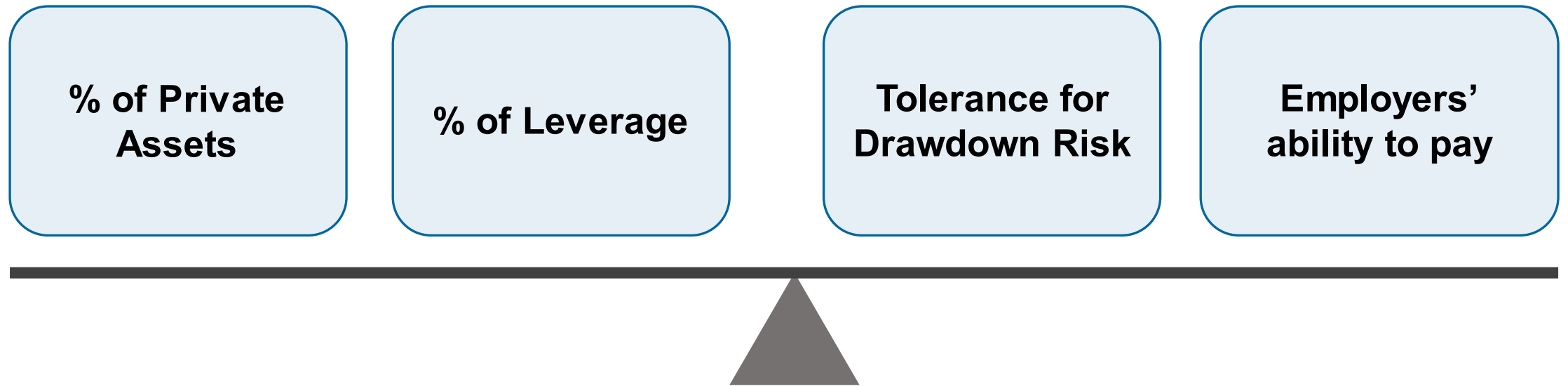
From Risk Mitigation Policy triggering

21.3% Return Softened Impact of Discount Rate Reduction for Employers

Sample Safety Plan



Balancing Risk & Reward



Discount Rates and Portfolios Considered

Portfolio Characteristics		Years 1-20		
Name	Leverage	Discount Rate	Drawdown	Volatility
Current	0%	6.2%	22.6%	11.2%
A1	0%	6.5%	20.4%	10.9%
A2	3%	6.5%	20.1%	10.8%
B1	0%	6.8%	23.6%	12.1%
B2	5%	6.8%	23.0%	12.0%
C1	5%	7.0%	25.5%	12.9%

ALM Outcome

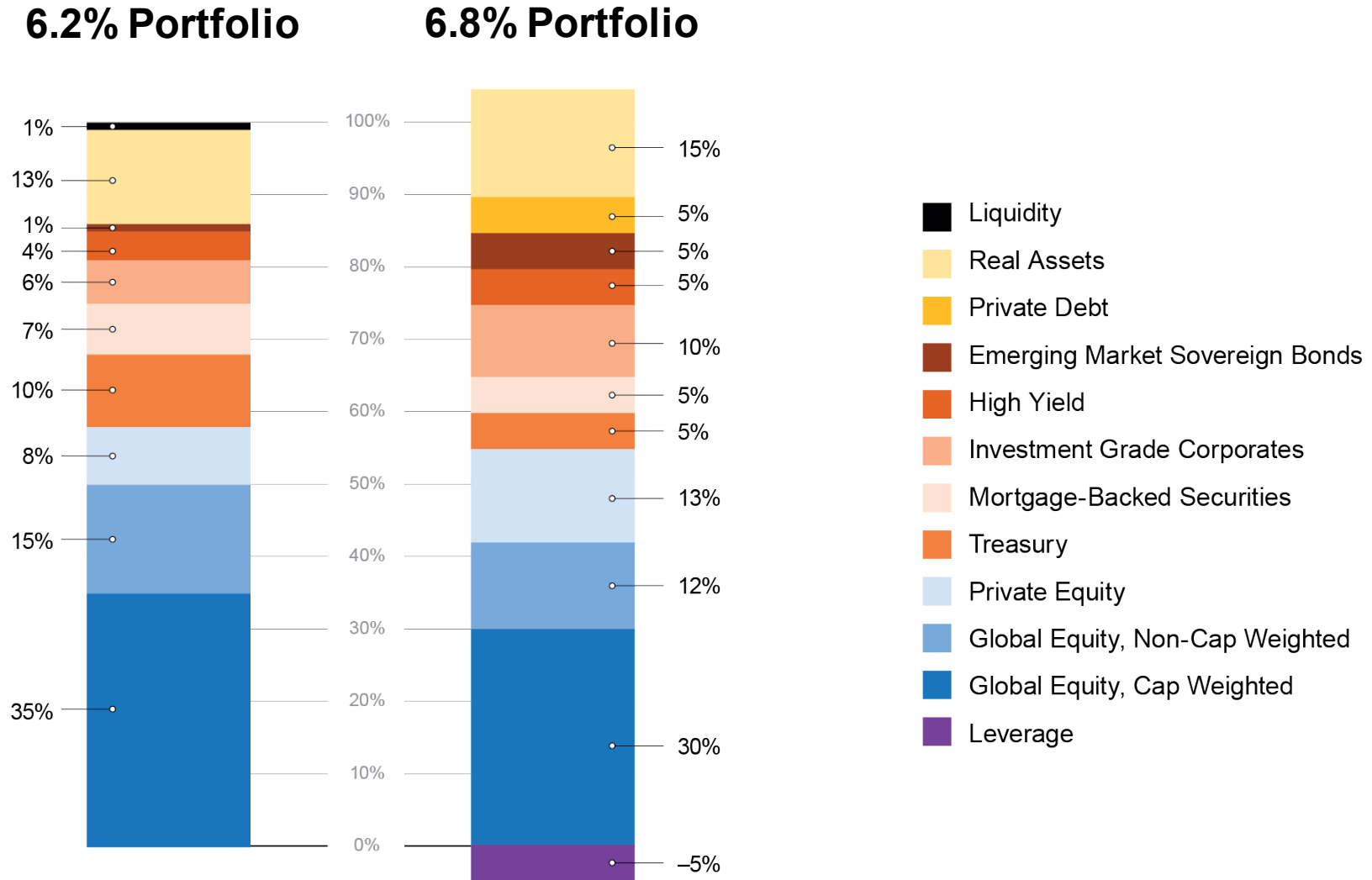
**Board selected
6.8% discount rate** with
5% leverage (Candidate
Portfolio B2)

**New strategic asset
allocation:**

- 5% leverage
- Increased allocation
to private assets

**New actuarial
assumptions adopted**

Previous Portfolio (6.2%) and New Portfolio (6.8%)



What Leverage Does

CalPERS & Leverage

- Board approved adding 5% leverage as a strategic asset allocation
- Current leverage is mainly in real estate portfolio and is actively managed
- Leverage is borrowing money to buy assets
- Will take several years to fully implement
- Leverage has been used in moderation for years

Why Is CalPERS Using Leverage?

- Reduce percentage of CalPERS Fund allocated to riskier assets, including public stocks
- Increase diversification by investing in less-risky assets, including fixed income, to better withstand economic downturns
- Reduces overall risk and volatility compared with a similar portfolio that contains no leverage
- Not being used to increase private asset investments

What Are the Risks?

- Leverage adds complexity to managing the fund
- Higher losses in some market conditions

Why Are Private Assets Critical to the Asset Allocation?



Highest returning
asset class,
past and projected



Portfolio
diversifier

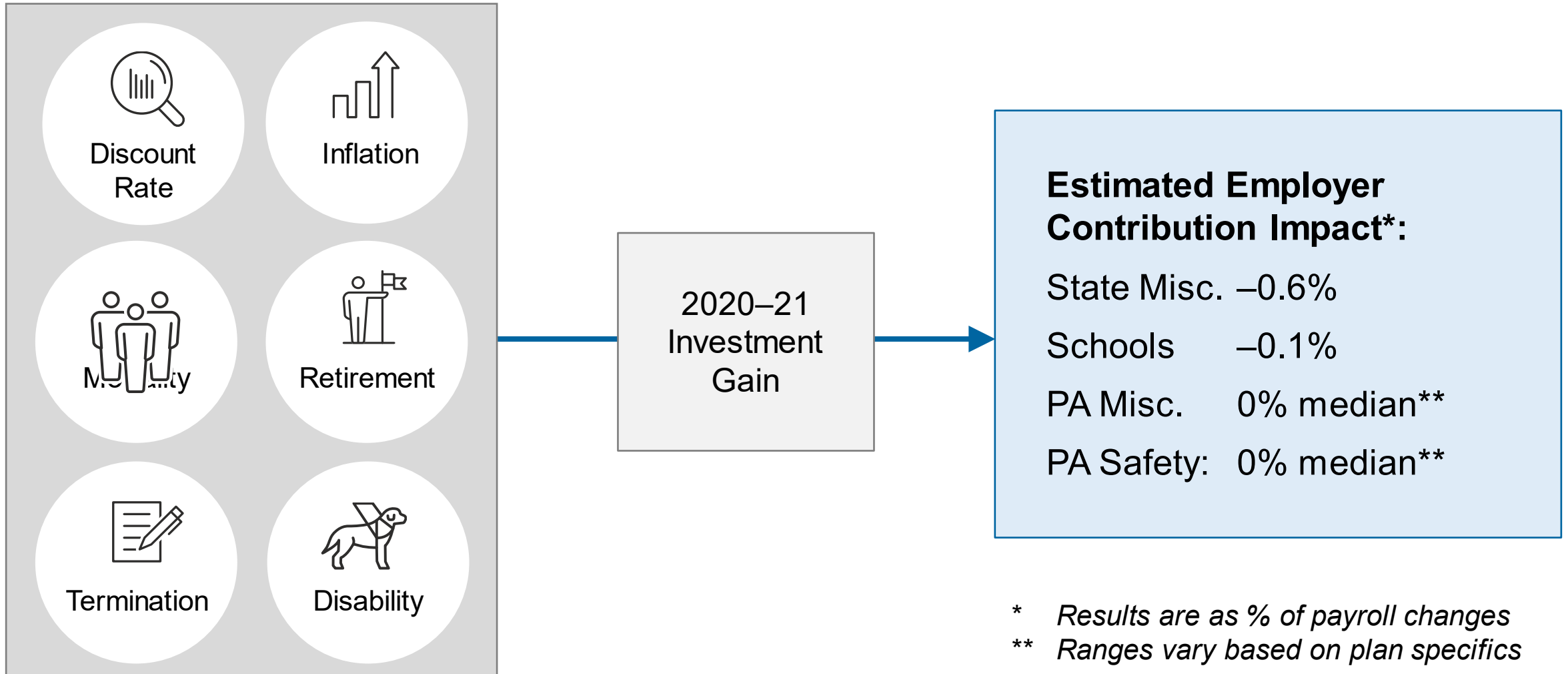


Access to different
parts of the economy
not readily available
in public markets

Discount Rate

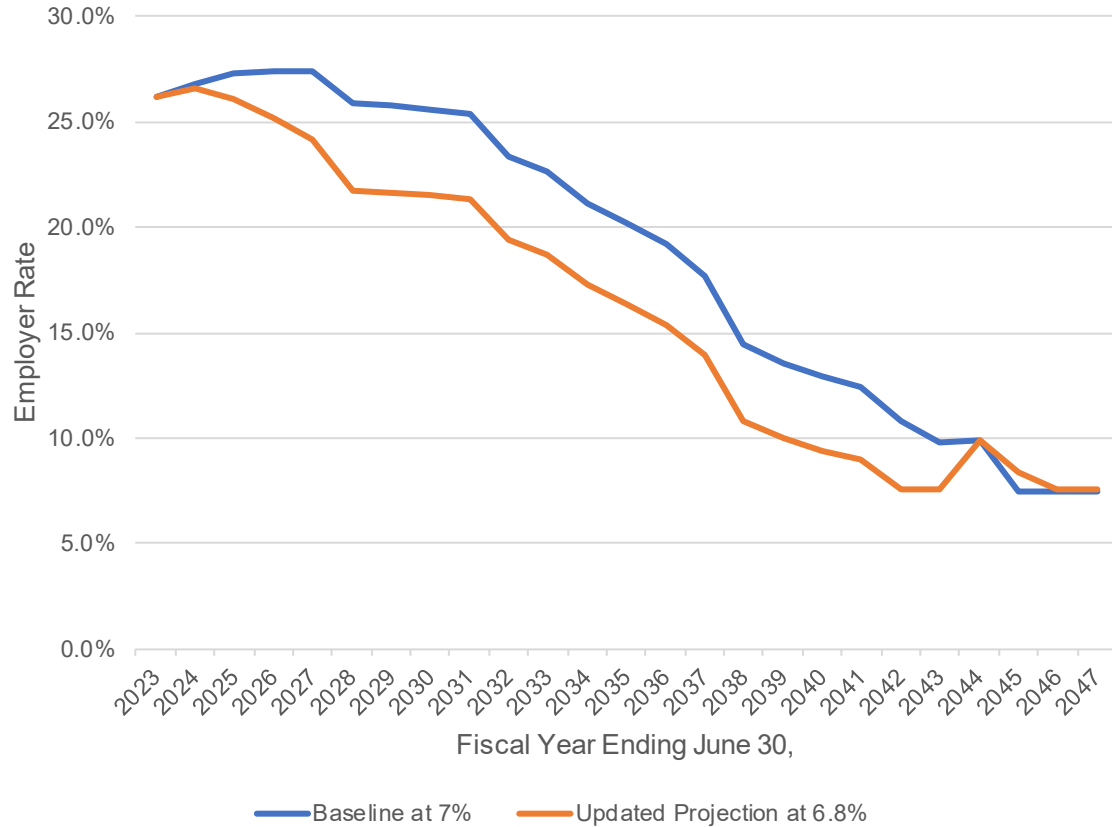
- Discount Rate set by Risk Mitigation Policy affirmed by Board
- Increases normal cost
- Increases UAL (unfunded accrued liability)
- School and State plans – effective 2022–23 fiscal year
- Public agency plans – effective 2023–24 fiscal year

ALM Outcomes for Employers — Year 1

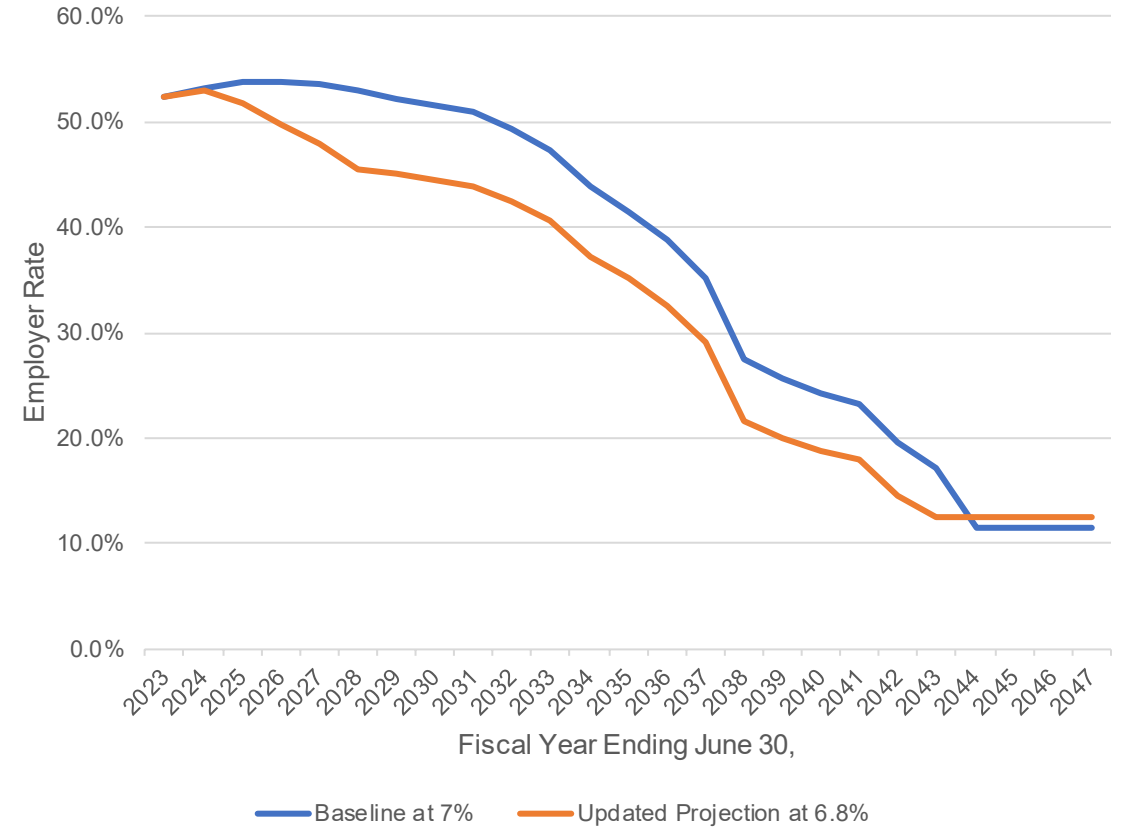


Employer Contribution Rate Projections

Sample Public Agency Misc. Plan

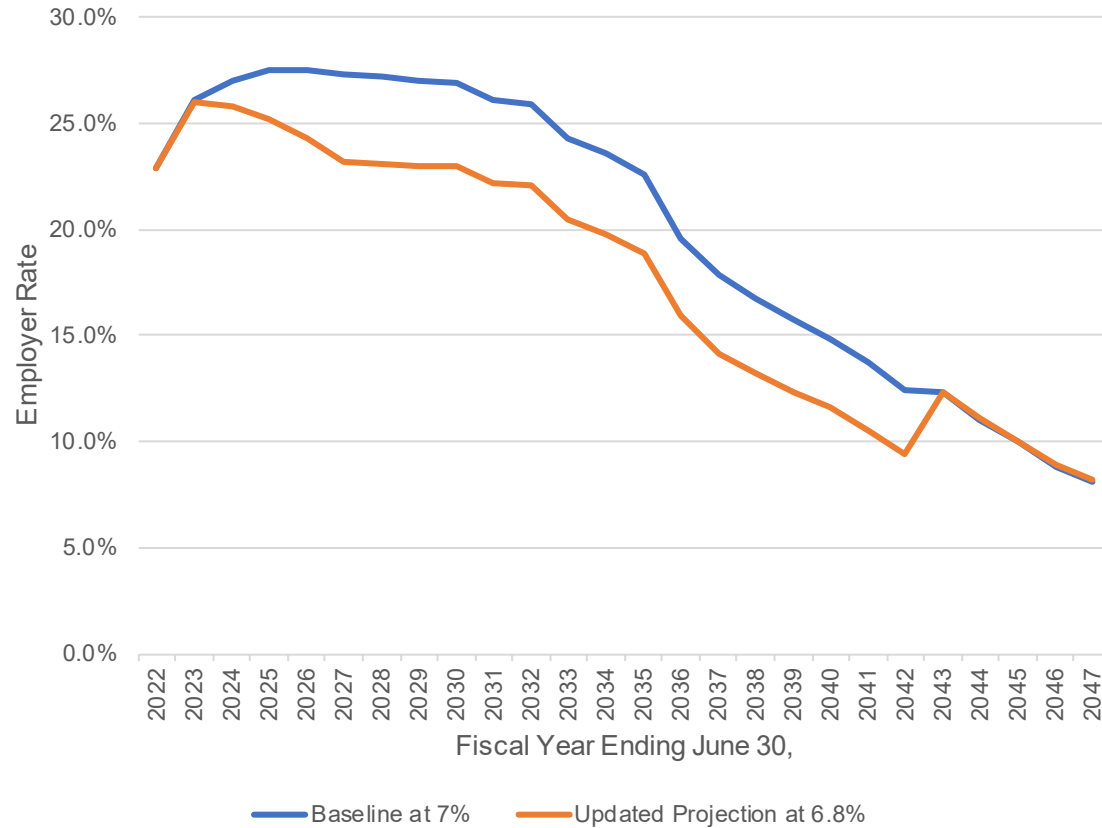


Sample Public Agency Safety Plan

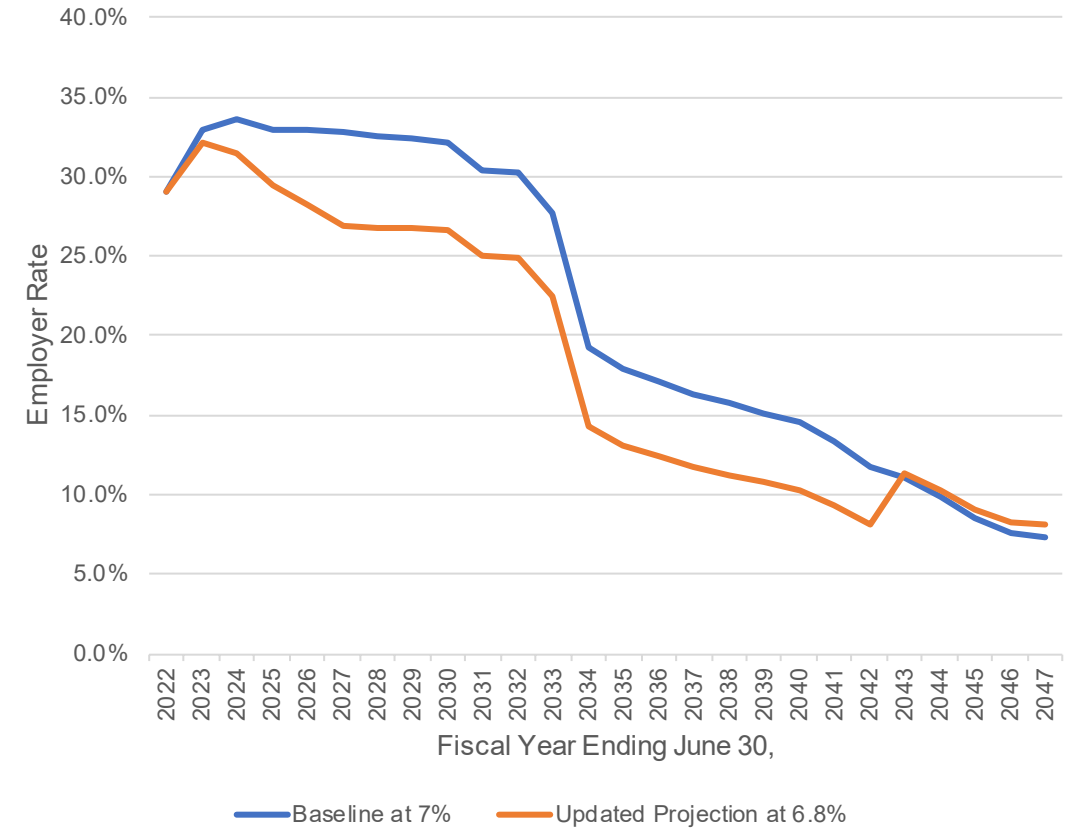


Employer Contribution Rate Projections

School Plan



State Misc. Plan



Pension Outlook Tool – Model Any Plan’s Contribution Rate Projections

Economic Assumptions

Details	Baseline	Model
Discount Rate	7.000%	6.800%
Payroll Growth	2.750%	2.750%
Inflation Rate	2.500%	2.500%

Investment Scenario Chosen

Rate	Period
21.300%	1
6.800%	1
6.800%	7
6.800%	20

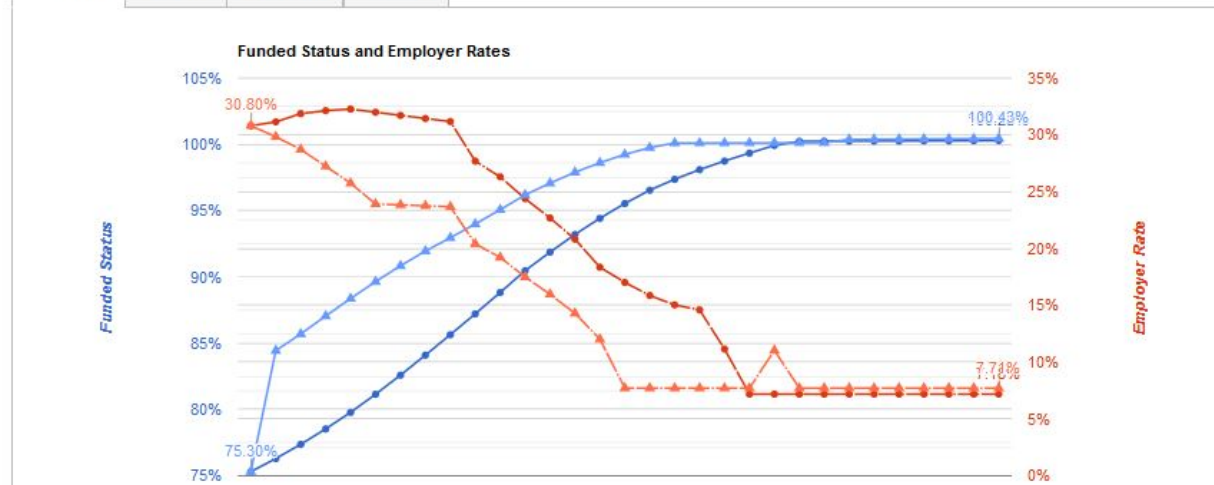
Other Assumptions

Details	Baseline	Model
PEPRA	Yes	Yes
Transition Years	15	15
ADP	No	No

30 Year Budget

Download the [Fiscal Year Cost and Annual Relative Increase in Cost \(XLSX\)](#).

Summary Funding Cash Flow Glossary



How Are CalPERS Members Affected?

All members

Strengthens long-term sustainability of pension plan

Active members

- Minor technical changes to pension calculation based on retirement date
- Slight increase in service credit purchases based on date of request

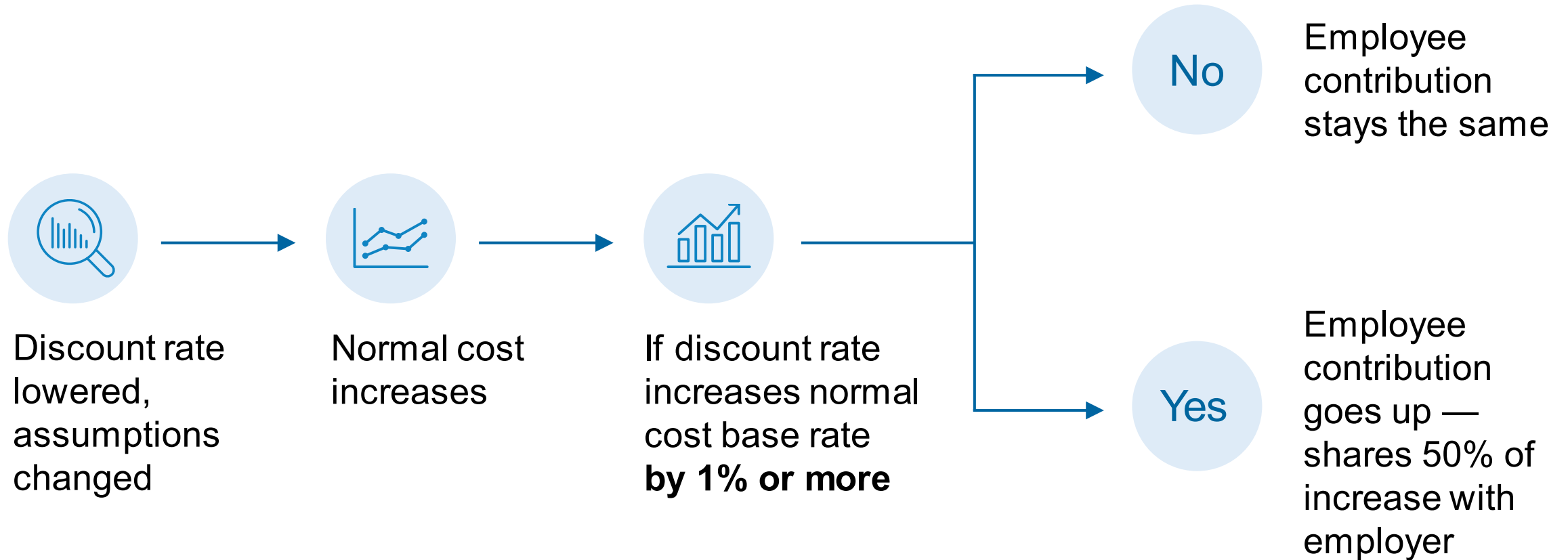
Active PEPRA members

Increase in contributions in most plans, average of 0.8%

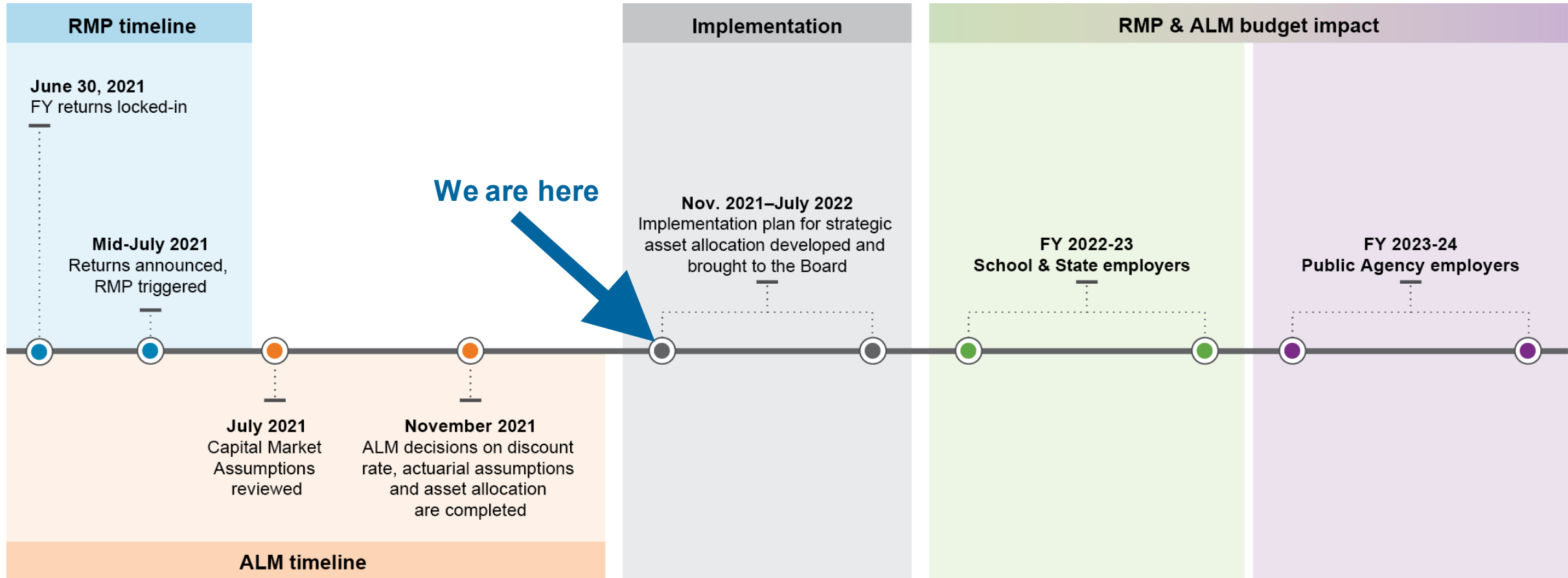
Retired members

No change to pension benefits or COLA

When Do PEPRA Member Rates Increase?



Implementation



Q&A

CalPERS_Stakeholder_Relations@calpers.ca.gov