



Item No. 4 Town of Atherton

FINANCE COMMITTEE STAFF REPORT

TO: FINANCE COMMITTEE

FROM: ROBERT BARRON III, FINANCE DIRECTOR

DATE: NOVEMBER 16, 2021

SUBJECT: CONTINUE REVIEW OF CALPERS ASSET LIABILITY MANAGEMENT (ALM) ASSUMPTION CHANGES AND DISCUSSION OF THE CALPERS ACTUARIAL REPORTS AS OF JUNE 30, 2020, PROVIDE GENERAL UPDATE

RECOMMENDATION

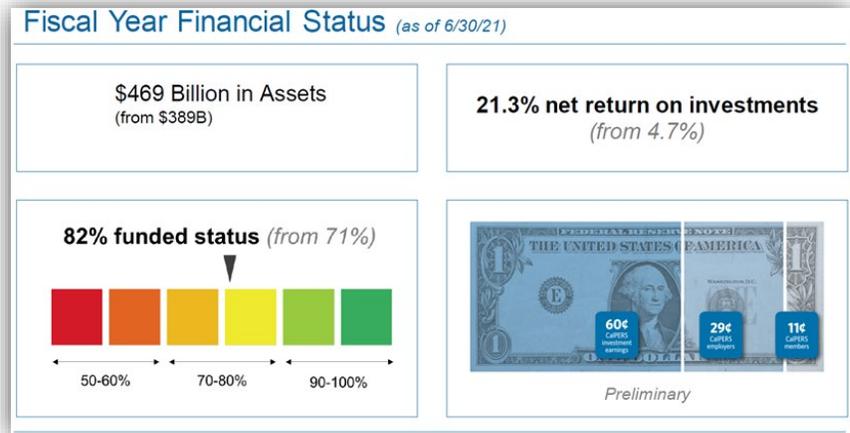
Continue review of CalPERS Asset Liability Management (ALM) assumption changes and discussion of the CalPERS actuarial reports as of June 30, 2020 and provide general update on retirement plans.

BACKGROUND

As was previously discussed, CalPERS Board Administration is in current review of the pension fund. Part of the process is to ensure the investment risk and strategic asset allocation align with discount rate and continue to increase the pension funded status. Over the past couple years CalPERS has adopted modest changes to its current asset allocation to allow for a reduction in volatility in returns. CalPERS also adopted changes in demographic assumptions – in particular, that of mortality rate improvements. Every four years the Board embarks on review of the Asset Liability Management Process (ALM). This process review involves a coordinated effort of the key functions of the CalPERS Investment office, Actuarial office, Financial Office, and Communications & Stakeholder relations. The various key offices are instrumental in providing information for various assumptions that include cost of future pension payments, liabilities, future investment returns and demographic changes. The ultimate outcome of the ALM process is the discount rate. The CalPERS Board then takes and evaluates the recommendations and decides the risk appetite and strategic allocations for the pension fund. This ultimately leads to how to divvy up CalPERS assets through providing a risk-based asset allocation to implement, and a discount rate of return that drives actuarial assumptions for pension funded status and determines how much employer contributions will be.

FINDINGS

The current snapshot of the financial status of the CalPERS pension fund illustrates the increase in assets of \$80 Billion and 16.6% increase of investment return over the prior year to 21.3%. Funded status is at 82% and the pension buck reveals that \$0.60 comes from investment return, followed by \$0.29 from employer and \$0.11 from employee. Earnings are coming in higher due to prior



year contributions and investment returns. Contributions from employers have gone up and have also contributed to the gains that have gone to improving the funded status of the fund.

Discount Rate

As previously discussed, the ultimate outcome of the ALM process is the discount rate. It is the most important number to the pension system because it ties what the pension can earn long term. This discount rate is derived by capital market assumptions as it is the fund interest rate for valuation of assets for the growth of liabilities. It is selected by the Board from a range of actuarial assumptions. The ALM decision process is important as it gives the Board the best information possible so it can give options of the best asset allocations to choose which in turn leads to the discount rate selected. The ALM progress figures out the most rational and achievable number for a discount rate. The impacts of lowering the discount rate include:

- Probability of meeting investment return assumption increases
- No changes for Classic members & retirees
- PEPR Normal Cost increases for some plans
- UAL & Normal Cost increases

One fact of lowering the discount rate means that expectation is that investments are going to grow at a slower pace over time. This in turn means that the gap between assets and liabilities will increase thus leading to a growth in unfunded liabilities and this also leads to an increase in normal costs to the plans. Challenges over the years have made it difficult to achieve target returns. In order to achieve investment returns pension plans over the years have had to take more and more higher risk in assets to get the needed returns. The higher risk investments could be more volatile. Pension systems over the U.S. have realized the higher level of risks to maintain higher discount rates prove to be unsustainable.

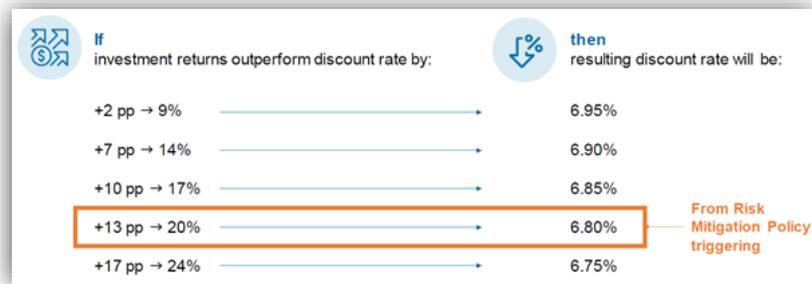
What other State are doing?

As a result of realization of higher levels of risk needed to maintain a discount rate, other pension funds have reduced their discount rates.



That is why systems like CalPERS have taken steps in years of sensational high returns that they offset with a reduction in expectation in the discount rate. This is where the Funding Risk Mitigation policy (FRMP) is being triggered within the CalPERS system. This Risk Mitigation policy was adopted in 2015 and this is the first year that it has been triggered. Discussed in our last meeting there are thresholds used when the investment returns outperform the discount rate. These set thresholds define the total investment return required for reduction in the discount rate to take place. The FRMP lowers the discount rate in years of good investment returns. In FY 20/21, the investment returns of 21.3% return falls within the 13.0% additional investment return required and thus reduces discount rate by .20%.

The ALM process was already in review prior to the trigger of the Risk Mitigation policy. This process was already in the Capital Market assumptions review absent the mitigation policy. The new baseline for the discount rate is 6.8%.



Survey results of the Capital Market Assumptions shows 20-year expectations of a rate of return of 6.2%. In 2017, the ALM process revealed an expected 7% return based on the pension portfolio and as result the discount rate was gradually decreased from 7.5%. This reveals a need to change asset allocation. Things have changed over the years, with the pandemic being the largest driver of the survey. It was communicated that staying with the status quo of current mixed use of assets and that under the survey assumptions, the expected rate of return instead of getting 7% would be 6.2%. This could be a major shock to the system as it pertains to costs in contribution requirements and employer contributions in particular to PEPPA employees. This current ALM cycle reveals that CalPERS needs to change its asset allocation to achieve higher

results than the 6.2%. In September 2021, the Board adopted the survey results as various portfolios were presented and then direction was provided that the Board wanted to see portfolios between 6.5% and 7%. There is sentiment that the pension portfolios can achieve that without dramatically increasing risk or volatility in the plans. At the current asset allocation, the projected rate of return is 6.2%. Pros and cons of the various portfolios will be presented to the Board Investment Committee on November 15th. While presenting to the Board the review will include balancing risk and reward on investments. This includes the balance between percentage of private assets and leverage versus tolerance for drawdown risk and volatility, or poor returns and losses. Drawdown is the considered the average the worst three rolling years of losses. Over the years there has been an increase in percentage of the fund toward private assets. For the pension fund they have been the best performing assets in recent years. There are six candidate portfolios that will presented to the Board. The rate of returns of the portfolios ranges from 6.2% to 7.0%.

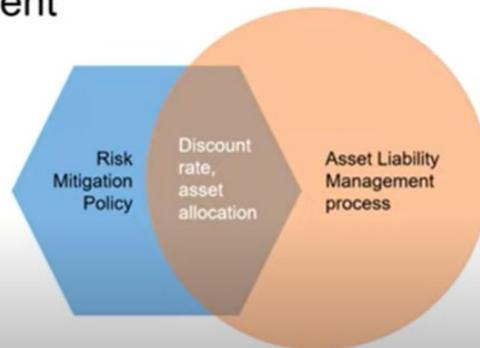
Portfolio Characteristics			Years 1-20		
Name	Discount Rate	Leverage Limit	Return	Drawdown	Volatility
Current	6.2	-	6.2	22.6	11.2
A1	6.5	-			
A2	6.5	5.0		Under construction	
B1	6.8	-	6.8	23.6	12.1
B2	6.8	5.0	6.8	23.0	12.0
C1	7.0	5.0	7.0	25.5	12.9

Key decisions of the ALM process in September included the discussion of candidate portfolios with proposed discount rate and review of the draft experience study of portfolios. November involves experience study results, discussion of portfolios with discount rates, adoption of new actuarial and economic assumptions followed with final approval of the discount rate and approval of the strategic asset allocation. The ALM process completes potential asset allocation and a new discount rate. Any implemented changes do not occur until July 2022 and will not affect public agency employers until FY 23/24.

Pension Risk Mitigation Policy

Policy was adopted to improve the long-term pension benefit sustainability of the system through analysis of pension assets and liabilities, CalPERS held discussions on funding risks. Driving risk factors are plan demographics (plans are maturing; public employees living longer) and investment volatility (market return). As also discussed during this time CalPERS took significant steps

Risk Mitigation Policy and Asset Liability Management



to lower funding risk actions as this included new asset allocation, actuarial assumptions, and the new smoothing policies.

Calculation of Investment Performance

CalPERS' 2020/21 final fiscal year investment performance will be calculated based on audited figures and will be reflected in contribution levels for the State of California and school districts in fiscal year 2022-23, and for contracting cities, counties, and special districts in fiscal year 2023/24

Discussion/Review

Staff is presenting an update to the ALM and the Funding Risk Mitigation Policy to help us follow and understand CalPERS process and guidance for the pension fund. CalPERS continues to implement changes to the pension fund and in recent years has embarked on rate smoothing policy, changes in actuary assumptions due to demographics, investment risk volatility, and most notably reviewed and implemented changes in the discount rate. With its recent trigger of the Risk Mitigation policy, there is anticipation 6.8% will be the new baseline discount rate as the Board evaluates asset allocation mix as it explores discount rates to the pension plan between 6.5% to 7%. The outlook of future pension costs and their impact to agencies has always been at the forefront as the understanding a reduction in the discount rate will lead to increase normal costs in the short term as well as increases in unfunded actuarial liabilities (UAL).

In early 2022, we will revisit the Town actuarial reports in detail, and invite our senior pension actuary back to discuss our pension liabilities and any CalPERS board implementations. This review of the actuary reports and CalPERS board implementation changes will assist us in our recommendations in the next several years of making contributions toward pension liabilities via Pension Rate Stabilization Trust (PARS Trust).

Actuary Valuation Reports as of June 30, 2020

The Town’s Miscellaneous Employees future contribution assumes the investment return of 7.00% in FY 2020/21. The actual investment return for FY 20/21 was not known at the time the valuation reports were prepared. However, the preliminary returns are 21.3% for FY 20/21. The FY 2022/23 Employer Contribution rate for Miscellaneous Employees is 11.06% and this represents no change. The Unfunded Liability Payment (UAL) is \$461,091. ***The current FY 21/22 Employer contribution rate for Miscellaneous employees is 11.06% and the unfunded liability payment (UAL) is \$400,641.***

(page 6 of Miscellaneous Valuation Report)

	Required Contribution	Projected Future Employer Contributions (Assumes 7.00% Return for Fiscal Year 2020-21)				
Fiscal Year	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
	Rate Plan 64 Results					
Normal Cost %	11.06%	11.1%	11.1%	11.1%	11.1%	11.1%
UAL Payment	\$461,091	\$497,000	\$535,000	\$559,000	\$581,000	\$595,000

The UAL payment for FY 2022/23 is \$461,091, this is an increase of \$60,450 over the current year. The Plan's funded status as of June 30, 2020, for Miscellaneous Employees is currently at 70.8% with an unfunded liability of \$5,867,431.

Below are projected future contribution rates for the Town Public Safety Employees and assumes the investment return of 7.00% in FY 2020/21. The projected employer rate and UAL for Safety is as follows:(page 6 of Public Safety Valuation Report)

	Required Contribution	Projected Future Employer Contributions (Assumes 7.00% Return for Fiscal Year 2020-21)				
Fiscal Year	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
	Rate Plan 65 Results					
Normal Cost %	25.64%	25.6%	25.6%	25.6%	25.6%	25.6%
UAL Payment	\$1,172,082	\$1,260,000	\$1,349,000	\$1,407,000	\$1,461,000	\$1,497,000

The current FY 2021/22 normal cost employer contribution rate as a percentage of payroll is 25.59% and the UAL \$1,029,533. Based on the valuation report, the FY 2022/23 contribution rate for Public Safety is 25.64%, an increase of .05%. *The Town's employer payment of the unfunded liability for FY 2022/23 Public Safety is \$1,172,082. This is an increase of \$142K in UAL from the current FY of \$1,029,123*

Based on the actuarial report, the Public Safety Employees Plan's funded status as of June 30, 2020, is currently at 68.7% with an unfunded liability of \$14,785,971. For FY 2022/23 the projected combined UAL payment is \$1,633,173 (\$461,091 Miscellaneous & \$1,172,082 Public Safety).

Additional discretionary contributions analysis is provided in the reports. This provides projection for agencies to select additional discretionary payments for consideration in paying down UAL. CalPERS allows employers to make additional discretionary payments (ADP) at any time and in any amount to reduce the UAL and future required contributions. (Page 5 of the Valuation reports) Alternative Fiscal Year 2022-23 employer contributions for great UAL reductions listed below.

Miscellaneous Valuation

Alternative Fiscal Year 2022-23 Employer Contributions for Greater UAL Reduction

Funding Target	Estimated Normal Cost	Minimum UAL Payment	ADP ¹	Total UAL Contribution	Estimated Total Contribution
20 years	\$174,024	\$461,091	\$79,891	\$540,982	\$715,006
15 years	\$174,024	\$461,091	\$168,161	\$629,252	\$803,276
10 years	\$174,024	\$461,091	\$354,899	\$815,990	\$990,014
5 years	\$174,024	\$461,091	\$936,689	\$1,397,780	\$1,571,804

Public Safety Valuation

Alternative Fiscal Year 2022-23 Employer Contributions for Greater UAL Reduction

Funding Target	Estimated Normal Cost	Minimum UAL Payment	ADP¹	Total UAL Contribution	Estimated Total Contribution
20 years	\$433,719	\$1,172,082	\$186,712	\$1,358,794	\$1,792,513
15 years	\$433,719	\$1,172,082	\$408,420	\$1,580,502	\$2,014,221
10 years	\$433,719	\$1,172,082	\$877,453	\$2,049,535	\$2,483,254
5 years	\$433,719	\$1,172,082	\$2,338,744	\$3,510,826	\$3,944,545

Value of Assets (Page 6 of the Valuation Reports)

As of June 30, 2020, it was illustrated that the Town’s unfunded pension liability increased. The market Value of Assets (MVA) for Miscellaneous Employees is \$14,216,120 and an unfunded liability of \$5,867,431. For Public Safety Employees the MVA is \$32,475,905 with an unfunded liability of \$14,785,971. This calculates to a total unfunded liability of \$20,653,402. This is a total increase of \$1,574,050 from previous year valuation reports. Amortization schedules and alternatives are illustrated in the valuation reports that show the minimum contributions required according to the CalPERS amortization schedule. (Pages 12 & 13)

Risk Analysis Tools (page 18 of valuation reports)

Included in the reports are risk analysis tools that used to estimate future Town Contributions toward unfunded liabilities, Employer normal cost rates and projection of paying down liabilities. These tools are based on the assumed annual rate of return and the impact on future UAL contributions. If the investment return was below or over the projection, these amounts will be used to set the rates in Fiscal Year 2023/24 calculations. In the reports there are different investment returns scenarios analysis of the effects on the Town UAL amount if the rate of return ranges between 1% to 12%

FISCAL IMPACT

None

PUBLIC NOTICE

Public notification was achieved by posting the agenda, with this agenda item being listed, at least 72 hours prior to the meeting in print and electronically. Information about the project is also disseminated via the Town’s electronic News Flash and Atherton Online. There are approximately 1,200 subscribers to the Town’s electronic News Flash publications. Subscribers include residents as well as stakeholders – to include, but be not limited to, media outlets, school districts, Menlo Park Fire District, service provides (water, power, and sewer), and regional elected officials.

ATTACHMENTS

ALM Quarterly Webinar 4: CalPERS Update

Asset Liability Management (ALM) Quarterly Webinar

ALM Update

October 13, 2021

Presenters



Michael Cohen
Chief Financial Officer



Scott Terando
Chief Actuary



Sterling Gunn
*Managing Investment
Director*



Brad Pacheco
*Deputy Executive Officer,
Communications &
Stakeholder Relations*

Agenda

Past

Review of ALM
actions and
developments
so far

Present

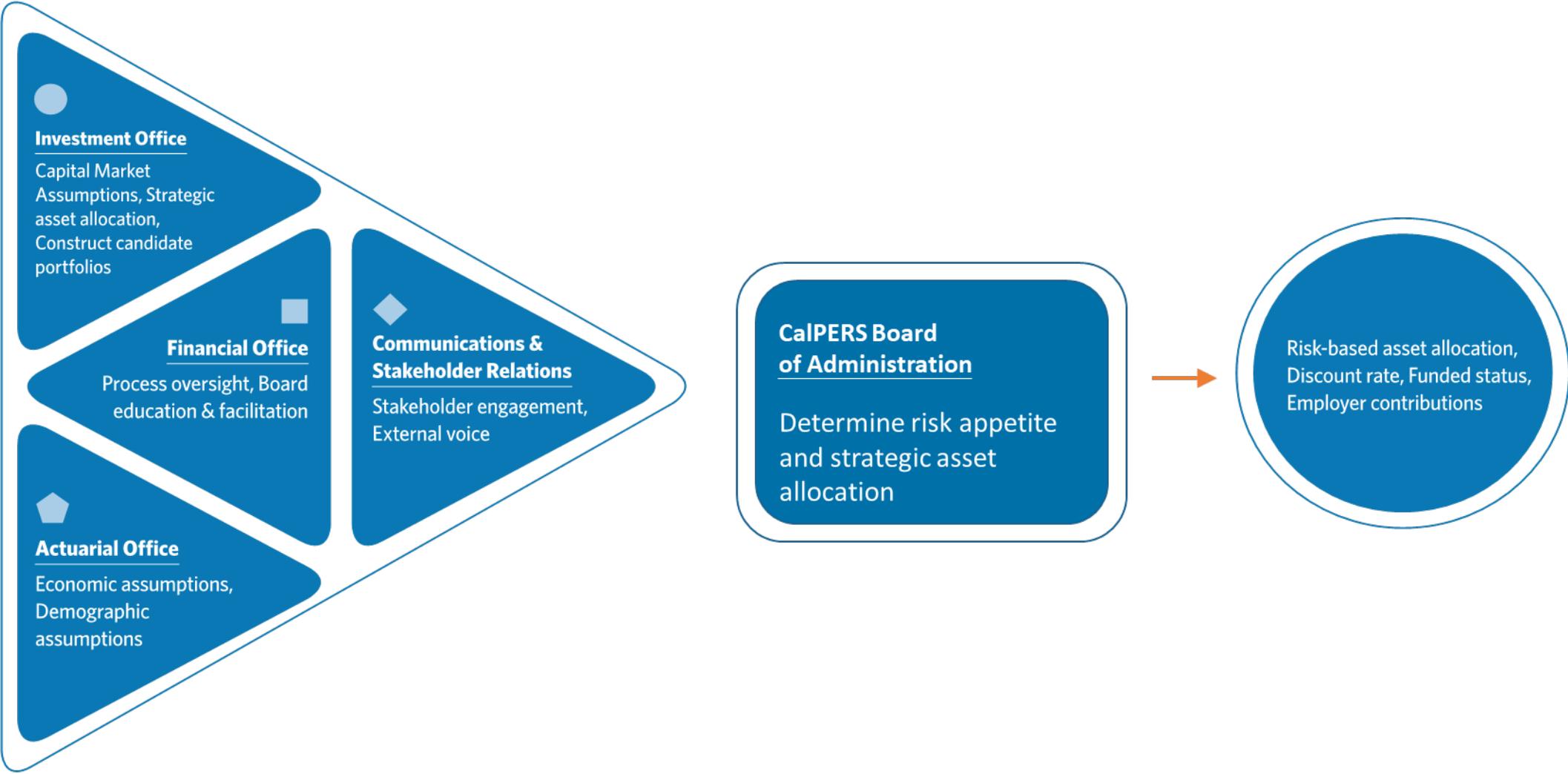
Key concepts
and decisions
being weighed

Future

Timeline for
implementation

Past

Key Functions within the ALM Process

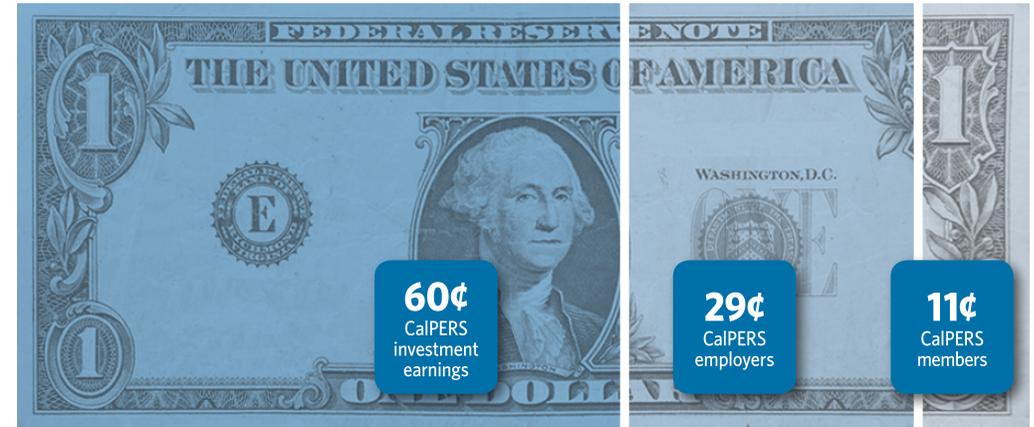
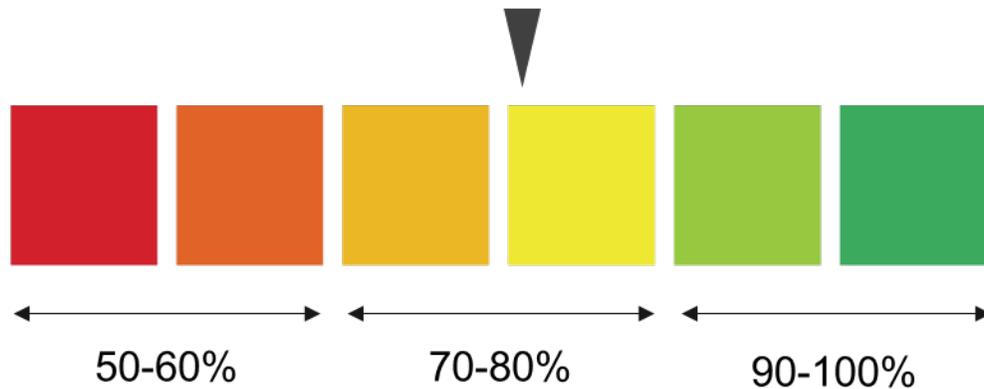


Fiscal Year Financial Status *(as of 6/30/21)*

\$469 Billion in Assets
(from \$389B)

21.3% net return on investments
(from 4.7%)

82% funded status *(from 71%)*



Preliminary

What's Happened So Far

- 2020-21 Fiscal Year returns 21.3%
- Funding Risk Mitigation Policy triggered
- Discount rate lowered to 6.8%
- Capital Market Assumptions adopted
- First reading of Experience study
- Candidate portfolios with discount rates from 6.2% to 7.0% reviewed by the Board
- Focus narrowed to portfolios with 6.5%, 6.8% and 7.0% discount rates for November review
- Use of leverage and multi-period optimization undecided

Funding Risk Mitigation Policy Triggered



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%

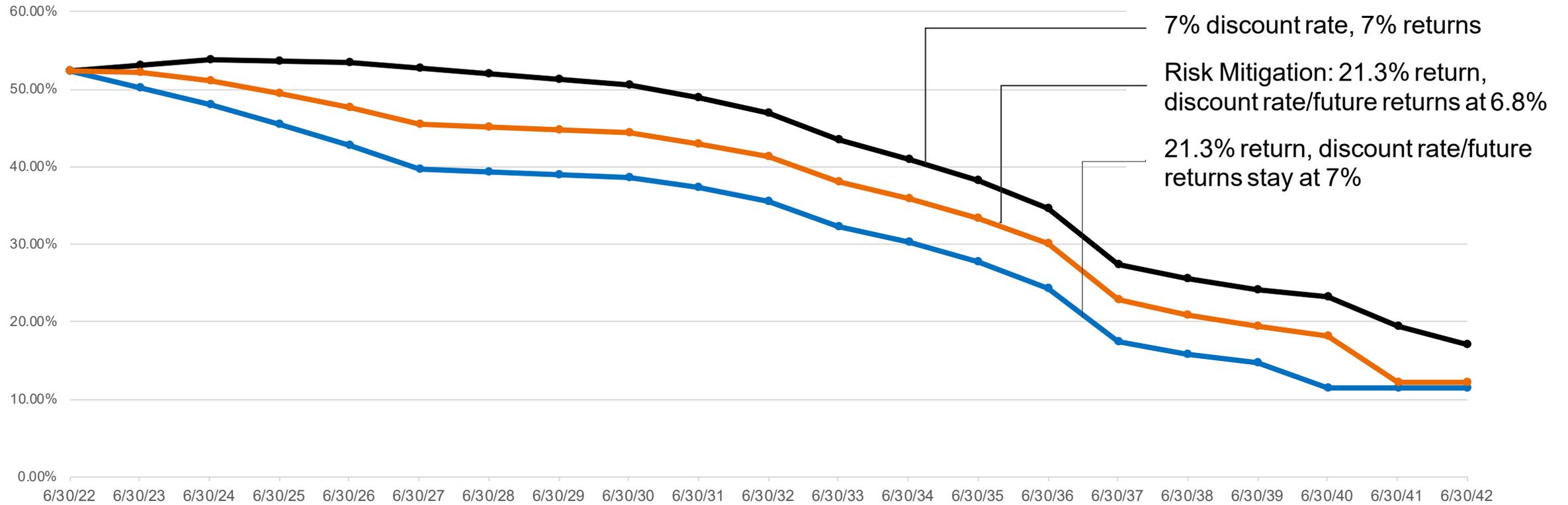
6.80%

6.75%

From Risk Mitigation Policy triggering

Risk Mitigation Policy: Reduces Employer Rates, Reduces Long-Term Risk

Sample Safety Plan

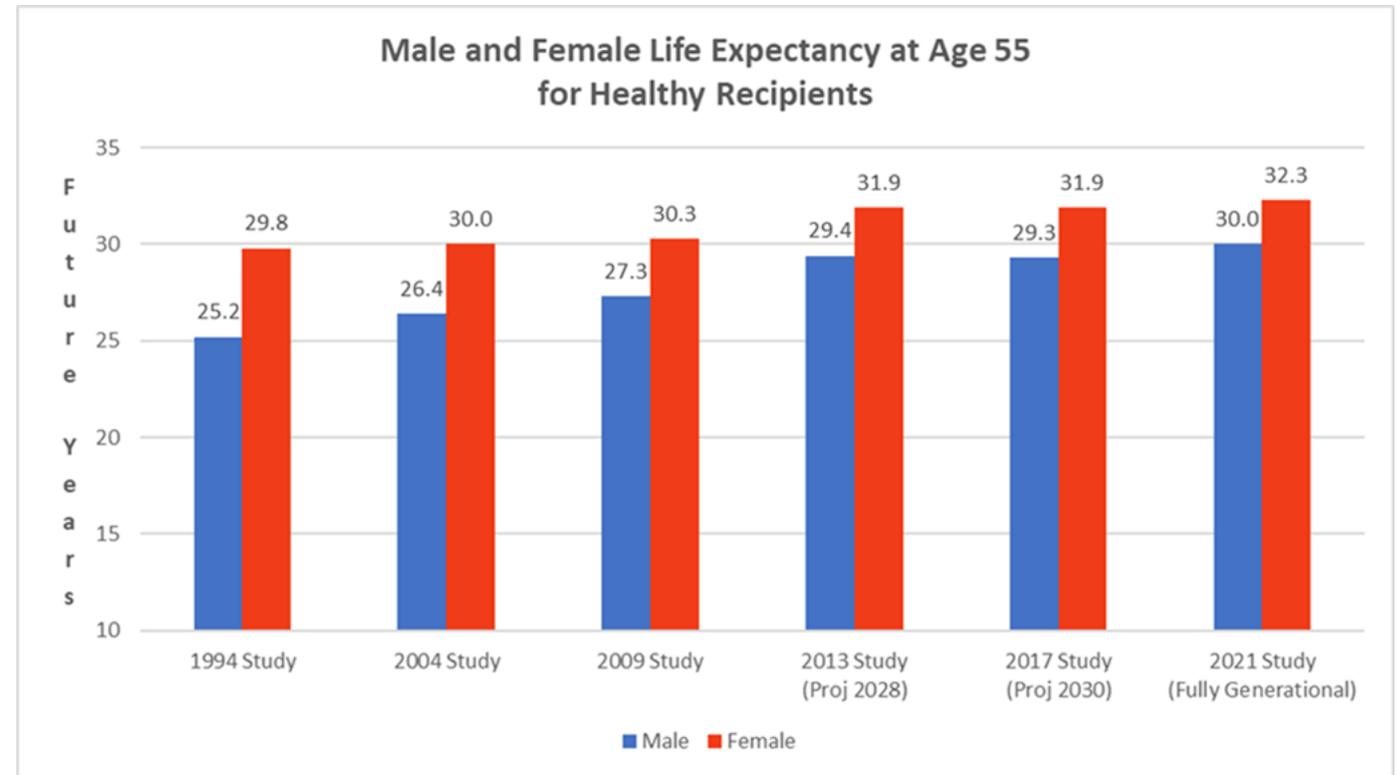


Capital Market Assumptions: Survey Results

	Survey Parameter	2017 ALM	2020 Mid-Cycle ALM Survey Median Value 03/31/20	2021 Second ALM Survey Median Value 03/31/21
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

Experience Study Results

- Most recommended assumption changes have modest impact to employer and member contributions
- Recommended changes for assumed pay increases may have a more significant impact for some safety groups



Present

Keeping Current Asset Allocation Would Require a Much Lower Discount Rate

Discount rate: 6.2%, Projected Return: 6.2%

Time Horizon	Projected Return	Drawdown Risk	Volatility
20 Years	6.2%	22.6%	11.2%
Near-term	5.2%	23.6%	10.9%
Long-term	6.6%	22.3%	11.3%

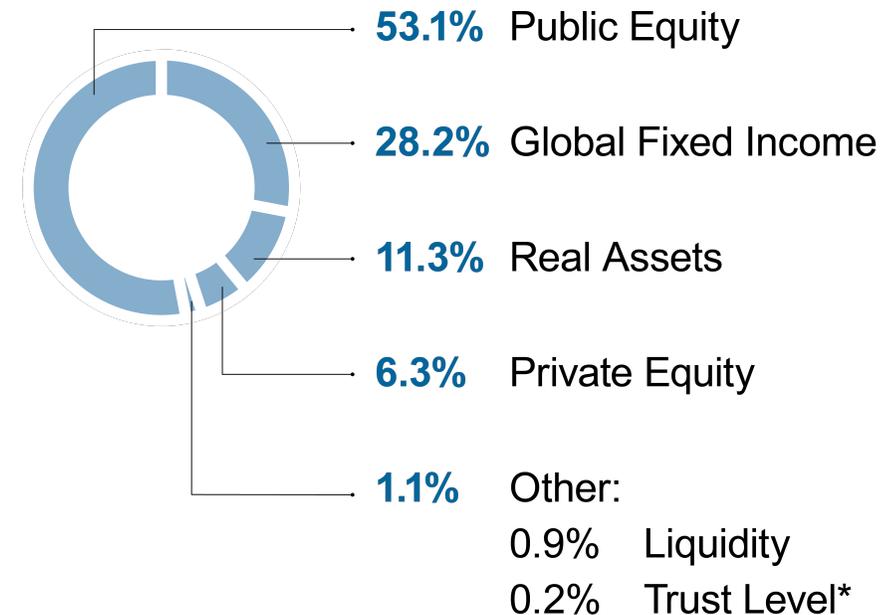
In comparison to other candidate portfolios:

Pros

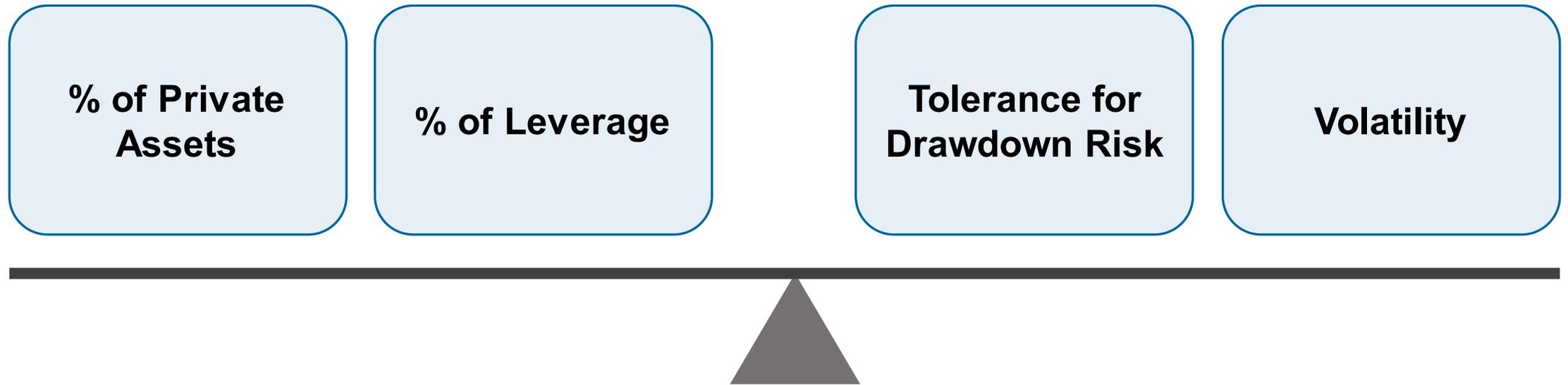
- No changes, no added complexity
- No policy changes required

Cons

- Lowest return for similar risk levels
- Lower projected returns in near-term horizon
- Lower diversification
- Higher projected contributions



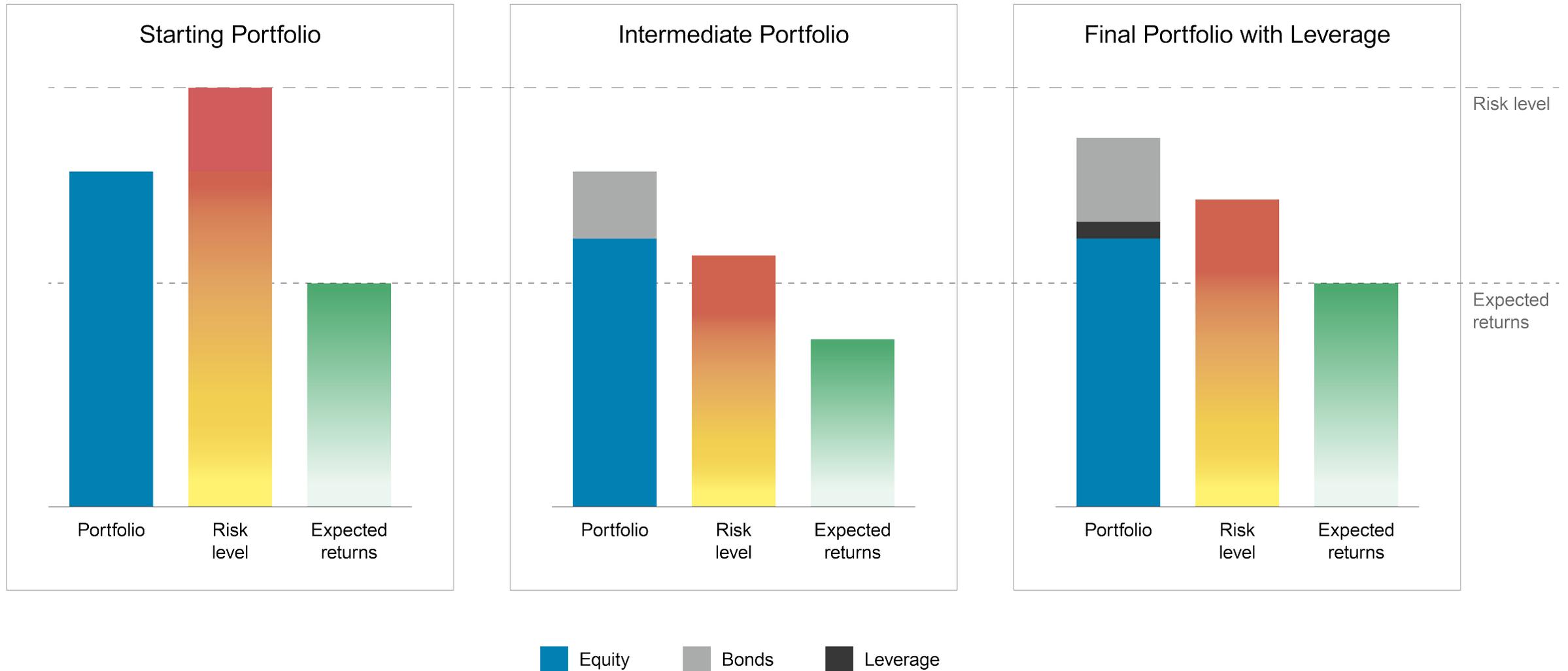
Balancing Risk & Reward



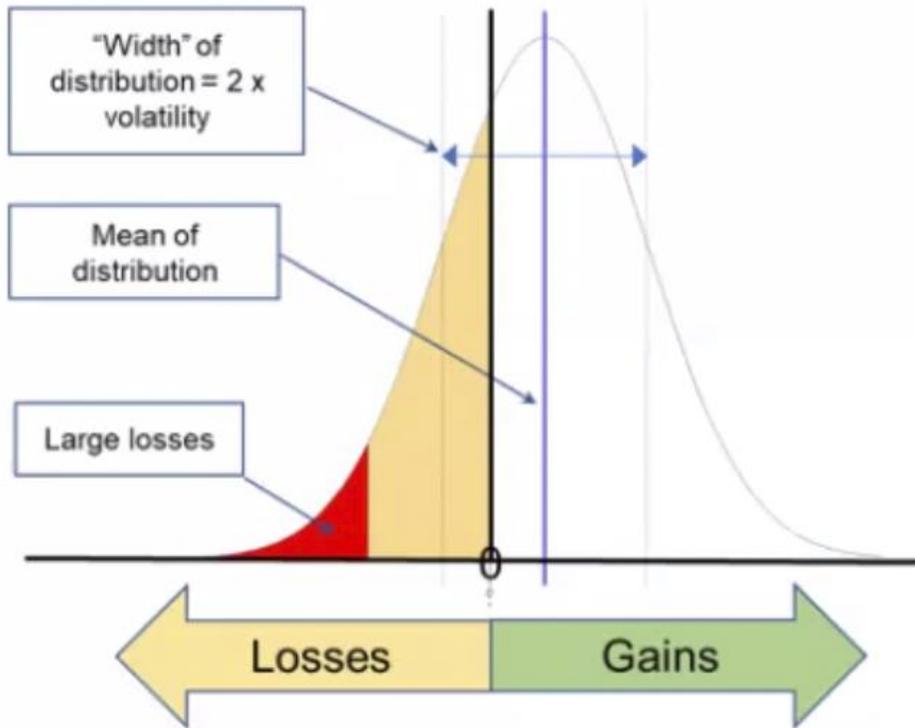
Private Assets

- Includes private debt, private equity, and real estate
- Private equity has been the highest returning asset class in last twenty years – 10.1%
- Diversifier from standard equity and fixed income
- Most fully funded pension systems utilize private assets as a key strategic allocation
- Currently 8% allocated in private equity
- Moving forward with co-investments

Leverage as Diversifier: Hypothetical Portfolio Construction



Drawdown Risk & Volatility



- Drawdown definition — the average of the worst three rolling years of losses
- Calculated using thousands of market simulations
- Investment volatility impacts somewhat ameliorated by 5 year ramp of investment gains and losses
- **Poor returns** vs **good returns**

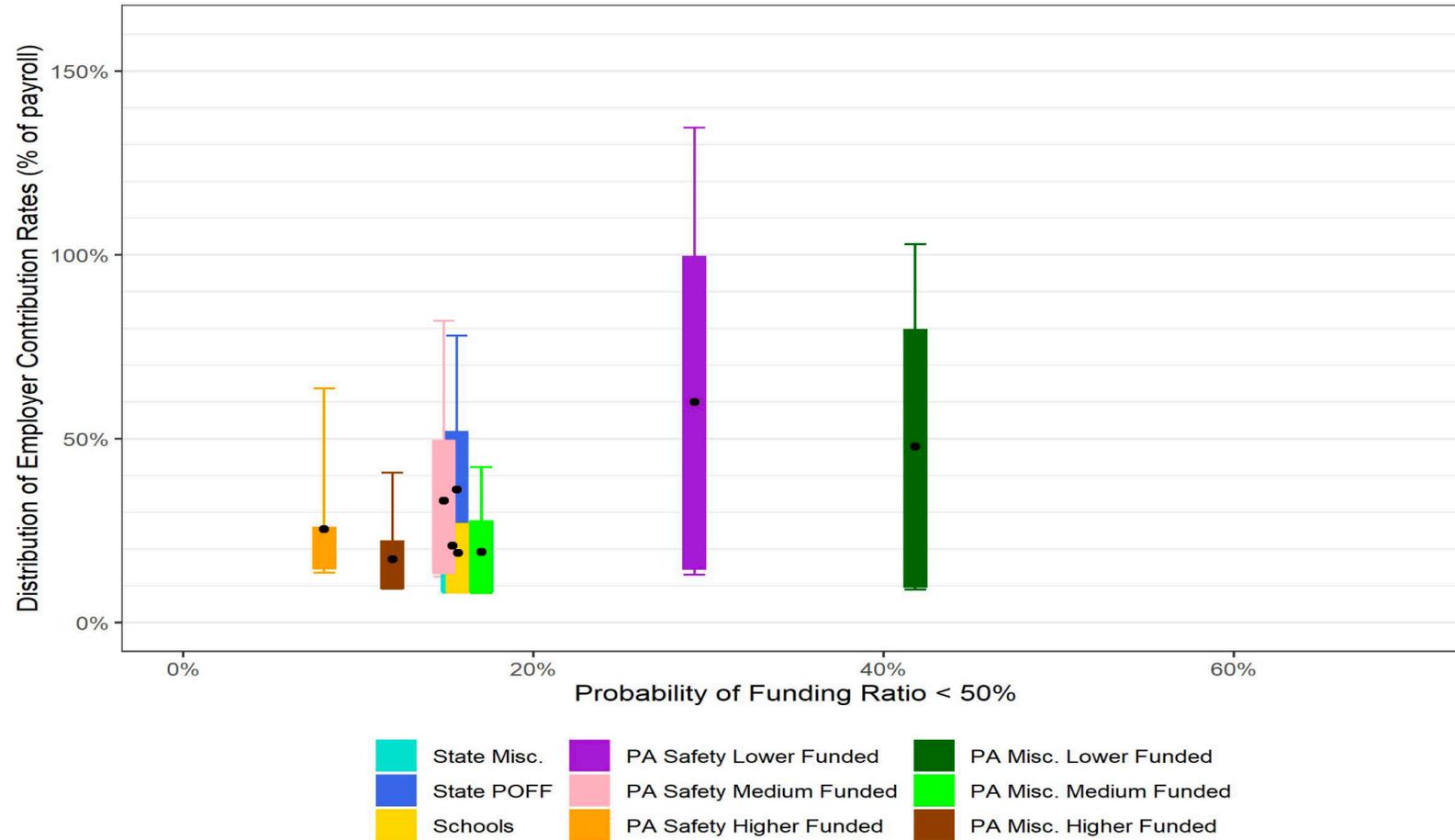
Future

Candidate Portfolios Coming to Board in November

Portfolio Characteristics			Years 1-20		
Name	Discount Rate	Leverage Limit	Return	Drawdown	Volatility
Current	6.2	-	6.2	22.6	11.2
A1	6.5	-			
A2	6.5	5.0		Under construction	
B1	6.8	-	6.8	23.6	12.1
B2	6.8	5.0	6.8	23.0	12.0
C1	7.0	5.0	7.0	25.5	12.9

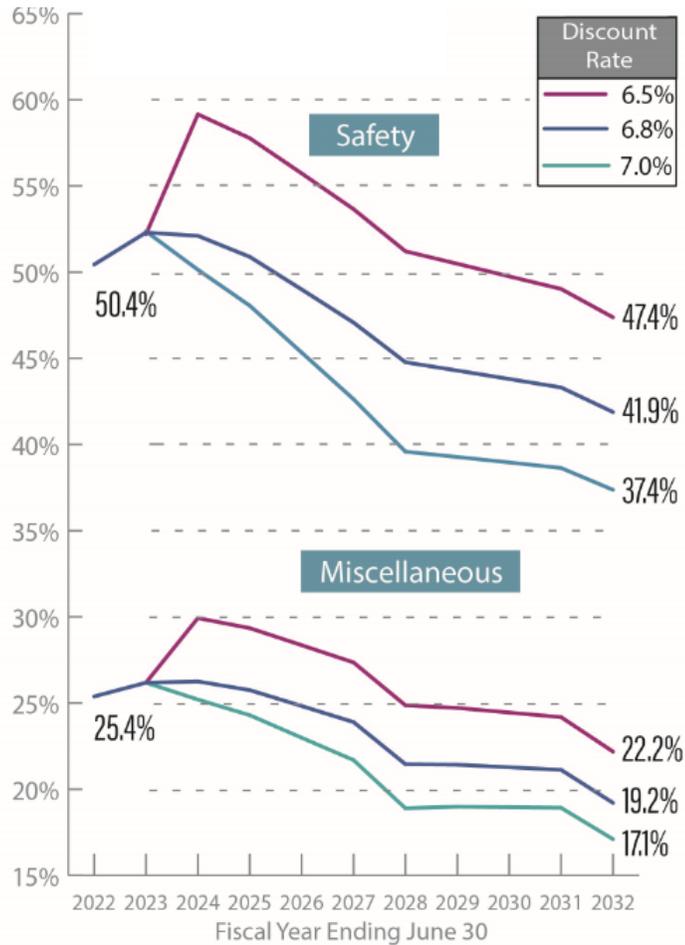
Volatility: A Sample of Outcomes for Various Plan

Projected Employer Contribution Rates vs Probability of Funding Ratio Falling Below 50%

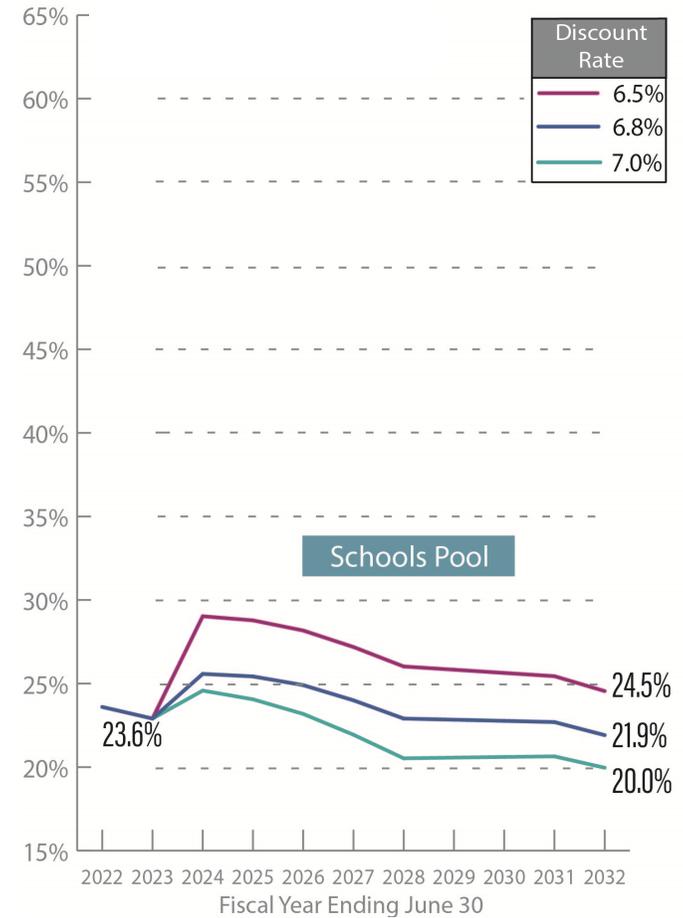


Projections Over the Next 10 Years

Sample Public Agency Safety and Misc. Plans

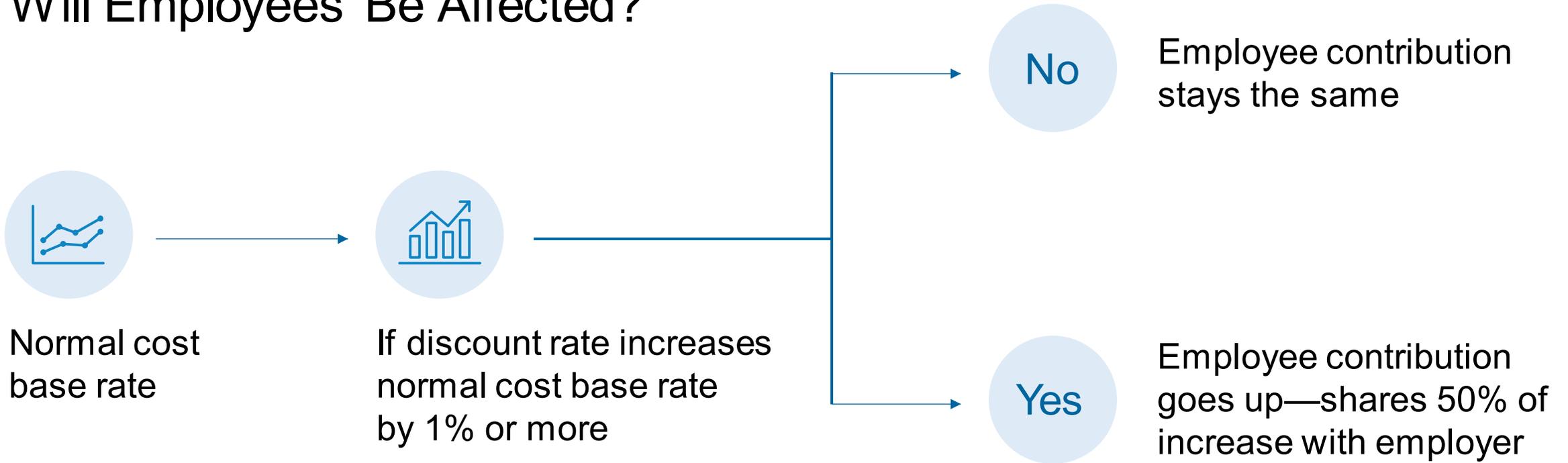


Schools Pool

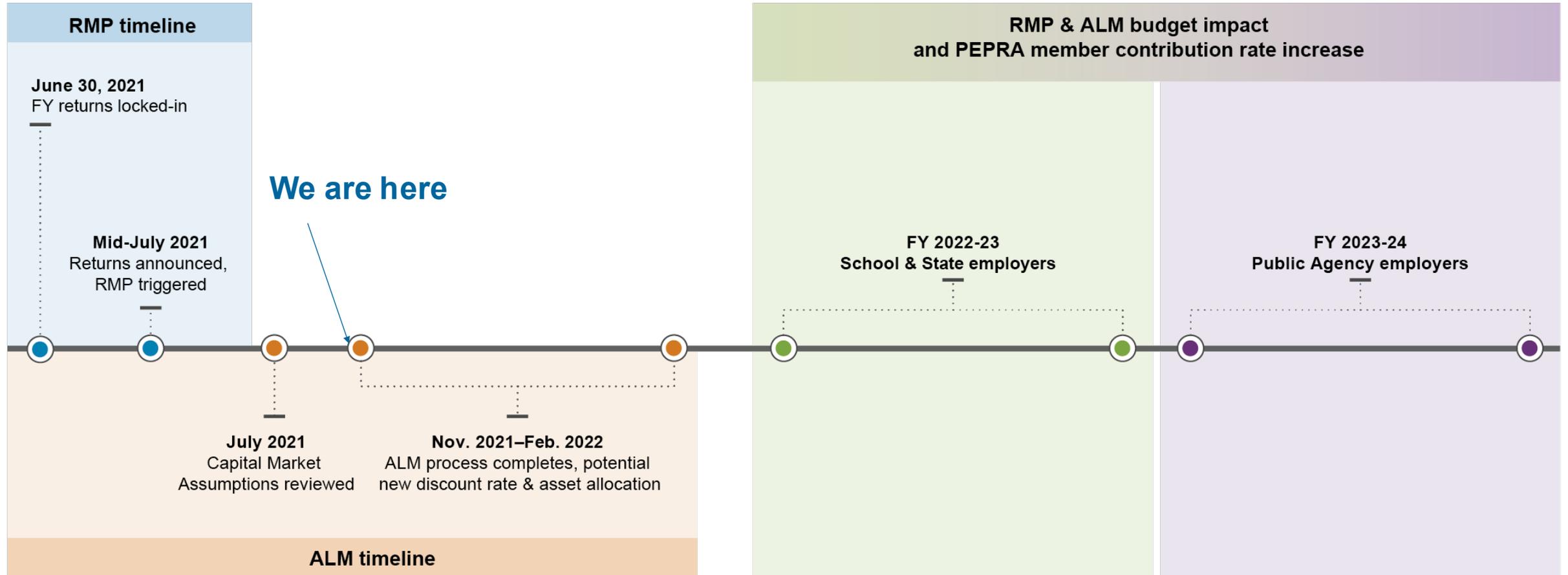


Potential Impact to PEPRA Contribution Rates

Will Employees Be Affected?



Implementation

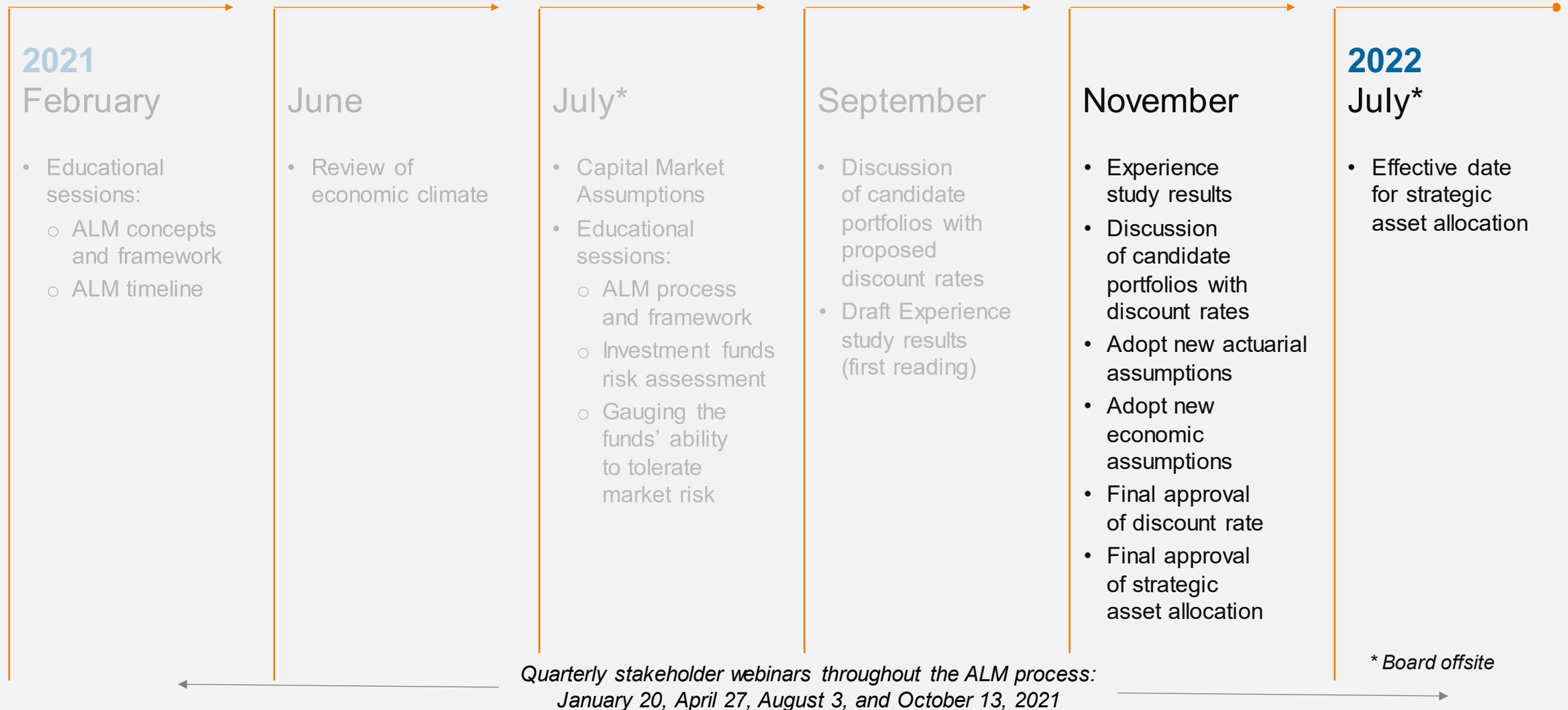


Potential PEPRA Rate Increases

Keys to Remember

- All employees hired January 1, 2013 and after
- Employees pay 50% of the Normal Cost, with 1% increase threshold
- Some variation for certain State bargaining groups
- New MOUs cannot lower 50% cost-share, but can increase it
- Further communication coming when ALM completed
- Contact CalPERS for your plans' specifics

Where We Are In the ALM Process





We Serve CA

