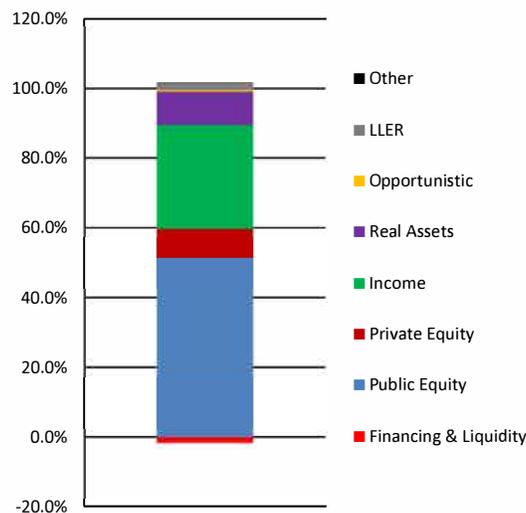


Public Employees' Retirement Fund (PERF)
As of June 30, 2021

Asset Allocation

	Ending Asset Value (bil) ¹	Current Allocation (%)	Policy Target Weight (%)	Policy Variance (%)	Policy Range
Public Equity ²	\$ 242.2	51.4%	50.0%	1.4%	± 7%
Private Equity ³	\$ 38.9	8.3%	8.0%	0.3%	± 4%
Income ²	\$ 140.4	29.8%	28.0%	1.8%	± 6%
Real Assets ³	\$ 45.3	9.6%	13.0%	(3.4%)	± 5%
Total Fund	\$ 11.9	2.5%			
Opportunistic ³	\$ 2.1	0.4%			
LLER ⁵	\$ 9.5	2.0%			
Other	\$ 0.2	0.0%			
Financing & Liquidity	\$ (7.8)	(1.6%)			
Trust Level Financing ⁶	\$ (12.6)	(2.7%)			
Liquidity ⁶	\$ 4.8	1.0%	1.0%	0.0%	-6% to +3%
Total PERF	\$ 470.8	100.0%	100.0%		



TAP	\$ 0.2
PERF Plus TAP	\$ 471.0

Performance Summary

Performance Summary	Ending Asset Value (bil) ¹	10-Yr			5-Yr			3-Yr			1-Yr			5-Yr Realized Information Ratio ⁷
		Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	
Public Equity	\$ 242.2	10.1%	10.0%	10	14.2%	14.2%	(5)	13.3%	13.2%	12	36.3%	36.0%	31	-
Cap Wtd. ²	\$ 171.7	10.5%	10.4%	10	15.2%	15.2%	(5)	15.0%	14.9%	12	42.0%	41.6%	46	(0.2)
Factor Wtd.	\$ 70.5	-	-	-	-	-	-	10.7%	10.6%	3	22.6%	22.6%	(2)	-
Private Equity³	\$ 38.9	12.0%	13.4%	(147)	14.2%	16.3%	(209)	13.7%	14.3%	(56)	43.8%	61.1%	(1,730)	-
Income	\$ 140.4	5.1%	4.6%	57	4.4%	3.8%	55	7.2%	6.8%	39	(0.1%)	(0.8%)	64	-
Long Spread	\$ 70.9	-	-	-	-	-	-	7.1%	6.4%	70	3.2%	2.6%	61	2.8
Long Treasury ²	\$ 48.3	5.0%	5.1%	(11)	3.0%	3.0%	(0)	6.6%	6.8%	(14)	(8.5%)	(8.7%)	13	-
Total Fund Income ⁴	\$ 7.1	-	-	-	-	-	-	-	-	-	-	-	-	-
High Yield	\$ 14.2	-	-	-	-	-	-	6.8%	6.7%	14	13.7%	13.4%	28	-
Real Assets³	\$ 45.3	8.1%	8.0%	10	5.2%	5.1%	16	3.6%	3.9%	(26)	2.6%	1.3%	128	-
Total Fund	\$ 11.9													
Opportunistic ³	\$ 2.1	-	-	-	-	-	-	-	-	-	13.1%	7.0%	609	-
LLER ⁵	\$ 9.5	-	-	-	3.0%	0.9%	214	2.8%	0.9%	190	4.0%	0.1%	395	-
Other	\$ 0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
Financing & Liquidity	\$ (7.8)													
Trust Level Financing ⁶	\$ (12.6)	-	-	-	-	-	-	-	-	-	-	-	-	-
Liquidity ⁶	\$ 4.8	1.2%	1.3%	(5)	1.3%	1.1%	30	1.4%	1.2%	28	0.1%	0.1%	6	-
Total PERF	\$ 470.8	8.5%	8.5%	0	10.3%	10.5%	(13)	10.7%	10.8%	(14)	21.3%	21.7%	(42)	-
TAP	\$ 0.2				4.8%			8.1%			1.6%			

¹ Asset values may reflect the first day of the following month when rebalancing and/or large cashflows occur on the last day of the quarter.

² Asset value of Public Equity Cap Weighted and Income Treasury segments includes notional exposure obtained via trust level Synthetic Cap Weighted and Synthetic Treasury portfolios respectively.

³ Market exposure of private asset classes reported at NAV.

⁴ Total Fund Income does not have a 1 Year return as the strategy inception in October 2020; however, the return impact is included in the PERF return.

⁵ Low Liquidity Enhanced Return (LLER) was historically funded out of Cap Weighted and Treasury so returns are also reflected in the returns of Cap Weighted and Long Treasury through 12/21/2020; but are only recorded once in Total PERF returns. Returns prior to 12/21/2020 are for reference only.

⁶ Liquidity reflects net asset value of the Liquidity Segment. Trust Level Financing reflects derivatives financing and repo borrowing in trust level Synthetic Cap Weighted and Synthetic Treasury portfolios.

⁷ Information Ratio is excess return divided by realized tracking error. This presents a perspective on risk adjusted performance. The metric is not meaningful for illiquid assets (where realized volatility tends to be muted by valuation based pricing and benchmark issues) or for indexed strategies. Information Ratio for Long Spread segment includes the history of Global Fixed Income portfolios prior to July 2018. Long Treasury and High Yield portfolios are managed in an index-like approach without an active return target.

* All performance reported net of investment expenses.

Public Employees' Retirement Fund (PERF)

Total PERF Risk

Risk Measure	7/1/2021	4/5/2021	Explanation of Risk Measures:
Forecasted Volatility¹			
Portfolio	10.7%	11.4%	The total (absolute) volatility is the annualized standard deviation of the Portfolio total return distribution and is indicative of the plan's dispersion given the current environment. The metric is model-based and could underestimate potential drawdowns.
Benchmark	10.4%	11.0%	
Forecasted Tracking Error¹			
Portfolio	1.16%	1.11%	Forecasted tracking error is the annualized standard deviation of the differential return between the portfolio and an equal investment in the benchmark.
Forecasted Tracking Error (Actionable)¹			
Portfolio	0.13%	0.16%	Excludes from the above measure the effect of active exposure from private asset classes (Private Equity and Real Assets) arising from the modeling challenges and the non-investible nature of their benchmarks. This metric focuses on controllable and measurable active exposures and captures all public markets strategies and asset allocation management.

July 1, 2021	Volatility		Tracking Error	
	Annualized Forecasted (%) ¹	5-Year Realized (%) ²	Annualized Forecasted (%) ¹	5-Year Realized (%) ²
Asset Class				
Public Equity	15.3	13.9	0.1	0.2
Cap Weighted	16.6	14.9	0.2	0.3
Factor Weighted	12.4	-	0.0	-
Income	7.2	5.5	0.7	0.4
Long Spread	5.1	-	0.4	-
Long Treasury	11.2	8.9	0.3	0.5
Total Fund Income	11.7	-	0.7	-
High Yield	5.0	-	0.2	-
Total Fund	N/A	-	N/A	-
Opportunistic	8.3	-	8.3	-
LLER	3.7	2.8	3.7	2.8
Liquidity	0.2	0.3	0.2	0.1
Total PERF Actionable			0.13	0.24
Private Equity	22.0	9.1	13.0	11.6
Real Assets	16.0	2.5	3.4	2.1
Total PERF	10.7	7.3	1.16	1.24

Contribution to Forecasted Volatility



¹ Forecasted Volatility and Tracking Error based on Barra MAC.XL model for 7/1/2021 and 301XL model for 4/5/2021.

² Realized Volatility and Tracking Error for private asset classes and Actionable TE are computed from quarterly net returns.

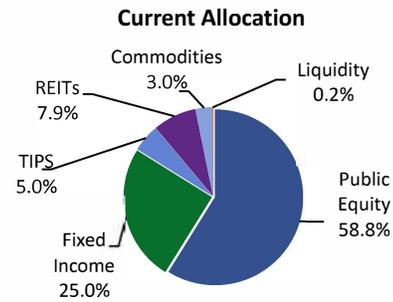
Affiliate Investment Programs

CERBT Strategy 1 Fund (CERBT 1) & CERBT Strategy 2 Fund (CERBT 2)

As of June 30, 2021

Asset Allocation, Performance & Realized Risk Summary - CERBT 1

Asset Allocation	Ending Asset Value (mil)	Current Allocation (%)	Policy Weight (%) ¹	Variance (%)	Policy Range
Public Equity	\$ 7,673.8	58.8%	59.0%	(0.2%)	± 5%
Fixed Income	\$ 3,266.8	25.0%	25.0%	0.0%	± 5%
TIPS	\$ 652.1	5.0%	5.0%	(0.0%)	± 3%
REITs	\$ 1,032.5	7.9%	8.0%	(0.1%)	± 5%
Commodities	\$ 394.5	3.0%	3.0%	0.0%	± 3%
Liquidity	\$ 22.5	0.2%	0.0%	0.2%	+ 2%
Total CERBT 1	\$ 13,042.0	100.0%	100.0%	0.0%	



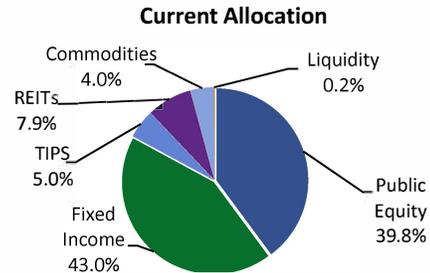
Performance Summary ²	10-Yr			5-Yr			3-Yr			1-Yr		
	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps
Public Equity	10.5%	10.2%	29	14.9%	14.5%	34	14.6%	14.2%	31	41.2%	40.9%	28
Fixed Income	5.4%	4.9%	47	4.2%	3.8%	38	6.9%	6.9%	6	(2.0%)	(2.0%)	2
TIPS	-	-	-	4.2%	4.2%	(0)	6.5%	6.5%	(3)	6.5%	6.5%	(6)
REITs	6.9%	6.2%	68	5.7%	4.8%	91	7.6%	6.5%	101	34.8%	33.6%	125
Commodities	-	-	-	1.9%	1.7%	14	(2.6%)	(2.7%)	9	57.3%	57.4%	(10)
Total CERBT 1	8.4%	8.1%	27	10.8%	10.5%	35	11.9%	11.7%	25	27.5%	27.3%	18

5-Yr Realized Volatility: **10.4%**

5-Yr Realized Tracking Error: **0.1%**

Asset Allocation, Performance & Realized Risk Summary - CERBT 2

Asset Allocation	Ending Asset Value (mil)	Current Allocation (%)	Policy Weight (%) ¹	Variance (%)	Policy Range
Public Equity	\$ 723.4	39.8%	40.0%	(0.2%)	± 5%
Fixed Income	\$ 781.4	43.0%	43.0%	0.0%	± 5%
TIPS	\$ 90.7	5.0%	5.0%	(0.0%)	± 3%
REITs	\$ 143.6	7.9%	8.0%	(0.1%)	± 5%
Commodities	\$ 73.2	4.0%	4.0%	0.0%	± 3%
Liquidity	\$ 3.2	0.2%	0.0%	0.2%	+ 2%
Total CERBT 2	\$ 1,815.5	100.0%	100.0%	0.0%	



Performance Summary ²	10-Yr			5-Yr			3-Yr			1-Yr		
	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps
Public Equity	-	-	-	14.9%	14.5%	34	14.5%	14.2%	30	41.2%	40.9%	26
Fixed Income	-	-	-	4.2%	3.8%	37	6.9%	6.9%	5	(2.0%)	(2.0%)	2
TIPS	-	-	-	4.2%	4.2%	1	6.5%	6.5%	(0)	6.5%	6.5%	(5)
REITs	-	-	-	5.7%	4.8%	91	7.5%	6.5%	100	34.7%	33.6%	117
Commodities	-	-	-	2.0%	1.7%	26	(2.4%)	(2.7%)	30	57.3%	57.4%	(10)
Total CERBT 2	-	-	-	9.0%	8.7%	32	10.5%	10.3%	18	19.7%	19.5%	17

5-Yr Realized Volatility: **8.1%**

5-Yr Realized Tracking Error: **0.1%**

¹ Allocations approved by the Board at the May 2018 IC Meeting.

² Liquidity is for operational purposes rather than a strategic allocation target and is not included in the performance summary table due to negligible impact on performance. All performance reported net of investment expenses.

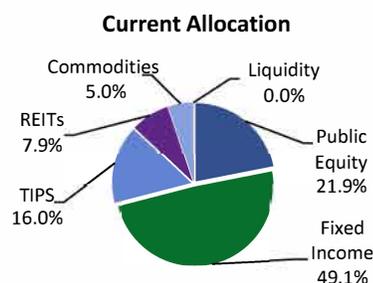
Affiliate Investment Programs

CERBT Strategy 3 Fund (CERBT 3) & Legislators' Retirement System Fund (LRF)

As of June 30, 2021

Asset Allocation, Performance & Realized Risk Summary - CERBT 3

Asset Allocation	Ending Asset Value (mil)	Current Allocation (%)	Policy Weight (%) ¹	Variance (%)	Policy Range
Public Equity	\$ 179.5	21.9%	22.0%	(0.1%)	± 5%
Fixed Income	\$ 401.8	49.1%	49.0%	0.1%	±5%
TIPS	\$ 131.0	16.0%	16.0%	(0.0%)	± 3%
REITs	\$ 64.8	7.9%	8.0%	(0.1%)	± 5%
Commodities	\$ 41.3	5.0%	5.0%	0.0%	± 3%
Liquidity	\$ 0.3	0.0%	0.0%	0.0%	+ 2%
Total CERBT 3	\$ 818.7	100.0%	100.0%	0.0%	



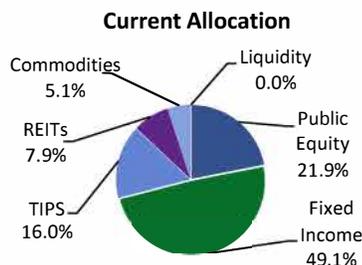
Performance Summary ²	10-Yr			5-Yr			3-Yr			1-Yr		
	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps
Public Equity	-	-	-	14.9%	14.5%	32	14.5%	14.2%	30	41.2%	40.9%	24
Fixed Income	-	-	-	4.2%	3.8%	35	6.9%	6.9%	4	(2.0%)	(2.0%)	2
TIPS	-	-	-	4.2%	4.2%	1	6.5%	6.5%	(0)	6.5%	6.5%	(5)
REITs	-	-	-	5.7%	4.8%	87	7.6%	6.5%	103	34.7%	33.6%	110
Commodities	-	-	-	2.2%	1.7%	48	(2.2%)	(2.7%)	51	57.3%	57.4%	(10)
Total CERBT 3	-	-	-	7.1%	6.9%	27	9.0%	8.8%	14	13.6%	13.4%	11

5-Yr Realized Volatility: **6.3%**

5-Yr Realized Tracking Error: **0.1%**

Asset Allocation, Performance & Realized Risk Summary - LRF

Asset Allocation	Ending Asset Value (mil)	Current Allocation (%)	Policy Weight (%) ¹	Variance (%)	Policy Range
Public Equity	\$ 26.8	21.9%	22.0%	(0.1%)	± 5%
Fixed Income	\$ 60.0	49.1%	49.0%	0.1%	± 5%
TIPS	\$ 19.6	16.0%	16.0%	0.0%	± 3%
REITs	\$ 9.7	7.9%	8.0%	(0.1%)	± 5%
Commodities	\$ 6.2	5.1%	5.0%	0.1%	± 3%
Liquidity	\$ 0.0	0.0%	0.0%	0.0%	+ 2%
Total LRF	\$ 122.2	100.0%	100.0%	0.0%	



Performance Summary ²	10-Yr			5-Yr			3-Yr			1-Yr		
	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps
Public Equity	10.6%	10.5%	18	15.2%	14.9%	30	14.7%	14.2%	42	41.3%	40.9%	38
Fixed Income	5.4%	4.9%	46	4.2%	3.8%	36	6.9%	6.9%	3	(2.0%)	(2.0%)	1
TIPS	3.4%	3.4%	(2)	4.2%	4.2%	3	6.6%	6.5%	2	6.5%	6.5%	(5)
REITs	-	-	-	6.0%	5.5%	58	7.5%	6.5%	96	34.7%	33.6%	116
Commodities	-	-	-	2.1%	1.7%	40	(2.2%)	(2.7%)	48	57.3%	57.4%	(11)
Total LRF	6.5%	6.3%	20	7.2%	7.0%	27	9.0%	8.8%	20	13.6%	13.4%	13

5-Yr Realized Volatility: **6.2%**

5-Yr Realized Tracking Error: **0.1%**

¹ Allocations approved by the Board at the May 2018 IC Meeting.

² Liquidity is for operational purposes rather than a strategic allocation target and is not included in the performance summary table due to negligible impact on performance. All performance reported net of investment expenses.

Affiliate Investment Programs

Judges' Retirement Fund (JRF) & Judges' Retirement System Fund II (JRFII)

As of June 30, 2021

Asset Allocation, Performance & Realized Risk Summary - JRF

Asset Allocation	Ending Asset Value (mil)	Current Allocation (%)	Policy Weight (%) ¹	Variance (%)	Policy Range
Cash	\$ 63.5	100.0%	100.0%	0.0%	+ 0%
Total JRF	\$ 63.5	100.0%	100.0%	0.0%	

Current Allocation



Performance Summary	10-Yr			5-Yr			3-Yr			1-Yr		
	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps
Cash	0.7%	0.6%	6	1.3%	1.2%	10	1.4%	1.3%	4	0.1%	0.1%	4
Total JRF	0.7%	0.6%	6	1.3%	1.2%	10	1.4%	1.3%	4	0.1%	0.1%	4

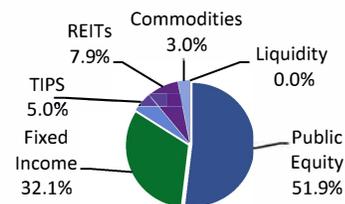
5-Yr Realized Volatility: **0.2%**

5-Yr Realized Tracking Error: **0.1%**

Asset Allocation, Performance & Realized Risk Summary - JRFII

Asset Allocation	Ending Asset Value (mil)	Current Allocation (%)	Policy Weight (%) ¹	Variance (%)	Policy Range
Public Equity	\$ 1,242.8	51.9%	52.0%	(0.1%)	± 5%
Fixed Income	\$ 768.6	32.1%	32.0%	0.1%	± 5%
TIPS	\$ 120.1	5.0%	5.0%	0.0%	± 3%
REITs	\$ 190.2	7.9%	8.0%	(0.1%)	± 5%
Commodities	\$ 72.9	3.0%	3.0%	0.0%	± 3%
Liquidity	\$ 0.0	0.0%	0.0%	0.0%	+ 2%
Total JRF II	\$ 2,394.7	100.0%	100.0%	0.0%	

Current Allocation



Performance Summary ²	10-Yr			5-Yr			3-Yr			1-Yr		
	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps
Public Equity	10.6%	10.4%	18	15.2%	14.9%	31	14.7%	14.2%	43	41.4%	40.9%	41
Fixed Income	5.4%	4.9%	46	4.2%	3.8%	38	6.9%	6.9%	6	(2.0%)	(2.0%)	2
TIPS	-	-	-	4.2%	4.2%	1	6.5%	6.5%	(1)	6.5%	6.5%	(5)
REITs	7.3%	7.0%	28	6.1%	5.5%	59	7.5%	6.5%	99	34.8%	33.6%	125
Commodities	-	-	-	1.9%	1.7%	16	(2.6%)	(2.7%)	11	57.3%	57.4%	(10)
Total JRF II	8.5%	8.3%	18	10.3%	10.0%	35	11.6%	11.2%	33	24.4%	24.2%	28

5-Yr Realized Volatility: **9.5%**

5-Yr Realized Tracking Error: **0.1%**

¹ Allocations approved by the Board at the May 2018 IC Meeting.

² Liquidity is for operational purposes rather than a strategic allocation target and is not included in the performance summary table due to negligible impact on performance. All performance reported net of investment expenses.

Affiliate Investment Programs

Health Care Fund (HCF) & Long-Term Care Fund (LTCF)

As of June 30, 2021

Asset Allocation, Performance & Realized Risk Summary - HCF

Asset Allocation	Ending Asset Value (mil)	Current Allocation (%)	Policy Weight (%) ¹	Variance (%)	Policy Range
Fixed Income	\$ 518.4	100.0%	100.0%	0.0%	+ 0%
Total HCF	\$ 518.4	100.0%	100.0%	0.0%	

Current Allocation



Performance Summary	10-Yr			5-Yr			3-Yr			1-Yr		
	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps
Fixed Income	3.7%	3.4%	26	3.1%	3.0%	3	5.4%	5.3%	1	(0.4%)	(0.3%)	(5)
Total HCF	3.7%	3.4%	26	3.1%	3.0%	3	5.4%	5.3%	1	(0.4%)	(0.3%)	(5)

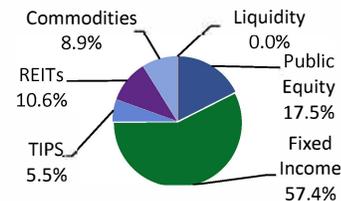
5-Yr Realized Volatility: **3.2%**

5-Yr Realized Tracking Error: **0.1%**

Asset Allocation, Performance & Realized Risk Summary - LTCF

Asset Allocation	Ending Asset Value (mil)	Current Allocation (%)	Policy Weight (%) ¹	Variance (%)	Policy Range
Public Equity	\$ 961.0	17.5%	15.0%	2.5%	± 4%
Fixed Income	\$ 3,145.2	57.4%	60.0%	(2.6%)	± 5%
TIPS	\$ 302.5	5.5%	6.0%	(0.5%)	± 2%
REITs	\$ 581.6	10.6%	11.0%	(0.4%)	± 4%
Commodities	\$ 486.0	8.9%	8.0%	0.9%	± 2%
Liquidity	\$ 0.1	0.0%	0.0%	0.0%	+ 2%
Total LTCF	\$ 5,476.4	100.0%	100.0%	0.0%	

Current Allocation



Performance Summary ²	10-Yr			5-Yr			3-Yr			1-Yr		
	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps
Public Equity	10.5%	10.3%	24	14.9%	14.5%	31	14.5%	14.2%	30	41.2%	40.9%	29
Fixed Income	4.9%	4.9%	0	3.9%	3.8%	4	6.9%	6.9%	4	(2.0%)	(2.0%)	(1)
TIPS	3.4%	3.4%	(2)	4.2%	4.2%	(1)	6.5%	6.5%	(1)	6.5%	6.5%	(5)
REITs	6.9%	6.2%	66	5.7%	4.8%	88	7.5%	6.5%	97	34.6%	33.6%	107
Commodities	-	-	-	1.7%	1.7%	(5)	(2.7%)	(2.7%)	7	57.2%	57.4%	(17)
Total LTCF	5.2%	5.1%	11	6.0%	6.0%	5	8.2%	8.2%	5	13.0%	12.3%	64

5-Yr Realized Volatility: **6.6%**

5-Yr Realized Tracking Error: **0.4%**

¹ Allocations approved by the Board at the June 2018 IC Meeting.

² Liquidity is for operational purposes rather than a strategic allocation target and is not included in the performance summary table due to negligible impact on performance. All performance reported net of investment expenses.

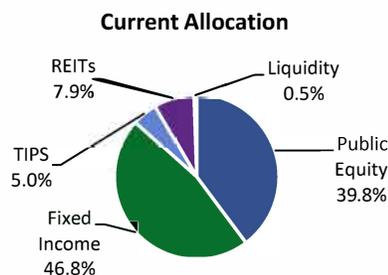
Affiliate Investment Programs

CEPPT Strategy 1 Fund (CEPPT 1) & CEPPT Strategy 2 Fund (CEPPT 2)

As of June 30, 2021

Asset Allocation & Performance Summary - CEPPT 1

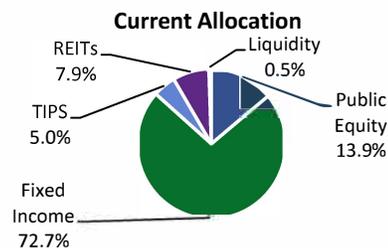
Asset Allocation	Ending Asset Value (mil)	Current Allocation (%)	Policy Weight (%) ¹	Variance (%)	Policy Range
Public Equity	\$ 15.3	39.8%	40.0%	(0.2%)	± 5%
Fixed Income	\$ 18.1	46.8%	47.0%	(0.2%)	±5%
TIPS	\$ 1.9	5.0%	5.0%	(0.0%)	± 3%
REITs	\$ 3.0	7.9%	8.0%	(0.1%)	± 5%
Liquidity	\$ 0.2	0.5%	0.0%	0.5%	+ 2%
Total CEPPT 1	\$ 38.6	100.0%	100.0%	0.0%	



Performance Summary ²	10-Yr			5-Yr			3-Yr			1-Yr		
	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps
Public Equity	-	-	-	-	-	-	-	-	-	41.2%	40.9%	23
Fixed Income	-	-	-	-	-	-	-	-	-	(0.4%)	(0.3%)	(5)
TIPS	-	-	-	-	-	-	-	-	-	6.4%	6.5%	(10)
REITs	-	-	-	-	-	-	-	-	-	34.7%	33.6%	117
Total CEPPT 1	-	-	-	-	-	-	-	-	-	18.2%	18.1%	15

Asset Allocation & Performance Summary - CEPPT 2

Asset Allocation	Ending Asset Value (mil)	Current Allocation (%)	Policy Weight (%) ¹	Variance (%)	Policy Range
Public Equity	\$ 2.7	13.9%	14.0%	(0.1%)	± 5%
Fixed Income	\$ 14.1	72.7%	73.0%	(0.3%)	± 5%
TIPS	\$ 1.0	5.0%	5.0%	(0.0%)	± 3%
REITs	\$ 1.5	7.9%	8.0%	(0.1%)	± 5%
Liquidity	\$ 0.1	0.5%	0.0%	0.5%	+ 2%
Total CEPPT 2	\$ 19.4	100.0%	100.0%	0.0%	



Performance Summary ²	10-Yr			5-Yr			3-Yr			1-Yr		
	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps	Total Return	BM Return	Excess Bps
Public Equity	-	-	-	-	-	-	-	-	-	41.2%	40.9%	24
Fixed Income	-	-	-	-	-	-	-	-	-	(0.4%)	(0.3%)	(4)
TIPS	-	-	-	-	-	-	-	-	-	6.5%	6.5%	(5)
REITs	-	-	-	-	-	-	-	-	-	34.6%	33.6%	105
Total CEPPT 2	-	-	-	-	-	-	-	-	-	7.9%	7.8%	17

¹ Allocations approved by the Board at the June 2019 IC Meeting.

² Liquidity is for operational purposes rather than a strategic allocation target and is not included in the performance summary table due to negligible impact on performance. All performance reported net of investment expenses.

Affiliate Investment Programs

Supplemental Income Plans (SIP)

As of June 30, 2021

Asset Allocation - SIP

Asset Allocation	Ending Asset Value (mil)	Global Equity			US Fixed Income			Real Assets			Cash and Cash Equivalents		
		Actual	Policy ¹	Policy Range	Actual	Policy ¹	Policy Range	Actual	Policy ¹	Policy Range	Actual	Policy ¹	Policy Range
Target Income Fund	\$ 120.0	31.0%	30.0%	± 4%	59.0%	60.0%	± 4%	5.2%	5.0%	± 1%	4.8%	5.0%	± 1%
Target 2015 Fund	\$ 98.9	33.1%	32.0%	± 4%	57.0%	58.0%	± 4%	5.2%	5.0%	± 1%	4.8%	5.0%	± 1%
Target 2020 Fund	\$ 186.9	45.2%	44.0%	± 4%	45.8%	47.0%	± 4%	5.1%	5.0%	± 1%	3.8%	4.0%	± 1%
Target 2025 Fund	\$ 226.9	58.2%	57.0%	± 4%	34.9%	36.0%	± 4%	4.1%	4.0%	± 1%	2.9%	3.0%	± 1%
Target 2030 Fund	\$ 212.9	70.0%	69.0%	± 4%	24.1%	25.0%	± 2%	4.0%	4.0%	± 1%	1.9%	2.0%	± 1%
Target 2035 Fund	\$ 131.5	82.6%	82.0%	± 4%	13.4%	14.0%	± 2%	3.0%	3.0%	± 1%	0.9%	1.0%	+ 0.25%
Target 2040 Fund	\$ 124.3	92.3%	92.0%	± 4%	4.8%	5.0%	± 1%	3.0%	3.0%	± 1%	-	-	+ 0.25%
Target 2045 Fund	\$ 69.4	92.3%	92.0%	± 4%	4.8%	5.0%	± 1%	3.0%	3.0%	± 1%	-	-	+ 0.25%
Target 2050 Fund	\$ 38.8	92.3%	92.0%	± 4%	4.8%	5.0%	± 1%	3.0%	3.0%	± 1%	-	-	+ 0.25%
Target 2055 Fund	\$ 13.8	92.3%	92.0%	± 4%	4.8%	5.0%	± 1%	3.0%	3.0%	± 1%	-	-	+ 0.25%
Target 2060 Fund	\$ 7.1	92.3%	92.0%	± 4%	4.8%	5.0%	± 1%	3.0%	3.0%	± 1%	-	-	+ 0.25%
SSgA STIF	\$ 109.5	-	-	-	-	-	-	-	-	-	100.0%	100.0%	-
SIP US ST Bond Core	\$ 40.1	-	-	-	100.0%	100.0%	-	-	-	-	-	-	-
SIP US Bond Core	\$ 64.3	-	-	-	100.0%	100.0%	-	-	-	-	-	-	-
SIP Real Asset Core	\$ 12.0	-	-	-	-	-	-	100.0%	100.0%	-	-	-	-
SIP Russell All Cap Core	\$ 708.7	100.0%	100.0%	-	-	-	-	-	-	-	-	-	-
SIP Gbl All Cap EX-US	\$ 78.6	100.0%	100.0%	-	-	-	-	-	-	-	-	-	-

Performance Summary - SIP

Performance Summary	10-Yr			5-Yr			3-Yr			1-Yr		
	Total Return ²	BM Return	Excess Bps	Total Return ²	BM Return	Excess Bps	Total Return ²	BM Return	Excess Bps	Total Return ²	BM Return	Excess Bps
Target Income Fund	5.2%	5.1%	12	6.4%	6.2%	14	8.6%	8.4%	19	12.5%	12.6%	(6)
Target 2015 Fund	5.5%	5.5%	3	6.4%	6.3%	14	8.7%	8.5%	20	13.5%	13.6%	(6)
Target 2020 Fund	6.2%	6.2%	4	7.5%	7.3%	15	9.8%	9.6%	23	18.4%	18.5%	(6)
Target 2025 Fund	7.1%	7.0%	2	9.0%	8.8%	16	10.9%	10.7%	25	23.4%	23.5%	(7)
Target 2030 Fund	7.8%	7.8%	(2)	10.1%	10.0%	7	11.8%	11.6%	13	28.6%	28.7%	(8)
Target 2035 Fund	8.5%	8.6%	(5)	11.4%	11.3%	8	12.7%	12.6%	16	34.0%	34.1%	(8)
Target 2040 Fund	9.2%	9.2%	(5)	12.6%	12.6%	5	13.6%	13.4%	14	38.4%	38.4%	(9)
Target 2045 Fund	9.4%	9.5%	(6)	13.2%	13.2%	5	13.7%	13.6%	14	38.4%	38.4%	(9)
Target 2050 Fund	9.4%	9.5%	(6)	13.2%	13.2%	5	13.7%	13.6%	14	38.4%	38.4%	(9)
Target 2055 Fund	-	-	-	13.2%	13.2%	5	13.7%	13.6%	14	38.4%	38.4%	(8)
Target 2060 Fund	-	-	-	-	-	-	-	-	-	38.3%	38.4%	(13)
SSgA STIF	0.7%	0.6%	9	1.3%	1.2%	16	1.5%	1.3%	14	0.1%	0.1%	4
SIP US ST Bond Core	-	-	-	1.8%	1.9%	(9)	2.9%	3.0%	(6)	0.4%	0.4%	(9)
SIP US Bond Core	-	-	-	3.1%	3.0%	3	5.4%	5.3%	4	(0.4%)	(0.3%)	(5)
SIP Real Asset Core	-	-	-	6.3%	6.2%	3	7.0%	6.9%	14	30.9%	31.2%	(30)
SIP Russell All Cap Core	-	-	-	17.9%	17.9%	(2)	18.7%	18.7%	(1)	44.2%	44.2%	6
SIP Gbl All Cap EX-US	-	-	-	11.3%	11.2%	8	9.7%	9.4%	24	36.9%	37.2%	(25)

¹ Allocations approved by the Board at the April 2018 IC Meeting.

² Performance is net of the average investment management fees & expenses incurred by the 457/SCP plans.

Affiliate Investment Programs
Supplemental Income Plans (SIP)
As of June 30, 2021

Realized Risk - SIP

Realized Risk	Annualized 5-Yr Realized Volatility	Tracking Error ¹
Target Income Fund	5.1%	0.2%
Target 2015 Fund	5.7%	0.2%
Target 2020 Fund	7.3%	0.2%
Target 2025 Fund	9.0%	0.2%
Target 2030 Fund	10.8%	0.1%
Target 2035 Fund	12.6%	0.2%
Target 2040 Fund	13.8%	0.2%
Target 2045 Fund	13.9%	0.2%
Target 2050 Fund	13.9%	0.2%
Target 2055 Fund	13.9%	0.2%
Target 2060 Fund	-	-
SSgA STIF	0.3%	0.1%
SIP US ST Bond Core	0.9%	0.0%
SIP US Bond Core	3.3%	0.0%
SIP Real Asset Core	10.6%	0.3%
SIP Russell All Cap Core	15.6%	0.1%
SIP Gbl All Cap EX-US	15.0%	0.4%

¹ Due to the impact of Fair Value Pricing adjustment, the tracking error is based on a rolling 12 month calculation.

CalPERS Trust Level
Trust Level Benchmarks
As of June 30, 2021

Public Employees' Retirement Fund and Affiliate Investment Programs Policy Benchmarks

Trust	Asset Class	Policy Benchmark
Public Employees' Retirement Fund	Public Equity - Cap Weighted	CalPERS Custom FTSE Global Benchmark
	Public Equity - Factor Weighted	MSCI ACWI Select Factor Weighted Index
	Private Equity	Custom FTSE All World, All Cap Equity + 150 bps, Quarter Lag
	Income - Long Spread	Custom Bloomberg Barclays Long Spread
	Income - Long Treasury	Custom Bloomberg Barclays Long Government
	Income - High Yield	Custom Bloomberg Barclays High Yield
	Real Assets	MSCI/PREA U.S. ACOE Quarterly Property Fund Index (Unfrozen)
	Liquidity	30-day Treasury Bill
Judges' Retirement System Fund	Cash	91-day Treasury Bill
Judges' Retirement System II Fund	Global Equity	MSCI ACWI IMI (Net)
	U.S. Fixed Income	Bloomberg Barclays Long Liability Index
	TIPS	Bloomberg Barclays U.S. TIPS Index, Series L
	Commodities	S&P GSCI Total Return Daily
	REITs	FTSE EPRA/NAREIT Developed Index
Legislators' Retirement System Fund	Global Equity	MSCI ACWI IMI (Net)
	U.S. Fixed Income	Bloomberg Barclays Long Liability Index
	TIPS	Bloomberg Barclays U.S. TIPS Index, Series L
	Commodities	S&P GSCI Total Return Daily
	REITs	FTSE EPRA/NAREIT Developed Index
Public Employees' Health Care Fund	U.S. Fixed Income	Bloomberg Barclays U.S. Aggregate Bond Index
Long-Term Care Fund	Global Equity	MSCI ACWI IMI (Net)
	U.S. Fixed Income	Bloomberg Barclays Long Liability Index
	TIPS	Bloomberg Barclays U.S. TIPS Index, Series L
	Commodities	S&P GSCI Total Return Daily
	REITs	FTSE EPRA/NAREIT Developed Index
California Employers' Retiree Benefit Trust (CERBT) Funds 1, 2 & 3	Global Equity	MSCI ACWI IMI (Net)
	U.S. Fixed Income	Bloomberg Barclays Long Liability Index
	TIPS	Bloomberg Barclays U.S. TIPS Index, Series L
	Commodities	S&P GSCI Total Return Daily
	REITs	FTSE EPRA/NAREIT Developed Index
California Employers' Pension Prefunding Trust (CEPPT) Funds 1 & 2	Global Equity	MSCI ACWI IMI (Net)
	U.S. Fixed Income	Bloomberg Barclays U.S. Aggregate Bond Index
	TIPS	Bloomberg Barclays U.S. TIPS Index, Series L
	REITs	FTSE EPRA/NAREIT Developed Index

CalPERS Trust Level
Trust Level Benchmarks
As of June 30, 2021

Supplemental Income Plans Policy Benchmarks

Policy Weights							
Supplemental Income Plans	Global Equity	US Equity	Int'l Equity	US Income		Real Assets	Cash & Cash Equivalents
	Russell 3000 / MSCI ACWI ex US	Russell 3000	MSCI ACWI ex US IMI Index (Net)	Bloomberg Barclays U.S. Aggregate Bond Index	Bloomberg Barclays U.S. 1-3 Year Govt/Credit Bond Index	SSGA Real Asset	BofA Merrill Lynch 3-Month Treasury Bill Index
Target Income Fund	30.0%	17.0%	13.0%	60.0%	-	5.0%	5.0%
Target 2015 Fund	32.0%	18.0%	14.0%	58.0%	-	5.0%	5.0%
Target 2020 Fund	44.0%	25.0%	19.0%	47.0%	-	5.0%	4.0%
Target 2025 Fund	57.0%	32.0%	25.0%	36.0%	-	4.0%	3.0%
Target 2030 Fund	69.0%	39.0%	30.0%	25.0%	-	4.0%	2.0%
Target 2035 Fund	82.0%	47.0%	35.0%	14.0%	-	3.0%	1.0%
Target 2040 Fund	92.0%	52.0%	40.0%	5.0%	-	3.0%	0.0%
Target 2045 Fund	92.0%	52.0%	40.0%	5.0%	-	3.0%	0.0%
Target 2050 Fund	92.0%	52.0%	40.0%	5.0%	-	3.0%	0.0%
Target 2055 Fund	92.0%	52.0%	40.0%	5.0%	-	3.0%	0.0%
Target 2060 Fund	92.0%	52.0%	40.0%	5.0%	-	3.0%	0.0%
SSgA STIF	-	-	-	-	-	-	100.0%
SIP US ST Bond Core	-	-	-	-	100.0%	-	-
SIP US Bond Core	-	-	-	100.0%	-	-	-
SIP Real Asset Core	-	-	-	-	-	100.0%	-
SIP Russell All Cap Core	100.0%	100.0%	-	-	-	-	-
SIP Global All Cap ex US	100.0%	-	100.0%	-	-	-	-