2021 CalPERS Update

Finance Committee

November 4, 2021

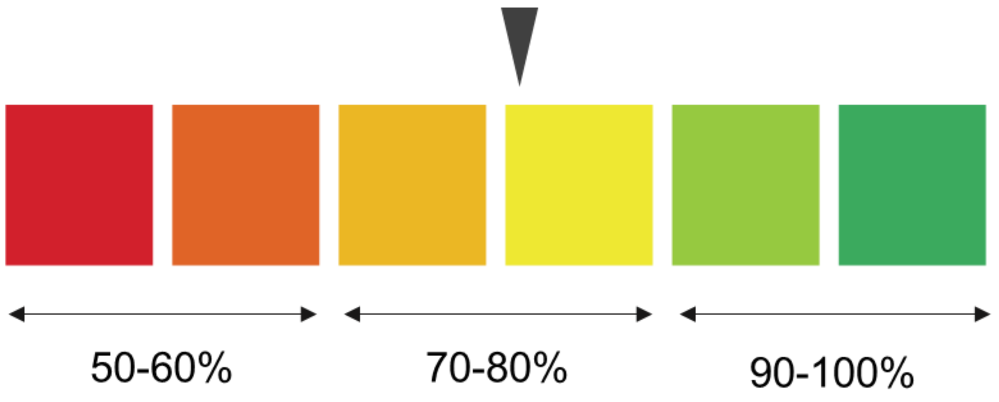
Recent and Current CalPERS News

CalPERS Fiscal Status

$469 billion in assets
(up from $389b in prior year)

21.3% net return on investments
(4.7% in prior year)

82% funded status *(from 71%)*



Preliminary

Source: CalPERS

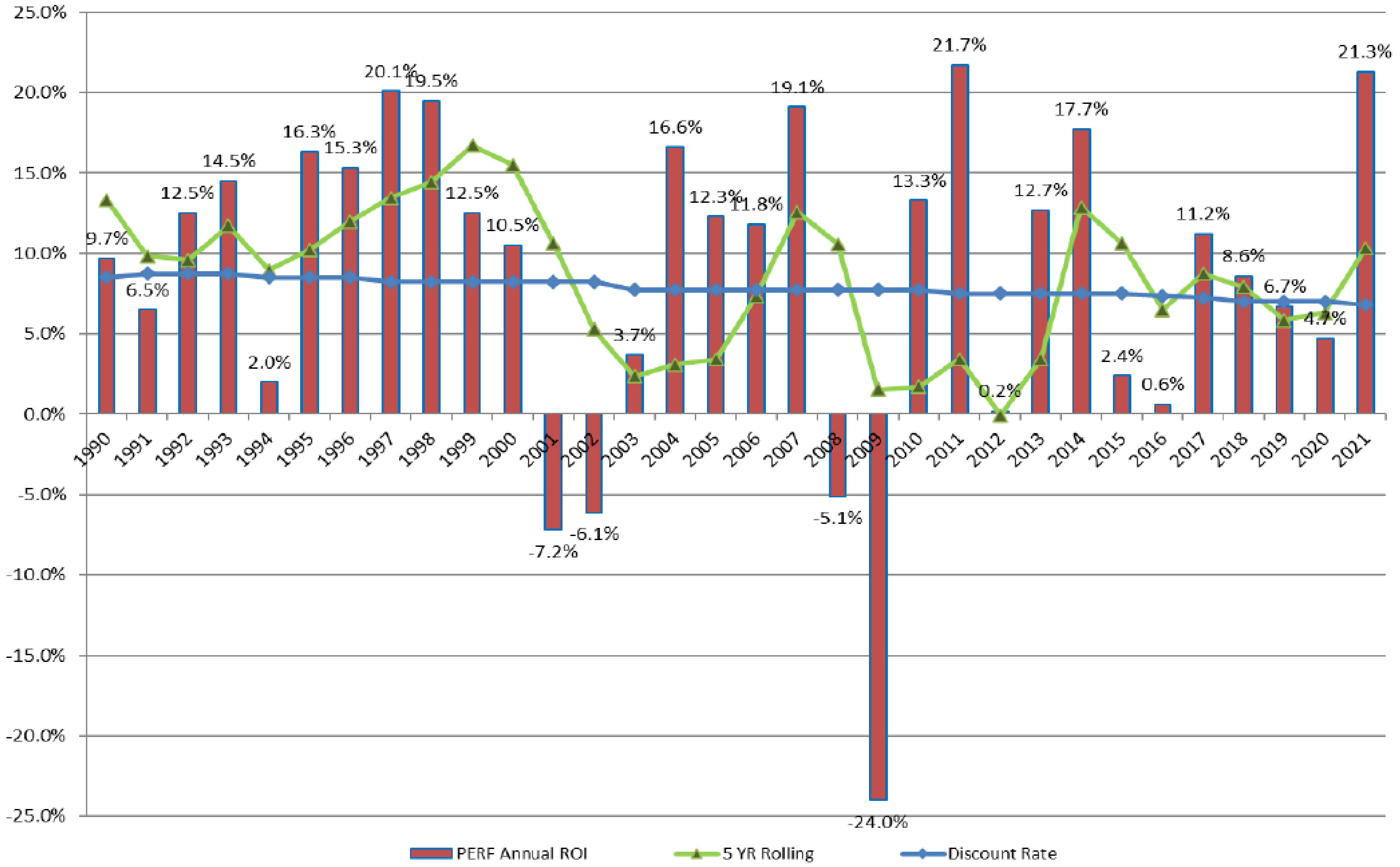
June 30, 2021, CalPERS Portfolio Composition

	Ending Asset Value (bil)[1]	Current Allocation (%)	Policy Target Weight (%)	Policy Variance (%)	Policy Range
Public Equity	**$ 242.2**	**51.4%**	**50.0%**	**1.4%**	± 7%
Private Equity	**$ 38.9**	**8.3%**	**8.0%**	**0.3%**	± 4%
Income	**$ 140.4**	**29.8%**	**28.0%**	**1.8%**	± 6%
Real Assets	**$ 45.3**	**9.6%**	**13.0%**	**(3.4%)**	± 5%
Total Fund	**$ 11.9**	**2.5%**			
Opportunistic	$ 2.1	0.4%			
LLER	$ 9.5	2.0%			
Other	$ 0.2	0.0%			
Financing & Liquidity	**$ (7.8)**	**(1.6%)**			
Trust Level Financing	$ (12.6)	(2.7%)			
Liquidity	$ 4.8	1.0%	1.0%	0.0%	-6% to +3%
Total PERF	**$ 470.8**	**100.0%**	**100.0%**		

Performance Summary	Ending Asset Value (bil)[1]	1-Yr Total Return	1-Yr BM Return	1-Yr Excess Bps
Public Equity	**$ 242.2**	**36.3%**	**36.0%**	**31**
Cap Wtd.	$ 171.7	42.0%	41.6%	46
Factor Wtd.	$ 70.5	22.6%	22.6%	(2)
Private Equity	**$ 38.9**	**43.8%**	**61.1%**	**(1,730)**
Income	**$ 140.4**	**(0.1%)**	**(0.8%)**	**64**
Long Spread	$ 70.9	3.2%	2.6%	61
Long Treasury	$ 48.3	(8.5%)	(8.7%)	13
Total Fund Income	$ 7.1	-	-	-
High Yield	$ 14.2	13.7%	13.4%	28
Real Assets	**$ 45.3**	**2.6%**	**1.3%**	**128**
Total Fund	**$ 11.9**			
Opportunistic	$ 2.1	13.1%	7.0%	609
LLER	$ 9.5	4.0%	0.1%	395
Other	$ 0.2	-	-	-
Financing & Liquidity	**$ (7.8)**			
Trust Level Financing	$ (12.6)	-	-	-
Liquidity	$ 4.8	0.1%	0.1%	6
Total PERF	**$ 470.8**	**21.3%**	**21.7%**	**(42)**

Source: CalPERS

CalPERS Historical Investment Returns



Source: CalPERS

CalPERS Funding Risk Mitigation Policy

- Uses a portion of unexpected gains to de-risk the portfolio

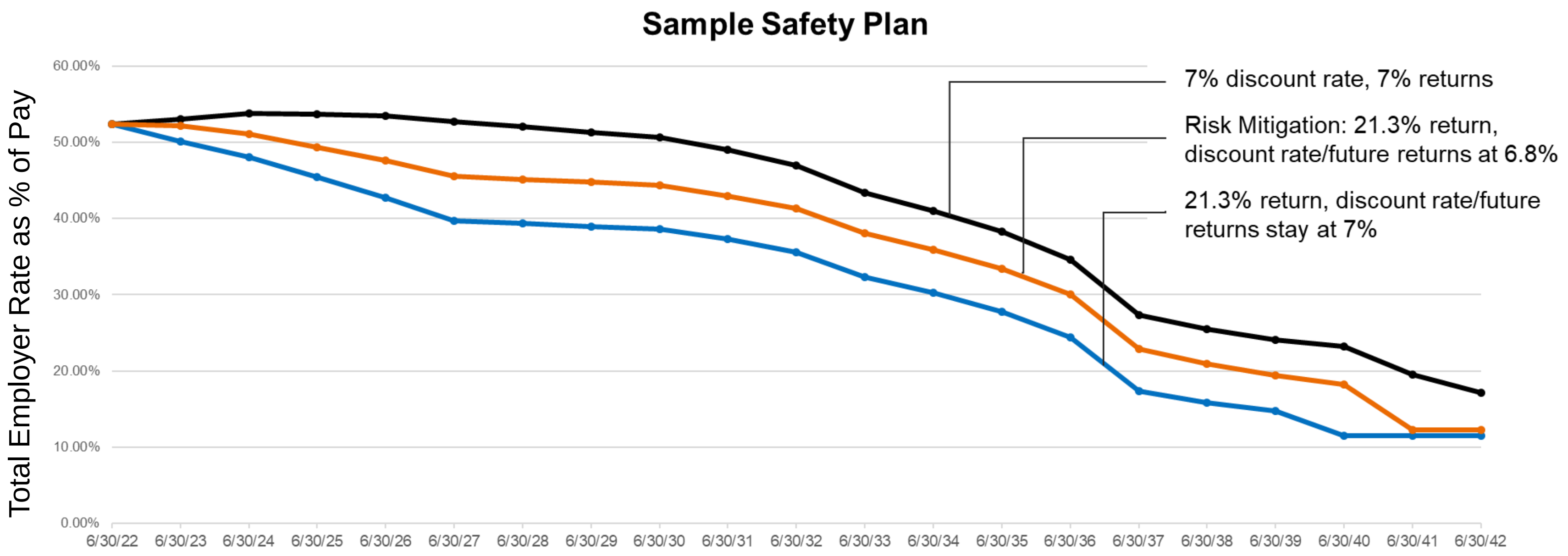
If investment returns outperform discount rate by:	**then** resulting discount rate will be:
+2 pp → 9%	6.95%
+7 pp → 14%	6.90%
+10 pp → 17%	6.85%
+13 pp → 20%	6.80%
+17 pp → 24%	6.75%

6.8% Discount Rate Triggered at 6/30/2021

Source: CalPERS

CalPERS Funding Risk Mitigation Policy

- Results in higher long-term rates than would otherwise be the case
  - Rate increase phased in with five-year ramp
  - Theoretically decreases the size of deviations from the expected investment return



Source: CalPERS

Ongoing Discussion of Discount Rate Change

- Asset Liability Management (ALM) process underway with implementation in July 2022
  - Reviewed every four years by the CalPERS staff and Board
- Current asset mix has a projected return of only 6.2% over the next 20 years
  - Asset mix change required to avoid a discount rate decrease to match expected return
- Candidate portfolios recently reviewed by the CalPERS Board with a narrowed focus now on returns (and discount rates) of 6.5%, 6.8%, and 7.0%
- Additional CalPERS staff recommendations on the table
  - Use of leverage to increase the returns
  - Increased allocation to private equity

Latest Experience Study

- Updates demographic assumptions used in the actuarial valuations
  - Impact of changes amortized over 20 years
  - Effective in FY 2023-24 rates

Plan Type	Accrued Liability *	Normal Cost *
Miscellaneous	- 0.25%	+ 2.93%
Safety	+ 0.32%	+ 3.86%

* As a percentage of the total accrued liability or normal cost, not a percentage of payroll.

Source: CalPERS

Split Fund Employer Option

- Preliminary discussions regarding options to de-risk well-funded pension plans within the larger CalPERS investment portfolio
  - CalPERS exploring whether and how to provide options
  - Could be similar to (but with less risk than) their current tiered investment options for the CEPPT and CERBT programs

CERBT Investment Options	Strategy 1	Strategy 2	Strategy 3
Expected Return	7.6%	7.0%	6.2%
Standard Deviation of Expected Return	11.8%	9.2%	7.3%

CERBT Asset Classes	Strategy 1	Strategy 2	Strategy 3
Global Equity	59%	40%	22%
Fixed Income	25%	43%	49%
Treasury Inflation-Protected Securities	5%	5%	16%
Real Estate	8%	8%	8%
Commodities	3%	4%	5%

Normal Cost Update

Expected Changes to the Normal Cost

- The normal cost is the annual cost of providing the incremental pension benefit earned during that year
- The normal cost will likely increase in the next several years due to:
  - Discount rate reduction
  - Experience study results
- Increases expected to be small and manageable
- PEPRA employees share equally in any increase that exceeds a 1% of pay threshold versus the baseline year

Average Normal Cost Trending Down due to PEPRA

- Classic members pay a fixed 8% or 7% of pay for the Miscellaneous Plan and 9% of pay for the Safety Plan toward the normal cost with the City paying the balance
- PEPRA members share equally in the payment of the normal cost at 6.5% for the Miscellaneous Plan and 11.5% for the Safety Plan
- The blended normal cost is trending downward over time as the number of PEPRA employees increases

Miscellaneous

	FY 2021-22	FY 2022-23
Total Normal Cost	17.4%	17.1%
Employee Share	7.5%	7.5%
Employer Share	9.8%	9.6%
Tier 1 (2.5% @ 55)	18.6%	**18.4%**
Tier 2 (2.0% & 60)	18.7%	18.7%
Tier 3 (2.0% & 62)	13.3%	**13.7%**

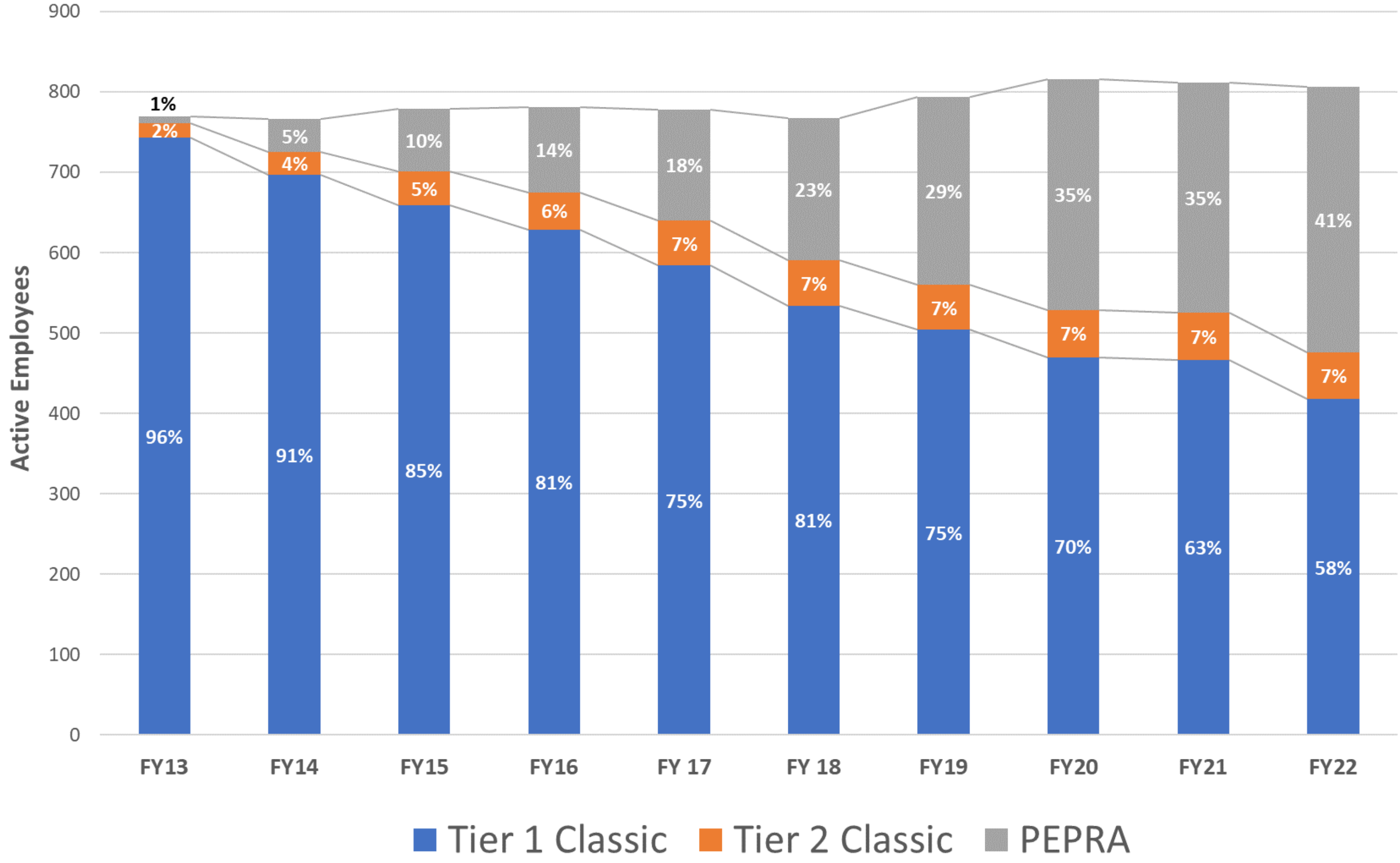
4.7% difference

Safety

	FY 2021-22	FY 2022-23
Total Normal Cost	29.1%	28.9%
Employee Share	9.3%	9.5%
Employer Share	19.7%	19.4%
Tier 1 (3.0% @ 50)	27.5% - 32.6%	**27.5% - 33.6%**
Tier 2 (2.0% @ 50)	22.8% - 31.1%	23.1% - 31.2%
Tier 3 (2.7% @ 57)	22.9%	**23.1%**

Up to 10.5% difference

Turnover of Employees into Tiers 2 and 3



Unfunded Liability Update

June 30, 2020, Valuation Reports

- The City receives separate valuation reports for the miscellaneous and safety plans
- 2020 valuation reports are dated August 2021 and set the contribution rates for FY 2022-23
  - Good or bad news has a two-year lag before being reflected in contribution rates

June 30, 2020, Valuation Reports

- FY 2019-20 investment return was 4.7%, underperforming the 7.0% target
- Funded ratios still increased for both plans
- Total unfunded liability increased from $326.3 million to $333.0 million, while the total funded percentage increased from 68.7% to 69.2%

Miscellaneous

	June 30, 2019	June 30, 2020
Accrued Liability	$ 442,487,002	$ 460,751,764
Market Value of Assets	$ 322,688,377	$ 336,126,374
Unfunded Liability	$ 119,798,625	$ 124,625,390
Funded Ratio	72.9 %	73.0 %

Safety

	June 30, 2019	June 30, 2020
Accrued Liability	$ 601,593,299	$ 620,832,794
Market Value of Assets	$ 395,102,063	$ 412,411,927
Unfunded Liability	$ 206,491,236	$ 208,420,867
Funded Ratio	65.7 %	66.4 %

June 30, 2020, Valuation Reports

- The City implemented fresh starts in 2013 and 2018 with 20-year amortizations
- Recent changes to CalPERS actuarial methods shortened the amortization period for new bases to 20 years and eliminated much of the ramping
- Staff target discretionary payments to the most advantageous amortization base each year

Miscellaneous

	Date	Amount
Fresh Start	6/30/2013	$ 111,210,773
Fresh Start	6/30/2018	2,125,310
Actuarial (Gain) / Loss	6/30/2019	62,834
Investment (Gain) / Loss	6/30/2019	1,759,102
Actuarial (Gain) / Loss	6/30/2020	1,505,554
Investment (Gain) / Loss	6/30/2020	7,961,817

Safety

	Date	Amount
Fresh Start	6/30/2013	$ 185,660,978
Fresh Start	6/30/2018	10,174,621
Actuarial (Gain) / Loss	6/30/2019	524,536
Investment (Gain) / Loss	6/30/2019	2,254,003
Actuarial (Gain) / Loss	6/30/2020	(1,809)
Investment (Gain) / Loss	6/30/2020	9,808,538

Comparison to Other Orange County Employers

- The funded percentage for every non-pooled plan in the County other than Newport Beach and Irvine decreased

- Irvine suspended their discretionary payments due to the COVID-19 pandemic

Agency	June 30, 2019, Valuation		June 30, 2020, Valuation		Change		
	UAL	Funded %	UAL	Funded %	UAL $	UAL %	Funded %
City of Anaheim	839,881,082	70.2%	884,308,082	69.6%	44,427,000	5.3%	-0.6%
City of Brea *	41,152,907	73.0%	44,240,756	72.0%	3,087,849	7.5%	-1.0%
City of Buena Park *	43,141,214	70.8%	45,947,839	69.8%	2,806,625	6.5%	-1.0%
City of Costa Mesa	233,351,350	62.1%	242,275,493	61.7%	8,924,143	3.8%	-0.3%
City of Cypress *	22,702,629	73.8%	24,660,070	72.3%	1,957,441	8.6%	-1.5%
City of Fullerton	266,580,939	67.8%	282,857,335	66.6%	16,276,396	6.1%	-1.2%
City of Garden Grove	309,333,035	65.8%	329,315,311	64.7%	19,982,276	6.5%	-1.1%
City of Huntington Beach	435,994,236	68.6%	454,929,864	68.2%	18,935,628	4.3%	-0.4%
City of Irvine	158,377,077	79.0%	162,599,460	79.4%	4,222,383	2.7%	0.4%
City of La Habra *	31,582,979	74.7%	33,462,226	74.1%	1,879,247	6.0%	-0.6%
City of Laguna Beach *	30,395,977	75.8%	31,849,617	75.5%	1,453,640	4.8%	-0.3%
City of Mission Viejo *	22,081,104	76.9%	23,921,524	76.3%	1,840,420	8.3%	-0.6%
City of Newport Beach	326,289,861	68.7%	333,046,257	69.2%	6,756,396	2.1%	0.5%
City of Orange	288,404,662	69.3%	311,646,198	68.1%	23,241,536	8.1%	-1.2%
City of Santa Ana	706,905,205	67.0%	764,634,849	65.5%	57,729,644	8.2%	-1.4%
City of Tustin *	29,008,653	77.3%	31,572,384	76.7%	2,563,731	8.8%	-0.6%
City of Westminster *	46,144,970	67.6%	48,114,638	67.1%	1,969,668	4.3%	-0.5%
City of Yorba Linda *	23,179,394	70.5%	24,520,033	70.2%	1,340,639	5.8%	-0.3%
Irvine Ranch Water District *	75,343,820	74.7%	83,052,928	73.6%	7,709,108	10.2%	-1.1%
Santa Margarita Water District *	35,335,129	67.8%	37,650,157	67.3%	2,315,028	6.6%	-0.5%

* Miscellaneous Only

Subsequent Events

- 21.3% return and risk mitigation policy discount rate change will be reflected in the June 30, 2021, valuation reports to be received in August 2022
  - But investment earnings can be volatile
  - Employer rates must fill the gap
- ALM process with impact to investment portfolio in FY 2022-23
- Experience Study with impact to FY 2023-24 contribution rates

Orange County CalPERS Plans Funded Status

	Actual **6.30.20**	Projected **6.30.21**
Misc. Pooled	85.2%	96.0%
Safety Pooled	80.3%	91.0%
Misc. Non-Pooled	73.2%	87.1%
Safety Non-Pooled	66.2%	81.9%

Source: CalPERS

Current Unfunded Liability Paydown Strategy

- In November 2019, the Finance Committee endorsed staff's recommendation to anticipate a future drop in the discount rate
  - $35 million base contribution to the unfunded liability to remain in place as part of the baseline budget
  - Additional $5 million per year contribution to be added for five years with a $2 million per year contribution thereafter
- The Council endorsed this strategy for the FY 2020-21 budget, with a plan to revisit the plan's adequacy and the approach each year

Roll-Forward of Valuations to June 30, 2021

- The City's unfunded liability has not changed much in the last three years due to the ongoing actuarial changes and investment losses and in spite of the discretionary payments
  - Phased discount rate reduction from 7.5% to 7.0%
  - Two years below the target return
- The 21.3% investment return in FY 2020-21 has significantly reduced the City's liability, even with the discount rate reduction to 6.8%

	June 30, 2018	June 30, 2019	June 30, 2020	June 30, 2021 *
Unfunded Liability	$ 333,135,247	$ 326,289,861	$ 333,046,257	$ 234,909,163
Funded Percentage	66.9 %	68.7 %	69.2 %	79.5 %
Investment Return	8.6 %	6.7 %	4.7 %	21.3 %

* Projected

Projections for the Future

- Using CalPERS' Pension Outlook modeling capabilities staff modeled the future impact of continuing the current payment strategy
  - The strong FY 2020-21 investment earnings have given the City a considerable projected head start on paying down the liability
  - Current projection shows the liability eliminated in FY 2029-30

	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Planned Payment	$ 40,000,000	$ 35,000,000	$ 35,000,000	$ 35,000,000	$ 35,000,000	$ 35,000,000	$ 35,000,000	$ 35,000,000	$ 23,823,175
Beginning Unfunded Liability	$ 234,909,163	$ 209,706,310	$ 188,741,985	$ 165,406,009	$ 140,483,189	$ 113,865,616	$ 85,438,047	$ 55,077,405	$ 22,652,238
Beginning Funded Percentage	79.5 %	82.3 %	84.6 %	86.9 %	89.2 %	91.6 %	93.9 %	96.2 %	98.5 %
Investment Return	7.0 %	6.8 %	6.8 %	6.8 %	6.8 %	6.8 %	6.8 %	6.8 %	6.8 %

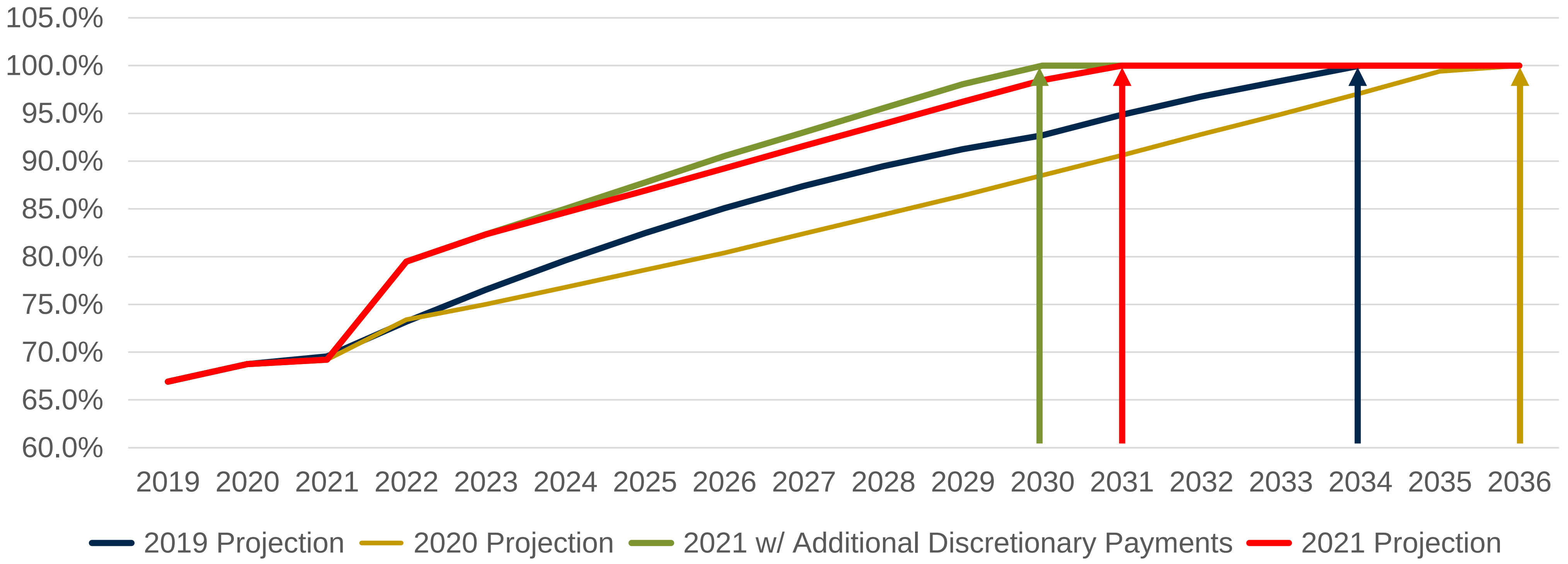
Projections for the Future

- Continuing with the current plan to pay an additional $5.0 / $2.0 million per year, the liability is projected to be eliminated a year sooner in FY 2028-29
  - Total baseline payments of $268.8 million from FY 2022-23 until paid
  - Additional contributions reduce the total payments to $260.8 million

	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Planned Payment	$ 40,000,000	$ 40,000,000	$ 40,000,000	$ 40,000,000	$ 37,000,000	$ 37,000,000	$ 37,000,000	$ 29,823,538	$ -0-
Beginning Unfunded Liability	$ 234,909,163	$ 209,706,310	$ 183,574,780	$ 154,720,230	$ 123,903,572	$ 94,091,703	$ 62,252,628	$ 28,248,495	$ -0-
Beginning Funded Percentage	79.5 %	82.3 %	85.0 %	87.8 %	90.5 %	93.0 %	95.5 %	98.1 %	100.0 %
Investment Return	7.0 %	6.8 %	6.8 %	6.8 %	6.8 %	6.8 %	6.8 %	6.8 %	6.8 %

Impact of Investment Return and Additional Payments

- As can be seen in the chart, projections change from year to year
- In 2019, staff projected that the liability would be eliminated in 2034, the projected date slipped to 2036 in 2020, and now the date has been reduced to 2030



Caution for the Future

- While FY 2020-21 was a very good year for CalPERS, we do not know what the future holds
  - Possibility of further discount rate reductions
  - Possibility of another recession or investment earnings shortfall
- Still, the City is in a very good position relative to most peer agencies with flexibility for continuing to address the unfunded liability in the future

Summary

- Staff recommend continuing with the ADP strategy recommended in 2019
- This disciplined approach to the accelerated paydown of the City's unfunded liability is expected to:
    - Paydown the current liability in FY 2028-29
    - Reduce long-term pension costs
- Consider a new "fresh start" after the ALM process concludes
- Monitor future CalPERS investment returns and respond accordingly

Questions?