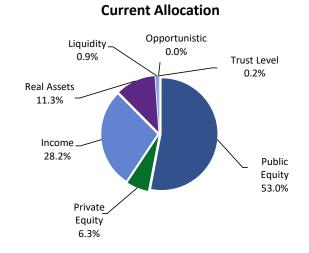
Main CalPERS

## Public Employees' Retirement Fund (PERF) As of June 30, 2020

#### Asset Allocation

Asset Allocation	EMV (bil)	Current Allocation (%)	Policy Target Weight (%)	Variance (%)	Policy Range
Public Equity	\$ 206.2	53.0%	50.0%	3.0%	± 7%
Cap Wtd.	\$ 148.3	38.1%	35.0%	3.1%	
Factor Wtd.	\$ 57.9	14.9%	15.0%	-0.1%	
Private Equity	\$ 24.6	6.3%	8.0%	-1.7%	± 4%
Income	\$ 109.9	28.2%	28.0%	0.2%	± 6%
Long Spread	\$ 64.0	16.5%	15.0%	1.5%	
Long Treasury	\$ 34.5	8.9%	10.0%	-1.1%	
High Yield	\$ 11.3	2.9%	3.0%	-0.1%	
Real Assets	\$ 44.1	11.3%	13.0%	-1.7%	± 5%
Liquidity	\$ 3.3	0.9%	1.0%	-0.1%	+3%/ -6%
Opportunistic	\$ 0.1	0.0%	-	0.0%	
Trust Level <sup>1</sup>	\$ 0.9	0.2%	-	0.2%	
Total PERF	\$ 389.0	100.0%	100.0%		



TAP <sup>2</sup>	\$ 0.2
PERF Plus TAP	\$ 389.2

#### Performance Summary

		10-Yr			5-Yr			3-Yr			1-Yr		5-Yr
Performance Summary	Net Return	BM Return	Excess Bps	Realized Information Ratio <sup>3</sup>									
Public Equity	9.7%	9.5%	20	6.6%	6.5%	4	6.0%	6.1%	(10)	0.6%	0.4%	21	-
Cap Wtd.	9.7%	9.5%	19	6.6%	6.6%	2	6.1%	6.2%	(14)	1.8%	1.7%	15	0.0
Factor Wtd.	-	-	-	-	-	-	-	-	-	(2.6%)	(2.7%)	17	-
Private Equity	10.4%	10.2%	24	6.6%	5.6%	102	5.9%	3.2%	270	(5.1%)	(11.0%)	590	-
Income	5.9%	5.2%	64	6.3%	5.9%	41	7.4%	7.1%	30	12.5%	12.3%	19	-
Long Spread	-	-	-	-	-	-	-	-	-	8.8%	7.9%	99	1.7
Long Treasury	-	-	-	-	-	-	-	-	-	20.0%	20.6%	(61)	-
High Yield	-	-	-	-	-	-	-	-	-	(1.1%)	(0.9%)	(22)	-
Real Assets	8.8%	9.6%	(73)	5.9%	7.0%	(112)	5.4%	5.7%	(31)	4.6%	3.9%	74	-
Liquidity	1.3%	1.3%	(6)	1.4%	1.1%	32	2.0%	1.6%	38	1.6%	1.3%	33	-
Opportunistic <sup>4</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-
Trust Level <sup>1</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PERF <sup>5</sup>	8.5%	8.4%	10	6.3%	6.4%	(13)	6.6%	6.7%	(3)	4.7%	4.3%	38	-
TAP <sup>2</sup>	-	-	-	6.5%	-	-	8.3%	-	-	16.1%	-	-	-

<sup>1</sup> Trust Level includes Multi Asset Class, Completion Overlay, Absolute Return Strategies (Direct Investments only), Plan Level Transition and other Total Fund level portfolios.

<sup>2</sup> Terminated Agency Pool (TAP) funded in July 2013 and exists to provide benefit payments to members who are employees of agencies that have terminated their contract with CalPERS.

<sup>3</sup> 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.

<sup>4</sup> Performance for Opportunistic not reported as it was funded in June 2020 and does not yet have a 1-year track record.

<sup>5</sup> Total PERF return for FY 19/20, both absolute and relative, based on official performance produced by CalPERS Financial Office. For periods longer than 1-year, historical performance based on results produced by State Street Bank

by State Street Bank. Quarterly Update - Performance and Risk

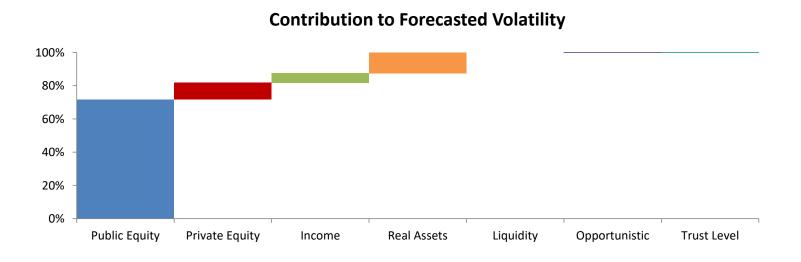
## Public Employees' Retirement Fund (PERF)

#### As of June 30, 2020

#### **Total PERF Risk**

Risk Measure	7/1/2020	3/31/2020	Explanation of Risk Measures:
Forecasted Volatility <sup>1</sup>			
Portfolio Benchmark	11.5% 11.1%	11.1% 10.9%	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.
Forecasted Tracking Error <sup>1</sup> Portfolio	1.05%	1.05%	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 (Action Portfolio	nable) <sup>1</sup> 0.24%	0.19%	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, 2020	Volat	ility	Tracki	ing Error
Asset Class	Annualized Forecasted (%) <sup>1</sup>	5-Year Realized (%) <sup>2</sup>	Annualized Forecasted (%) <sup>1</sup>	5-Year Realized (%) <sup>2</sup>
Public Equity	16.1	14.1	0.1	0.3
Cap Weighted	17.2	14.8	0.2	0.3
Factor Weighted	13.8	-	0.2	-
Private Equity	22.5	6.9	13.6	10.5
Income	7.2	5.0	0.7	0.4
Long Spread	6.7	-	0.6	-
Long Treasury	12.1	-	0.3	-
High Yield	8.4	-	0.3	-
Real Assets	15.8	2.1	4.3	2.4
Liquidity	0.2	0.3	0.2	0.1
Opportunistic	10.0	-	10.0	-
Trust Level	N/A	-	N/A	-
Total PERF	11.5	7.3	1.0	1.2



<sup>1</sup> Forecasted Volatility and Tracking Error based on Barra 301XL model.

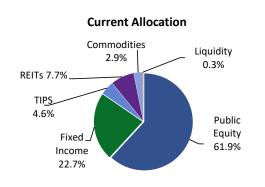
<sup>2</sup> Realized Volatility and Tracking Error for private asset classes are computed from quarterly net returns.

#### Quarterly Update - Performance and Risk

# CERBT Strategy 1 Fund (CERBT 1) & CERBT Strategy 2 Fund (CERBT 2) As of June 30, 2020

Asset Allocation, Performance & Realized Risk Summary - CERBT 1

Asset Allocation	EMV (mil)	Current Allocation (%)	Policy Weight (%) <sup>1</sup>	Variance (%)	Policy Range
Public Equity	\$ 5,917	3 61.9%	59.0%	2.9%	± 5%
Fixed Income	\$ 2,173	4 22.7%	25.0%	(2.3%)	± 5%
TIPS	\$ 436	1 4.6%	5.0%	(0.4%)	± 3%
REITS	\$ 736	9 7.7%	8.0%	(0.3%)	± 5%
Commodities	\$ 277.	2 2.9%	3.0%	(0.1%)	± 3%
Liquidity	\$ 24	6 0.3%	0.0%	0.3%	+ 2%
Total CERBT 1	\$ 9,565.	5 100.0%	100.0%	0.0%	



	10-Yr				5-Yr			3-Yr			1-Yr		
Performance Summary <sup>2</sup>	Net Return	BM Return	Excess Bps										
Public Equity	9.7%	9.4%	26	6.5%	6.1%	36	5.9%	5.5%	31	1.5%	1.2%	29	
Fixed Income	6.3%	5.6%	63	6.6%	6.2%	39	7.7%	7.5%	21	13.2%	13.1%	10	
TIPS	-	-	-	3.7%	3.7%	(1)	5.0%	5.0%	(1)	8.2%	8.3%	(8)	
REITs	6.8%	6.2%	55	1.8%	1.0%	79	(0.8%)	(1.5%)	75	(15.7%)	(16.2%)	51	
Commodities	-	-	-	(12.6%)	(12.5%)	(6)	(8.7%)	(8.7%)	(1)	(34.1%)	(33.9%)	(17)	
Total CERBT 1	8.2%	7.9%	26	5.8%	5.4%	37	5.9%	5.6%	28	3.5%	3.2%	38	

5-Yr Realized Volatility:

5-Yr Realized Tracking Error:

0.1%

#### Asset Allocation, Performance & Realized Risk Summary - CERBT 2

10.1%

Asset Allocation	EMV (mil)		Current Allocation (%)	Policy Weight (%) <sup>1</sup>	Variance (%)	Policy Range
Public Equity	\$	617.6	43.1%	40.0%	3.1%	± 5%
Fixed Income	\$	574.5	40.1%	43.0%	(2.9%)	± 5%
TIPS	\$	67.1	4.7%	5.0%	(0.3%)	± 3%
REITs	\$	113.5	7.9%	8.0%	(0.1%)	± 5%
Commodities	\$	56.9	4.0%	4.0%	(0.0%)	± 3%
Liquidity	\$	4.5	0.3%	0.0%	0.3%	+ 2%
Total CERBT 2	\$	1,434.1	100.0%	100.0%	0.0%	

#### Commodities 4.0% EITs 7.9% TIPS 4.7% Fixed Income Equity

40.1%

**Current Allocation** 

Equity
43.1%

		10-Yr		5-Yr			3-Yr			1-Yr		
Performance Summary <sup>2</sup>	Net Return	BM Return	Excess Bps									
Public Equity	-	-	-	6.5%	6.1%	35	5.9%	5.5%	32	1.5%	1.2%	30
Fixed Income	-	-	-	6.6%	6.2%	39	7.7%	7.5%	21	13.2%	13.1%	9
TIPS	-	-	-	3.8%	3.7%	0	5.1%	5.0%	3	8.2%	8.3%	(6)
REITs	-	-	-	1.8%	1.0%	78	(0.8%)	(1.5%)	73	(15.8%)	(16.2%)	44
Commodities	-	-	-	(12.5%)	(12.5%)	8	(8.5%)	(8.7%)	23	(34.0%)	(33.9%)	(10)
Total CERBT 2	-	-	-	5.7%	5.4%	32	6.2%	6.0%	24	5.4%	5.2%	26

5-Yr Realized Volatility:

5-Yr Realized Tracking Error:

0.1%

 $^{1}\,\mathrm{Allocations}$  approved by the Board at the May 2018 IC Meeting.

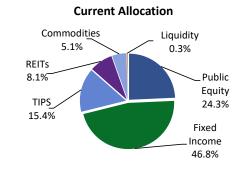
7.8%

<sup>2</sup> 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.

# CERBT Strategy 3 Fund (CERBT 3) & Legislators' Retirement System Fund (LRF) As of June 30, 2020

Asset Allocation, Performance & Realized Risk Summary - CERBT 3

Asset Allocation	EMV (mil)	Current Allocation (%)	Policy Weight (%) <sup>1</sup>	Variance (%)	Policy Range
Public Equity	\$ 163.2	24.3%	22.0%	2.3%	± 5%
Fixed Income	\$ 314.5	46.8%	49.0%	(2.2%)	±5%
TIPS	\$ 103.2	15.4%	16.0%	(0.6%)	± 3%
REITs	\$ 54.5	8.1%	8.0%	0.1%	± 5%
Commodities	\$ 34.2	5.1%	5.0%	0.1%	± 3%
Liquidity	\$ 2.1	0.3%	0.0%	0.3%	+ 2%
Total CERBT 3	\$ 671.7	100.0%	100.0%	0.0%	



	10-Yr				5-Yr			3-Yr			1-Yr		
Performance Summary <sup>2</sup>	Net Return	BM Return	Excess Bps										
Public Equity	-	-	-	6.4%	6.1%	33	5.8%	5.5%	28	1.4%	1.2%	20	
Fixed Income	-	-	-	6.6%	6.2%	36	7.7%	7.5%	20	13.2%	13.1%	10	
TIPS	-	-	-	3.8%	3.7%	1	5.1%	5.0%	4	8.2%	8.3%	(5)	
REITs	-	-	-	1.8%	1.0%	75	(0.8%)	(1.5%)	77	(15.7%)	(16.2%)	47	
Commodities	-	-	-	(12.3%)	(12.5%)	26	(8.3%)	(8.7%)	40	(34.1%)	(33.9%)	(20)	
Total CERBT 3	-	-	-	5.3%	5.0%	26	6.1%	5.9%	20	6.3%	6.1%	22	

5-Yr Realized Volatility:

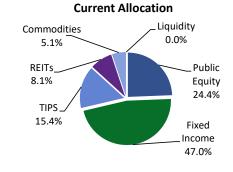
5-Yr Realized Tracking Error:

0.1%

#### Asset Allocation, Performance & Realized Risk Summary - LRF

6.0%

Asset Allocation	EMV (mil)		Current Allocation (%)	Policy Weight (%) <sup>1</sup>	Variance (%)	Policy Range
Public Equity	\$	27.8	24.4%	22.0%	2.4%	± 5%
Fixed Income	\$	53.7	47.0%	49.0%	(2.0%)	± 5%
TIPS	\$	17.6	15.4%	16.0%	(0.6%)	± 3%
REITs	\$	9.3	8.1%	8.0%	0.1%	± 5%
Commodities	\$	5.8	5.1%	5.0%	0.1%	± 3%
Liquidity	\$	0.0	0.0%	0.0%	0.0%	+ 2%
Total LRF	\$	114.3	100.0%	100.0%	0.0%	



	10-Yr				5-Yr			3-Yr		1-Yr			
Performance Summary <sup>2</sup>	Net Return	BM Return	Excess Bps										
Public Equity	9.8%	9.6%	14	6.6%	6.4%	24	6.1%	5.8%	26	1.5%	1.2%	29	
Fixed Income	6.3%	5.6%	62	6.6%	6.2%	37	7.7%	7.5%	19	13.2%	13.1%	8	
TIPS	3.5%	3.5%	(2)	3.8%	3.7%	2	5.1%	5.0%	5	8.3%	8.3%	2	
REITs	-	-	-	2.2%	1.9%	30	(0.7%)	(1.2%)	47	(15.7%)	(16.2%)	48	
Commodities	-	-	-	(12.1%)	(12.5%)	42	(8.3%)	(8.7%)	38	(34.0%)	(33.9%)	(14)	
Total LRF	6.7%	6.5%	25	5.4%	5.2%	22	6.2%	6.0%	21	6.4%	6.1%	26	

5-Yr Realized Volatility:

5-Yr Realized Tracking Error:

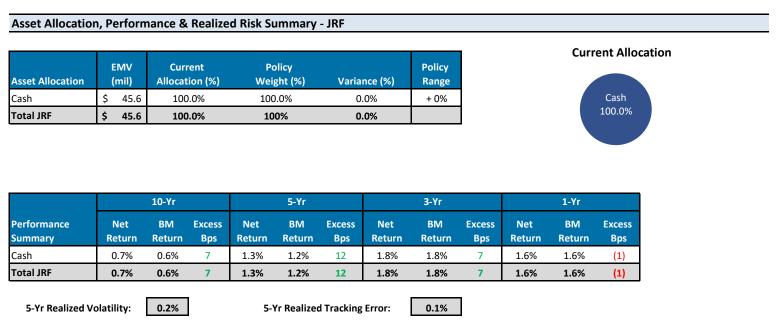
0.1%

 $^{\rm 1}$  Allocations approved by the Board at the May 2018 IC Meeting.

6.0%

<sup>2</sup> 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.

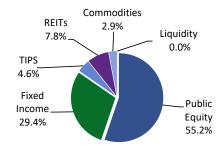
# Judges' Retirement Fund (JRF) & Judges' Retirement System Fund II (JRF II) As of June 30, 2020



#### Asset Allocation, Performance & Realized Risk Summary - JRF II

Asset Allocation	EMV (mil)	Current Allocation (%)	Policy Weight (%) <sup>1</sup>	Variance (%)	Policy Range
Public Equity	\$1,031.1	55.2%	52.0%	3.2%	± 5%
Fixed Income	\$ 549.0	29.4%	32.0%	(2.6%)	± 5%
TIPS	\$ 86.2	4.6%	5.0%	(0.4%)	± 3%
REITs	\$ 145.7	7.8%	8.0%	(0.2%)	± 5%
Commodities	\$ 54.8	2.9%	3.0%	(0.1%)	± 3%
Liquidity	\$ 0.1	0.0%	0.0%	0.0%	+ 2%
Total JRF II	\$1,866.9	100.0%	100.0%	0.0%	





		10-Yr			5-Yr		3-Yr			1-Yr			
Performance Summary <sup>2</sup>	Net Return	BM Return	Excess Bps										
Public Equity	9.7%	9.6%	16	6.6%	6.4%	26	6.1%	5.8%	32	1.6%	1.2%	46	
Fixed Income	6.3%	5.6%	62	6.6%	6.2%	39	7.7%	7.5%	22	13.2%	13.1%	9	
TIPS	-	-	-	3.7%	3.7%	(0)	5.1%	5.0%	2	8.3%	8.3%	(3)	
REITs	7.1%	7.0%	12	2.2%	1.9%	25	(0.8%)	(1.2%)	40	(15.9%)	(16.2%)	29	
Commodities	-	-	-	(12.5%)	(12.5%)	4	(9.0%)	(8.7%)	(26)	(34.7%)	(33.9%)	(75)	
Total JRF II	8.2%	8.0%	18	6.0%	5.7%	28	6.2%	6.0%	29	4.5%	4.1%	38	

5-Yr Realized Volatility:

5-Yr Realized Tracking Error:

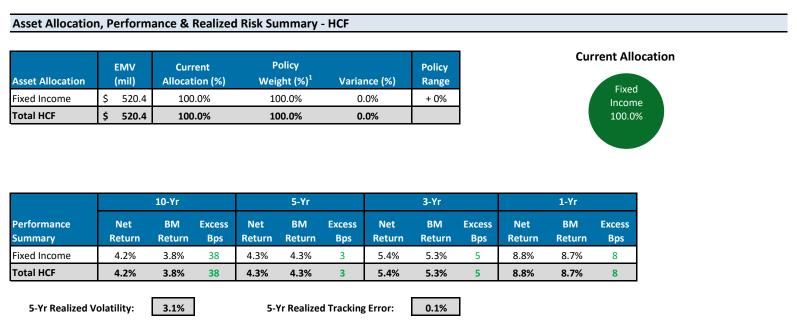
0.1%

<sup>1</sup> Allocations approved by the Board at the May 2018 IC Meeting.

9.2%

<sup>2</sup> 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.

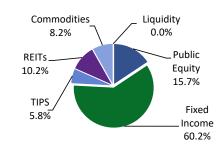
# Health Care Fund (HCF) & Long-Term Care Fund (LTCF) As of June 30, 2020



#### Asset Allocation, Performance & Realized Risk Summary - LTCF

Asset Allocation	EMV (mil)	Current Allocation (%)	Policy Weight (%) <sup>1</sup>	Variance (%)	Policy Range
Public Equity	\$ 769.1	15.7%	15.0%	0.7%	± 4%
Fixed Income	\$ 2,954.9	60.2%	60.0%	0.2%	± 5%
TIPS	\$ 284.1	5.8%	6.0%	(0.2%)	± 2%
REITs	\$ 499.4	10.2%	11.0%	(0.8%)	± 4%
Commodities	\$ 402.7	8.2%	8.0%	0.2%	± 2%
Liquidity	\$ 0.2	0.0%	0.0%	0.0%	+ 2%
Total LTCF	\$ 4,910.3	100.0%	100.0%	0.0%	

#### **Current Allocation**



		10-Yr			5-Yr		3-Yr			1-Yr			
Performance Summary <sup>2</sup>	Net Return	BM Return	Excess Bps										
Public Equity	9.7%	9.5%	22	6.4%	6.1%	32	5.8%	5.5%	30	1.5%	1.2%	30	
Fixed Income	5.8%	5.6%	16	6.2%	6.2%	4	7.6%	7.5%	5	13.2%	13.1%	11	
TIPS	3.5%	3.5%	(3)	3.7%	3.7%	(1)	5.0%	5.0%	(1)	8.3%	8.3%	(1)	
REITs	6.8%	6.2%	54	1.8%	1.0%	79	(0.8%)	(1.5%)	77	(15.7%)	(16.2%)	55	
Commodities	-	-	-	(12.5%)	(12.5%)	(1)	(8.7%)	(8.7%)	(2)	(33.8%)	(33.9%)	12	
Total LTCF	5.8%	5.7%	9	4.6%	4.6%	(1)	5.3%	5.4%	(13)	4.7%	5.1%	(37)	

5-Yr Realized Volatility:

5-Yr Realized Tracking Error:

0.4%

<sup>1</sup> Allocations approved by the Board at the June 2018 IC Meeting. <sup>2</sup> 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.

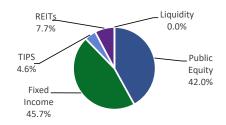
6.1%

# CEPPT Strategy 1 Fund (CEPPT 1) & CEPPT Strategy 2 Fund (CEPPT 2) As of June 30, 2020

#### Asset Allocation & Performance Summary - CEPPT 1<sup>1</sup>

Asset Allocation	EMV (mil)				Current Allocation (%)	Policy Weight (%) <sup>2</sup>	Variance (%)	Policy Range
Public Equity	\$	3.7	42.0%	40.0%	2.0%	± 5%		
Fixed Income	\$	4.0	45.7%	47.0%	(1.3%)	±5%		
TIPS	\$	0.4	4.6%	5.0%	(0.4%)	± 3%		
REITs	\$	0.7	7.7%	8.0%	(0.3%)	± 5%		
Liquidity	\$	0.0	0.0%	0.0%	0.0%	+ 2%		
Total CEPPT 1	\$	8.8	100.0%	100.0%	0.0%			

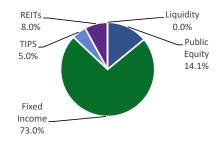




#### Asset Allocation & Performance Summary - CEPPT 2<sup>1</sup>

Asset Allocation	EMV (mil)	Current Allocation (%)	Policy Weight (%) <sup>2</sup>	Variance (%)	Policy Range
Public Equity	\$ 0.3	14.1%	14.0%	0.1%	± 5%
Fixed Income	\$ 1.7	73.0%	73.0%	(0.0%)	± 5%
TIPS	\$ 0.1	5.0%	5.0%	(0.0%)	± 3%
REITs	\$ 0.2	8.0%	8.0%	(0.0%)	± 5%
Liquidity	\$ 0.0	0.0%	0.0%	0.0%	+ 2%
Total CEPPT 2	\$ 2.3	100.0%	100.0%	_	

#### **Current Allocation**



<sup>1</sup> Performance Summary for CEPPT Strategies is not reported because they were funded less than 1-year ago. CEPPT 1 has an inception date of Oct 1, 2019 and CEPPT 2 has an inception date of Jan 1, 2020. <sup>2</sup> Allocations approved by the Board at the June 2019 IC Meeting.

## Supplemental Income Plans (SIP) As of June 30, 2020

Asset Allocation - SIP

		G	lobal Equit	.y	US	Fixed Inco	me		Real Asse	ts	Cash an	ıd Cash Eq	uivalents
Asset Allocation	EMV (mil)	Actual	Policy <sup>1</sup>	Policy Range	Actual	Policy <sup>1</sup>	Policy Range	Actual	Policy <sup>1</sup>	Policy Range	Actual	Policy <sup>1</sup>	Policy Range
Target Income Fund	\$ 112.2	33.0%	30.0%	± 4%	57.2%	60.0%	± 4%	5.1%	5.0%	± 1%	4.7%	5.0%	± 1%
Target 2015 Fund	\$ 92.8	37.0%	34.0%	± 4%	53.2%	56.0%	± 4%	5.1%	5.0%	± 1%	4.6%	5.0%	± 1%
Target 2020 Fund	\$ 171.0	49.9%	47.0%	± 4%	42.4%	45.0%	± 4%	4.0%	4.0%	± 1%	3.7%	4.0%	± 1%
Target 2025 Fund	\$ 179.5	62.0%	59.0%	± 4%	31.3%	34.0%	± 4%	3.9%	4.0%	± 1%	2.7%	3.0%	± 1%
Target 2030 Fund	\$ 159.8	73.9%	71.0%	± 4%	20.5%	23.0%	± 2%	3.8%	4.0%	± 1%	1.7%	2.0%	± 1%
Target 2035 Fund	\$ 95.0	85.8%	84.0%	± 4%	10.5%	12.0%	± 2%	2.8%	3.0%	± 1%	0.9%	1.0%	+ 0.25%
Target 2040 Fund	\$ 85.2	92.9%	92.0%	± 4%	4.3%	5.0%	± 1%	2.8%	3.0%	± 1%	-	-	+ 0.25%
Target 2045 Fund	\$ 46.5	92.9%	92.0%	± 4%	4.3%	5.0%	± 1%	2.8%	3.0%	± 1%	-	-	+ 0.25%
Target 2050 Fund	\$ 25.4	92.9%	92.0%	± 4%	4.3%	5.0%	± 1%	2.8%	3.0%	± 1%	-	-	+ 0.25%
Target 2055 Fund	\$ 9.8	92.9%	92.0%	± 4%	4.3%	5.0%	± 1%	2.8%	3.0%	± 1%	-	-	+ 0.25%
Target 2060 Fund	\$ 3.7	92.9%	92.0%	± 4%	4.3%	5.0%	± 1%	2.8%	3.0%	± 1%	-	-	+ 0.25%
SSgA STIF	\$ 121.3	-	-	-	-	-	-	-	-	-	100.0%	100.0%	-
SIP US ST Bond Core	\$ 42.5	-	-	-	100.0%	100.0%	-	-	-	-	-	-	-
SIP US Bond Core	\$ 70.5	-	-	-	100.0%	100.0%	-	-	-	-	-	-	-
SIP Real Asset Core	\$ 6.8	-	-	-	-	-	-	100.0%	100.0%	-	-	-	-
SIP Russell All Cap Core	\$ 547.0	100.0%	100.0%	-	-	-	-	-	-	-	-	-	-
SIP Glbl All Cap EX-US	\$ 61.5	100.0%	100.0%	-	-	-	-	-	-	-	-	-	-

#### **Performance Summary - SIP**

		10-Yr			5-Yr			3-Yr			1-Yr	
Performance Summary	Net Return <sup>2</sup>	BM Return	Excess Bps									
Target Income Fund	5.2%	5.1%	9	4.4%	4.2%	18	5.2%	5.0%	22	6.9%	6.4%	52
Target 2015 Fund	6.1%	6.1%	1	4.3%	4.1%	19	5.0%	4.8%	22	6.7%	6.2%	53
Target 2020 Fund	6.5%	6.5%	3	4.2%	4.0%	20	4.8%	4.6%	24	6.2%	5.6%	61
Target 2025 Fund	7.2%	7.2%	3	4.6%	4.4%	22	5.0%	4.7%	26	5.2%	4.6%	64
Target 2030 Fund	7.7%	7.7%	(2)	4.6%	4.5%	15	4.7%	4.6%	15	3.9%	3.6%	30
Target 2035 Fund	8.1%	8.2%	(5)	4.8%	4.7%	16	4.6%	4.5%	17	2.8%	2.4%	36
Target 2040 Fund	8.5%	8.5%	(5)	5.1%	4.9%	15	4.7%	4.6%	15	1.9%	1.6%	30
Target 2045 Fund	8.8%	8.8%	(6)	5.6%	5.4%	15	5.2%	5.1%	16	1.9%	1.6%	30
Target 2050 Fund	8.7%	8.8%	(7)	5.6%	5.4%	15	5.2%	5.1%	16	1.9%	1.6%	29
Target 2055 Fund	-	-	-	5.6%	5.4%	14	5.2%	5.1%	15	1.9%	1.6%	29
Target 2060 Fund	-	-	-	-	-	-	-	-	-	1.8%	1.6%	22
SSgA STIF	-	-	-	1.4%	1.2%	18	1.9%	1.8%	17	1.7%	1.6%	3
SIP US ST Bond Core	-	-	-	2.0%	2.1%	(10)	2.8%	2.9%	(7)	4.2%	4.2%	(2)
SIP US Bond Core	-	-	-	4.3%	4.3%	4	5.4%	5.3%	6	8.9%	8.7%	12
SIP Real Asset Core	-	-	-	0.6%	0.5%	8	0.5%	0.4%	17	(8.1%)	(8.7%)	63
SIP Russell All Cap Core	-	-	-	10.0%	10.0%	(0)	10.0%	10.0%	(5)	6.4%	6.5%	(10)
SIP GIbl All Cap EX-US	-	-	-	2.6%	2.3%	29	1.3%	1.0%	33	(4.3%)	(4.7%)	49

 $^{\rm 1}$  Allocations approved by the Board at the April 2018 IC Meeting.

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

# Supplemental Income Plans (SIP) As of June 30, 2020

## Realized Risk - SIP

Realized Risk	Annualized 5-Yr Realized Volatility	Tracking Error <sup>1</sup>
Target Income Fund	4.6%	0.1%
Target 2015 Fund	5.2%	0.1%
Target 2020 Fund	6.7%	0.1%
Target 2025 Fund	8.4%	0.2%
Target 2030 Fund	10.2%	0.1%
Target 2035 Fund	12.0%	0.2%
Target 2040 Fund	13.2%	0.2%
Target 2045 Fund	13.5%	0.2%
Target 2050 Fund	13.5%	0.2%
Target 2055 Fund	13.5%	0.2%
Target 2060 Fund	-	-
SSgA STIF	0.3%	0.1%
SIP US ST Bond Core	1.0%	0.0%
SIP US Bond Core	3.1%	0.1%
SIP Real Asset Core	10.5%	0.2%
SIP Russell All Cap Core	15.4%	0.1%
SIP GIbl All Cap EX-US	15.1%	0.3%

<sup>1</sup> 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, 2020

#### Public Employees' Retirement Fund and Affiliate Investment Programs Policy Benchmarks

Trust	Asset Class	Policy Benchmark
	Public Equity - Cap Weighted	Custom FTSE All World, All Cap Equity
	Public Equity - Factor Weighted	MSCI ACWI Select Factor Weighted Index
	Private Equity	Custom FTSE All World, All Cap Equity + 150 bps, Quarter Lag
Public Employees' Retirement Fund	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
	Global Equity	MSCI ACWI IMI (Net)
	U.S. Fixed Income	Bloomberg Barclays Long Liability Index
Judges' Retirement System II Fund	TIPS	Bloomberg Barclays U.S. TIPs Index, Series L
	Commodities	S&P GSCI Total Return Daily
	REITs	FTSE EPRA/NAREIT Developed Index (Net)
	Global Equity	MSCI ACWI IMI (Net)
	U.S. Fixed Income	Bloomberg Barclays Long Liability Index
Legislators' Retirement System Fund	TIPS	Bloomberg Barclays U.S. TIPs Index, Series L
	Commodities	S&P GSCI Total Return Daily
	REITS	FTSE EPRA/NAREIT Developed Index (Net)
Public Employees' Health Care Fund	U.S. Fixed Income	Bloomberg Barclays U.S. Aggregate Bond Index
	Global Equity	MSCI ACWI IMI (Net)
	U.S. Fixed Income	Bloomberg Barclays Long Liability Index
Long-Term Care Fund	TIPS	Bloomberg Barclays U.S. TIPs Index, Series L
	Commodities	S&P GSCI Total Return Daily
	REITs	FTSE EPRA/NAREIT Developed Index (Net)
	Global Equity	MSCI ACWI IMI (Net)
	U.S. Fixed Income	Bloomberg Barclays Long Liability Index
California Employers' Retiree Benefit Trust	TIPS	Bloomberg Barclays U.S. TIPs Index, Series L
(CERBT) Funds 1, 2 & 3	Commodities	S&P GSCI Total Return Daily
	REITs	FTSE EPRA/NAREIT Developed Index (Net)
	Global Equity	MSCI ACWI IMI (Net)
California Employers' Pension Prefunding	U.S. Fixed Income	Bloomberg Barclays U.S. Aggregate Bond Index
Trust (CEPPT) Funds 1 & 2	TIPS	Bloomberg Barclays U.S. TIPs Index, Series L
	REITs	FTSE EPRA/NAREIT Developed Index (Net)

### Trust Level Benchmarks As of June 30, 2020

## Supplemental Income Plans Policy Benchmarks

Policy Weights							
	Global Equity	US Equity	Int'l Equity	US Income		Real Assets	Cash & Cash Equivalents
Supplemental Income Plans	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%	16.0%	14.0%	60.0%	-	5.0%	5.0%
Target 2015 Fund	34.0%	19.0%	15.0%	56.0%	-	5.0%	5.0%
Target 2020 Fund	47.0%	26.0%	21.0%	45.0%	-	4.0%	4.0%
Target 2025 Fund	59.0%	32.0%	27.0%	34.0%	-	4.0%	3.0%
Target 2030 Fund	71.0%	39.0%	32.0%	23.0%	-	4.0%	2.0%
Target 2035 Fund	84.0%	46.0%	38.0%	12.0%	-	3.0%	1.0%
Target 2040 Fund	92.0%	50.0%	42.0%	5.0%	-	3.0%	0.0%
Target 2045 Fund	92.0%	50.0%	42.0%	5.0%	-	3.0%	0.0%
Target 2050 Fund	92.0%	50.0%	42.0%	5.0%	-	3.0%	0.0%
Target 2055 Fund	92.0%	50.0%	42.0%	5.0%	-	3.0%	0.0%
Target 2060 Fund	92.0%	50.0%	42.0%	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%	-	-	-	-