

San José Police & Fire Department Retirement Plan



Pension Economic Assumptions Review

October 2, 2025

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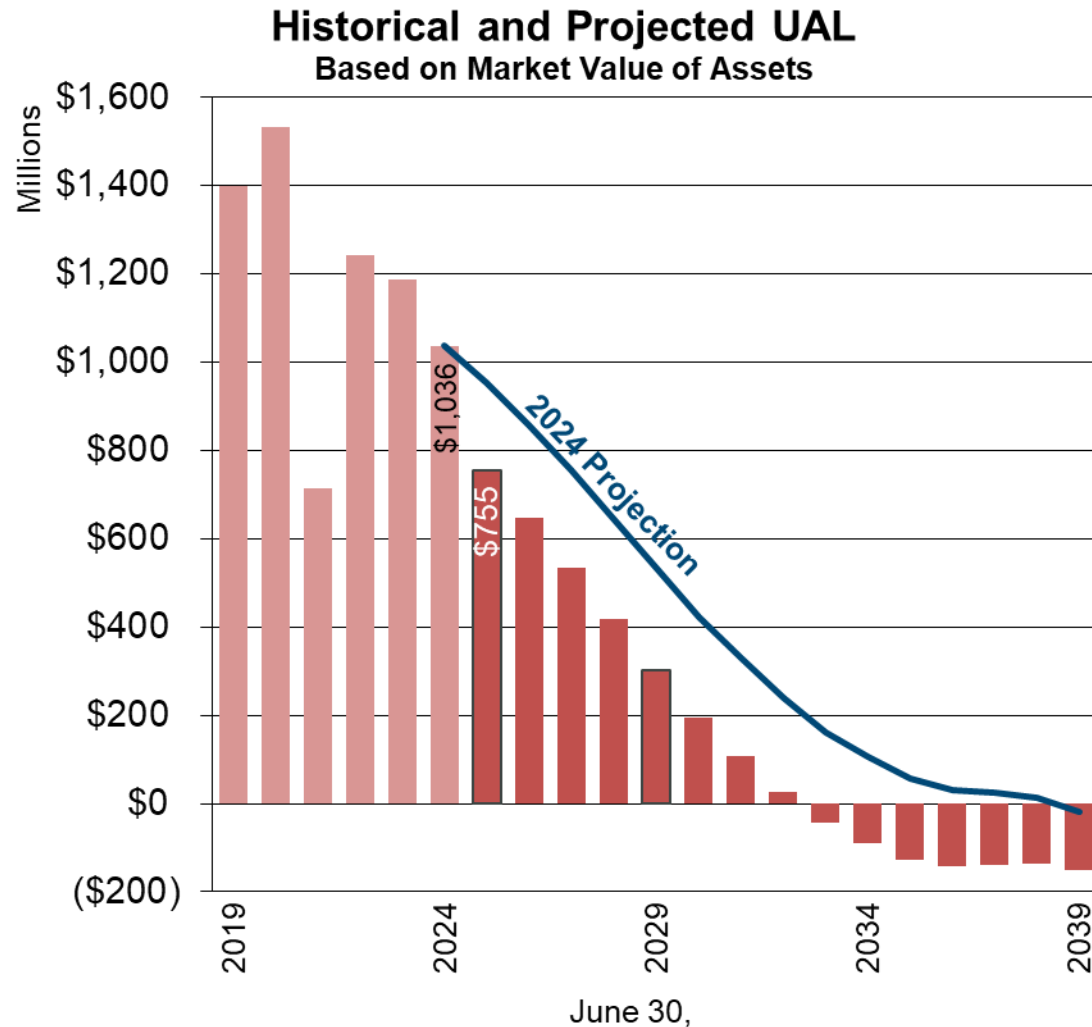


- Schedule
- Preliminary Updates
- Economic Assumptions
 - Price Inflation
 - Wage Inflation
 - Discount Rate
- Board Decisions
- Appendix



- **October Board Meeting**
 - **Pension Economic Assumption Review**
- November Board Meeting
 - Demographic Experience Study
 - Preliminary Pension Valuation Results
 - OPEB Assumptions Review
- December Board Meeting
 - Final Pension Valuation Presentation
 - Final Pension Valuation Report
 - Preliminary OPEB Valuation Results
- January Board Meeting
 - No Presentation
- February Board Meeting
 - Final OPEB Valuation Presentation
 - Final OPEB Valuation Report

Preliminary Funded Status Update

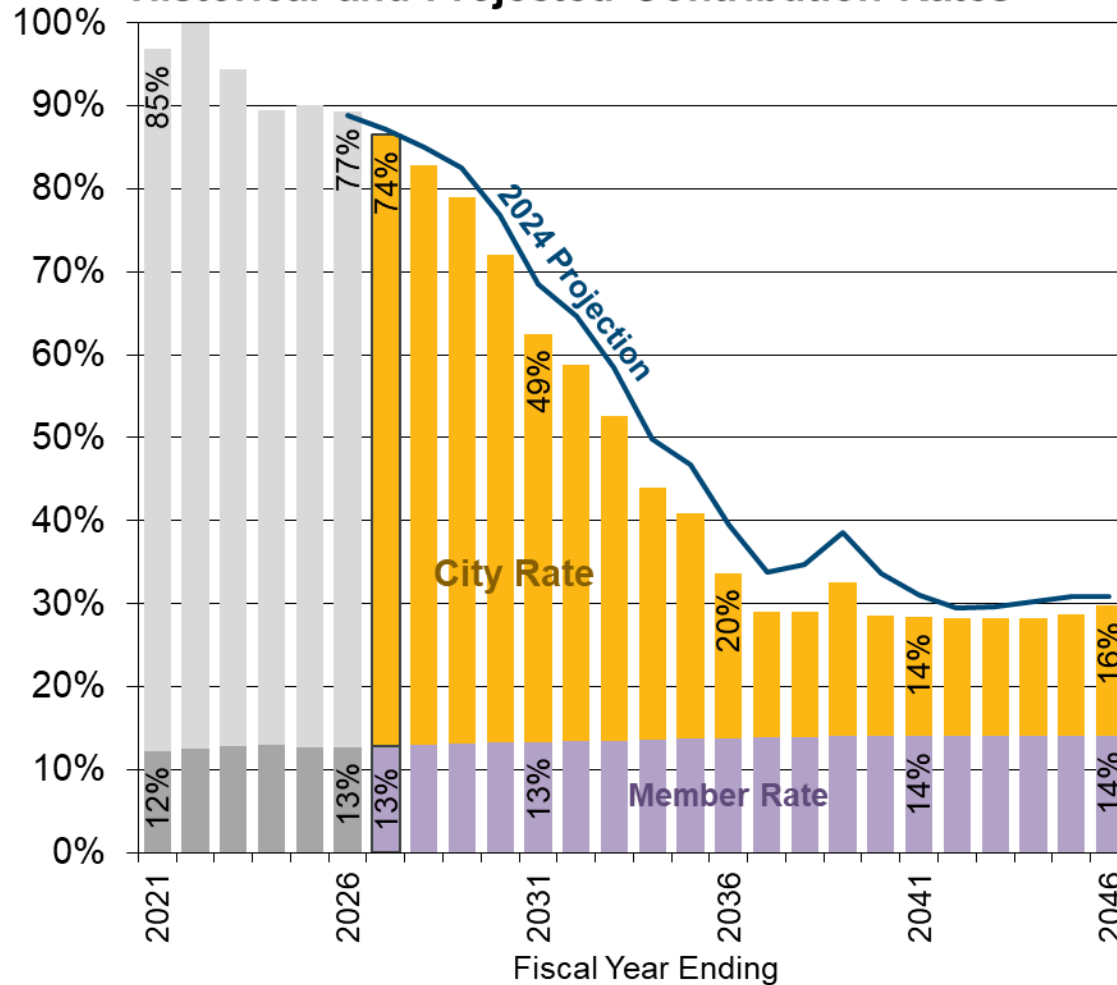


- FYE 2025 investment returns were slightly better than assumed
- Funded Ratio is estimated to improve:
 - Market value: 83% → 88%
 - Actuarial value: 82% → 84%
- UAL is estimated to decrease:
 - Market value: \$1.0 B → \$0.8 B
 - Actuarial value: \$1.1 B → \$1.0 B
- 2025 valuation changes still pending
 - Potential economic assumption changes
 - Potential demographic assumption changes
 - Updated census data

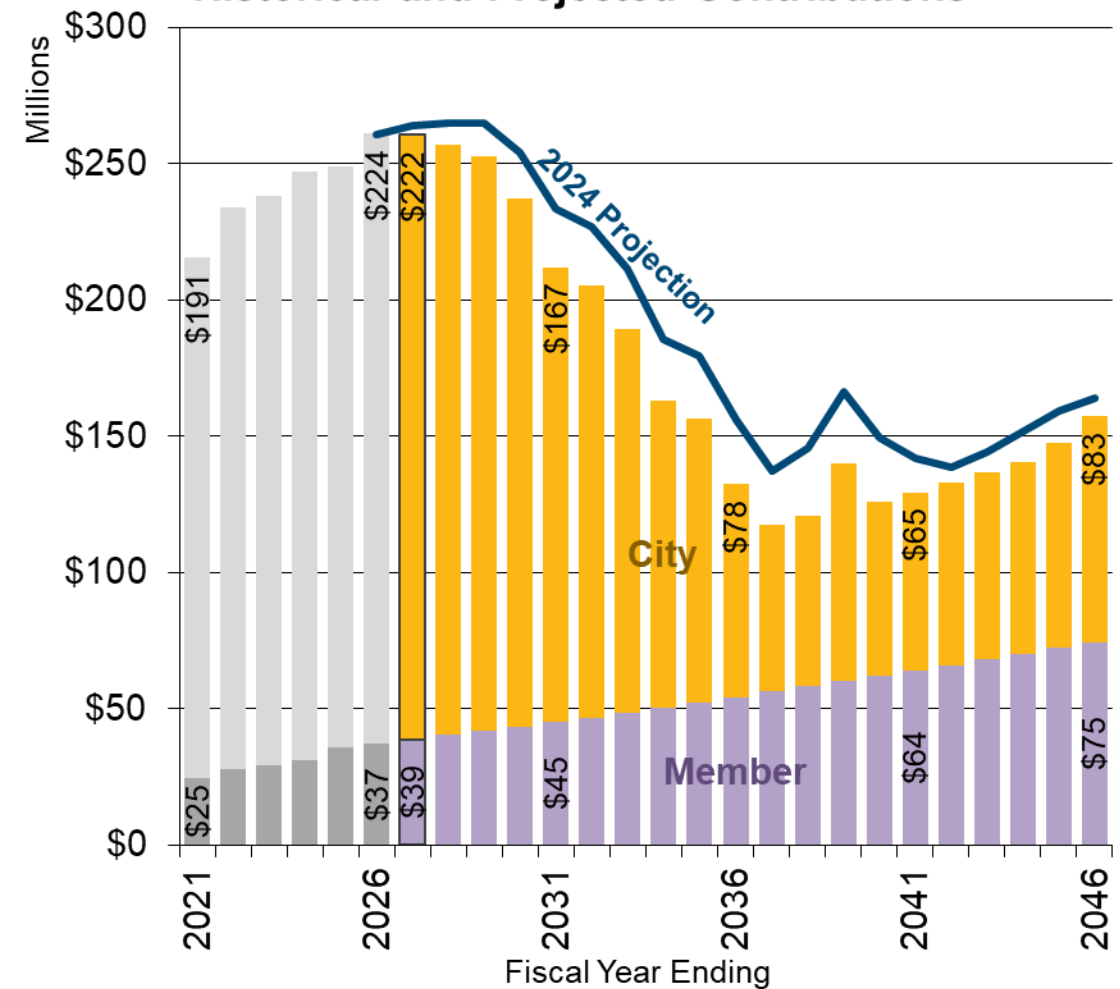
Preliminary Contribution Projection Update



Historical and Projected Contribution Rates



Historical and Projected Contributions



Economic Assumptions

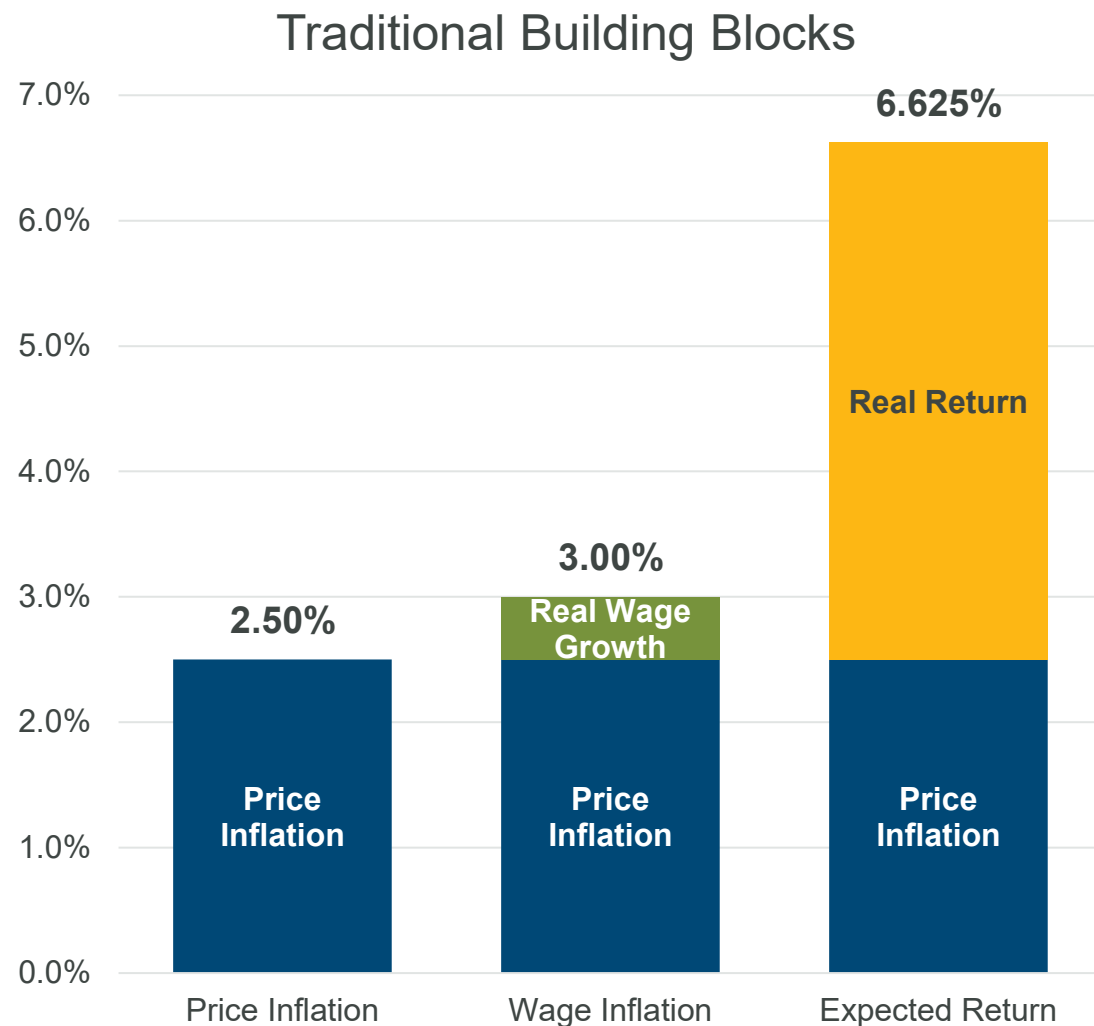


Review of Economic Assumptions



- Economic assumptions are reviewed every year
- Demographic experience study is performed every two years
 - Next study in November
- Assumptions adopted will be used for the 2025 actuarial valuation to determine contributions for FYE 2027
 - Price Inflation – Pension and OPEB valuations
 - 2.50% – No change proposed
 - Wage Inflation – Pension and OPEB valuations
 - Proposed consideration of an increase to 3.25% the last two years, but decided to maintain 3.00% in case the discount rate was increased this year, and the changes could be made in tandem
 - Propose increasing the assumption from 3.00% to 3.25% this year, regardless of the discount rate
 - Amortization Payment Increase Rate – Pension valuation only
 - 2.50% – No change proposed
 - Discount Rate – Pension valuation only
 - 6.625% – No change proposed

Price Inflation



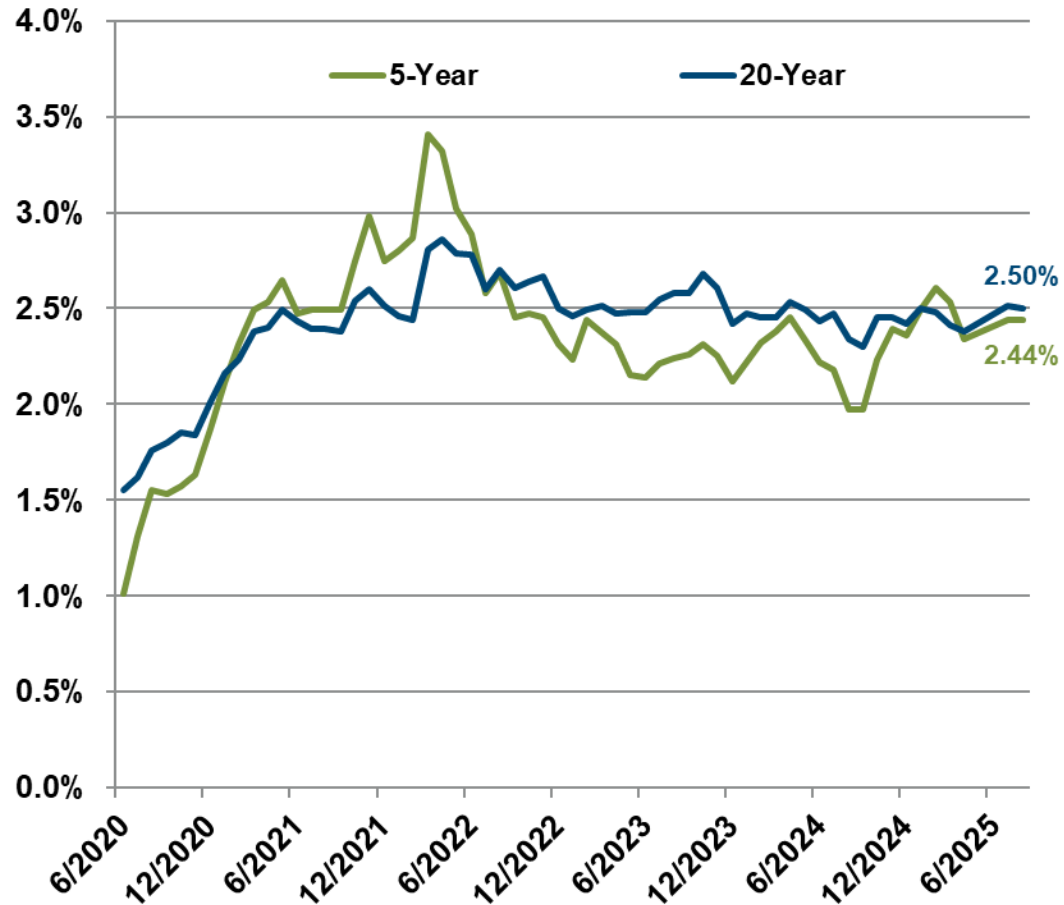
- Price inflation – foundation for all economic assumptions
 - Wage inflation = Price inflation + Real wage growth
 - Expected return = Price inflation + Real return
- Current price inflation assumption = 2.5%
- Very limited direct impact on the valuation
 - Tier 1 COLA is fixed at 3.0%
 - Tier 1 Guaranteed Purchasing Power provision affects very few retirees
 - Tier 2 COLAs equal Bay Area inflation up to a maximum of 2.0%

Price Inflation Forecasts

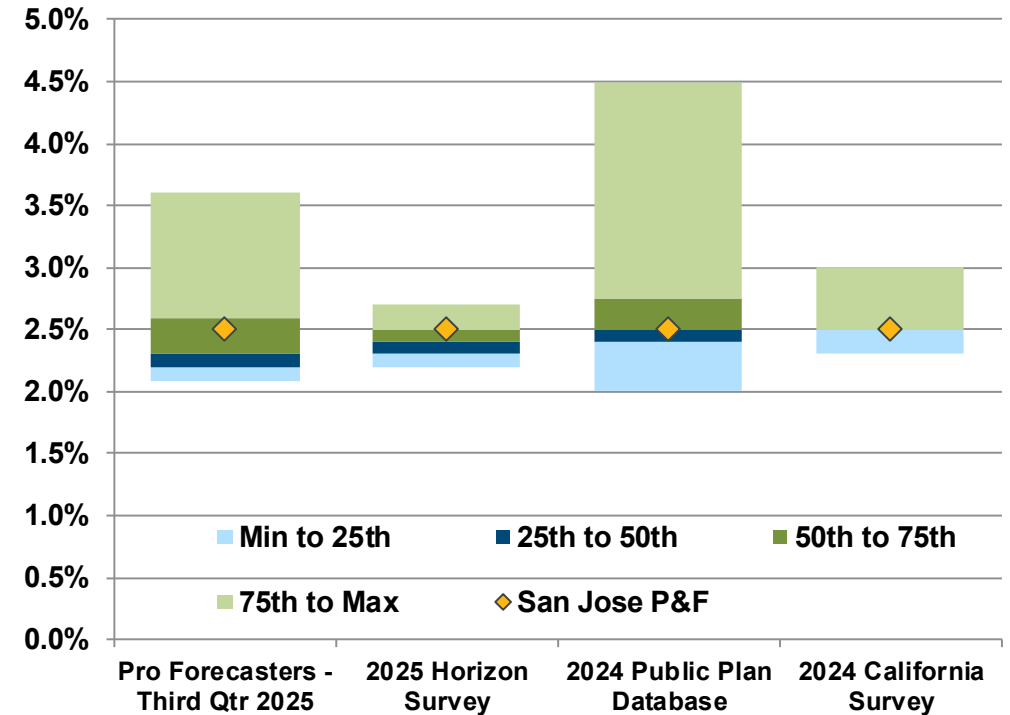


Break-Even Inflation

Yield on Treasuries Minus Yield on TIPS



Survey of CPI Assumptions

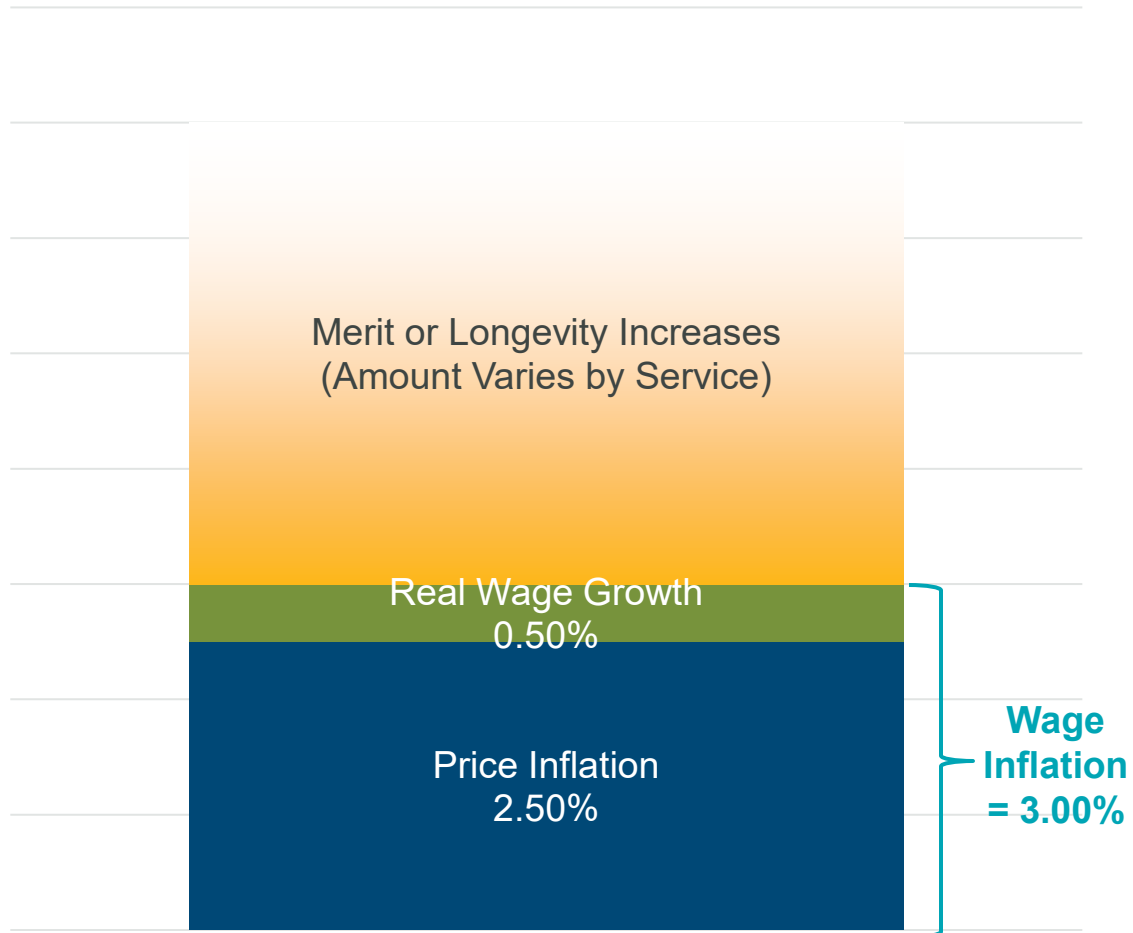


Minimum	2.08%	2.20%	2.00%	2.30%
25th	2.20%	2.30%	2.40%	2.50%
50th	2.31%	2.40%	2.50%	2.50%
75th	2.59%	2.50%	2.75%	2.50%
Maximum	3.60%	2.70%	4.50%	3.00%

Wage Inflation



Components of Salary Increases

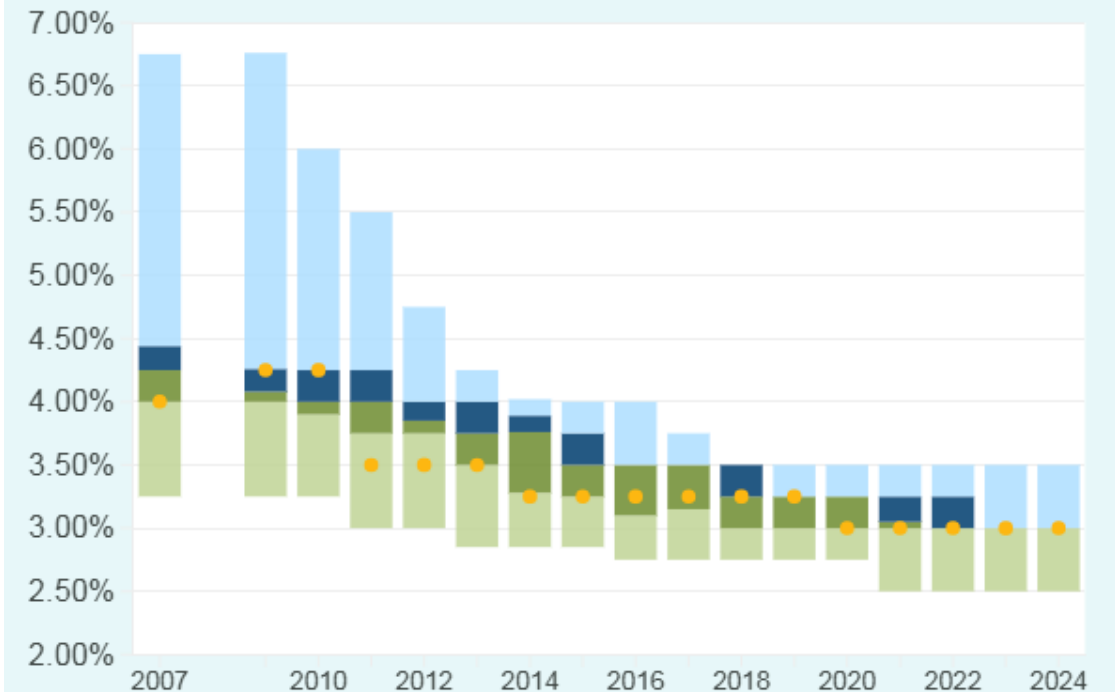


California Public Retirement Systems - Distribution of Wage Inflation Assumptions

Wage Inflation = Price Inflation + Real Wage Growth

Gold dot = **San Jose Police & Fire**

Percentiles of Distribution ■ Min to 25th ■ 25th to 50th ■ 50th to 75th ■ 75th to Max

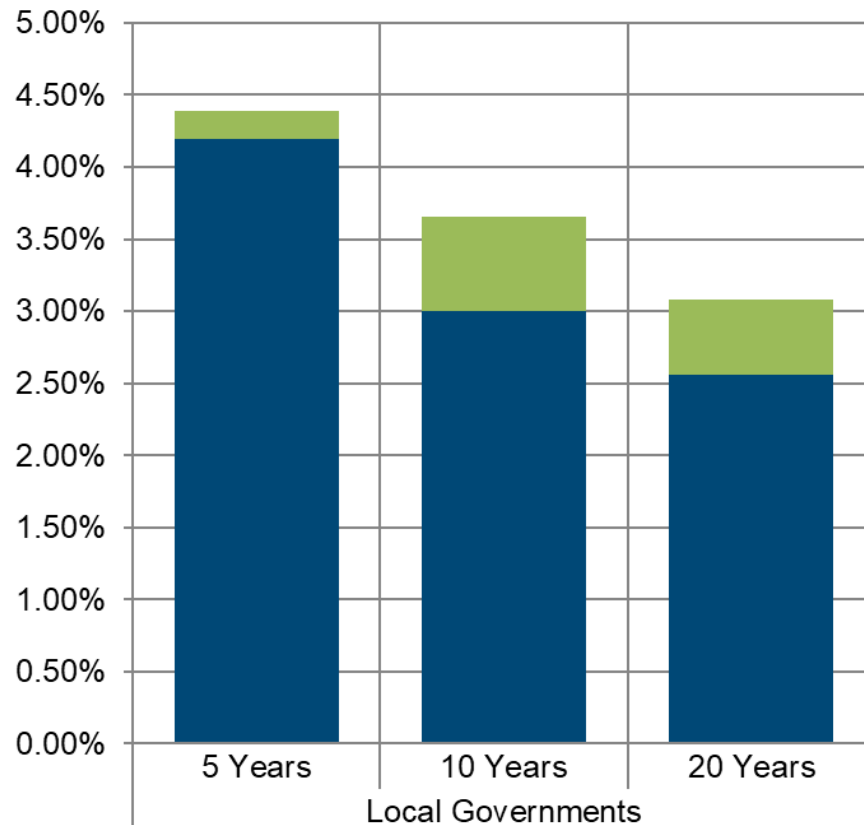


Hover over a bar to see the statistics for that year. Click on a bar to see a bee swarm of the plans for the year. Close the tab in the browser to return to the menu.

Wage Inflation



Wage Inflation Data



Real Wage Growth	0.19%	0.65%	0.52%
Inflation	4.20%	3.00%	2.56%
Wage Inflation	4.39%	3.65%	3.08%

Local government data from BLS Quarterly Census of Employment and Wages through 4th quarter of 2024.

Recent Bargaining Agreements

Fiscal Year	Police	Fire
2021-2022	3.85%	4.25%
2022-2023	5.00%	5.00%
2023-2024	4.00%	4.00%
2024-2025	3.00% + 4.00% ¹	6.00%
2025-2026	7.00% ²	4.00% + 1.00% ³
2026-2027	5.00% ²	3.50%
2027-2028	3.00% ²	N/A

¹ Ongoing non-pensionable 4% retention pay becomes part of base pay

² Tentative agreement as of 9/4/2025

³ Increase effective January 2026

- Recent salary increases have been significantly higher than expected
- Current assumption
 - Reflect negotiated agreements
 - Assume 3.00% after agreements expire
- We propose increasing 3.00% to 3.25%
 - 3.00% is still reasonable

October 2, 2025

Amortization Payment Increase Rate



- Amortization payments currently increase each year with price inflation (2.5%)
 - Payments are constant real dollars
 - Expected to decline as a percentage of total payroll gradually
 - If total payroll doesn't grow as fast as assumed inflation, the amortization payments may become a larger percentage of pay
- Reasonable Range
 - 0% (level dollar) to 3.0% (wage inflation)
- Recommend maintaining the connection to the price inflation assumption
 - No change proposed (2.50%)

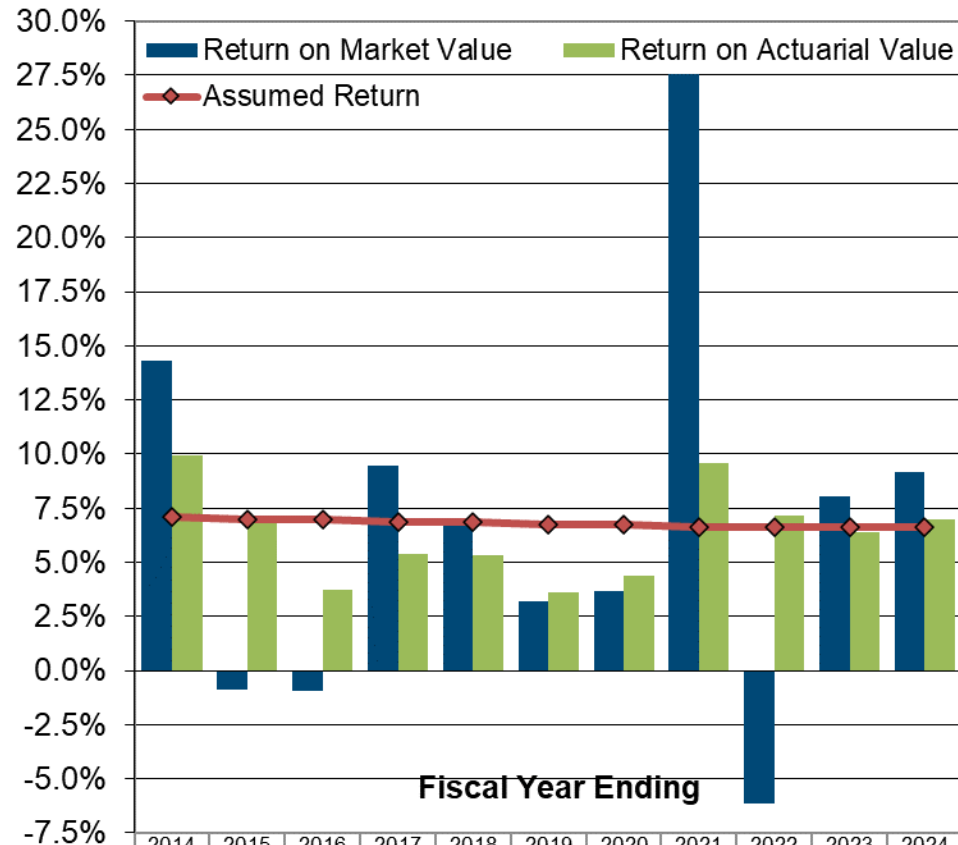


- Most powerful single assumption
 - Higher expected return → Lower expected contributions
 - Over time, actual contributions will depend on actual investment returns (not expected)
 - Current discount rate is 6.625%
- Context for selecting the discount rate
 - Historical experience
 - Industry trends
- Primary factors considered in selecting the discount rate
 - Expectations for the future
 - Board's risk preference

Historical Experience and California Trends



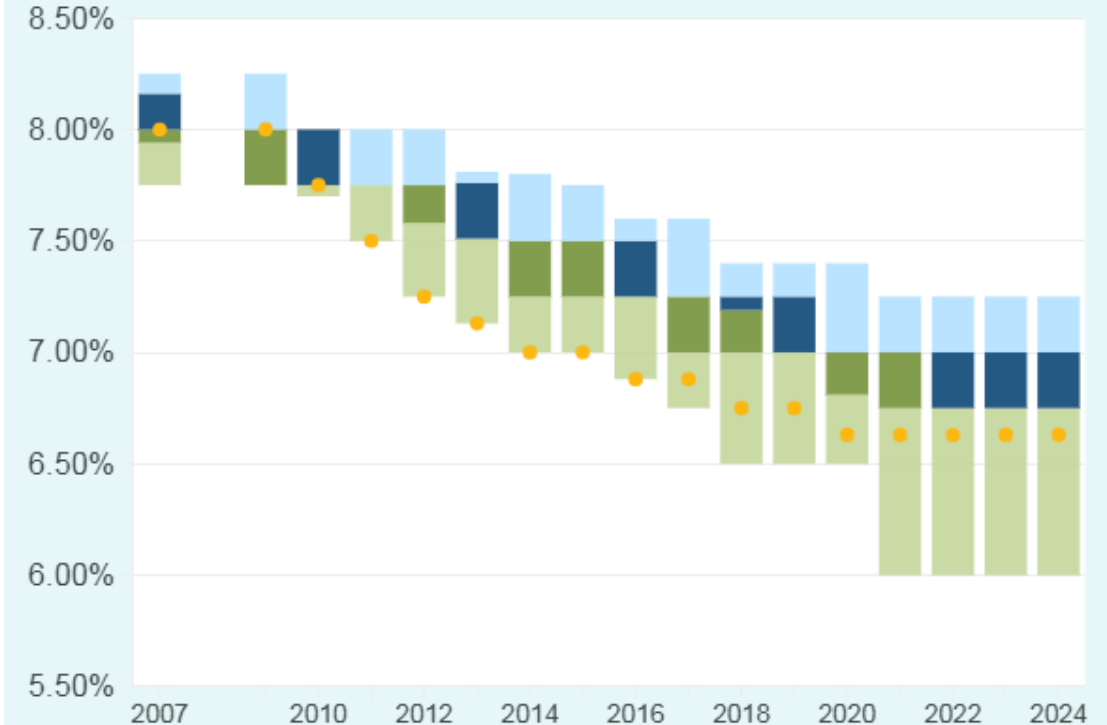
Expected vs. Actual Rates of Return



California Public Retirement Systems - Distribution of Discount Rates

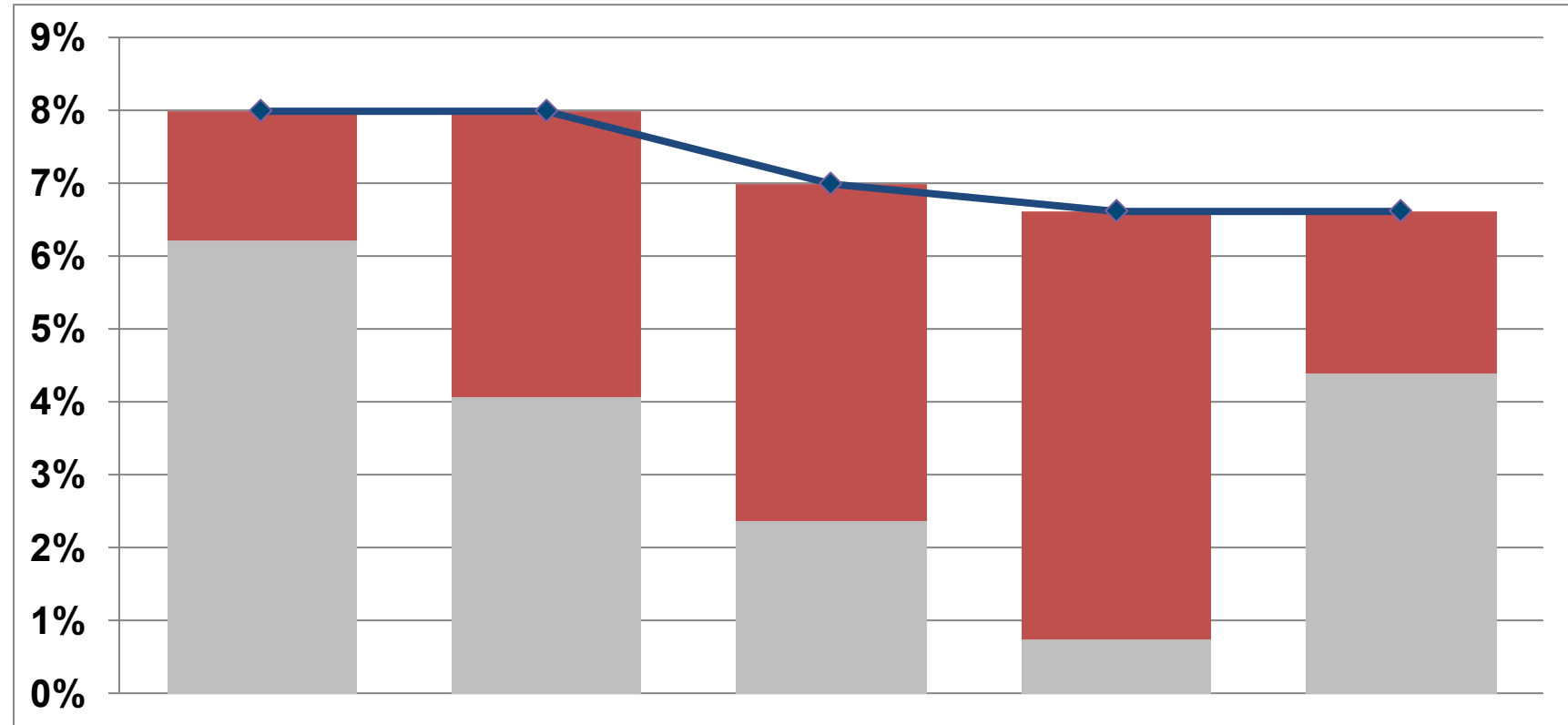
Gold dot = **San Jose Police & Fire**

Percentiles of Distribution: Min to 25th (light green), 25th to 50th (dark green), 50th to 75th (dark blue), 75th to Max (light blue)



Hover over a bar to see the statistics for that year. Click on a bar to see a bee swarm of the plans for the year. Close the tab in the browser to return to the menu.

Changes in Interest Rates



	1995	2005	2015	2020	2025
Police & Fire Discount Rate	8.00%	8.00%	7.00%	6.625%	6.625%
Yield on 10-Year Treasury	6.21%	4.06%	2.36%	0.73%	4.38%
Expected Risk Premium	1.79%	3.94%	4.64%	5.90%	2.25%

Expected Return on Assets

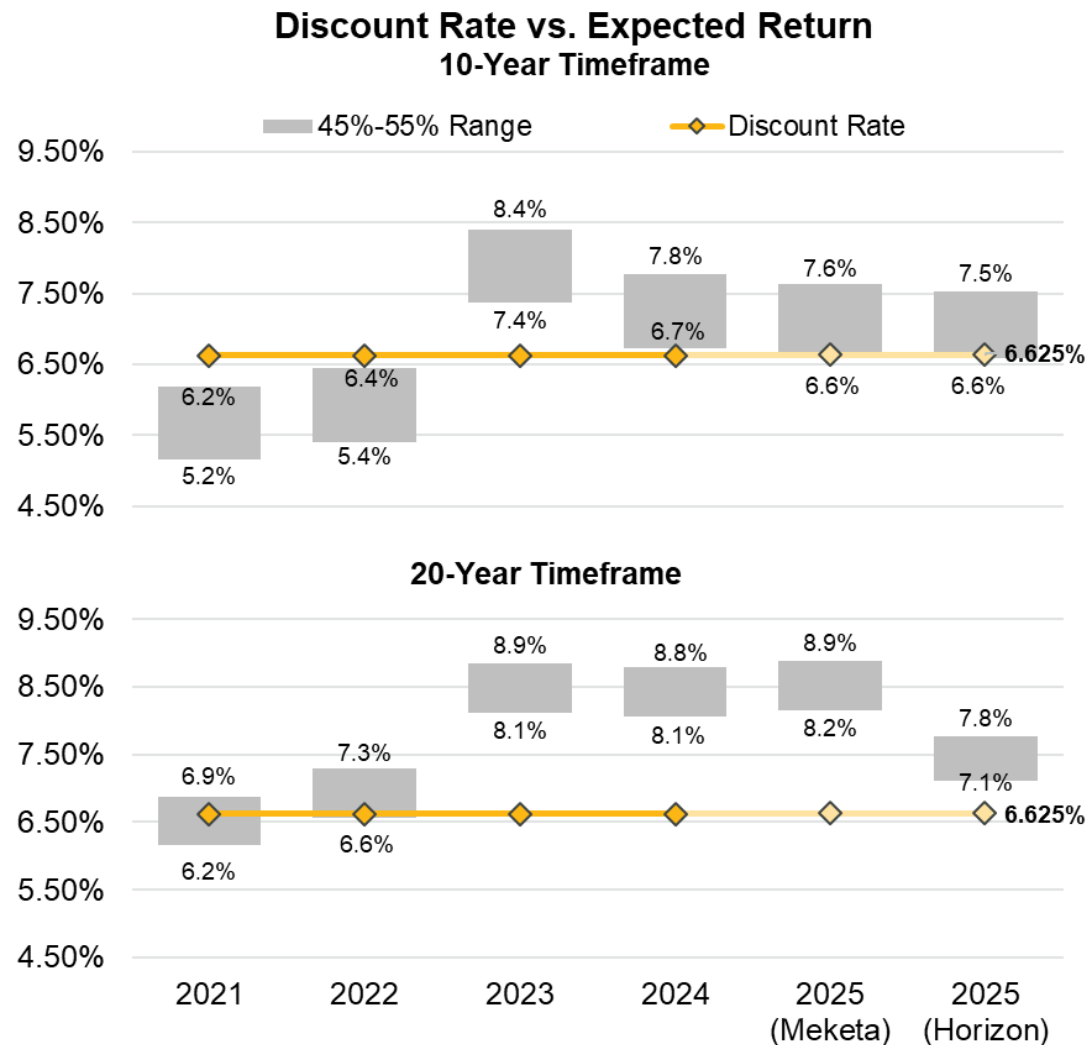


- Meketa provided forward-looking capital market assumptions for 2025
 - 10- and 20-year time horizons
- Horizon survey includes:
 - 5-10-year time horizon (41 consultants)
 - 20+ year time horizon (27 consultants)
- Expectations remain higher than the discount rate
 - Interest rates have been higher for the last three years
 - Fed reduced interest rates in September, and more reductions are expected

Expected Distribution of Average Annual Passive Returns				
Percentile	10-Year Timeframe		20-Year Timeframe	
	Horizon Survey	Meketa	Horizon Survey	Meketa
95th	13.4%	14.1%	11.9%	13.4%
75th	9.6%	9.9%	9.2%	10.5%
60th	8.0%	8.2%	8.1%	9.3%
55th	7.5%	7.6%	7.8%	8.9%
50th	7.1%	7.1%	7.4%	8.5%
45th	6.6%	6.6%	7.1%	8.2%
40th	6.1%	6.1%	6.8%	7.8%
25th	4.6%	4.4%	5.7%	6.6%
5th	1.1%	0.6%	3.2%	3.9%

Cheiron calculations based on 2025 capital market assumptions from the Horizon survey and from Meketa

Expected Return on Assets



- Capital market assumptions fluctuate
 - Interest rates
 - Valuations (P/E ratios)
- Time horizon considerations
 - 10 years ~ 40% of the present value of benefits
 - 20 years ~ 70% of the present value of benefits
- Current discount rate of 6.625%
 - Conservative in recent years compared to capital market assumptions
 - Chance of return exceeding discount rate
 - 10 years ~ 55% (Meketa and Horizon)
 - 20 years ~ 74% (Meketa), 62% (Horizon)

Discount Rate Considerations



- Is the increase in capital market assumptions temporary?
 - The primary driver of increased capital market assumptions is the rise in interest rates
 - The Federal Reserve is expected to reduce interest rates over the next year
- It is very painful to reduce the discount rate
 - Be cautious about increasing the discount rate
 - Don't want to increase the discount rate and then have to reverse course and reduce the discount rate again
- It is okay for the discount rate to be less than the expected return
 - Higher probability of achieving a return greater than the discount rate
 - Provides margin against adverse experience
 - The reverse is not true – it is not okay for the expected return to be materially less than the discount rate
- We propose no change to the discount rate this year
 - The discount rate is within the target range based on a 10-year horizon

Estimated Cost Impact Based on 2024 Valuation



- One proposed assumption change
 - Increase ultimate wage inflation from 3.00% to 3.25%
- The change would increase the Actuarial Liability and normal cost for active members
- Total contribution increase for the City is estimated to be \$1.9 million

	Before Change	After Change	Net Impact
Actuarial Liability (millions)	\$ 6,133	\$ 6,150	\$ 17
Tier 1 Member Contribution Rates			
Fire	12.00%	12.10%	0.10%
Police	10.39%	10.49%	0.10%
Tier 1 City Contributions (millions)			
Fire	\$ 34.5	\$ 34.7	\$ 0.2
Police	\$ 167.1	\$ 168.1	\$ 1.0
Tier 2 Member and City Contribution Rates			
Fire	15.01%	15.44%	0.43%
Police	13.55%	13.90%	0.35%



- Price Inflation = 2.50%
 - No change proposed
- Wage inflation
 - Current bargaining agreements – no change proposed
 - Increase the ultimate assumption from 3.00% to 3.25%
 - 3.00% is still reasonable
- Amortization payment increases = 2.50%
 - No change proposed
- Discount rate = 6.625%
 - No change proposed



- The purpose of this presentation is to review the economic assumptions for the City of San José Police and Fire Department Retirement Plan.
- In preparing our presentation, we relied on information (some oral and some written) supplied by the Plan. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.
- This presentation and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.
- This presentation was prepared exclusively for the City of San José Police and Fire Department Retirement Plan for the purpose described herein. Other users of this presentation are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

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Principal Consulting Actuary

Appendix – California Survey



Cheiron's 2024 Survey of Public Retirement Systems in California

System Name	Discount Rate	Wage Inflation	Price Inflation	Valuation Date	System Name	Discount Rate	Wage Inflation	Price Inflation	Valuation Date
AC Transit	6.75%	3.00%	2.75%	1/1/2024	Sacramento CERS	6.75%	2.75%	2.50%	6/30/2024
Alameda CERA	7.00%	3.00%	2.50%	12/31/2023	Sacramento Regional Transit	6.75%	2.75%	2.50%	7/1/2024
CalPERS	6.80%	2.80%	2.30%	6/30/2024	San Bernardino CERA	7.25%	3.00%	2.50%	6/30/2024
CalSTRS	7.00%	3.50%	2.75%	6/30/2024	San Diego City ERS	6.50%	3.25%	3.00%	6/30/2024
Contra Costa CERA	6.75%	3.00%	2.50%	12/31/2023	San Diego County ERA	6.50%	3.00%	2.50%	6/30/2024
East Bay Municipal Utility District	6.75%	3.00%	2.50%	6/30/2024	San Diego Transit	6.00%	2.50%	2.50%	7/1/2024
Fresno CERA	6.50%	3.00%	2.50%	6/30/2024	San Francisco ERS	7.20%	3.25%	2.50%	7/1/2024
Fresno City Employee System	6.75%	3.00%	2.50%	6/30/2024	San Joaquin CERA	6.75%	3.00%	2.75%	1/1/2024
Fresno City Fire & Police	6.75%	3.00%	2.50%	6/30/2024	San Jose Federated	6.625%	3.00%	2.50%	6/30/2024
Golden Gate Transit	6.75%	3.25%	2.75%	1/1/2024	San Jose Police & Fire	6.625%	3.00%	2.50%	6/30/2024
Imperial CERS	6.75%	3.00%	2.50%	6/30/2024	San Luis Obispo County	6.75%	3.00%	2.50%	1/1/2024
Kern CERA	7.00%	3.00%	2.50%	6/30/2024	San Mateo CERA	6.25%	3.25%	2.75%	6/30/2024
LA City ERS	7.00%	3.00%	2.50%	6/30/2024	Santa Barbara CERS	7.00%	3.00%	2.75%	6/30/2024
LA County ERA	7.00%	3.25%	2.75%	6/30/2024	Sonoma CERA	6.75%	3.00%	2.50%	12/31/2023
LA Fire & Police	7.00%	3.00%	2.50%	6/30/2024	Stanislaus CERA	6.75%	2.75%	2.50%	6/30/2024
LA Water and Power	6.50%	3.00%	2.50%	7/1/2024	Tulare CERA	7.00%	3.00%	2.75%	6/30/2024
Marin CERA	6.75%	3.00%	2.50%	6/30/2024	University of California	6.75%	3.25%	2.50%	7/1/2024
Mendocino CERA	6.50%	3.00%	2.50%	6/30/2024	Valley Transit Authority	6.75%	2.75%	2.50%	1/1/2024
Merced CERA	6.75%	2.75%	2.50%	6/30/2024	Ventura CERA	6.75%	3.00%	2.50%	6/30/2024
Orange CERS	7.00%	3.00%	2.50%	12/31/2023					

Access California survey tool at: <https://cheiron.us/cheironHome/content/resources/databases/survey-of-california-public-retirement-systems>

Appendix – Capital Market Assumptions



2025 Capital Market Assumptions

Meketa's Assumptions					Horizon Survey Assumptions				
Asset Class	Allocation	Standard Deviation	Arithmetic Returns		Asset Class	Allocation	Standard Deviation	Arithmetic Returns	
			10-Year	20-Year				10-Year	20-Year
Cash Equivalents	10.5%	1.0%	2.81%	3.11%	US Treasuries	12.0%	1.5%	3.60%	3.61%
Long-term Government Bonds	1.5%	12.0%	5.61%	6.34%	US Corp Bonds - Core	4.5%	6.2%	5.19%	5.28%
Investment Grade Bonds	4.5%	4.0%	4.97%	5.37%	TIPS	2.0%	6.0%	4.63%	4.61%
TIPS	2.0%	7.0%	4.51%	5.22%	US Corp Bonds - High Yield	2.0%	9.8%	6.44%	6.82%
High Yield Bonds	2.0%	11.0%	6.81%	7.63%	Non-US Debt - Emerging	2.0%	10.6%	6.57%	6.87%
Emerging Market Bonds Aggregate	2.0%	11.0%	6.81%	7.33%	US Equity - Large Cap	23.5%	16.5%	7.67%	8.29%
US Equity	23.5%	17.0%	7.59%	9.63%	Non-US Equity - Developed	13.0%	18.2%	8.58%	8.96%
Developed Market Equity (non-US)	13.0%	18.0%	8.52%	10.07%	Non-US Equity - Emerging	5.5%	23.4%	9.96%	10.63%
Emerging Market Equity	5.5%	22.0%	9.04%	10.72%	Private Equity	14.5%	22.2%	11.51%	12.14%
Buyouts	10.0%	24.0%	11.74%	13.24%	Private Debt	5.0%	11.8%	8.58%	8.71%
Venture Capital	4.5%	34.0%	14.67%	16.34%	Real Estate	9.0%	16.2%	7.52%	7.59%
Private Debt	5.0%	15.0%	9.61%	10.06%	Infrastructure	1.0%	14.9%	8.30%	8.65%
Core Private Real Estate	5.0%	12.0%	6.10%	8.03%	Hedge Funds	3.0%	8.0%	6.25%	6.57%
Value-Added Real Estate	2.0%	20.0%	10.00%	11.27%	Inflation			2.39%	2.41%
Opportunistic Real Estate	2.0%	26.0%	12.11%	13.62%					
Natural Resources (Private)	3.0%	22.0%	9.34%	11.21%					
Infrastructure (Core Private)	1.0%	14.0%	7.01%	8.85%					
Hedge Funds	3.0%	7.0%	4.41%	6.22%					
Inflation			2.30%	2.70%					