



Executive Summary of Performance for

California Public Employees' Retirement System

Judges II

Legislators' Fund

Long-Term Care

California Employers' Retiree Benefit Trusts

California Employers' Pension Prefunding Trust

Health Care Fund

Supplemental Income Plans

Fourth Quarter 2022

FOURTH QUARTER 2022

Quarterly Market Commentary

Market Dashboard

Multi-Asset	MTD (%)	QTD (%)	YTD (%)	1Y (%)
Global 60/40 (ACWI/U.S. Core Bonds)	(2.54)	6.64	(16.02)	(16.02)
Wilshire Risk Parity Index SM – 12% Volatility	(3.58)	3.94	(21.30)	(21.30)

Source: Bloomberg. Indexes are total return.

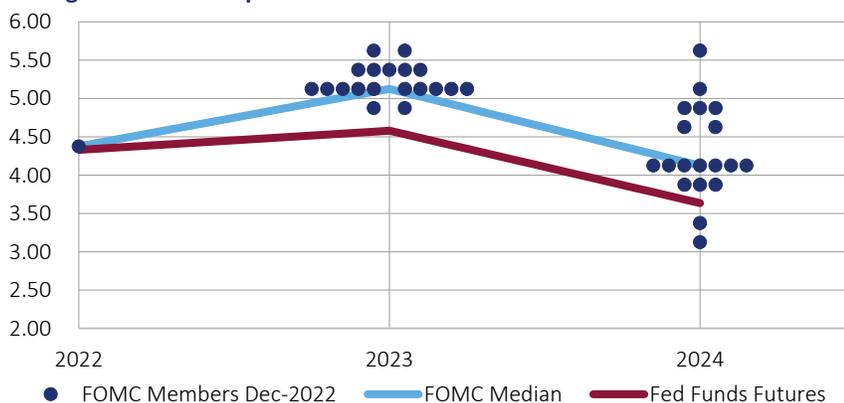
Strategic Allocation Themes	MTD (%)	QTD (%)	YTD (%)	1Y (%)
Growth ⁱ	(3.94)	9.76	(18.36)	(18.36)
Defensive Growth ⁱⁱ	(2.45)	5.70	(13.70)	(13.70)
Diversified Credit ⁱⁱⁱ	(0.07)	5.59	(12.50)	(12.50)
Real Assets ^{iv}	(2.44)	5.50	(9.71)	(9.71)
Defensive ^v	(0.45)	1.87	(13.01)	(13.01)

Source: Bloomberg. Indexes are total return.

Quarterly Insight

The Federal Reserve’s aggressive action to combat unacceptably high inflation is the story of 2022 with uncertainty around Fed policy poised to drive market volatility in 2023. The FOMC raised rates 4.25%, with increases becoming more dramatic in May. This marks the largest 12-month increase since 1981 (also a period of inflation near or above double-digits). Unsurprisingly, fixed income suffered but so did equities as investors repriced off a higher risk-free rate. The Fed is currently forecasting a rate 0.75% higher by the end of 2023. The open market does not agree – or perhaps doubts their credibility to continue tightening, with a modest change forecasted for the next year. How this disagreement plays out is likely to be a primary market driver this year.

Divergence in Rate Expectations



Source: Bloomberg.

Economic highlights

GDP: Real GDP growth reversed course during the third quarter after two negative readings, expanding an annualized 3.2%. Growth was strong enough to push the economy into positive territory for the year, however modest. Consumer spending and net exports were sources of strength, while business spending fell. The Atlanta Fed’s GDPNow forecast for the fourth quarter currently stands at 3.7%.

Source: Bureau of Economic Analysis.

Interest Rates: The Treasury curve rose for maturities two years and lower during the fourth quarter but was mostly unchanged further out on the curve. The 10-year Treasury closed at 3.88%, up 5 basis points. The 10-year real yield (i.e., net of inflation) fell 10 basis points to 1.58%. The Federal Open Market Committee increased their overnight rate by a total of 1.25%, targeting a range of 4.25% to 4.50%. The committee’s current median outlook is for a rate of approximately 5.1% by the end of 2023.

Source: U.S. Treasury.

Inflation: Consumer price changes have moderated as the Consumer Price Index rose 0.9% for the three months ending November. For the one-year period, the CPI was up 7.1%. The 10-year break-even inflation rate increased to 2.30% in December versus 2.15% in September.

Source: Dept. of Labor (BLS), U.S. Treasury.

Employment: Jobs growth remains solid, with an average of 272k jobs/month added during the three months ending in November. The unemployment rate was unchanged at 3.7%, as it was in August. Wages jumped 0.6% in November, which was double the forecasted rate and reinforces the Fed’s aggressive action.

Source: Dept. of Labor (BLS).

Housing: New data supports the notion that the housing market has cooled significantly since June. In fact, the S&P Case-Shiller 20-City Home Price Index was down -3.1% over the three-months through October, while maintaining an 8.7% gain over the trailing 12-months.

Source: Standard & Poor’s.

U.S. Economy and Markets

The U.S. stock market, represented by the FT Wilshire 5000 IndexSM, was up 7.10% for the fourth quarter but was down -19.04% for all of 2022. A majority of sectors were up for the quarter. The best performing were Energy (+19.9%), Industrials (+16.6%) and Materials (+14.6%). The two sectors producing losses were Consumer Discretionary (-8.0%) and Communication Services (-1.8%). From a size perspective, small-cap outperformed large-cap by 86 basis points. Growth stocks underperformed value for the quarter and also trailed meaningfully for the year.

U.S. Equity	MTD (%)	QTD (%)	YTD (%)	1Y (%)
FT Wilshire 5000 Index SM	(5.87)	7.10	(19.04)	(19.04)
Standard & Poor's 500	(5.76)	7.56	(18.11)	(18.11)
Wilshire 4500 Completion Index SM	(6.27)	5.34	(23.86)	(23.86)
MSCI USA Minimum Volatility	(3.73)	9.80	(9.19)	(9.19)

Source: Bloomberg. Indexes are total return.

U.S. Equity by Size/Style	MTD (%)	QTD (%)	YTD (%)	1Y (%)
Wilshire US Large-Cap Index SM	(5.86)	7.05	(19.03)	(19.03)
Wilshire US Large-Cap Growth Index SM	(7.98)	0.75	(29.54)	(29.54)
Wilshire US Large-Cap Value Index SM	(3.77)	13.75	(5.51)	(5.51)
Wilshire US Small-Cap Index SM	(6.11)	7.91	(18.65)	(18.65)
Wilshire US Small-Cap Growth Index SM	(6.18)	7.07	(23.07)	(23.07)
Wilshire US Small-Cap Value Index SM	(6.04)	8.68	(14.22)	(14.22)
Wilshire US Micro-Cap Index SM	(4.21)	4.93	(26.07)	(26.07)

Source: Bloomberg. Indexes are total return.

GICS sector returns	MTD (%)	QTD (%)	YTD (%)	1Y (%)
Communication Services	(7.98)	(1.84)	(40.04)	(40.04)
Consumer Discretionary	(10.90)	(8.00)	(36.33)	(36.33)
Consumer Staples	(3.05)	12.55	(1.09)	(1.09)
Energy	(3.98)	19.90	62.48	62.48
Financials	(5.97)	11.89	(12.44)	(12.44)
Health Care	(2.06)	11.64	(5.64)	(5.64)
Industrials	(3.74)	16.64	(8.25)	(8.25)
Information Technology	(8.05)	3.80	(29.42)	(29.42)
Materials	(5.90)	14.59	(13.21)	(13.21)
Real Estate	(5.09)	4.34	(26.20)	(26.20)
Utilities	(0.87)	8.74	1.21	1.21

Source: Wilshire Atlas. Indexes are total return.

Strategic Allocation Themes Reference:

- i 100% Global Equity
- ii 60% Low Vol Global Equity, 40% U.S. Convertibles
- iii 42.5% U.S. High Yield, 42.5% EMD, 15% Banks Loans
- iv 43% Global REITS/GLI, 33% Commodities, 48% TIPS, 9% Gold, -31% Cash
- v 100% U.S. Core Bonds

U.S. large-cap growth stocks were an outlier this quarter, barely turning in a positive return while the rest of the size segments rallied

International Economy and Markets

Performance results within international equity markets were positive for the fourth quarter, with developed outperforming emerging markets. The MSCI EAFE Index was up 17.34% for the quarter, while the MSCI Emerging Markets Index was up 9.70%. Europe faced similar headwinds as the United States did in 2022 – surging inflation and aggressive central bank tightening – but also had to more directly contend with the ongoing war in Ukraine. The labor market remains tight in the eurozone – including Germany where unemployment has fallen below 3% – and many businesses report that a labor shortage is limiting production. Despite China’s zero-COVID policies, including widespread lockdowns, infections continued to surge intermittently. Tension among the country’s citizens continued to rise and led to protests not seen in decades. In early December, the central government took definitive steps to ease restrictions.

Non-U.S. Equity	MTD (%)	QTD (%)	YTD (%)	1Y (%)
MSCI ACWI	(3.94)	9.76	(18.36)	(18.36)
MSCI ACWI ex USA	(0.75)	14.29	(16.00)	(16.00)
MSCI ACWI ex USA Minimum Volatility	0.22	8.35	(12.75)	(12.75)
MSCI EAFE	0.08	17.34	(14.45)	(14.45)
MSCI Emerging Markets	(1.41)	9.70	(20.09)	(20.09)
MSCI ACWI ex USA Small Cap	0.17	13.31	(19.97)	(19.97)

Source: Bloomberg. Indexes are total return.

Non-U.S. Equity (local currency)	MTD (%)	QTD (%)	YTD (%)	1Y (%)
MSCI ACWI	(4.74)	7.36	(15.98)	(15.98)
MSCI ACWI ex USA	(2.89)	7.82	(9.62)	(9.62)
MSCI ACWI ex USA Minimum Volatility	(1.61)	3.57	(6.22)	(6.22)
MSCI EAFE	(3.01)	8.72	(7.00)	(7.00)
MSCI Emerging Markets	(2.00)	6.57	(15.54)	(15.54)
MSCI ACWI ex USA Small Cap	(2.04)	6.70	(12.76)	(12.76)

Source: Bloomberg. Indexes are total return.

Fixed Income Markets

The U.S. Treasury yield curve was up in the short-end (below 3-years) by 50-135 basis points but largely unchanged across the remainder of the curve. The 10-year Treasury yield ended the quarter at 3.88%, up just 5 basis points from September. Credit spreads tightened during the quarter within both investment grade and high yield bonds (down 84 basis points within the speculative market). The Federal Open Market Committee met twice during the quarter, as scheduled, and increased the overnight rate by 0.75% in November and 0.50% in December, targeting a range of 4.25% to 4.50%. The Fed’s “dot plot” is messaging that the current intent is for another 75 basis points in increases before the end of 2023. Following the December meeting, Fed Chair Jerome Powell indicated that inflation data during the fourth quarter has been encouraging but that it will take “substantially more evidence” to ensure that modest price increases are sustainable.

Chinese leaders reversed strict zero-COVID policies in early December, possibly in response to protests

The FOMC raised the overnight rate by 1.25% this quarter, forecasting a rate above 5% by year-end 2023

U.S. Fixed Income	MTD (%)	QTD (%)	YTD (%)	1Y (%)
Bloomberg U.S. Aggregate	(0.45)	1.87	(13.01)	(13.01)
Bloomberg Long Term Treasury	(1.70)	(0.59)	(29.26)	(29.26)
Bloomberg Long Term Corporate	(1.15)	5.40	(25.62)	(25.62)
Bloomberg U.S. TIPS	(1.02)	2.04	(11.85)	(11.85)
Bloomberg U.S. Credit	(0.43)	3.44	(15.26)	(15.26)
Bloomberg U.S. Corporate High Yield	(0.62)	4.17	(11.19)	(11.19)
S&P/LSTA Leveraged Loan	0.42	2.71	(0.63)	(0.63)

Source: Bloomberg. Indexes are total return.

Market Rates	Dec 31	Sept 30	June 30	Mar 31
10-Year Treasury	3.88	3.83	3.02	2.34
10-Year Breakeven Inflation	2.30	2.15	2.34	2.83

Source: Bloomberg. Indexes are total return.

Global Fixed Income	MTD (%)	QTD (%)	YTD (%)	1Y (%)
Bloomberg Global Aggregate	0.54	4.55	(16.25)	(16.25)
Bloomberg Global Aggregate (Hdg)	(1.18)	0.99	(11.22)	(11.22)
Bloomberg EM LC Gov't Universal	2.23	4.66	(8.83)	(8.83)
Bloomberg EM LC Gov't Universal (Hdg)	0.70	1.77	(2.58)	(2.58)

Source: Bloomberg. Indexes are total return.

Real Asset Markets

Real estate securities were up during the fourth quarter in both the United States and abroad. Commodity results also were positive for the quarter, with crude oil rising modestly by 1.0% to \$80.26 per barrel. Oil prices were quite volatile in 2022, with lows approaching \$70 and highs at nearly \$125, due to tightening supplies with the Ukraine invasion but then falling demand from China. Natural gas prices fell dramatically during the quarter due to relatively mild winter temperatures – despite the destruction done by Winter Storm Elliott. By quarter-end, natural gas was down -33.9%, closing at \$4.48 per million BTUs. Gold prices were up 9.8% during the quarter, finishing at approximately \$1,826 per troy ounce, as the Federal Reserve continued its hawkish stance toward inflation.

Natural gas fell -34%
for the quarter on
expectations of a
mild January

Real Assets	MTD (%)	QTD (%)	YTD (%)	1Y (%)
Wilshire US Real Estate Securities Index SM	(5.61)	4.09	(26.75)	(26.75)
Wilshire Global Real Estate Securities Index SM	(3.91)	6.35	(24.91)	(24.91)
FTSE Global Core Infrastructure 50/50	(2.11)	9.24	(4.15)	(4.15)
Alerian Midstream Energy	(6.02)	8.38	21.53	21.53
Bloomberg Commodity	(2.45)	2.22	16.09	16.09
Gold	3.14	9.84	(0.28)	(0.28)
Bitcoin	(3.07)	(14.65)	(64.22)	(64.22)

Source: Bloomberg. Indexes are total return.

Alternatives

Liquid alternative managers posted their first positive quarter since Q4 2021, driven by easing inflationary pressures and dovish Fed rhetoric in the first two months of the quarter. All sub-strategies ended the quarter positive except for global macro, as these managers struggled with reversals in both fixed income and currencies. Equity hedge managers enjoyed a supportive environment as markets priced in a lower-than-expected inflation print early in the quarter but struggled in December as the Fed re-established its hawkish stance. Supportive equity markets and moderate volume were tailwinds to the event driven space during the quarter, while notable exposure to the Rogers/DuPont termination weighed on the peer group. Relative value managers benefitted from tightening spreads and rallying Treasuries early in the quarter but experienced a moderate pullback as sentiment shifted heading into year end.

Global macro managers struggled with reversals in fixed income and currency

Alternatives	MTD (%)	QTD (%)	YTD (%)	1Y (%)
Wilshire Liquid Alternative Index SM	(1.34)	1.70	(5.69)	(5.69)
Wilshire Liquid Alternative Equity Hedge Index SM	(2.35)	4.87	(6.46)	(6.46)
Wilshire Liquid Alternative Event Driven Index SM	(0.37)	0.80	(2.97)	(2.97)
Wilshire Liquid Alternative Global Macro Index SM	(2.35)	(4.65)	7.99	7.99
Wilshire Liquid Alternative Multi-Strategy Index SM	(1.49)	2.48	(6.34)	(6.34)
Wilshire Liquid Alternative Relative Value Index SM	(0.55)	1.10	(8.13)	(8.13)

Source: Bloomberg. Indexes are total return.

SUMMARY REVIEW OF PLANS

Period Ended December 31, 2022

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CalPERS PERF	\$ 442,228.1	5.5%	-11.2%	4.2%	5.0%	7.0%
CalPERS PERF Policy Benchmark ¹		4.7%	-12.6%	3.3%	4.7%	6.7%
Actuarial Rate		1.7%	6.8%	6.9%	7.1%	7.3%
Judges I						
Judges I	\$ 47.6	1.0%	1.8%	0.8%	1.4%	0.9%
91-Day Treasury Bill		0.8%	1.5%	0.7%	1.3%	0.8%
Judges II						
Judges II	\$ 2,134.0	7.1%	-17.2%	1.7%	3.6%	5.8%
Weighted Policy Benchmark		7.0%	-17.3%	1.5%	3.4%	5.5%
Legislators' Retirement System						
Legislators' Retirement System	\$ 95.6	4.0%	-16.6%	-0.1%	2.2%	3.6%
Weighted Policy Benchmark		4.2%	-16.5%	-0.2%	2.1%	3.4%
Long-Term Care ("LTC")						
Long-Term Care ("LTC")	\$ 4,675.1	3.7%	-16.3%	-0.7%	1.7%	2.7%
Weighted Policy Benchmark		3.9%	-16.2%	-0.8%	1.6%	2.5%
CERBT Strategy 1						
CERBT Strategy 1	\$ 13,213.5	6.8%	-17.8%	1.9%	3.7%	5.9%
CERBT Strategy 1 Policy Benchmark		6.9%	-17.9%	1.7%	3.5%	5.6%
CERBT Strategy 2						
CERBT Strategy 2	\$ 1,682.6	5.5%	-17.6%	0.6%	2.8%	4.6%
CERBT Strategy 2 Policy Benchmark		5.6%	-17.6%	0.5%	2.7%	4.4%
CERBT Strategy 3						
CERBT Strategy 3	\$ 743.1	4.4%	-16.4%	-0.1%	2.2%	3.5%
CERBT Strategy 3 Policy Benchmark		4.6%	-16.3%	-0.2%	2.1%	3.3%
CEPPT Strategy 1						
CEPPT Strategy 1	\$ 71.4	5.5%	-15.8%	0.6%	-.%	-.%
CEPPT Strategy 1 Policy Benchmark		5.5%	-15.9%	0.6%	-.%	-.%
CEPPT Strategy 2						
CEPPT Strategy 2	\$ 33.2	3.8%	-14.2%	-1.1%	-.%	-.%
CEPPT Strategy 2 Policy Benchmark		4.0%	-14.1%	-1.1%	-.%	-.%
Health Care Fund						
Health Care Fund	\$ 200.5	1.7%	-13.2%	-2.8%	0.0%	1.2%
Barclays U.S. Aggregate		1.9%	-13.0%	-2.7%	0.0%	1.1%
Supplemental Contribution Plan						
Supplemental Contribution Plan	\$ 102.9	NM	NM	NM	NM	NM
CalPERS Custom SCP Plan Index		NM	NM	NM	NM	NM
457 Program						
457 Program	\$ 1,900.9	NM	NM	NM	NM	NM
CalPERS Custom 457 Plan Index		NM	NM	NM	NM	NM

¹ CalPERS PERF Policy Benchmark is currently computed by weighting the System's major asset class benchmarks at their respective policy targets, rebalanced periodically.

CALPERS PERF

Period Ended December 31, 2022

PERF TOTAL FUND PERFORMANCE

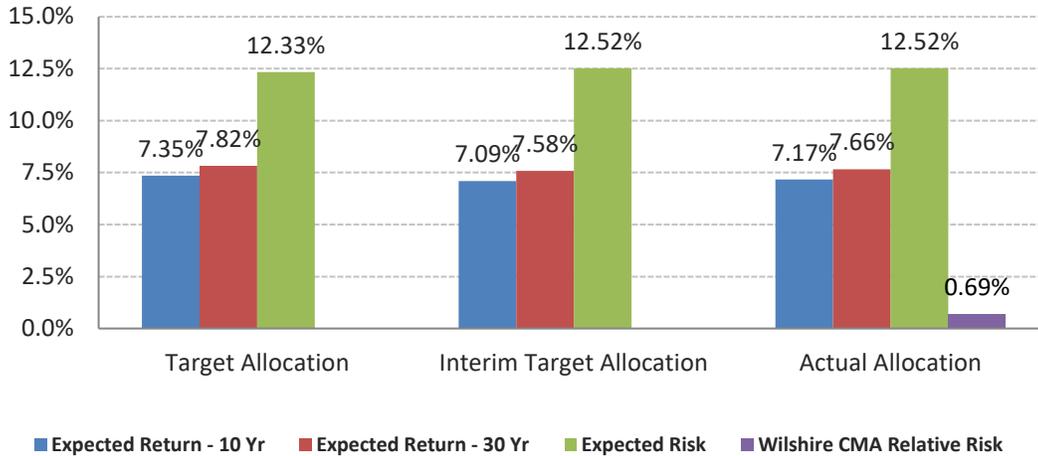
	Asset Value						VaR (\$Billion)	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year		Sharpe	Info
CALPERS PERF	\$ 442.2	5.5%	-11.2%	4.2%	5.0%	7.0%	\$ 59.4	0.4	0.2
<i>CalPERS PERF Policy Benchmark</i>		4.7%	-12.6%	3.3%	4.7%	6.7%		0.4	0.0
<i>Actuarial Rate</i>		1.7%	6.8%	6.9%	7.1%	7.3%			
PUBLIC EQUITY*	\$ 210.1	9.9%	-15.8%	4.1%	5.3%	8.5%	\$ 40.6	0.2	0.2
<i>Public Equity Policy Benchmark</i>		9.8%	-16.0%	3.8%	5.2%	8.4%		0.2	0.0
PUBLIC EQUITY - CAP WEIGHTED*	\$ 156.9	10.0%	-17.9%	4.7%	5.6%	8.7%	\$ 33.1	0.2	0.2
<i>CalPERS Custom FTSE Global Benchmark</i>		9.8%	-18.2%	4.4%	5.5%	8.5%		0.2	0.0
PUBLIC EQUITY - FACTOR WEIGHTED	\$ 53.2	9.7%	-11.0%	2.2%	-.%	-.%	\$ 8.3	N/A	N/A
<i>CalPERS Custom FTSE Factor Weighted Benchmark</i>		9.7%	-10.9%	2.1%	-.%	-.%		N/A	N/A
PRIVATE EQUITY	\$ 50.3	0.1%	-2.3%	15.3%	12.1%	12.4%	\$ 19.0	1.3	0.3
<i>Private Equity Policy Benchmark</i>		-6.3%	-19.6%	5.7%	6.5%	10.8%		0.3	0.0
INCOME*	\$ 105.0	2.6%	-18.5%	-3.6%	-0.1%	1.6%	\$ 5.9	-0.2	1.0
<i>Income Policy Benchmark</i>		2.7%	-18.4%	-3.7%	-0.4%	1.0%		-0.2	0.0
TREASURY*	\$ 14.7	-0.1%	-24.9%	-6.3%	-1.8%	0.2%	\$ 2.1	-0.3	-0.2
TOTAL FUND INCOME	\$ 6.2	-0.4%	-25.3%	-.%	-.%	-.%	\$ 0.9	N/A	N/A
<i>CalPERS Custom Treasury Benchmark</i>		-0.1%	-24.9%	-6.1%	-1.7%	0.2%		-0.3	0.0
MORTGAGE-BACKED SECURITIES	\$ 23.6	2.1%	-11.8%	-3.0%	-0.2%	1.6%	\$ 0.1	-0.3	0.7
<i>Bloomberg LMTG</i>		2.1%	-11.7%	-3.1%	-0.4%	0.8%		-0.4	0.0
INVESTMENT GRADE CREDIT	\$ 25.7	4.5%	-22.8%	-4.5%	0.1%	2.7%	\$ 2.6	-0.1	1.0
<i>Bloomberg LCPXSOV</i>		4.8%	-22.6%	-4.8%	-0.3%	2.1%		-0.1	0.0
HIGH YIELD	\$ 20.3	4.3%	-10.2%	-0.4%	-.%	-.%	\$ 2.0	N/A	N/A
<i>BBG US High Yield BB/B Liquid Index</i>		4.3%	-10.2%	-0.4%	-.%	-.%		N/A	N/A
EM SOVEREIGN	\$ 14.5	-.%	-.%	-.%	-.%	-.%	\$ 0.8	N/A	N/A
REAL ASSETS	\$ 73.7	0.0%	14.3%	9.8%	7.9%	9.2%	\$ 10.9	1.7	-0.2
<i>Real Assets Policy Benchmark</i>		0.2%	20.9%	11.3%	9.1%	9.5%		1.3	0.0
PRIVATE DEBT	\$ 8.9	1.8%	-.%	-.%	-.%	-.%	\$ 0.7	N/A	N/A
<i>Private Debt Blended Benchmark</i>		1.6%	-.%	-.%	-.%	-.%		N/A	N/A
OTHER TRUST LEVEL	\$ 16.6							N/A	N/A
LLER	\$ 14.2	2.0%	0.3%	1.4%	2.2%	-.%	\$ 0.1	0.3	0.4
<i>LIBOR 1 Month Rate</i>		1.0%	2.0%	1.0%	1.2%	-.%		-1.0	0.0
OPPORTUNISTIC STRATEGIES	\$ 0.2	1.5%	-2.8%	-.%	-.%	-.%	\$ 0.0	N/A	N/A
<i>Custom Opportunistic Strategies Benchmark</i>		1.0%	2.0%	-.%	-.%	-.%		N/A	N/A
OTHER	\$ 2.2	NM	NM	NM	NM	NM		N/A	N/A
LEVERAGE	\$ (22.4)							N/A	N/A
TERMINATED AGENCY POOL	\$ 0.2	1.8%	-21.4%	-2.0%	0.7%	-.%		N/A	N/A
CalPERS PERF PLUS TAP	\$ 442.4	5.5%	-11.2%	4.2%	5.0%	7.0%		N/A	N/A

* The CalPERS PERF asset values shown include derivative exposure.

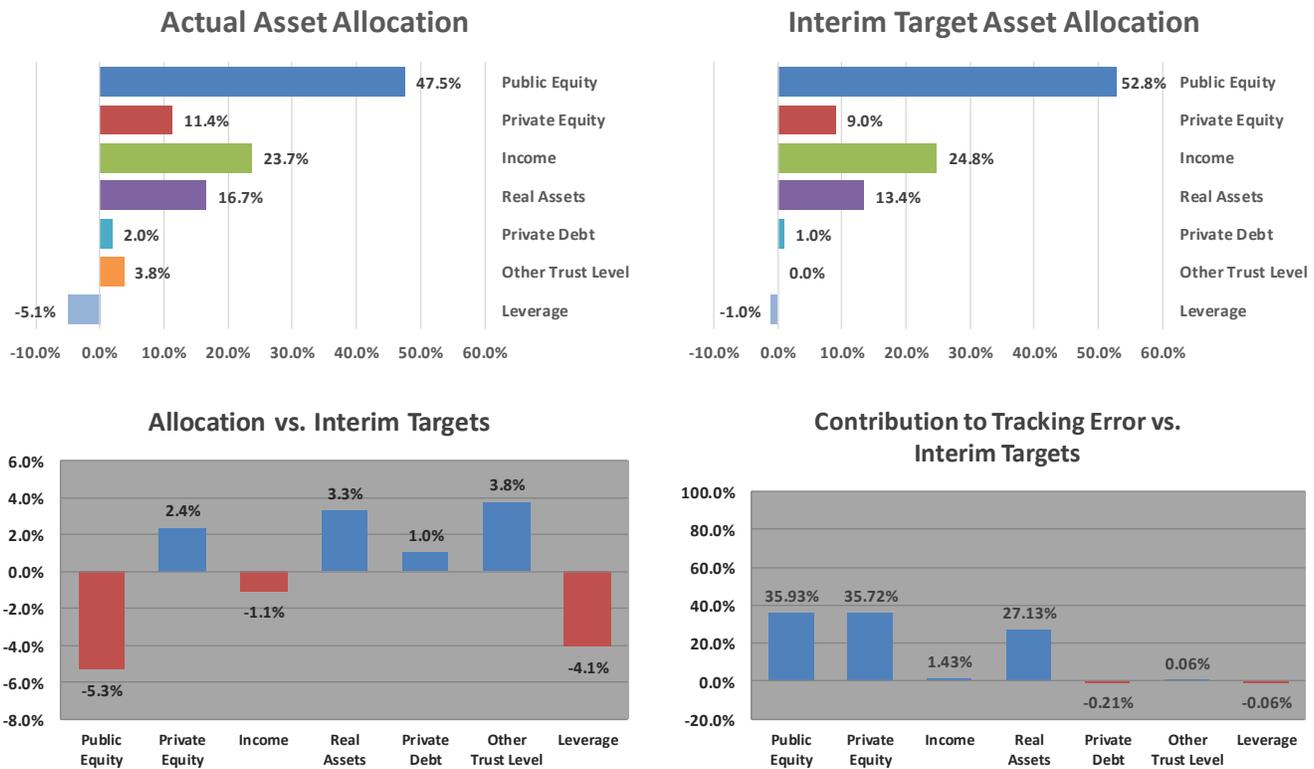
CALPERS PERF

Period Ended December 31, 2022

EXPECTED RETURN AND RISK²



TOTAL FUND ASSET ALLOCATION BASED TRACKING ERROR



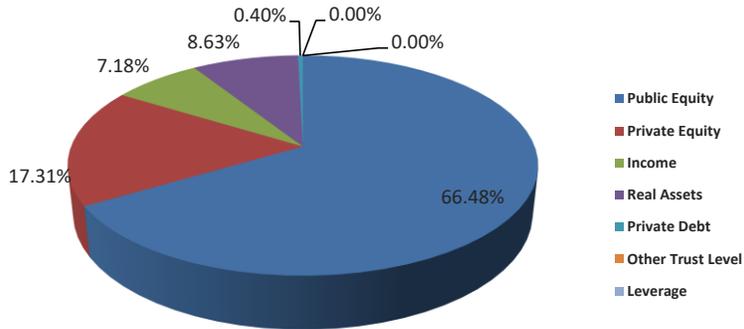
² Return and risk values expressed in this page are derived based on Wilshire Consulting Capital Market Assumptions, which are forward looking in nature.

CALPERS PERF

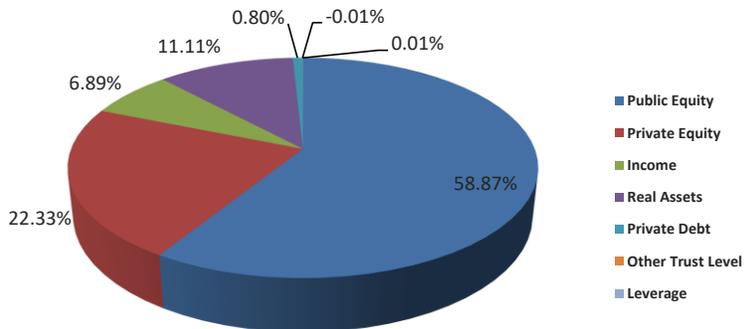
Period Ended December 31, 2022

CONTRIBUTION TO TOTAL RISK³

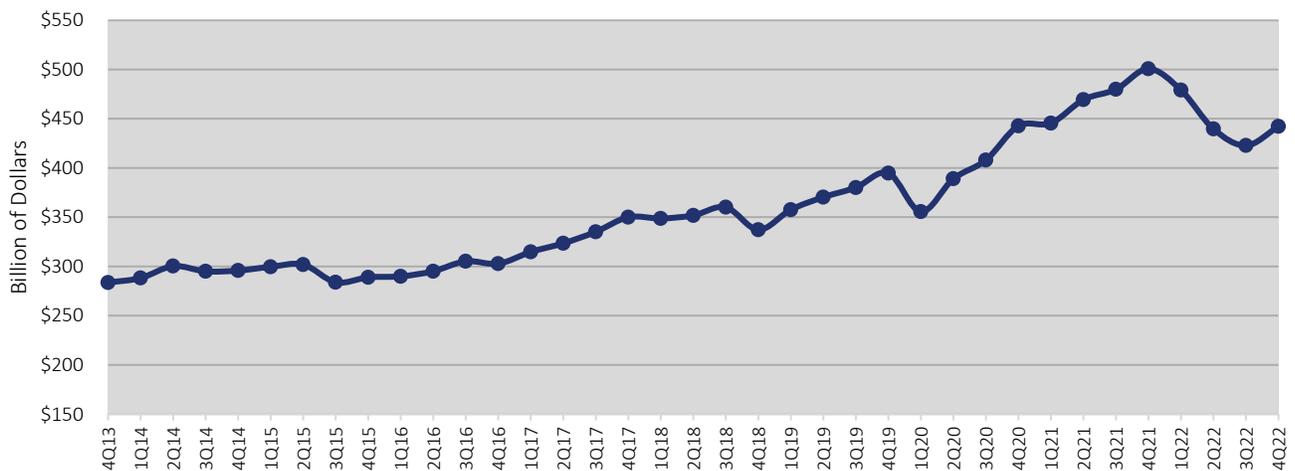
Contribution to Total Risk - Interim Target



Contribution to Total Risk - Actual Allocation



CHANGES IN ASSET VALUE



³ Return and risk values expressed in this page are derived based on Wilshire Consulting Capital Market Assumptions, which are forward looking in nature.

CALPERS PERF

Period Ended December 31, 2022

CALPERS PERF ATTRIBUTION – QUARTER

Asset Class	Actual (%)		Benchmark (%)		Difference (%)		Total Fund Return Contribution (%)		
	Weight *	Return	Weight *	Return	Weight	Return	Actual Allocation	Active Management	Total
Public Equity	47.49	9.91	47.61	9.79	-0.11	0.12	-0.03	0.06	0.03
Public Equity - Cap Weighted	35.04	10.02	35.11	9.84	-0.07	0.18	-0.02	0.06	0.03
Public Equity - Factor Weighted	12.45	9.67	12.50	9.71	-0.04	-0.04	0.00	0.00	-0.01
Private Equity	11.32	0.09	11.37	-6.62	-0.05	6.70	0.01	0.76	0.77
Income	23.60	2.61	23.94	2.74	-0.34	-0.13	0.04	-0.25	-0.21
Treasury	3.69	-0.07	5.29	-0.07	-1.59	0.00	0.10	0.00	0.10
Mortgage-Backed Securities	5.39	2.06	5.52	2.05	-0.12	0.01	0.01	0.00	0.01
Investment Grade Credit	5.75	4.45	5.76	4.84	-0.02	-0.39	0.00	-0.02	-0.02
High Yield	4.61	4.33	4.63	4.32	-0.01	0.01	0.00	0.00	0.00
EM Sovereign	2.73	-	2.74	8.01	-0.01	-8.01	0.00	-0.22	-0.23
Total Fund Income	1.42	-0.42	0.00	-0.07	1.42	-0.35	-0.07	-0.01	-0.08
Real Assets	16.71	-0.03	16.72	0.24	-0.01	-0.27	0.00	-0.05	-0.05
Private Debt	1.89	1.81	1.89	1.60	-0.01	0.21	0.00	0.00	0.00
Other Trust Level	3.74	-	0.00	-	3.74	-	-0.14	0.03	-0.11
LLER	3.19	1.95	0.00	0.97	3.19	0.98	-0.12	0.03	-0.09
Opportunistic Strategies	0.05	1.54	0.00	0.97	0.05	0.56	0.00	0.00	0.00
Other PERF	0.04	-	0.00	-	0.04	-	0.00	0.00	0.00
TLPM	0.47	-	0.00	-	0.47	-	-0.02	0.00	-0.02
Leverage	-4.75	-	-1.53	-	-3.22	-	0.14	0.00	0.14
Monthly Linked Return	100.00	5.27	100.00	4.71		0.56	0.01	0.55	0.56
Residual		0.23		0.00		0.23			0.23
Total PERF		5.50		4.71		0.79			0.79

* Average period weight displayed.

CALPERS PERF

Period Ended December 31, 2022

CALPERS PERF ATTRIBUTION – FISCAL YEAR-TO-DATE

Asset Class	Actual (%)		Benchmark (%)		Difference (%)		Total Fund Return Contribution (%)		
	Weight *	Return	Weight *	Return	Weight	Return	Actual Allocation	Active Management	Total
Public Equity	46.88	2.30	46.96	2.22	-0.07	0.08	-0.02	0.04	0.01
Public Equity - Cap Weighted	33.61	2.68	33.65	2.57	-0.05	0.11	-0.02	0.04	0.02
Public Equity - Factor Weighted	13.28	1.81	13.30	1.83	-0.02	-0.02	0.00	0.00	-0.01
Private Equity	11.33	-6.02	11.34	-21.26	-0.02	15.24	0.00	1.81	1.81
Income	24.58	-3.48	24.83	-3.41	-0.25	-0.07	0.07	-0.13	-0.07
Treasury	4.87	-8.35	6.49	-8.35	-1.62	0.00	0.14	0.00	0.14
Mortgage-Backed Securities	6.08	-3.22	6.22	-3.26	-0.14	0.04	0.01	0.00	0.02
Investment Grade Credit	5.88	-3.08	5.89	-2.94	-0.01	-0.14	0.00	-0.01	-0.01
High Yield	4.40	3.70	4.34	3.71	0.06	-0.02	0.03	0.00	0.03
EM Sovereign	1.88	-	1.89	2.98	-0.01	-2.98	0.00	-0.13	-0.13
Total Fund Income	1.47	-8.73	0.00	-8.35	1.47	-0.38	-0.10	-0.01	-0.11
Real Assets	16.22	2.75	16.20	4.69	0.02	-1.94	0.01	-0.36	-0.35
Private Debt	1.46	-	1.70	-3.47	-0.24	-	0.05	0.09	0.14
Other Trust Level	3.75	-	0.00	-	3.75	-	0.08	0.01	0.09
LLER	3.02	2.24	0.00	1.57	3.02	0.67	0.11	0.02	0.13
Opportunistic Strategies	0.28	-5.94	0.00	1.57	0.28	-7.51	-0.05	0.00	-0.05
Other PERF	0.04	-	0.00	-	0.04	-	0.00	0.00	0.00
TLPM	0.41	-	0.00	-	0.41	-	0.02	0.00	0.02
Leverage	-4.21	-	-1.04	-	-3.18	-	-0.09	0.00	-0.09
Monthly Linked Return	100.00	0.07	100.00	-1.46		1.54	0.10	1.45	1.54
Residual		0.04		0.00		0.03			0.03
Total PERF		0.11		-1.46		1.57			1.57

* Average period weight displayed.

CALPERS PERF

Period Ended December 31, 2022

CALPERS PERF ATTRIBUTION – WILSHIRE COMMENT

The California Public Employees’ Retirement System (“CalPERS PERF, the System”) generated a total fund return of 5.50% for the quarter ended December 31, 2022. CalPERS’ return can be attributed as follows:

4.71%	Strategic Policy Allocation
0.01%	Actual/Tactical Asset Allocation
0.55%	Active Management
<u>0.23%</u>	Residual (Trading/Currency Hedging)
5.50%	Total Return

The total fund attribution table in the previous pages display the return contribution of each asset class to the total fund. These tables allows the Board to see whether tactical allocation and active management within asset classes helped or hurt performance during the measured period.

- Strategic Policy: The contribution to total return from each asset class, calculated as the percentage allocated to each asset class multiplied by the benchmark return for that asset class
- Actual Allocation: The return contribution during the measured period due to differences in the actual allocation from the policy allocation (i.e. the actual allocation to total equity was higher than the policy allocation). A positive number would indicate an overweight benefited performance and vice versa
- Active Management: The return contribution from active management. The number would be positive if the asset class outperformed the designated policy index and vice versa (i.e. the Income segment outperformed its custom benchmark during a quarter and contributed positively to active management)
- Actual Return: The actual return of the asset classes if allocations to them were static during the quarter. These returns will not match exactly with the actual segment returns since asset class allocations change during the quarter due to market movement, cash flows, etc.

Wilshire attribution showed that CalPERS PERF’s +79 bps Q4 outperformance was primarily attributed to active management, as allocation variance netted minimal overall impact. Among the major asset class programs, Private Equity accounted for the bulk of the contribution: this program fared significantly better than its benchmark measure with respective returns of 0.1% and -6.6% over the last three months of 2022, more than offsetting a modest miss by the Income program.

CALPERS PERF

Period Ended December 31, 2022

RELATIVE TO CALPERS PERF POLICY BENCHMARK

Public Equity: Global equities enjoyed a good quarter, breaking out of a long negative slump on a relief rally that was primarily underpinned by signs of peaking U.S. inflation and the likelihood of the Federal Reserve to dial down the pace of future rate hikes. With this receding inflation risk/greater clarity on U.S. monetary policy path combo more than offsetting negative ongoing geopolitical concerns in Q4, the Public Equity program advanced 9.9% that was the highest output by any major CalPERS asset class programs, and compared favorably to the PERF Policy Benchmark (4.7% return) and Public Equity's own policy benchmark (9.8%). The encouraging Q4 finish aside, Public Equity did struggle mightily in the three prior quarters, which resulted in it still closing out 2022 firmly in the red, down -15.8%. This full-year figure was worse than the PERF Policy Benchmark's pace of -12.6%, but did better its own benchmark by +18 bps.

Private Equity: With turmoil in the public securities markets persisted through the majority of 2022, the impacts of sharply higher interest rates and a growing uncertain valuation environment are starting to be felt in the private markets as well. The CalPERS Private Equity program, with its underlying partnerships reporting on a lagged basis, closed out the fourth quarter with a meager 0.1% gain that was the second of such muted level in three quarters; naturally this paled against the PERF Policy Benchmark's 4.7% return for the same period. Thanks to a diverse mix of high quality funds, however, this program did manage to fare much better than its own policy benchmark by a significant margin of +635 bps. For the full year, the PE program was considered a solid contributor at the plan level, as it posted a minimal dip of -2.3% return when nearly all other CalPERS asset classes fell by double-digit, while also compared very well relative to PERF Policy Benchmark and PE policy benchmark's respective returns of -12.6% and -19.6%.

Income: Credit markets managed to regain their footing in the fourth quarter as the Federal Reserve began to downshift its rate hike pace. While inflation remains elevated, little signs the inverted U.S. yield curve will revert soon, and the Fed maintaining a hawkish stance, the central bank's signaling of pivot toward less aggressive tightening pace provided something positive for investors to hold on to, and in turn helped credit spreads to ease. This benefited most spread sectors as well as the CalPERS Income asset class, which rose 2.6% for the quarter. While this performance closely mirrored the pace of the Income Policy Benchmark, it was not nearly as strong as the PERF Policy Benchmark with a -210 bps gap. Similar result is observed for the full year, with Income's -18.5% return (it was down more than 5% in each of the first three quarters of 2022) tracking closely to its policy while lagging the PERF Policy Benchmark's -12.6% return.

Real Assets: This CalPERS program is a blend of privately held real estate, infrastructure, and forestland investments. Due to the less volatile return pattern of the private investments and their lower correlation with publicly traded assets, the Real Assets program did not participate in Q4's risk assets rebound, finishing virtually flat and came in below the PERF Policy Benchmark. By the same token, Real Assets did not experience the drawdown stocks and bonds did during the first three quarters of 2022, therefore it actually concluded the year with a healthy 14.3% total return, and fared much better than PERF policy's -12.6% 1-year pace. What disappointed was when viewed in relative terms, Real Assets underperformed its own policy benchmark by a notable margin of -651 bps for the year, making it a net detractor at the PERF Total Fund level despite the strong absolute earnings.

Private Debt: The youngest/newest major CalPERS asset class program, Private Debt turned in a very modest but positive return of 1.8% in Q4. This figure was much softer than the PERF Policy Benchmark's 4.7% return level, but was enough to beat the custom Private Debt Blended Benchmark (1.6%) and mildly contributed in relative terms.

PUBLIC EQUITY

Period Ended December 31, 2022

PUBLIC EQUITY ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
PUBLIC EQUITY	47.5%	52.8%	-5.3%
Public Equity - Cap Weighted	35.5%	40.8%	-5.3%
Public Equity - Factor Weighted	12.0%	12.0%	0.0%

PUBLIC EQUITY SEGMENT PERFORMANCE

	Asset Value							VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info	
PUBLIC EQUITY*	\$ 210.1	9.9%	-15.8%	4.1%	5.3%	8.5%	\$ 40.6	0.2	0.2	
<i>Public Equity Policy Benchmark</i>		9.8%	-16.0%	3.8%	5.2%	8.4%		0.2	0.0	
Public Equity - Cap Weighted*	\$ 156.9	10.0%	-17.9%	4.7%	5.6%	8.7%	\$ 33.1	0.2	0.2	
<i>CalPERS Custom FTSE Global Benchmark</i>		9.8%	-18.2%	4.4%	5.5%	8.5%		0.2	0.0	
Public Equity - Factor Weighted	\$ 53.2	9.7%	-11.0%	2.2%	--%	--%	\$ 8.3	N/A	N/A	
<i>CalPERS Custom FTSE Factor Weighted Benchmark</i>		9.7%	-10.9%	2.1%	--%	--%		N/A	N/A	

* The CalPERS asset values shown include derivative exposure.

PUBLIC EQUITY PORTFOLIOS PERFORMANCE

	Asset Value							VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info	
Public Equity - Cap Weighted										
Global Equity Index-Oriented Strategy	\$ 133.1	9.8%	-18.1%	4.7%	5.9%	8.9%		0.3	1.4	
<i>GE Index-Oriented Strategy Benchmark</i>		9.8%	-18.2%	4.5%	5.7%	8.7%		0.2	0.0	
Global Equity Alternative Beta	\$ 4.3	11.5%	-14.6%	5.4%	5.7%	8.2%		0.3	0.2	
<i>GE Alternative Beta Custom Index</i>		9.8%	-18.2%	4.4%	5.4%	7.9%		0.2	0.0	
GE Public Equity - Traditional Active	\$ 7.9	13.0%	-14.9%	7.1%	6.6%	8.4%		0.3	0.8	
<i>GE Active ex-Alt Beta Custom Index</i>		10.5%	-17.8%	3.6%	4.5%	7.1%		0.2	0.0	
Other	\$ 11.5	NM	NM	NM	NM	NM		N/A	N/A	
Public Equity - Factor Weighted (Min Volatility)										
Internal Factor Weighted Idx Oriented	\$ 53.2	9.7%	-11.0%	2.2%	--%	--%		N/A	N/A	
<i>CalPERS Custom FTSE Factor Weighted Benchmark</i>		9.7%	-10.9%	2.1%	--%	--%		N/A	N/A	

PUBLIC EQUITY

Period Ended December 31, 2022

PERFORMANCE NOTES – PUBLIC EQUITY

Cap Weighted Public Equity – Index-Oriented Strategy: The largest Public Equity component with 63% of the assets at the end of December, Index-Oriented Strategy continues to function as intended by providing accurate beta exposure and closely tracked the global equity markets' 4th Quarter rally to a 9.8% gain. Aside from the strong quarter, however, this program still finished with its worst year since the 2008 Global Financial Crisis to end 2022 down -18.1%. Both figures were on pace with the assigned benchmark but the latter did fall short by a modest margin compared to the Public Equity Policy Benchmark (-16.0%). Looking beyond 2022's challenged results, the Strategy's longer-term track record currently remains intact, where it continues to average annualize above 5% for the 5- and 10-year marks; these returns compare favorably to the asset class benchmark while also tracking ahead of its own assigned benchmark measure.

Cap Weighted Public Equity – Traditional Active: With assets invested either directly by external managers or through models provided by external managers, the Traditional Active Equity program enjoyed a great quarter. While the late-year rebound among global markets was broad-based, this Public Equity component really shined amid the de-escalating Fed expectations/declining US dollar/steady corporate fundamentals backdrop and recorded a top of the leaderboard return of 13.0%. This output significantly outperformed both the program's own benchmark (by +250 bps) and the asset class policy benchmark (by +318 bps). The strong year-end finish helped soften prior hits taken between Q1-Q3, bringing full-year result to -14.9% which, despite being its worst annual return in 15 years, did also compare better than the two benchmark measures. Near term challenges aside, Traditional Active Equity's ability to capture broad equity market's forward momentum while adding additional alpha has worked well over time: this program's 7.1% 3-year return and 6.6% 5-year return easily paced other Public Equity components and represent sizable outperformance.

Cap Weighted Public Equity – Alternative Beta: As a small member component of Public Equity, Alternative Beta has done well for CalPERS, repeatedly generating better-than-benchmark level returns over this past two years that also helped compensate for Traditional Active Equity program whenever it comes up short. This internally managed program turned in another successful quarter, participating on the upside to a 11.5% Q4 finish while turning in a -14.6% 1-year return that was notably less severe than Index-Oriented Strategy/Traditional Active's numbers, and contributed at the asset class level. This program's historical track record is currently on solid footing as well, with its 3-, 5-, and 10-year returns all pace modestly ahead of its assigned benchmark measure.

Factor Weighted Public Equity: Similar to the other publicly traded CalPERS equity programs, the Factor Weighted Public Equity portfolio recorded a nice rebound in the fourth quarter, notching solid back-to-back monthly gains in October and November to help solidify a 9.7% total return. Factor Weighted has also performed reasonably well during the challenging 2022 that was marred by significantly elevated market volatility: while it did lose -11.0% for the full year, this result compared much better than what the cap-weighted programs reported, which were all in the negative mid- to high-teens range. This number also looked fine relative to benchmark measures, essentially parring the program custom benchmark and was more composed than the Public Equity Policy Benchmark's -16.0% pace.

PRIVATE EQUITY

Period Ended December 31, 2022

PRIVATE EQUITY ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
PRIVATE EQUITY	11.4%	9.0%	2.4%
Private Equity	11.4%	9.0%	2.4%

PRIVATE EQUITY SEGMENT PERFORMANCE ⁴

	Asset Value							VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)		Sharpe	Info
PRIVATE EQUITY	\$ 50.3	0.1%	-2.3%	15.3%	12.1%	12.4%	\$ 19.0	1.3	0.3	
<i>CalPERS Custom Private Equity Benchmark</i>		-6.3%	-19.6%	5.7%	6.5%	10.8%		0.3	0.0	

PRIVATE EQUITY PORTFOLIOS PERFORMANCE

	Asset Value							VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)		Sharpe	Info
<i>Private Equity</i>										
Private Equity Partnership Investments	\$ 50.3	0.1%	-2.2%	15.4%	12.2%	12.4%		N/A	N/A	
Private Equity Distribution Stock	\$ 0.0	-11.9%	-56.2%	-45.6%	-21.3%	-17.4%		N/A	N/A	

⁴ Performance of CalPERS' private equity investments is 1-quarter lagged.

INCOME

Period Ended December 31, 2022

INCOME ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
INCOME	23.8%	24.8%	-1.0%
Treasury	4.7%	5.6%	-0.8%
Mortgages	5.3%	5.6%	-0.2%
Investment Grade Corporates	5.8%	6.3%	-0.5%
High Yield	4.6%	4.8%	-0.2%
EM Sovereign Bonds	3.3%	2.6%	0.7%

INCOME SEGMENT & PORTFOLIO PERFORMANCE

	Asset Value						VaR (\$Billion)	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year		Sharpe	Info
INCOME*	\$ 105.0	2.6%	-18.5%	-3.6%	-0.1%	1.6%	\$ 5.9	-0.2	1.0
<i>Income Policy Benchmark</i>		2.7%	-18.4%	-3.7%	-0.4%	1.0%		-0.2	0.0
Treasury*	\$ 14.7	-0.1%	-24.9%	-6.3%	-1.8%	0.2%	\$ 2.1	-0.3	-0.2
Total Fund Income	\$ 6.2	-0.4%	-25.3%	--%	--%	--%	\$ 0.9	N/A	N/A
<i>CalPERS Custom Treasury Benchmark</i>		-0.1%	-24.9%	-6.1%	-1.7%	0.2%		-0.3	0.0
Mortgage-Backed Securities	\$ 23.6	2.1%	-11.8%	-3.0%	-0.2%	1.6%	\$ 0.1	-0.3	0.7
<i>Bloomberg LMTG</i>		2.1%	-11.7%	-3.1%	-0.4%	0.8%		-0.4	0.0
Investment Grade Credit	\$ 25.7	4.5%	-22.8%	-4.5%	0.1%	2.7%	\$ 2.6	-0.1	1.0
<i>Bloomberg LCORPXSOV</i>		4.8%	-22.6%	-4.8%	-0.3%	2.1%		-0.1	0.0
High Yield	\$ 20.3	4.3%	-10.2%	-0.4%	--%	--%	\$ 2.0	N/A	N/A
<i>BBG US High Yield BB/B Liquid Index</i>		4.3%	-10.2%	-0.4%	--%	--%		N/A	N/A
EM Sovereign	\$ 14.5	--%	--%	--%	--%	--%	\$ 0.8	N/A	N/A

* The CalPERS asset values shown include derivative exposure.

INCOME

Period Ended December 31, 2022

PERFORMANCE NOTES – INCOME

Treasury: With Treasury yields followed inflation data and Fed Chair Powell's various comments to seesawing actions in the fourth quarter, ultimately ending just modestly higher from where it was three months ago (3.87% vs. 3.77%), the internally-managed Treasury program finished the quarter not too far from where it started with a -0.1% return. This paled in comparison to all other CalPERS Income programs' as well as the Income Policy's Q4 output, but was nonetheless a notable improvement versus the steep losses in Q1-Q3 and tied with Treasury's own benchmark. The number for the year was similarly uninspiring, where CalPERS Treasury registered a total -24.9% decline to cap off its worst calendar year since the 2010 inception and ranked last among the active Income programs/Income Policy, despite properly mirroring its own benchmark.

Mortgage-Backed Securities: MBS performance opened the quarter on a weak note with mortgage spreads widening amid continued rise in interest rates and market volatility, but recovered nicely the rest of the way as both measures pulled back. This program was able to mirror the Bloomberg LMTG Index to close Q4 with a healthy 2.1% advance. While this performance wasn't quite as good as the Income Policy's 2.7% return, it helped shorten the MBS program's full year loss to -11.8%, which then compared markedly better than Treasury as well as the Income Policy Benchmark.

Investment Grade Credit: The IG Credit program behaved in similar pattern as MBS did, losing ground earlier in the quarter amid Fed policy trajectory uncertainty but rallied back after sentiment improved to notably drive down credit spreads (despite part of the Treasury yield curve remaining inverted and inflation remain at elevated level). In the end, this CalPERS program finished the fourth quarter strong with a 4.5% return that was atop the leaderboard and notably outperformed the pace of Treasury as well as the Income Policy. However, this output did modestly trail IG Credit's own benchmark (by -39 bps), and it wasn't enough to help counter the steep earlier-year declines (double-digit losses in each of Q1 and Q2) that the program still concluded the year down -22.8%, which represented a miss against IG Credit benchmark's -22.6% and Income Policy's -18.4% pace.

High Yield: The tightening credit spreads was also beneficial to non-investment grade bonds this quarter. Coupled with resilient corporate fundamentals (still low default rates) and attractive yield levels, the CalPERS High Yield program was able to come away with its first positive quarterly finish this year, gaining 4.3% that was second only to Investment Grade Credit's 4.5% return. This robust Q4 output, which was also the highest since 2020, matched the high yield benchmark's pace and easily topped the Income Policy's 2.7% return. Having previously surrendered a cumulative -13.9% in the first three quarters of 2022, the High Yield program's 1- and 3-year track record currently remain in the red at -10.2% and -0.4%, respectively, but they too are on par with the high yield benchmark while faring better than the Income Policy.

REAL ASSETS

Period Ended December 31, 2022

REAL ASSETS ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
REAL ASSETS	16.7%	13.4%	3.3%
Real Estate	13.6%	--	--
Forestland	0.2%	--	--
Infrastructure	3.0%	--	--

REAL ASSETS SEGMENT & PORTFOLIOS PERFORMANCE ⁵

	Asset Value						VaR (\$Billion)	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year		Sharpe	Info
REAL ASSETS	\$ 73.7	0.0%	14.3%	9.8%	7.9%	9.2%	\$ 10.9	1.7	-0.2
<i>Real Assets Policy Benchmark</i>		0.2%	20.9%	11.3%	9.1%	9.5%		1.3	0.0
Real Estate	\$ 60.0	0.1%	15.7%	10.5%	8.3%	9.6%	\$ 8.9	1.6	-0.1
<i>CalPERS Custom Real Estate Benchmark</i>		0.2%	20.9%	11.3%	9.2%	9.9%		1.3	0.0
Infrastructure	\$ 13.1	-1.1%	8.3%	7.4%	8.2%	11.2%	\$ 1.9	1.2	-0.1
<i>CalPERS Custom Infrastructure Benchmark</i>		0.2%	20.9%	11.3%	9.1%	7.2%		1.3	0.0
Forestland	\$ 0.7	2.4%	7.3%	2.2%	-0.3%	-0.2%	\$ 0.1	-0.2	-1.1
<i>CalPERS Custom Forestland Benchmark</i>		0.2%	20.9%	11.3%	8.9%	8.0%		1.3	0.0

PERFORMANCE NOTES – REAL ASSETS

Real Estate: Performance of the Real Estate program has been trending down for awhile, and the pace of deceleration quickened in the second half of 2022 to yield a 0.1% Q4 return as impact of the Fed’s aggressive monetary tightening began reverberating in the properties market. While the rise of real yields is likely to present headwind going forward, Real Estate did hold on to a double-digit cumulative gain for the year of 2022 and over the past three years thanks to the robust valuation rebound coming out of the COVID lockdown; both figures currently show a modest amount of lag in relative terms, however.

Infrastructure: The Infrastructure portfolio was a laggard this quarter, snapping its streak of seven consecutive positive quarterly finishes to end Q4 below the flat line, which also held back its full-year return to 8.3%. Both figures underperformed in relative terms. Despite the near-term results comparing less robust than program policy benchmark, over longer time periods this portfolio has done well and remains one of Real Assets’ best performing components.

Forestland: Following a consistent trend, Real Assets’ smallest component once again turned in a small quarterly return, ending Q4 up 2.4%. This performance actually paced the other two RA portfolios, although the modest nature of forest/timber investment meant this portfolio’s full-year return remains the least robust of the group at 7.3%. Coupled with drag from the sale of a legacy timber investment that represented a markdown of portfolio value at the beginning of Q3 2018, this continued to weigh down Forestland’s longer-term track record, currently underperforming against the Real Assets Policy Benchmark.

⁵ Performance of CalPERS’ Real Assets investments is reported on a 1-quarter lagged basis.

PRIVATE DEBT

Period Ended December 31, 2022

PRIVATE DEBT LEVEL ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
PRIVATE DEBT	2.0%	1.0%	1.0%
Private Debt	2.0%	1.0%	1.0%

PRIVATE DEBT SEGMENT & PORTFOLIO PERFORMANCE

	Asset Value							VaR (\$Billion)	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	Sharpe		Info	
PRIVATE DEBT	\$ 8.9	1.8%	--%	--%	--%	--%	\$ 0.7	N/A	N/A	
<i>Private Debt Blended Benchmark</i>		1.6%	--%	--%	--%	--%		N/A	N/A	

OTHER TRUST LEVEL

Period Ended December 31, 2022

OTHER TRUST LEVEL ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
OTHER TRUST LEVEL	3.8%	0.0%	3.8%
LLER	3.2%	--	3.2%
Opportunistic Strategies	0.0%	--	0.0%
TLPM	0.5%	--	0.5%
Other PERF	0.0%	--	0.0%

OTHER TRUST LEVEL SEGMENT & PORTFOLIO PERFORMANCE

	Asset Value							VaR (\$Billion)	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	Sharpe		Info	
OTHER TRUST LEVEL	\$ 16.6									
LLER	\$ 14.2	2.0%	0.3%	1.4%	2.2%	--%	\$ 0.1	0.3	0.4	
<i>LIBOR 1 Month Rate</i>		1.0%	2.0%	1.0%	1.2%	--%		-1.0	0.0	
Opportunistic Strategies	\$ 0.2	1.5%	-2.8%	--%	--%	--%	\$ 0.0	N/A	N/A	
<i>Custom Opportunistic Strategies Benchmark</i>		1.0%	2.0%	--%	--%	--%		N/A	N/A	
Trust Level Portfolio Management	\$ 2.0	NM	NM	NM	NM	NM		N/A	N/A	
Other Perf	\$ 0.1	NM	NM	NM	NM	NM		N/A	N/A	

LEVERAGE

Period Ended December 31, 2022

LEVERAGE ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class/Program	Actual Asset Allocation	Target Asset Allocation	Difference
LEVERAGE	-5.1%	-1.0%	-4.1%
Strategic	-1.3%	-1.0%	-0.3%
Active	-3.8%	0.0%	-3.8%

LEVERAGE SEGMENT PERFORMANCE

	Asset Value						VaR (\$Billion)	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year		Sharpe	Info
LEVERAGE	\$ (22.4)	-.%	-.%	-.%	-.%	-.%		N/A	N/A
Strategic	\$ (5.8)	-.%	-.%	-.%	-.%	-.%		N/A	N/A
Active	\$ (16.6)	-.%	-.%	-.%	-.%	-.%		N/A	N/A

SECURITIES LENDING

Period Ended December 31, 2022

SEC LENDING SEGMENT & PORTFOLIOS PERFORMANCE

	Asset Value						VaR (\$Billion)	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year		Sharpe	Info
Sec Lending Composite	\$ 12.4	1.0%	1.8%	0.8%	1.4%	1.0%		N/A	N/A
Internal Sec Lending Portfolio	\$ 11.2	1.0%	1.8%	0.8%	1.4%	1.0%		N/A	N/A
CalPERS GSTIF		1.0%	1.8%	0.8%	1.4%	0.9%		N/A	N/A

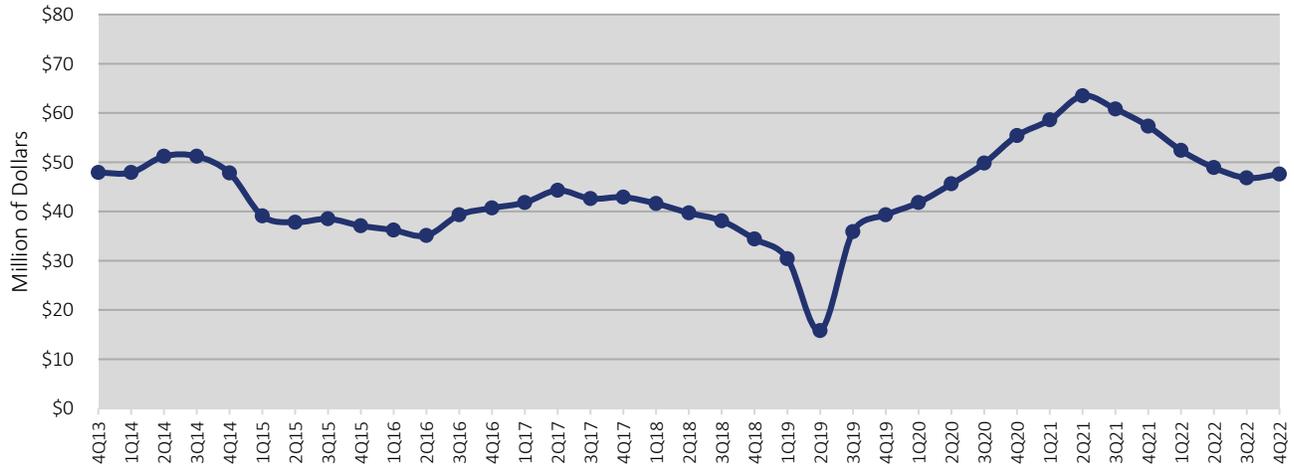
AFFILIATE FUND INFORMATION

JUDGES RETIREMENT SYSTEM I FUND

JUDGES I PERFORMANCE

Period Ended December 31, 2022

GROWTH IN ASSETS



NET OF FEE PLAN PERFORMANCE RESULTS – JUDGES I ⁶

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
Judges Retirement I Fund	\$ 47.6	1.0%	1.8%	0.8%	1.4%	0.9%
<i>91-Day Treasury Bill</i>		<i>0.8%</i>	<i>1.5%</i>	<i>0.7%</i>	<i>1.3%</i>	<i>0.8%</i>
Judges I Programs:						
Judges I Internal Short-Term	\$ 47.6	1.0%	1.8%	0.8%	1.4%	0.9%
<i>91-Day Treasury Bill</i>		<i>0.8%</i>	<i>1.5%</i>	<i>0.7%</i>	<i>1.3%</i>	<i>0.8%</i>

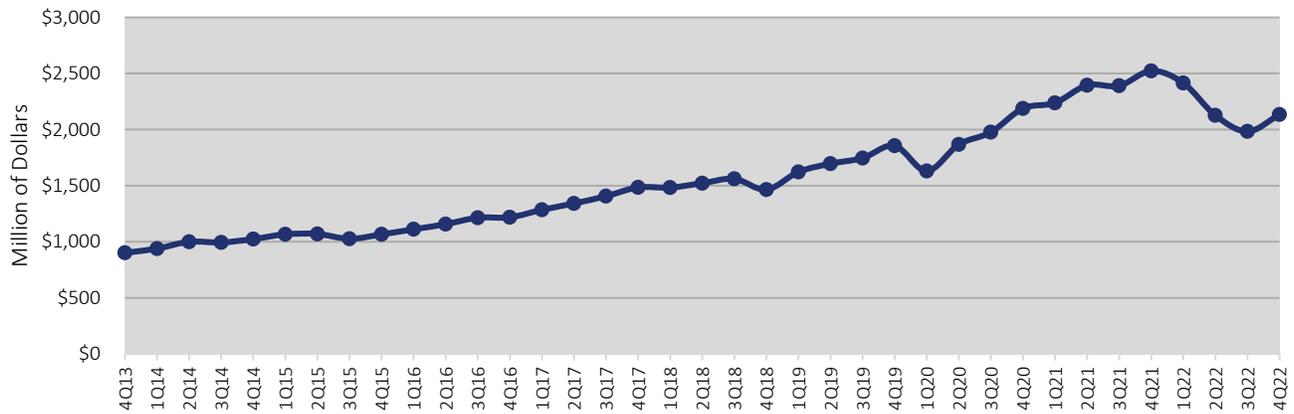
⁶ JRS I maintains a reserve balance of approximately two months of benefit payments. Prior to 2009-2010 fiscal year, the fund held approximately one month of benefit reserve with the majority of funds held at the State Treasurer’s Office.

JUDGES RETIREMENT SYSTEM II FUND

JUDGES II PERFORMANCE

Period Ended December 31, 2022

GROWTH IN ASSETS



NET OF FEE PLAN PERFORMANCE RESULTS – JUDGES II ⁷

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
Judges Retirement II Fund	\$ 2,134.0	7.1%	-17.2%	1.7%	3.6%	5.8%
<i>Weighted Policy Benchmark</i>		7.0%	-17.3%	1.5%	3.4%	5.5%
Judges II Programs:						
JRS II Global Equity	\$ 1,090.0	9.9%	-18.0%	4.3%	5.4%	8.5%
<i>Global Equity Benchmark</i>		9.8%	-18.4%	3.9%	5.1%	8.3%
JRS II US Fixed Income	\$ 444.5	2.0%	-20.0%	-4.6%	-0.7%	1.5%
<i>Custom Benchmark</i>		2.1%	-19.9%	-4.5%	-0.7%	1.0%
JRS II TIPS	\$ 105.9	1.9%	-12.0%	1.2%	2.1%	1.1%
<i>Bloomberg U.S. TIPS Index</i>		2.0%	-11.8%	1.2%	2.1%	1.1%
JRS II REITs	\$ 429.5	7.0%	-24.6%	-4.1%	0.7%	3.9%
<i>Custom Benchmark</i>		6.9%	-25.1%	-4.9%	0.0%	3.5%
JRS II Commodities	\$ 64.0	3.4%	25.3%	10.3%	6.4%	-3.3%
<i>GSCI Total Return</i>		3.4%	26.0%	10.5%	6.5%	-3.3%
JRS II Cash/Short-Term	\$ 0.0	NM	NM	NM	NM	NM
<i>91-Day T-Bill</i>		0.8%	1.5%	0.7%	1.3%	0.8%

⁷ JRS II weighted policy benchmark is calculated based on asset class index returns weighted at their respective asset class policy targets.

JRS II Global Equity Benchmark is MSCI ACWI IMI Net starting 6/07/2018. Between 6/06/2018 and 9/08/2011 the custom benchmark was run by FTSE. Prior of that it was calculated as an asset weighted benchmark of its underlying domestic and international funds.

Current US Fixed Income Custom Benchmark is the Bloomberg Long Liability Index. Bloomberg Long Liability ex TIPS was used as the benchmark between June 2005 and May 2007. Prior of that the benchmark was Citigroup LPF.

The REIT Custom Benchmark is the FTSE EPRA/NAREIT Developed (Net) Index starting 3/27/2020. Between 3/26/2020 and 6/07/2018 it was FTSE EPRA/NAREIT Developed Liquid (Net) Index. Between 6/06/2018 and 9/08/2011 the it was FTSE EPRA/NAREIT Developed (TR) Index. Prior of that it was the Wilshire RESI and REIT Indices.

JUDGES II PERFORMANCE

Period Ended December 31, 2022

JUDGES II ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

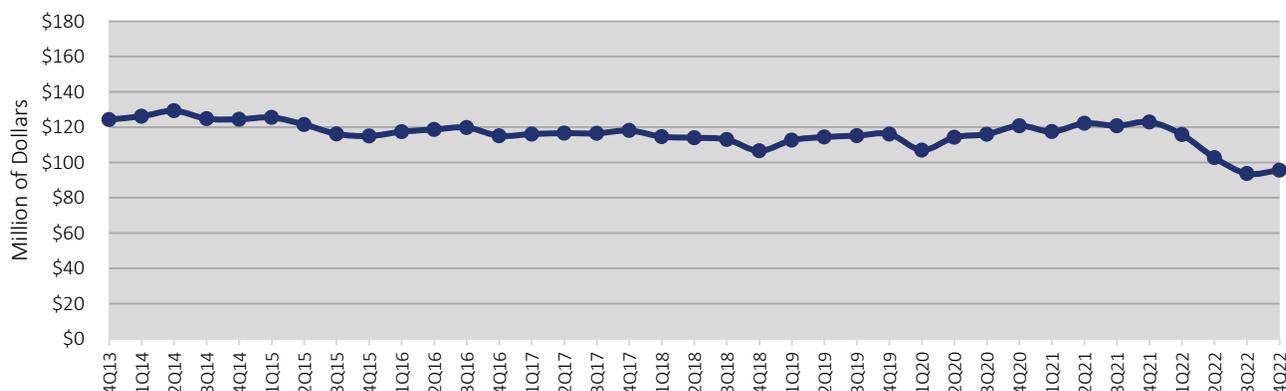
Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
JUDGES II TOTAL FUND	100.0%	100.0%	0.0%
Global Equity	51.1%	51.0%	0.1%
US Fixed Income	20.8%	21.0%	-0.2%
TIPS	5.0%	5.0%	0.0%
REITs	20.1%	20.0%	0.1%
Commodities	3.0%	3.0%	0.0%
Cash/Short-Term	0.0%	0.0%	0.0%

LEGISLATORS' RETIREMENT SYSTEM FUND

LEGISLATORS' RETIREMENT SYSTEM PERFORMANCE

Period Ended December 31, 2022

GROWTH IN ASSETS



NET OF FEE PLAN PERFORMANCE RESULTS – LEGISLATORS' ⁸

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
Legislators' Retirement System Fund	\$ 95.6	4.0%	-16.6%	-0.1%	2.2%	3.6%
<i>Weighted Policy Benchmark</i>		4.2%	-16.5%	-0.2%	2.1%	3.4%
LRS Programs:						
LRS Global Equity	\$ 17.3	9.9%	-18.0%	4.3%	5.4%	8.5%
<i>Global Equity Benchmark</i>		9.8%	-18.4%	3.9%	5.1%	8.3%
LRS US Fixed Income	\$ 42.9	1.8%	-20.1%	-4.6%	-0.7%	1.5%
<i>Custom Benchmark</i>		2.1%	-19.9%	-4.5%	-0.7%	1.0%
LRS TIPS	\$ 19.1	1.9%	-12.0%	1.2%	2.1%	1.1%
<i>Custom Benchmark</i>		2.0%	-11.8%	1.2%	2.1%	1.1%
LRS REITs	\$ 13.5	7.0%	-24.6%	-4.1%	0.7%	3.9%
<i>Custom Benchmark</i>		6.9%	-25.1%	-4.9%	0.0%	3.5%
LRS Commodities	\$ 2.9	3.4%	25.3%	10.3%	6.7%	-3.2%
<i>GSCI Total Return</i>		3.4%	26.0%	10.5%	6.5%	-3.3%
LRS Cash/Short-Term	\$ 0.0	NM	NM	NM	NM	NM
<i>91-Day T-Bill</i>		0.8%	1.5%	0.7%	1.3%	0.8%

⁸ LRS weighted policy benchmark is calculated based on asset class index returns weighted at their respective asset class policy targets.

LRS Global Equity Benchmark is MSCI ACWI IMI Net starting 6/07/2018. Between 6/06/2018 and 9/08/2011 the custom benchmark was run by FTSE. Prior of that it was calculated as an asset weighted benchmark of its underlying domestic and international funds.

Current US Fixed Income Custom Benchmark is the Bloomberg Long Liability Index. Bloomberg Long Liability ex TIPS was used as the benchmark between June 2005 and May 2007. Prior of that the benchmark was Citigroup LPF.

TIPS Benchmark is currently the Bloomberg U.S. TIPS Index. Prior of July 2017 it was the Bloomberg Long Liability TIPS Index.

The REIT Custom Benchmark is the FTSE EPRA/NAREIT Developed (Net) Index starting 3/27/2020. Between 3/26/2020 and 6/07/2018 it was FTSE EPRA/NAREIT Developed Liquid (Net) Index. Between 6/06/2018 and 9/08/2011 the benchmark was FTSE EPRA/NAREIT Developed (TR) Index. Prior of that it was the Wilshire RESI and REIT Indices.

LEGISLATORS' RETIREMENT SYSTEM PERFORMANCE

Period Ended December 31, 2022

LEGISLATORS' ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

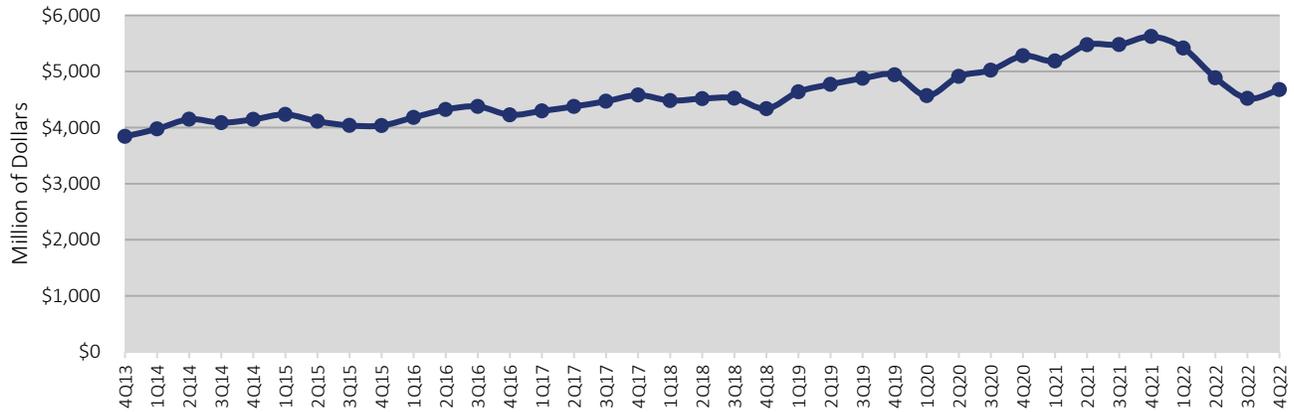
Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
LEGISLATORS' RETIREMENT SYSTEM FUND	100.0%	100.0%	0.0%
Global Equity	18.1%	18.0%	0.1%
US Fixed Income	44.8%	45.0%	-0.2%
TIPS	19.9%	20.0%	-0.1%
REITs	14.1%	14.0%	0.1%
Commodities	3.0%	3.0%	0.0%
Cash/Short-Term	0.0%	0.0%	0.0%

LONG-TERM CARE FUND

LONG-TERM CARE FUND PERFORMANCE

Period Ended December 31, 2022

GROWTH IN ASSETS



NET OF FEE PLAN PERFORMANCE RESULTS – LONG-TERM CARE FUND⁹

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
Long-Term Care Fund	\$ 4,675.1	3.7%	-16.3%	-0.7%	1.7%	2.7%
<i>Weighted Policy Benchmark</i>		3.9%	-16.2%	-0.8%	1.6%	2.5%
LTC Programs:						
LTC Global Equity	\$ 710.0	9.9%	-18.1%	4.2%	5.2%	8.2%
<i>Custom Benchmark</i>		9.8%	-18.4%	3.9%	5.0%	7.9%
LTC US Fixed Income	\$ 2,793.0	1.8%	-20.2%	-4.6%	-0.8%	1.0%
<i>Custom Benchmark</i>		2.1%	-19.9%	-4.5%	-0.7%	1.0%
LTC TIPS	\$ 281.4	1.9%	-12.0%	1.1%	2.1%	1.1%
<i>Bloomberg US TIPS Index</i>		2.0%	-11.8%	1.2%	2.1%	1.1%
LTC REITs	\$ 479.6	7.0%	-24.6%	-4.1%	0.6%	3.5%
<i>Custom Benchmark</i>		6.9%	-25.1%	-4.9%	-0.2%	2.7%
LTC Commodities	\$ 410.9	3.4%	25.3%	10.3%	6.3%	-3.4%
<i>GSCI Total Return</i>		3.4%	26.0%	10.5%	6.5%	-3.3%
LTC Cash/Short-Term	\$ 0.2	NM	NM	NM	NM	NM
<i>91-Day T-Bill</i>		0.8%	1.5%	0.7%	1.3%	0.8%

⁹ LTC weighted policy benchmark is calculated based on asset class index returns weighted at their respective asset class policy targets.

LTC Global Equity Benchmark is MSCI ACWI IMI Net starting 12/12/2012. Prior of that it was calculated as an asset weighted benchmark of its underlying domestic and international funds.

Current US Fixed Income Custom Benchmark is the Bloomberg Long Liability Index. Bloomberg Long Liability ex TIPS ex High Yield was the benchmark between June 2007 and July 2005. Prior of that the benchmark was Bloomberg Aggregate Bond Index.

The REIT Custom Benchmark is the FTSE EPRA/NAREIT Developed (Net) Index starting 3/27/2020. Between 3/26/2020 and 12/12/2012 it was FTSE EPRA/NAREIT Developed Liquid (Net) Index.

LONG-TERM CARE FUND PERFORMANCE

Period Ended December 31, 2022

LONG-TERM CARE FUND ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

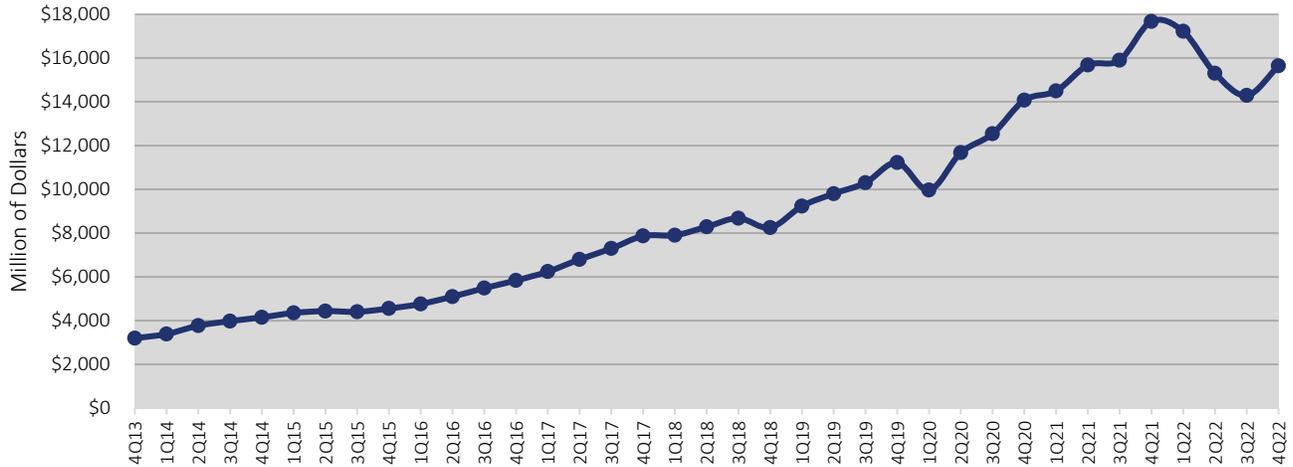
Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
LONG-TERM CARE TOTAL FUND	100.0%	100.0%	0.0%
Global Equity	15.2%	15.0%	0.2%
US Fixed Income	59.7%	60.0%	-0.3%
TIPS	6.0%	6.0%	0.0%
REITs	10.3%	11.0%	-0.7%
Commodities	8.8%	8.0%	0.8%
Cash/Short-Term	0.0%	0.0%	0.0%

**CALIFORNIA EMPLOYERS' RETIREE
BENEFIT TRUST**

CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST AGGREGATE

Period Ended December 31, 2022

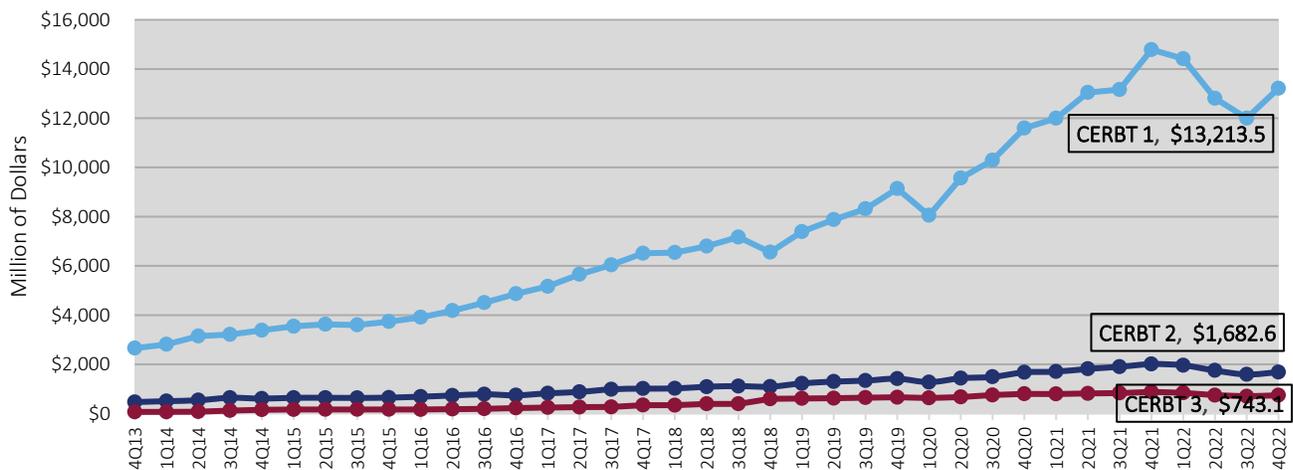
GROWTH IN ASSETS – CERBT AGGREGATE



NET OF FEE PLAN PERFORMANCE RESULTS – CERBT AGGREGATE

	Asset Value (\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CERBT Aggregate	\$ 15,639.2	6.6%	-17.7%	1.7%	3.5%	5.6%
<i>CERBT Trust Aggregate Benchmark</i>		<i>6.6%</i>	<i>-17.8%</i>	<i>1.5%</i>	<i>3.3%</i>	<i>5.3%</i>

GROWTH IN ASSETS – CERBT 1, 2, 3



CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST 1

Period Ended December 31, 2022

CERBT 1 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
TOTAL CERBT 1	100.0%	100.0%	0.0%
Global Equity	49.0%	49.0%	0.0%
US Fixed Income	22.9%	23.0%	-0.1%
TIPS	5.0%	5.0%	0.0%
REITs	20.1%	20.0%	0.1%
Commodities	3.0%	3.0%	0.0%
Cash/Short-Term	0.0%	0.0%	0.0%

NET OF FEE PLAN PERFORMANCE RESULTS – CERBT 1 ¹⁰

	Asset Value (\$Million)	Performance				
		Quarter	1-Year	3-Year	5-Year	10-Year
CERBT Strategy 1	\$ 13,213.5	6.8%	-17.8%	1.9%	3.7%	5.9%
<i>Total CERBT Strategy 1 Benchmark</i>		6.9%	-17.9%	1.7%	3.5%	5.6%
CERBT 1 Programs:						
Global Equity	\$ 6,480.8	9.9%	-18.1%	4.2%	5.3%	8.3%
<i>CERBT Global Equity Benchmark</i>		9.8%	-18.4%	3.9%	5.0%	7.9%
Domestic Fixed Income	\$ 3,022.4	1.8%	-20.2%	-4.6%	-0.7%	1.5%
<i>CalPERS Custom Long Liability</i>		2.1%	-19.9%	-4.5%	-0.7%	1.0%
TIPS	\$ 654.6	1.9%	-12.0%	1.1%	2.1%	1.1%
<i>CalPERS TIPS</i>		2.0%	-11.8%	1.2%	2.1%	1.1%
REITs	\$ 2,656.5	7.0%	-24.6%	-4.0%	0.6%	3.5%
<i>Custom Benchmark</i>		6.9%	-25.1%	-4.9%	-0.2%	2.7%
Commodities	\$ 395.7	3.4%	25.3%	10.3%	6.4%	-3.4%
<i>GSCI Total Return</i>		3.4%	26.0%	10.5%	6.5%	-3.3%
Cash/Short-Term	\$ 3.4	NM	NM	NM	NM	NM
<i>91-Day T-Bill</i>		0.8%	1.5%	0.7%	1.3%	0.8%

¹⁰ CERBT Strategy 1 cash balances are inclusive of employer fund contributions that are in the process of being invested into asset classes. These contributions may occur daily, and tend to be higher at the end of each quarter.

The REIT Custom Benchmark is the FTSE EPRA/NAREIT Developed (Net) Index starting 3/27/2020. Prior to that it was the FTSE EPRA/NAREIT Developed Liquid (Net) Index.

CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST 2

Period Ended December 31, 2022

CERBT 2 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
TOTAL CERBT 2	100.0%	100.0%	0.0%
Global Equity	34.1%	34.0%	0.1%
US Fixed Income	40.8%	41.0%	-0.2%
TIPS	5.0%	5.0%	0.0%
REITs	17.1%	17.0%	0.1%
Commodities	3.0%	3.0%	0.0%
Cash/Short-Term	0.0%	0.0%	0.0%

NET OF FEE PLAN PERFORMANCE RESULTS – CERBT 2 ¹¹

	Asset Value (\$Million)	Performance				
		Quarter	1-Year	3-Year	5-Year	10-Year
CERBT Strategy 2	\$ 1,682.6	5.5%	-17.6%	0.6%	2.8%	4.6%
<i>Total CERBT Strategy 2 Benchmark</i>		5.6%	-17.6%	0.5%	2.7%	4.4%
CERBT 2 Programs:						
Global Equity	\$ 573.5	9.9%	-18.1%	4.2%	5.3%	8.3%
<i>CERBT Global Equity Benchmark</i>		9.8%	-18.4%	3.9%	5.0%	7.9%
Domestic Fixed Income	\$ 686.7	1.8%	-20.2%	-4.6%	-0.7%	1.5%
<i>CalPERS Custom Long Liability</i>		2.1%	-19.9%	-4.5%	-0.7%	1.0%
TIPS	\$ 83.5	1.9%	-12.0%	1.1%	2.1%	1.1%
<i>CalPERS TIPS</i>		2.0%	-11.8%	1.2%	2.1%	1.1%
REITs	\$ 288.2	7.0%	-24.6%	-4.1%	0.6%	3.5%
<i>Custom Benchmark</i>		6.9%	-25.1%	-4.9%	-0.2%	2.7%
Commodities	\$ 50.5	3.4%	25.3%	10.3%	6.5%	-3.3%
<i>GSCI Total Return</i>		3.4%	26.0%	10.5%	6.5%	-3.3%
Cash/Short-Term	\$ 0.1	NM	NM	NM	NM	NM
<i>91-Day T-Bill</i>		0.8%	1.5%	0.7%	1.3%	0.8%

¹¹ CERBT Strategy 2 cash balances are inclusive of employer fund contributions that are in the process of being invested into asset classes. These contributions may occur daily, and tend to be higher at the end of each quarter.

The REIT Custom Benchmark is the FTSE EPRA/NAREIT Developed (Net) Index starting 3/27/2020. Prior to that it was the FTSE EPRA/NAREIT Developed Liquid (Net) Index.

CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST 3

Period Ended December 31, 2022

CERBT 3 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
TOTAL CERBT 3	100.0%	100.0%	0.0%
Global Equity	23.1%	23.0%	0.1%
US Fixed Income	50.9%	51.0%	-0.1%
TIPS	9.0%	9.0%	0.0%
REITs	14.1%	14.0%	0.1%
Commodities	3.0%	3.0%	0.0%
Cash/Short-Term	0.0%	0.0%	0.0%

NET OF FEE PLAN PERFORMANCE RESULTS – CERBT 3 ¹²

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CERBT Strategy 3	\$ 743.1	4.4%	-16.4%	-0.1%	2.2%	3.5%
<i>Total CERBT Strategy 3 Benchmark</i>		4.6%	-16.3%	-0.2%	2.1%	3.3%
CERBT 3 Programs:						
Global Equity	\$ 171.3	9.9%	-18.1%	4.2%	5.2%	8.2%
<i>CERBT Global Equity Benchmark</i>		9.8%	-18.4%	3.9%	5.0%	7.9%
Domestic Fixed Income	\$ 378.1	1.8%	-20.2%	-4.6%	-0.7%	1.4%
<i>CalPERS Custom Long Liability</i>		2.1%	-19.9%	-4.5%	-0.7%	1.0%
TIPS	\$ 66.9	1.9%	-12.0%	1.1%	2.1%	1.1%
<i>CalPERS TIPS</i>		2.0%	-11.8%	1.2%	2.1%	1.1%
REITs	\$ 104.4	7.0%	-24.6%	-4.1%	0.6%	3.5%
<i>Custom Benchmark</i>		6.9%	-25.1%	-4.9%	-0.2%	2.7%
Commodities	\$ 22.3	3.4%	25.3%	10.3%	6.7%	-3.2%
<i>GSCI Total Return</i>		3.4%	26.0%	10.5%	6.5%	-3.3%
Cash/Short-Term	\$ 0.1	NM	NM	NM	NM	NM
<i>91-Day T-Bill</i>		0.8%	1.5%	0.7%	1.3%	0.8%

¹² CERBT Strategy 3 cash balances are inclusive of employer fund contributions that are in the process of being invested into asset classes. These contributions may occur daily, and tend to be higher at the end of each quarter.

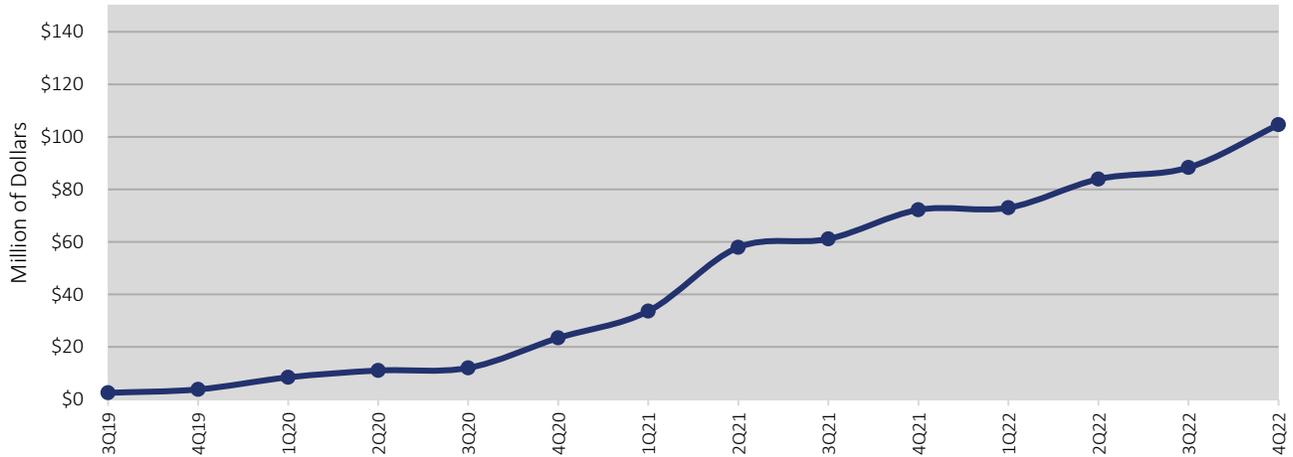
The REIT Custom Benchmark is the FTSE EPRA/NAREIT Developed (Net) Index starting 3/27/2020. Prior to that it was the FTSE EPRA/NAREIT Developed Liquid (Net) Index.

CA EMPLOYERS' PENSION PREFUNDING TRUST

CALIFORNIA PREFUNDING TRUST AGGREGATE

Period Ended December 31, 2022

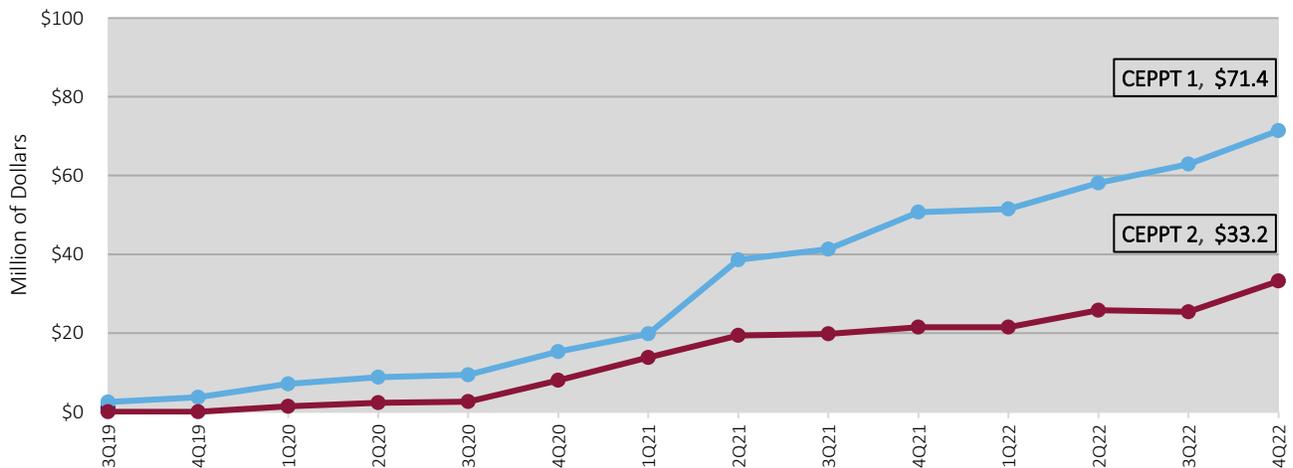
GROWTH IN ASSETS – CEPPT AGGREGATE



NET OF FEE PLAN PERFORMANCE RESULTS – CEPPT AGGREGATE

	Asset Value					
	(\$ Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CEPPT Aggregate	\$ 104.6	5.0%	-15.3%	0.0%	-.-%	-.-%
<i>CEPPT Trust Aggregate Benchmark</i>		<i>5.1%</i>	<i>-15.3%</i>	<i>0.1%</i>	<i>-.-%</i>	<i>-.-%</i>

GROWTH IN ASSETS – CEPPT 1, 2



CA PENSION PREFUNDING TRUST PERFORMANCE

Period Ended December 31, 2022

CEPPT STRATEGY 1 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
PENSION PREFUNDING TRUST-STRATEGY 1	100.0%	100.0%	0.0%
Global Equity	37.2%	37.0%	0.2%
US Fixed Income	43.7%	44.0%	-0.3%
REITs	14.1%	14.0%	0.1%
TIPS	5.0%	5.0%	0.0%
Cash/Short-Term	0.0%	0.0%	0.0%

NET OF FEE PERFORMANCE RESULTS – CEPPT STRATEGY 1 ¹³

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
Pension Prefunding Trust - Strategy 1	\$ 71.4	5.5%	-15.8%	0.6%	-.-%	-.-%
<i>CEPPT Strategy 1 Policy Benchmark</i>		5.5%	-15.9%	0.6%	-.-%	-.-%
CEPPT Strategy 1 Programs:						
CEPPT S1 Equity	\$ 26.5	9.9%	-18.1%	4.1%	-.-%	-.-%
<i>MSCI ACWI IMI Net</i>		9.8%	-18.4%	3.9%	-.-%	-.-%
CEPPT S1 Fixed Income	\$ 31.2	1.7%	-13.1%	-2.8%	-.-%	-.-%
<i>Bloomberg US Aggregate Bond Index</i>		1.9%	-13.0%	-2.7%	-.-%	-.-%
CEPPT S1 REITs	\$ 10.1	7.0%	-24.6%	-4.1%	-.-%	-.-%
<i>Custom Benchmark</i>		6.9%	-25.1%	-4.9%	-.-%	-.-%
CEPPT S1 TIPS	\$ 3.5	1.9%	-12.0%	1.1%	-.-%	-.-%
<i>CalPERS TIPS</i>		2.0%	-11.8%	1.2%	-.-%	-.-%
CEPPT S1 Cash	\$ 0.0	NM	NM	-.-%	-.-%	-.-%
<i>91-Day Treasury Bill</i>		0.8%	1.5%	-.-%	-.-%	-.-%

¹³ CEPPT Strategy 1 cash balances are inclusive of employer fund contributions that are in the process of being invested into asset classes. These contributions may occur daily, and tend to be higher at the end of each quarter.

The REIT Custom Benchmark is the FTSE EPRA/NAREIT Developed (Net) Index starting 3/27/2020. Prior to that it was the FTSE EPRA/NAREIT Developed Liquid (Net) Index.

CA PENSION PREFUNDING TRUST PERFORMANCE

Period Ended December 31, 2022

CEPPT STRATEGY 2 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
PENSION PREFUNDING TRUST-STRATEGY 2	100.0%	100.0%	0.0%
Global Equity	21.0%	21.0%	0.0%
US Fixed Income	61.0%	61.0%	0.0%
REITs	8.9%	9.0%	-0.1%
TIPS	9.0%	9.0%	0.0%
Cash/Short-Term	0.1%	0.0%	0.1%

NET OF FEE PERFORMANCE RESULTS – CEPPT STRATEGY 2 ¹⁴

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
Pension Prefunding Trust - Strategy 2	\$ 33.2	3.8%	-14.2%	-1.1%	-.-%	-.-%
<i>CEPPT Strategy 2 Policy Benchmark</i>		4.0%	-14.1%	-1.1%	-.-%	-.-%
CEPPT Strategy 2 Programs:						
CEPPT S2 Equity	\$ 7.0	9.9%	-18.1%	4.1%	-.-%	-.-%
<i>MSCI ACWI IMI Net</i>		9.8%	-18.4%	3.9%	-.-%	-.-%
CEPPT S2 Fixed Income	\$ 20.3	1.7%	-13.1%	-3.0%	-.-%	-.-%
<i>Bloomberg US Aggregate Bond Index</i>		1.9%	-13.0%	-2.7%	-.-%	-.-%
CEPPT S2 REITs	\$ 3.0	7.0%	-24.6%	-4.1%	-.-%	-.-%
<i>Custom Benchmark</i>		6.9%	-25.1%	-4.9%	-.-%	-.-%
CEPPT S2 TIPS	\$ 3.0	1.9%	-12.0%	1.1%	-.-%	-.-%
<i>CalPERS TIPS</i>		2.0%	-11.8%	1.2%	-.-%	-.-%
CEPPT S2 Cash	\$ 0.0	NM	NM	NM	-.-%	-.-%
<i>91-Day Treasury Bill</i>		0.8%	1.5%	0.7%	-.-%	-.-%

¹⁴ CEPPT Strategy 2 cash balances are inclusive of employer fund contributions that are in the process of being invested into asset classes. These contributions may occur daily, and tend to be higher at the end of each quarter.

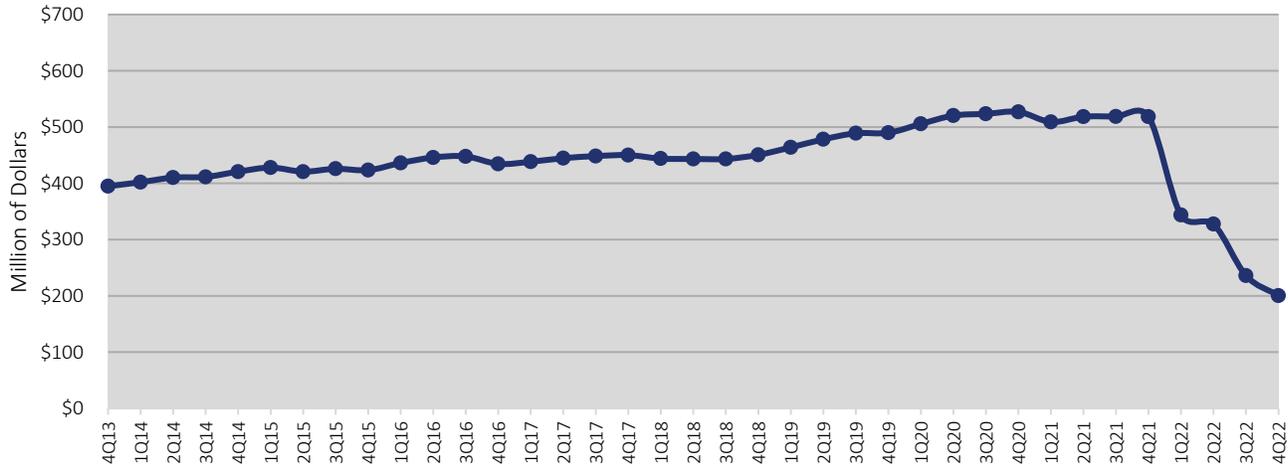
The REIT Custom Benchmark is the FTSE EPRA/NAREIT Developed (Net) Index starting 3/27/2020. Prior to that it was the FTSE EPRA/NAREIT Developed Liquid (Net) Index.

HEALTH CARE FUND

HEALTH CARE FUND PERFORMANCE

Period Ended December 31, 2022

GROWTH IN ASSETS ¹⁵



NET OF FEE PLAN PERFORMANCE RESULTS – HEALTH CARE FUND

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CalPERS Health Care Bond Fund	\$ 200.5	1.7%	-13.2%	-2.8%	0.0%	1.2%
<i>Bloomberg US Aggregate Bond Idx</i>		<i>1.9%</i>	<i>-13.0%</i>	<i>-2.7%</i>	<i>0.0%</i>	<i>1.1%</i>

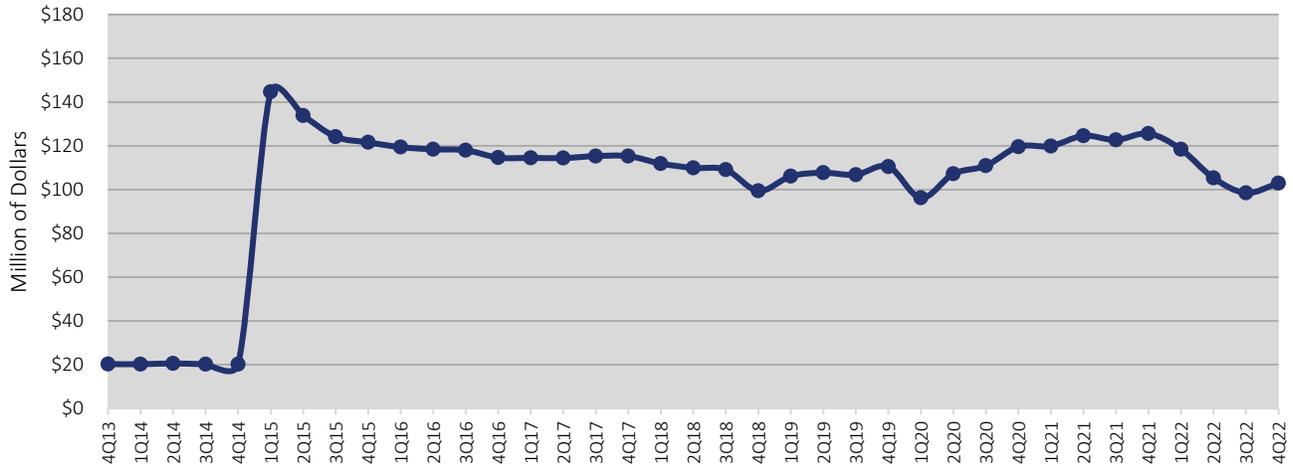
¹⁵ The decline in assets starting in the 4th Quarter of 2021 was due to periodic withdrawals from the fund in the amount of \$240 million through 12/31/2022, with the remaining decline due to investment performance of bonds during calendar year 2022.

SUPPLEMENTAL INCOME PLANS

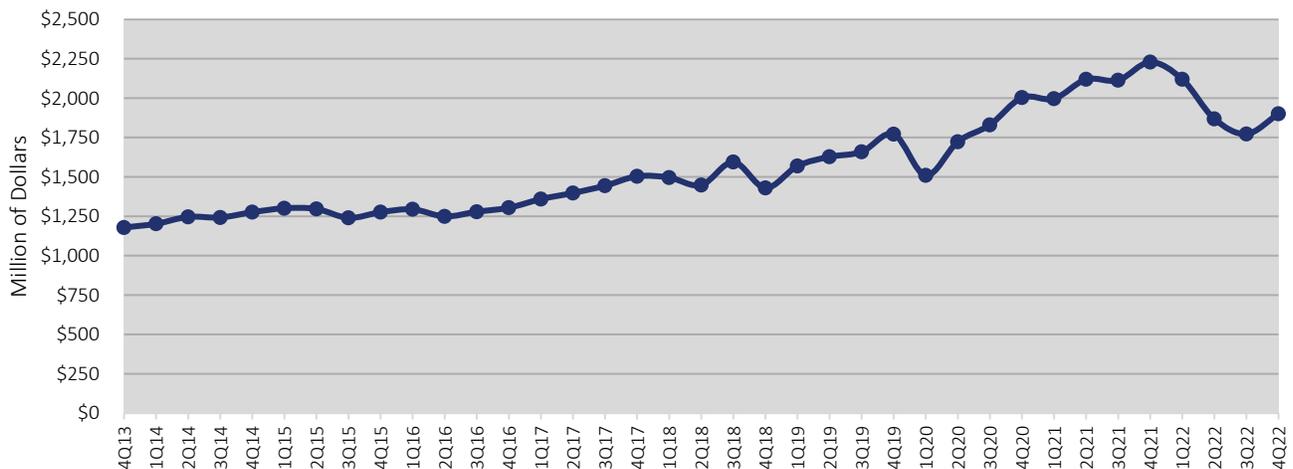
SUPPLEMENTAL INCOME PLANS

Period Ended December 31, 2022

GROWTH IN ASSETS – SUPPLEMENTAL CONTRIBUTION PLAN ¹⁶



GROWTH IN ASSETS – 457 PROGRAM



¹⁶ SCP experienced a steep increase in assets during the 1st quarter of 2015. This was due to the termination of the State Peace Officers' and Firefighters' (POFF) Defined Contribution Plan, which took place June 1, 2014. The termination required distributions of participants' money in the POFF DC Plan in accordance with state and federal law, and SCP was designated as the default plan for participants who did not make an affirmative election to take a distribution.

SUPPLEMENTAL CONTRIBUTION PLAN PERFORMANCE

Period Ended December 31, 2022

NET OF FEE PLAN PERFORMANCE RESULTS – SCP

	Asset Value (\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CalPERS Target Income Fund	\$ 28.2	4.5%	-12.9%	0.7%	2.4%	3.2%
<i>SIP Income Policy</i>		4.5%	-12.9%	0.6%	2.3%	3.0%
CalPERS Target 2020 Fund	\$ 18.8	5.4%	-13.7%	1.7%	3.1%	4.3%
<i>SIP 2020 Policy</i>		5.4%	-13.8%	1.5%	2.9%	4.1%
CalPERS Target 2025 Fund	\$ 19.0	6.4%	-14.7%	2.4%	3.6%	5.1%
<i>SIP 2025 Policy</i>		6.4%	-14.7%	2.2%	3.4%	5.0%
CalPERS Target 2030 Fund	\$ 14.8	7.4%	-15.4%	3.0%	4.0%	5.8%
<i>SIP 2030 Policy</i>		7.3%	-15.5%	2.9%	3.9%	5.7%
CalPERS Target 2035 Fund	\$ 7.7	8.5%	-16.4%	3.6%	4.4%	-.%
<i>SIP 2035 Policy</i>		8.4%	-16.5%	3.4%	4.3%	-.%
CalPERS Target 2040 Fund	\$ 4.1	9.6%	-17.2%	4.1%	4.8%	7.1%
<i>SIP 2040 Policy</i>		9.4%	-17.3%	3.9%	4.7%	7.0%
CalPERS Target 2045 Fund	\$ 1.0	9.8%	-17.0%	4.1%	4.9%	-.%
<i>SIP 2045 Policy</i>		9.5%	-17.2%	4.0%	4.8%	-.%
CalPERS Target 2050 Fund	\$ 0.2	9.8%	-17.0%	4.1%	4.9%	-.%
<i>SIP 2050 Policy</i>		9.5%	-17.2%	4.0%	4.8%	-.%
CalPERS Target 2055 Fund	\$ 0.1	9.8%	-17.0%	4.1%	4.9%	-.%
<i>SIP 2055 Policy</i>		9.5%	-17.2%	4.0%	4.8%	-.%
CalPERS Target 2060 Fund	\$ 0.0	9.8%	-17.0%	-.%	-.%	-.%
<i>SIP 2060 Policy</i>		9.5%	-17.2%	-.%	-.%	-.%
CalPERS Target 2065 Fund	\$ 0.0	-.%	-.%	-.%	-.%	-.%
<i>SIP 2065 Policy</i>		-.%	-.%	-.%	-.%	-.%
SSgA Russell All Cap Index SL	\$ 5.1	7.2%	-19.1%	7.1%	8.8%	-.%
<i>Russell 3000</i>		7.2%	-19.2%	7.1%	8.8%	-.%
SSgA Global All Cap ex-US SL	\$ 0.6	14.7%	-16.3%	0.4%	1.1%	-.%
<i>MSCI ACWI ex-US IMI (N)</i>		14.1%	-16.6%	0.2%	0.8%	-.%
SSgA US Bond Index SL	\$ 0.4	1.7%	-13.1%	-2.7%	0.0%	-.%
<i>Bloomberg US Aggregate Bond Idx</i>		1.9%	-13.0%	-2.7%	0.0%	-.%
SSgA US Short Term Bond	\$ 0.5	0.9%	-3.8%	-0.4%	0.9%	-.%
<i>Bloomberg US Gov/Credit</i>		0.9%	-3.7%	-0.3%	0.9%	-.%
SSgA Real Asset NL	\$ 0.4	7.1%	3.1%	8.8%	6.3%	-.%
<i>Real Assets Blended Index</i>		7.1%	3.2%	8.7%	6.3%	-.%
SSgA STIF	\$ 2.1	1.0%	1.8%	0.8%	1.4%	-.%
<i>BofAML 3 Months US T-Bill</i>		0.8%	1.5%	0.7%	1.3%	-.%
SCP AGGREGATE	\$ 102.9					

457 PROGRAM PERFORMANCE

Period Ended December 31, 2022

NET OF FEE PLAN PERFORMANCE RESULTS – 457

	Asset Value (\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CalPERS Target Income Fund	\$ 150.6	4.5%	-12.9%	0.7%	2.4%	3.2%
<i>SIP Income Policy</i>		4.5%	-12.9%	0.6%	2.3%	3.0%
CalPERS Target 2020 Fund	\$ 134.0	5.4%	-13.7%	1.7%	3.1%	4.3%
<i>SIP 2020 Policy</i>		5.4%	-13.8%	1.5%	2.9%	4.1%
CalPERS Target 2025 Fund	\$ 185.9	6.4%	-14.7%	2.4%	3.6%	5.1%
<i>SIP 2025 Policy</i>		6.4%	-14.7%	2.2%	3.4%	5.0%
CalPERS Target 2030 Fund	\$ 182.4	7.4%	-15.4%	3.0%	4.0%	5.8%
<i>SIP 2030 Policy</i>		7.3%	-15.5%	2.9%	3.9%	5.7%
CalPERS Target 2035 Fund	\$ 121.5	8.5%	-16.4%	3.6%	4.4%	6.5%
<i>SIP 2035 Policy</i>		8.4%	-16.5%	3.4%	4.3%	6.4%
CalPERS Target 2040 Fund	\$ 115.9	9.6%	-17.2%	4.1%	4.8%	7.1%
<i>SIP 2040 Policy</i>		9.4%	-17.3%	3.9%	4.7%	7.0%
CalPERS Target 2045 Fund	\$ 70.5	9.8%	-17.0%	4.1%	4.9%	7.4%
<i>SIP 2045 Policy</i>		9.5%	-17.2%	4.0%	4.8%	7.2%
CalPERS Target 2050 Fund	\$ 43.3	9.8%	-17.0%	4.1%	4.9%	7.4%
<i>SIP 2050 Policy</i>		9.5%	-17.2%	4.0%	4.8%	7.2%
CalPERS Target 2055 Fund	\$ 16.0	9.8%	-17.0%	4.1%	4.9%	--%
<i>SIP 2055 Policy</i>		9.5%	-17.2%	4.0%	4.8%	--%
CalPERS Target 2060 Fund	\$ 8.5	9.8%	-17.0%	4.1%	--%	--%
<i>SIP 2060 Policy</i>		9.5%	-17.2%	4.0%	--%	--%
CalPERS Target 2065 Fund	\$ 0.3	--%	--%	--%	--%	--%
<i>SIP 2065 Policy</i>		--%	--%	--%	--%	--%
SSgA Russell All Cap Index SL	\$ 578.8	7.2%	-19.1%	7.1%	8.8%	--%
<i>Russell 3000</i>		7.2%	-19.2%	7.1%	8.8%	--%
SSgA Global All Cap ex-US SL	\$ 64.0	14.7%	-16.3%	0.4%	1.1%	--%
<i>MSCI ACWI ex-US IMI (N)</i>		14.1%	-16.6%	0.2%	0.8%	--%
SSgA US Bond Index SL	\$ 51.9	1.7%	-13.1%	-2.7%	0.0%	--%
<i>Bloomberg US Aggregate Bond Idx</i>		1.9%	-13.0%	-2.7%	0.0%	--%
SSgA US Short Term Bond	\$ 37.3	0.9%	-3.8%	-0.4%	0.9%	--%
<i>Bloomberg US Gov/Credit</i>		0.9%	-3.7%	-0.3%	0.9%	--%
SSgA Real Asset NL	\$ 21.1	7.1%	3.1%	8.8%	6.3%	--%
<i>Real Assets Blended Index</i>		7.1%	3.2%	8.7%	6.3%	--%
SSgA STIF	\$ 119.0	1.0%	1.8%	0.8%	1.4%	--%
<i>BofAML 3 Months US T-Bill</i>		0.8%	1.5%	0.7%	1.3%	--%
457 AGGREGATE	\$ 1,900.9					

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