

# WILSHIRE ASSOCIATES

Wilshire Consulting



### **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 2020



Section	<u>Page</u>
Capital Market Review	1
Summary Review of Plans	4
Total Fund Review	5
Public Equity Segment Review	13
Private Equity Segment Review	15
Income Segment Review	16
Real Assets Segment Review	18
Liquidity Segment, LLER Segment Review	19
Opportunistic Strategies, Securities Lending Segment Review	20
Other Perf, Trust Level Portfolio Management Segment Review	21
Judges' Retirement System I Fund Review	23
Judges' Retirement System II Fund Review	25
Legislators' Retirement System Fund Review	29
Long-Term Care Fund Review	33
California Employers' Retiree Benefit Trusts Review	37
California Employers' Pension Prefunding Trust Review	42
Health Care Fund Review	45
Supplemental Income Plans Review	47

CalPERS
December 31, 2020



#### CAPITAL MARKET OVERVIEW

From both societal and investment perspective, 2020 will be defined by the coronavirus and its impact on severe economic restrictions and unprecedented government responses. As the virus spread to the U.S., the market sold off quickly by -35% from Feb. 19 to Mar. 23. In turn, the Fed slashed its overnight rate from 1.5% to zero and the U.S. federal government passed a \$2.2 trillion stimulus bill. In April alone, the economy shed more than 20 million jobs while Q1 real GDP declined by -5%. The 2020 bear market was historically brief, however, bouncing off the lows on Mar. 23 and rallied to a new high by Aug. 12. In evidence of its speed, the market's recovery coincided with the BEA reporting a -31% real GDP decline during Q2. While equities dipped below their previous high as confirmed cases reaccelerated, the Wilshire 5000 Index ended the year at another all-time high (up +20.8% for the year). Although the coronavirus pandemic and its consequences will likely continue through much of 2021, images of vaccines being administered globally provide reason for hope.

#### **U.S. Equity Market**

The U.S. stock market, represented by the Wilshire 5000 Total Market Index<sup>SM</sup>, was up 14.47% for the fourth quarter of 2020 and 20.82% for the year. All eleven sectors were in positive territory this quarter, with Energy (+29.1%) and Financials (+24.9%) representing the best performing sectors. There was significant dispersion among sectors, with the main laggard being Consumer Staples, up +7.0%. Although Coronavirus infections are accelerating and many cities are re-imposing restrictions, both consumer and business surveys are moderating at encouraging levels. However, job growth has slowed dramatically and initial jobless claims remain at what would normally be historic levels. The big news on the virus front is the commencement of vaccine distribution but that does not mean we are close to any normalization of everyday activities. Equities may appear to be "priced for perfection" but are not necessarily expensive given very low government bond yields, and a rebound in economic growth and earnings may be supportive of strong equity returns in 2021.

#### **Non-US Equity Market**

Equity markets outside of the U.S. also enjoyed a strong quarter, with emerging markets outperforming all developed markets. The U.K. was on a path to recovery, with Q3 GDP up a record +16.0%, but concerns about a new variant of the COVID-19 virus have led to renewed restrictions and the withdrawal of social accommodations granted for holiday gatherings. A second wave of infections is hindering other European countries, as well, and the ECB responded by expanding its money-printing program by hundreds of billions of euros. Among the largest countries within emerging markets, South Korea (+29% in local currency terms) and Brazil (+26%) led the gains this quarter. China is the largest weighted country in the MSCI Emerging Markets Index (at 40%) and was up +11%. The Chinese economy is poised for growth this year, unlike most other countries, but that is driven by the PRC's traditional strengths, such as exports, while domestic demand remains weak.

#### **Fixed Income Market**

The U.S. Treasury yield curve was up across most maturities during the fourth quarter after a dramatic drop earlier this eyar. Although the curve is down meaningfully for the year, the long-end managed to push above

#### Agenda Item 8b, Attachment 2, Page 4 of 52

CalPERS
December 31, 2020



1.50% by year-end. The 10-year Treasury yield ended the quarter at 0.93%, up 24 basis points from September. The Federal Open Market Committee met twice during the quarter, as scheduled, with no change to their overnight rate, which they expect will be near zero through at least 2023. The committee reiterated its pledge to support the economic recovery, including an increase in its bond-buying activities. Credit spreads continued to tighten during the quarter, boosting investment grade and high yield returns.

#### **Real Assets & Commodities Markets**

Real estate securities were up during the fourth quarter in both the U.S. and abroad. Sector performance was mixed with Hotel & Resort assets (+47%) and Retail REITs (+33%) leading the market while industrials lagged. Commodity results were positive for the quarter as crude oil was up 20.6% to \$48.52 per barrel. Natural gas prices were up 0.5%, ending the quarter at \$2.54 per million BTUs, as the U.S. exported a record amount of liquefied natural gas (LNG). Midstream energy surged during the fourth quarter while the broader infrastructure segment was also positive. Finally, gold prices were up 0.4% and finished at approximately \$1,895 per troy ounce.



### SUMMARY OF INDEX RETURNS - DECEMBER 31, 2020

	Quarter	One Year	Three Years	Five Years	Ten Years
Domestic Equity					
Standard & Poor's 500 Wilshire 5000 Wilshire 4500 Wilshire Large Cap Wilshire Small Cap Wilshire Micro Cap	12.15% 14.47 28.30 13.19 30.96 31.94	18.40% 20.82 31.99 21.17 17.42 16.63	14.18% 14.46 15.21 14.97 9.73 5.06	15.22% 15.52 16.39 15.80 12.91 9.59	13.89% 13.79 13.40 14.05 11.51 9.43
Domestic Equity					
Wilshire Large Value Wilshire Large Growth Wilshire Mid Value Wilshire Mid Growth Wilshire Small Value Wilshire Small Growth	13.62% 12.77 23.37 23.18 32.20 29.73	7.37% 35.36 -2.11 31.65 6.16 29.66	8.85% 21.01 3.45 15.67 4.75 14.87	11.61% 19.79 8.58 16.58 9.53 16.21	11.63% 16.39 9.95 13.34 9.73 13.19
International Equity					
MSCI All World ex U.S. (USD) MSCI EAFE MSCI Europe MSCI Pacific MSCI Emerging Markets Index	17.01% 16.05 15.61 16.72 19.70	10.65% 7.81 5.38 11.93 18.31	4.88% 4.28 3.55 5.50 6.17	8.92% 7.45 6.78 8.80 12.81	4.92% 5.51 5.32 5.95 3.63
Domestic Fixed Income					
Barclays U.S. Aggregate Bond Barclays Treasury Barclays Mortgage Barclays Credit Barclays US TIPS Citigroup High Yield Cash Pay 91-Day Treasury Bill	0.67% -0.83 0.24 2.79 1.62 6.41 0.03	7.51% 8.00 3.87 9.35 10.99 6.23 0.67	5.34% 5.19 3.71 6.80 5.92 5.83 1.61	4.44% 3.77 3.05 6.44 5.08 8.32 1.20	3.84% 3.34 3.01 5.40 3.81 6.46 0.64
Currency*					
Euro vs. \$ Yen vs. \$ Pound vs. \$	4.34% 2.21 5.74	9.01% 5.26 3.18	0.63% 2.95 0.35	2.41% 3.10 -1.49	-0.91% -2.39 -1.34
Real Estate					
Wilshire REIT Index Wilshire RESI	10.62% 10.72	-7.90% -7.95	3.30% 3.30	4.25% 4.46	8.27% 8.38



#### SUMMARY REVIEW OF PLANS PERIOD ENDED DECEMBER 31, 2020

	Ass	et Value					
	<u>(</u> §	Million)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>
CalPERS Total Fund	\$	442,667.7	8.4%	12.4%	8.4%	9.7%	8.4%
Total Fund Policy Benchmark <sup>1</sup>			8.1%	12.4%	8.7%	10.0%	8.5%
Actuarial Rate			1.7%	7.0%	7.1%	7.2%	7.4%
Affiliate Funds:							
Judges I	\$	55.4	0.0%	0.6%	1.7%	1.3%	0.7%
91-Day Treasury Bill			0.0%	0.7%	1.6%	1.2%	0.6%
Judges II	\$	2,188.2	10.0%	13.2%	8.7%	9.8%	8.2%
Weighted Policy Benchmark			9.9%	12.8%	8.4%	9.5%	8.0%
Legislators' Retirement System	\$	120.8	5.8%	10.8%	7.4%	7.8%	6.6%
Weighted Policy Benchmark			5.7%	10.5%	7.2%	7.5%	6.4%
Long-Term Care ("LTC")	\$	5,279.0	5.5%	8.4%	6.3%	6.7%	5.2%
Weighted Policy Benchmark			5.3%	8.6%	6.4%	6.7%	5.2%
CERBT Strategy 1	\$	11,595.2	11.0%	13.4%	8.7%	10.0%	8.0%
CERBT Strategy 1 Policy Benchmark			11.0%	13.0%	8.4%	9.6%	7.8%
CERBT Strategy 2	\$	1,673.3	8.3%	12.3%	8.2%	9.0%	%
CERBT Strategy 2 Policy Benchmark			8.2%	12.0%	8.0%	8.6%	%
CERBT Strategy 3	\$	802.2	5.8%	10.8%	7.3%	7.7%	%
CERBT Strategy 3 Policy Benchmark			5.7%	10.5%	7.2%	7.3%	%
CEPPT Strategy 1	\$	15.3	7.9%	11.4%	%	%	%
CEPPT Strategy 1 Policy Benchmark			7.7%	11.5%	%	%	%
CEPPT Strategy 2	\$	8.0	3.8%	8.7%	%	%	%
CEPPT Strategy 2 Policy Benchmark			3.8%	8.7%	%	%	%
Health Care Fund	\$	527.0	0.7%	7.6%	5.4%	4.5%	4.1%
Barclays U.S. Aggregate			0.7%	7.5%	5.3%	4.4%	3.8%
Supplemental Contribution Plan	\$	119.6	NM	NM	NM	NM	NM
CalPERS Custom SCP Plan Index			NM	NM	NM	NM	NM
457 Program	\$	2,003.0	NM	NM	NM	NM	NM
CalPERS Custom 457 Plan Index			NM	NM	NM	NM	NM

<sup>&</sup>lt;sup>1</sup> CalPERS Total Fund Policy Benchmark is currently computed by weighting the System's major asset class benchmarks at their respective policy targets, rebalanced periodically.



### TOTAL FUND PERFORMANCE

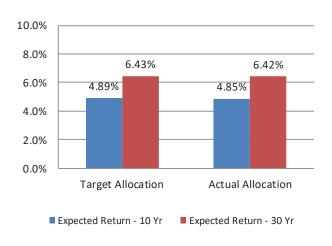
A	sset	: Value *						VaR	5-Year	Ratios
	<u>(\$B</u>	<u>illion)</u>	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	10-Year	(\$Billion	Sharpe	<u>Info</u>
TOTAL FUND  Total Fund Policy Benchmark  Actuarial Rate	\$	442.7	<b>8.4% 8.1%</b> 1.7%	<b>12.4% 12.4%</b> 7.0%	<b>8.4% 8.7%</b> 7.1%	9.7% 10.0% 7.2%	<b>8.4%</b> <b>8.5%</b> 7.4%	\$ 62.2	1.1 1.2	-0.2 0.0
PUBLIC EQUITY  Public Equity Policy Benchmark	\$	232.8	<b>13.9%</b> 13.8%	<b>13.7%</b> 13.3%	<b>9.2%</b> 9.3%	<b>12.1%</b> 12.1%	<b>9.4%</b> 9.3%	\$ 48.1	0.7 0.7	0.1 0.0
Public Equity - Cap Weighted FTSE Global All Cap Custom Index Net	\$	166.0	<b>16.1%</b> 16.0%	<b>17.4%</b> 17.0%	<b>10.3%</b> 10.4%	<b>12.8%</b> 12.8%	<b>9.7%</b> 9.6%	\$ 37.6	0.7 0.7	0.1 0.0
Public Equity - Factor Weighted  MSCI ACWI Select Factor Weighted Inde	<b>\$</b> ex	66.8	<b>8.5%</b> 8.5%	<b>4.6%</b> 4.4%	<b>%</b> %	<b>%</b> %	<b>%</b> %	\$ 11.1	N/A N/A	N/A N/A
PRIVATE EQUITY  Private Equity Policy Benchmark	\$	30.8	<b>10.2%</b> 8.6%	<b>12.5%</b> 11.7%	<b>9.2%</b> 9.0%	<b>10.4%</b> 13.2%	<b>11.5%</b> 13.2%	\$ 12.9	1.3 0.8	-0.2 0.0
INCOME Income Policy Benchmark	\$	129.6	<b>1.3%</b> 0.9%	<b>11.8%</b> 11.2%	<b>7.4%</b> 6.9%	<b>6.9%</b> 6.3%	<b>5.8%</b> 5.2%	\$ 12.2	1.1 1.0	1.8 0.0
Spread  BBG Barc Custom Global Long Spread I	<b>\$</b> ndex	66.0	<b>2.6%</b> 2.5%	<b>9.2%</b> 8.2%	<b>%</b> %	<b>%</b> %	<b>%</b> %	\$ 5.3	N/A N/A	N/A N/A
Treasury Total Fund Income CalPERS Custom Treasury Benchmark	\$ \$	43.7 6.6	-2.1% 1.1% -2.5%	<b>14.9% %</b> 15.0%	<b>8.4%</b> % 8.4%	<b>6.7%</b> % 6.6%	6.1% % 6.2%	\$ 6.1 \$ 0.9		N/A N/A N/A
High Yield  BBG Barclays US High Yield BB/B Liquid	\$ d Inde	<b>13.2</b>	<b>5.6%</b> 5.6%	<b>5.1%</b> 5.2%	<b>%</b> %	<b>%</b> %	<b>%</b> %	\$ 1.8	N/A N/A	N/A N/A
REAL ASSETS  Real Assets Policy Benchmark	\$	44.3	<b>0.5%</b> 0.2%	<b>-0.1%</b> 0.4%	<b>3.4%</b> 4.1%	<b>4.9%</b> 5.4%	<b>8.5%</b> 8.5%	\$ 6.4	1.4 1.5	-0.2 0.0
LIQUIDITY  Liquidity Policy Benchmark	\$	10.3	<b>0.0%</b> 0.0%	<b>0.5%</b> 0.4%	<b>1.8%</b> 1.4%	<b>1.4%</b> 1.1%	<b>1.3%</b> 1.3%	\$ 0.1	0.7 -0.5	4.2 0.0
TRUST LEVEL FINANCING	\$	(17.4)	%	%	%	%	%		N/A	N/A
LIBOR 1 Month Rate	\$	11.1	<b>1.3%</b> 0.0%	<b>2.0%</b> 0.4%	<b>3.0%</b> 1.1%	<b>3.1%</b> 0.9%	<b>%</b> %	\$ 0.3	N/A N/A	N/A N/A
OPPORTUNISTIC STRATEGIES  Custom Opportunistic Strategies Benchma	<b>\$</b> rk	0.9	<b>1.2%</b> 1.7%	<b>%</b> %	<b>%</b> %	<b>%</b> %	<b>%</b> %	\$ 0.1	N/A N/A	N/A N/A
TRUST LEVEL PORTFOLIO MGMT **	\$	0.0	NM	NM	NM	NM	NM		N/A	N/A
OTHER PERF **	\$	0.2	NM	NM	NM	NM	NM		N/A	N/A
TERMINATED AGENCY POOL	\$	0.2	0.3%	16.0%	8.4%	7.1%	%		N/A	N/A
TOTAL FUND PLUS TAP	\$	442.9	8.4%	12.4%	8.4%	9.7%	8.4%		N/A	N/A

<sup>\*</sup> The CalPERS asset values shown include derivative exposure.

<sup>\*\*</sup> More detail of the TLPM and OTHER PERF program returns can be found in the program section, page 21.

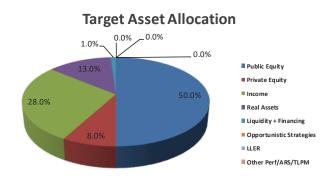


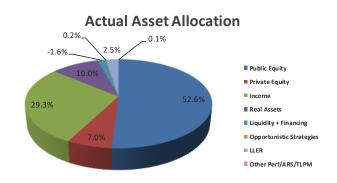
### EXPECTED RETURN AND RISK<sup>2</sup>

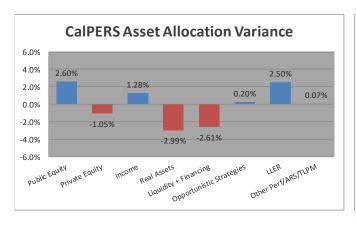


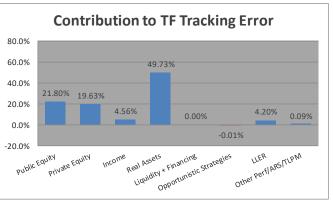


### TOTAL FUND ASSET ALLOCATION BASED TRACKING ERROR







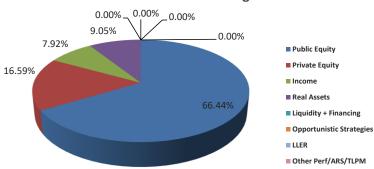


<sup>&</sup>lt;sup>2</sup> Return and risk values expressed in this page are derived based on Wilshire Consulting Capital Market Assumptions, which are forward looking in nature.

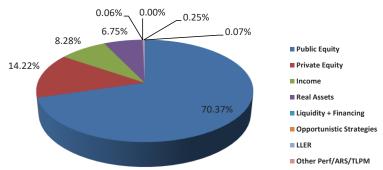


#### **CONTRIBUTION TO TOTAL RISK<sup>3</sup>**

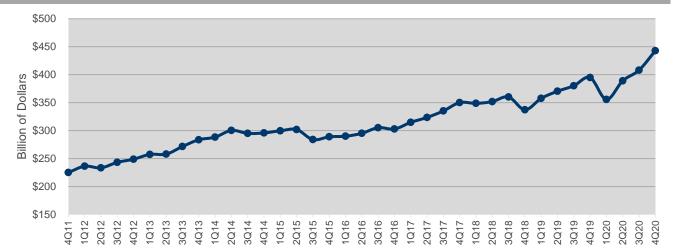
#### **Contribution to Total Risk - Target Allocation**



#### **Contribution to Total Risk - Actual Allocation**



#### **CHANGES IN ASSET VALUE**



<sup>&</sup>lt;sup>3</sup> Return and risk values expressed in this page are derived based on Wilshire Consulting Capital Market Assumptions, which are forward looking in nature.



### TOTAL FUND ATTRIBUTION – QUARTER

	Actua	ıl (%)	Benchm	nark (%)	Differe	nce (%)	Total Fun	d Return Contribu	ıtion (%)
Asset Class	Weight *	Return	Weight *	Return	Weight	Return	Actual Allocation	Active Management	Total
Public Equity	52.99	13.91	53.12	13.84	-0.13	0.07	-0.03	0.04	0.01
Public Equity - Cap Weighted	38.02	16.07	38.18	15.97	-0.16	0.10	-0.03	0.04	0.01
Public Equity - Factor Weighted	14.97	8.53	14.94	8.50	0.03	0.03	0.00	0.00	0.00
Private Equity	6.76	10.24	6.55	8.18	0.21	2.06	0.03	0.07	0.10
Income	27.13	1.26	28.88	0.87	-1.75	0.39	0.17	0.07	0.24
Treasury	9.23	-2.08	10.94	-2.49	-1.72	0.41	0.17	0.04	0.21
Spread	14.88	2.64	14.93	2.45	-0.04	0.19	0.00	0.03	0.03
High Yield	3.02	5.59	3.01	5.55	0.01	0.04	0.00	0.00	0.00
Real Assets	10.54	0.52	10.46	0.23	0.07	0.28	-0.01	0.03	0.02
Liquidity	0.81	0.04	0.99	0.02	-0.18	0.02	0.02	0.00	0.02
Opportunistic Strategies	0.15	1.23	0.00	1.72	0.15	-0.49	-0.01	0.00	-0.01
TLPM	0.09	NM**	0.00	15.17	0.09	NM**	0.01	-0.02	-0.01
Other PERF/ARS	1.53	NM**	0.00	0.00	1.53	NM**	-0.12	0.04	-0.08
Monthly Linked Return	100.00	8.41	100.00	8.13		0.28	0.06	0.24	0.28
Residual		-0.04		0.00		-0.04			-0.04
Total		8.37		8.13		0.24			0.24

<sup>\*</sup> Average period weight displayed.

<sup>\*\*</sup> More detail of the TLPM and OTHER PERF/ARS return can be found in the program section, page 21.



### TOTAL FUND ATTRIBUTION – CALENDAR YEAR-TO-DATE

	Actua	ıl (%)	Benchm	nark (%)	Differe	nce (%)	Total Fun	d Return Contribu	ıtion (%)
Asset Class	Weight *	Return	Weight *	Return	Weight	Return	Actual Allocation	Active Management	Total
Public Equity	52.04	13.71	52.49	13.33	-0.45	0.38	-0.03	0.17	0.13
Public Equity - Cap Weighted	37.23	17.42	37.48	16.99	-0.26	0.43	0.00	0.15	0.15
Public Equity - Factor Weighted	14.81	4.55	15.01	4.44	-0.20	0.11	-0.04	0.02	-0.02
Private Equity	6.72	12.51	6.66	10.05	0.05	2.46	0.26	-0.48	-0.23
Income	28.54	11.79	28.72	11.15	-0.18	0.64	0.15	0.11	0.26
Treasury	9.81	14.88	10.77	15.04	-0.96	-0.17	0.26	-0.06	0.21
Spread	15.76	9.21	14.95	8.18	0.81	1.03	-0.11	0.17	0.06
High Yield	2.97	5.07	3.00	5.18	-0.03	-0.10	0.00	0.00	0.00
Real Assets	11.17	-0.11	11.15	0.40	0.02	-0.50	0.03	-0.07	-0.04
Liquidity	0.86	0.51	0.98	0.42	-0.12	0.10	0.03	0.00	0.03
Opportunistic Strategies	0.05	NM***	0.00	NM****	0.05	NM***	-0.01	0.00	-0.01
TLPM	0.21	NM**	0.00	17.36	0.21	NM**	0.00	-0.04	-0.04
Other PERF/ARS	0.42	NM**	0.00	0.00	0.42	NM**	-0.13	0.06	-0.07
Monthly Linked Return	100.00	12.36	100.00	12.43		-0.06	0.29	-0.26	-0.06
Residual		0.02		0.00		0.02			0.02
Total		12.38		12.43		-0.04			-0.04

<sup>\*</sup> Average period weight displayed.

<sup>\*\*</sup> More detail of the TLPM and OTHER PERF/ARS return can be found in the program section, page 21.

<sup>\*\*\*</sup> Opportunistic Strategies inception date was April 1st, 2020



### TOTAL FUND ATTRIBUTION – FISCAL YEAR-TO-DATE

	Actua	ıl (%)	Benchm	nark (%)	Differe	nce (%)	Total Fun	d Return Contribu	ıtion (%)
Asset Class	Weight *	Return	Weight *	Return	Weight	Return	Actual Allocation	Active Management	Total
Public Equity	53.28	22.20	53.31	22.16	-0.02	0.04	-0.01	0.02	0.01
Public Equity - Cap Weighted	38.29	25.56	38.30	25.46	-0.01	0.11	-0.01	0.04	0.03
Public Equity - Factor Weighted	14.99	13.97	15.00	14.06	-0.01	-0.10	0.00	-0.01	-0.02
Private Equity	6.50	20.38	6.34	30.07	0.16	-9.69	0.11	-0.79	-0.69
Income	27.69	2.74	28.64	2.14	-0.96	0.61	0.20	0.12	0.32
Treasury	9.14	-1.85	10.78	-2.32	-1.65	0.46	0.26	0.05	0.31
Spread	15.55	4.26	14.85	3.85	0.70	0.41	-0.06	0.07	0.01
High Yield	3.00	10.57	3.01	10.40	-0.01	0.17	0.00	0.01	0.00
Real Assets	10.69	-1.26	10.73	-1.61	-0.04	0.35	0.00	0.04	0.04
Liquidity	0.81	0.08	0.98	0.04	-0.17	0.03	0.03	0.00	0.03
Opportunistic Strategies	0.09	2.95	0.00	3.46	0.09	-0.51	-0.01	0.00	-0.01
TLPM	0.14	NM**	0.00	21.27	0.14	NM**	0.01	-0.03	-0.01
Other PERF/ARS	0.79	NM**	0.00	0.00	0.79	NM**	-0.13	0.05	-0.09
Monthly Linked Return	100.00	13.44	100.00	13.86		-0.43	0.19	-0.59	-0.43
Residual		-0.05		0.00		-0.05			-0.05
Total		13.38		13.86		-0.48			-0.48

<sup>\*</sup> Average period weight displayed.

<sup>\*\*</sup> More detail of the TLPM and OTHER PERF/ARS return can be found in the program section, page 21.



#### **TOTAL FUND ATTRIBUTION – WILSHIRE COMMENT**

The California Public Employees' Retirement System ("CalPERS, the System") generated a total fund return of 8.37% for the quarter ended December 31, 2020. CalPERS' return can be attributed as follows:

8.37%	Total Return
-0.04%	Residual
0.24%	Active Management
0.06%	Actual/Tactical Asset Allocation
8.13%	Strategic Policy Allocation

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 active management was the primary driver propelling the System to finish the fourth quarter of 2020 above its strategic policy, accounting for the lions' share of the 24 bps total outperformance. The positive contribution in this aspect was observed nearly across the board, with most of CalPERS' major asset classes recording welcoming gains that also showed well in relative terms. Private equity, which out-gained its own policy benchmark by +206 bps during the quarter, was an obvious standout, but Public Equity, Income, and Real Assets also registered outperformance and all made smaller, similar-sized contribution. The System's asset allocation decision provided some lift as well, primarily thanks to a below-policy exposure to the lower-returning Income segment, whose output was naturally much more muted compared to equities during Q4's risk assets rally.

CalPERS
December 31, 2020



### TOTAL FUND PERIOD ENDED DECEMBER 31, 2020

#### **RELATIVE TO TOTAL FUND POLICY BENCHMARK**

**Public Equity:** Global equity markets performed remarkably well in the face of continued pandemic pressure and delivered strong returns in the fourth quarter of 2020. While countries around the world struggled to effectively contain the spread of the virus, where an alarming resurgence of coronavirus cases and related deaths resulted in fresh waves of lockdowns, record low interest rates, continued government stimulus, and effective vaccine development helped steer investor attention towards the potential economic recovery while keeping the risk appetite alive. The Public Equity asset class benefited from this continued optimism and reported a strong quarter, gaining 13.9% that paced all major CalPERS asset classes. The Q4 rally marked Public Equity's third consecutive quarter of solid advance since the late-March drawdown, bringing this program to a 13.7% full-year finish that was its third double-digit annual return in the past five years; both figures also easily topped the Total Fund Policy Benchmark's respective returns of 8.1% and 12.4%.

**Private Equity:** As financial markets continued to ride the ongoing stimulus/vaccine euphoria to recover from the COVID-19 induced Q1 selloff, private equity investment activities and valuations also returned to life to rebound higher. Performance of the CalPERS Private Equity asset class, which is reported on a lagged basis, has responded favorably to this market dynamics as this program jumped 10.2% in the 4<sup>th</sup> quarter reporting period. Combined with Q3's 9.2% absolute gain, this marked Private Equity's best returning 2-quarter stretch since the Great Financial Crisis more than a decade ago, and closed out the tumultuous 2020 with a robust 12.5% total return. The double-digit quarter and full-year output showed well in relative terms, too, as they topped same-period results from both the Total Fund Policy Benchmark and the program's own benchmark.

**Income:** Broadly speaking, results of the CalPERS Income asset class were relatively muted in the second half of 2020 with back-to-back quarters of +1%-level return (1.3% for Q4 and 1.5% for Q3), as equities dominated most of the price actions coming out of the severe initial covid-driven economic/financial shock. But Income's investments did benefit from the same stimulus/vaccine optimism that dramatically boosted equity returns, as a renewed wave of credit spread tightening provided strengths to the Income program's spread product portfolios, offsetting drag from the weaker-performing Treasury exposure. This strength allowed the Income asset class to finish Q4 +41 bps ahead of its own policy benchmark and contribute meaningfully to the Total Fund-level outperformance. Income was also considered a value-added for the full-year period, as it ended 2020 with an impressive 11.8% total return that yielded a +67 bps outperformance.

**Real Assets:** Real Assets has been one of the lowest returning major CalPERS segments: its 0.5% Q4 return was its first positive quarterly finish since COVID-19 wrecked the U.S. economy in early Spring of 2020, as the program has a large real estate exposure that was hit hard by the myriad of closures/safety restrictions and has struggled to regain footing. In relative terms though this output was considered favorable, representing a +28 bps outperformance and provided value-added at the total fund level. RA's 1-year -0.1% return remains challenged, but it does still hold an 8.5% gain over the past decade that compares well to Total Fund Policy.

**Liquidity:** With the Fed committed to maintain interest rates at near-zero level to support the still ailing economy, the Liquidity asset class, which is solely comprised of short-term investment funds, ended Q4 essentially flat. Over time this asset class has performed well within expectations, where its 0.5% 2020 total return and long-term track record both continued to track close to its own benchmark measure.



# PUBLIC EQUITY PERIOD ENDED DECEMBER 31, 2020

### PUBLIC EQUITY ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS 4

	Actual Asset	Target Asset	
Asset Class	Allocation	Allocation	Difference
PUBLIC EQUITY	<u>52.6%</u>	<u>50.0%</u>	<u>2.6%</u>
Public Equity - Cap Weighted	37.5%	35.0%	2.5%
Public Equity - Factor Weighted	15.1%	15.0%	0.1%

#### **PUBLIC EQUITY SEGMENT PERFORMANCE**

	Asset Value								/aR	5-Year Ratios	
	<u>(\$E</u>	Billion)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u> 10-Year</u>	<u>(\$B</u>	illion)	<u>Sharpe</u>	<u>Info</u>
PUBLIC EQUITY	\$	232.8	13.9%	13.7%	9.2%	12.1%	9.4%	\$	48.1	0.7	0.1
Public Equity Policy Benchmark			13.8%	13.3%	9.3%	12.1%	9.3%			0.7	0.0
Public Equity - Cap Weighted	\$	166.0	16.1%	17.4%	10.3%	12.8%	9.7%	\$	37.6	0.7	0.1
FTSE Global All Cap Custom Index Net			16.0%	17.0%	10.4%	12.8%	9.6%			0.7	0.0
Public Equity - Factor Weighted	\$	66.8	8.5%	4.6%	%	%	%	\$	11.1	N/A	N/A
MSCI ACWI Select Factor Weighted Ind	'ex		8.5%	4.4%	%	%	%			N/A	N/A

#### **PUBLIC EQUITY PORTFOLIOS PERFORMANCE**

	Asse	t Value						VaR	5-Year l	Ratios
	<u>(\$B</u>	<u>illion)</u>	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>	(\$Billion)	<u>Sharpe</u>	<u>Info</u>
		ı	Public Equ	ity - Cap V	Veighted					
Global Equity Index-Oriented Strategy GE Index-Oriented Strategy Benchmark		155.3	<b>16.0%</b> 16.0%	<b>17.4%</b> 17.1%	<b>10.9%</b> 10.7%	<b>13.0%</b> 12.9%	<b>10.0%</b> 9.9%		0.8 0.7	1.2 0.0
Global Equity Alternative Beta  GE Alternative Beta Custom Index	\$	1.3	<b>15.2%</b> 16.0%	<b>12.6%</b> 17.0%	<b>8.3%</b> 10.2%	<b>11.8%</b> 12.9%	<b>8.6%</b> 8.9%		0.7 0.7	-0.7 0.0
GE Public Equity - Traditional Active GE Active ex-Alt Beta Custom Index	\$	6.9	<b>18.0%</b> 16.2%	<b>22.8%</b> 15.9%	<b>11.6%</b> 9.6%	<b>13.7%</b> 12.4%	<b>10.0%</b> 9.0%		0.8 0.7	0.9 0.0
Other	\$	2.5	NM	NM	NM	NM	NM		N/A	N/A
	Pι	ıblic Eq	quity - Facto	or Weight	ed (Min Vo	olatility)				
Internal Factor Weighted Idx Oriented  MSCI ACWI Select Factor Weighted Inc.		66.8	<b>8.5%</b> 8.5%	<b>4.6%</b> 4.4%	<b>%</b> %	<b>%</b> %	<b>%</b> %		N/A N/A	N/A N/A

<sup>&</sup>lt;sup>4</sup> The CalPERS actual asset allocation weights and asset values shown include derivative exposure.



### PUBLIC EQUITY PERIOD ENDED DECEMBER 31, 2020

#### **PERFORMANCE NOTES - PUBLIC EQUITY**

#### Helped Performance:

Cap Weighted Public Equity – Index-Oriented Strategy: By far the largest component within Public Equity representing 67% of the assets, Index-Oriented Strategy continues to set the tone for the entire asset class's performance. This program did well in the fourth quarter by generating a benchmark-like return of 16.0% that provided the asset class with crucial market exposure. And having consistently added incremental amount of relative value, particularly during this past volatile year where global equity markets gyrated between sharp falls and record highs, the Index-Oriented Strategy remains a key part of Public Equity's long-term success. It currently holds a 17.4% full-year return, and has average annualized above 10% over all time periods shown; all of which 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 was a major source of value-add for Public Equity during the last three months of 2020, netting a 18.0% quarterly gain that placed it well ahead of the asset class policy benchmark (+13.8%) as well as the program's own benchmark measure (+16.2%). Traditional Active equity's ability to capture broad equity market's risk-on momentum while providing additional alpha has worked well in recent years – this program's 22.8% return for the year paced all other equity programs and represented significant outperformance; the strong absolute/relative results also helped further preserve the favorable longer-term lead.

#### Impeded Performance:

Factor Weighted Public Equity: With the ability to limit downside exposure while still participating on some market upside, this factor weighted portfolio performed within expectations during the tumultuous 2020 by delivering a less volatile return pattern compared to the cap-weighted equity programs. The same pattern held true in the fourth quarter, as this portfolio's own benchmark-tying 8.5% gain provided a good source of return amid the market's continued advance, and complemented the other three cap-weighted portfolios well; although comparatively speaking this performance ranked at the bottom of the leaderboard in the System's Growth investment lineup and did not directly contribute to Public Equity's double-digit finish. The same could be said of Factor Weighted Public Equity portfolio's 4.6% full-year return, which did not keep up with any of the cap-weighted portfolios or the Public Equity Policy Benchmark, but it did comfortably outperform the program custom benchmark by a +13 bps margin.

Cap Weighted Public Equity – Alternative Beta: As a small member component of Public Equity this internally managed program has performed admirably, and it did so once again in Q4 with a 15.2% return which was above asset class's average weighted return of 13.9%. But relatively speaking, this program has not kept up with the Alternative Beta Custom Index, including a -77 bps miss this quarter and -240 bps in Q2, therefore despite its current 1-year return and recent year annualized results have averaged in the high-single digit/low double-digit range, it has been a net detractor to the Public Equity asset class.



## PRIVATE EQUITY PERIOD ENDED DECEMBER 31, 2020

### PRIVATE EQUITY ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Acces Class	Actual Asset	Target Asset	D:#*
Asset Class	Allocation	Allocation	Difference
PRIVATE EQUITY	<u>7.0%</u>	<u>8.0%</u>	<u>-1.0%</u>
Private Equity	7.0%	8.0%	-1.0%

#### PRIVATE EQUITY SEGMENT PERFORMANCE 5

Asset Value								VaR		5-Year	Ratios
	<u>(\$B</u>	illion)	Quarter	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>	<u>(\$B</u>	illion)	<u>Sharpe</u>	<u>Info</u>
PRIVATE EQUITY	\$	30.8	10.2%	12.5%	9.2%	10.4%	11.5%	\$	12.9	1.3	-0.2
CalPERS Custom Private Equity Benchma	rk		8.6%	11.7%	9.0%	13.2%	13.2%			0.8	0.0

#### PRIVATE EQUITY PORTFOLIOS PERFORMANCE

	Asse	t Value						VaR	5-Year I	Ratios
(\$Billion) Quarter <u>1-Year</u> <u>3-Year 5-Year</u> <u>10-Year</u>								(\$Billion)	<u>Sharpe</u>	<u>Info</u>
			Pri	ate Equit	y					
Private Equity Partnership Investments	\$	30.8	10.3%	12.6%	9.3%	10.5%	11.6%		N/A	N/A
Private Equity Distribution Stock	\$	0.0	1.6%	-37.4%	5.5%	2.4%	-13.3%		N/A	N/A

<sup>&</sup>lt;sup>5</sup> Performance of CalPERS' private equity investments is 1-quarter lagged.



## INCOME PERIOD ENDED DECEMBER 31, 2020

### INCOME ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS 6

	Actual Asset	Target Asset	
Asset Class	Allocation	Allocation	Difference
INCOME	<u>29.3%</u>	28.0%	<u>1.3%</u>
Spread	14.9%	15.0%	-0.1%
Treasury	11.4%	10.0%	1.4%
High Yield	3.0%	3.0%	0.0%

#### **INCOME SEGMENT PERFORMANCE**

	Asset Value									5-Year	Ratios
	<u>(\$E</u>	<u>illion)</u>	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>	<u>(\$B</u>	illion)	<u>Sharpe</u>	<u>Info</u>
INCOME	\$	129.6	1.3%	11.8%	7.4%	6.9%	5.8%	\$	12.2	1.1	1.8
Income Policy Benchmark			0.9%	11.2%	6.9%	6.3%	5.2%			1.0	0.0
Spread	\$	66.0	2.6%	9.2%	%	%	%	\$	5.3	N/A	N/A
BBG Barc Custom Global Long Spread	Index		2.5%	8.2%	%	%	%			N/A	N/A
Treasury	\$	43.7	-2.1%	14.9%	8.4%	6.7%	6.1%	\$	6.1	N/A	N/A
Total Fund Income	\$	6.6	1.1%	%	%	%	%	\$	0.9	N/A	N/A
CalPERS Custom Treasury Benchmark			-2.5%	15.0%	8.4%	6.6%	6.2%			N/A	N/A
High Yield	\$	13.2	5.6%	5.1%	%	%	%	\$	1.8	N/A	N/A
BBG Barclays US High Yield BB/B Liqu	id Ind	ex	5.6%	5.2%	%	%	%			N/A	N/A

#### **INCOME PORTFOLIOS PERFORMANCE**

	Asse	t Value						VaR	5-Year	Ratios
	<u>(\$B</u>	illion)	Quarter	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	10-Year	(\$Billion)	<u>Sharpe</u>	<u>Info</u>
				Spread						
Mortgages CalPERS Custom BBG Barc LPF Mortg	<b>\$</b> gage	31.4	<b>0.3%</b> 0.3%	<b>4.3%</b> 4.2%	<b>4.2%</b> 3.9%	<b>3.7%</b> 3.2%	<b>4.1%</b> 3.1%		1.2 0.9	1.6 0.0
Investment Grade Corporate Bonds CalPERS Corp x Sov x Tobacco Bench	<b>\$</b> nmark	26.9	<b>4.5%</b> 4.5%	<b>13.9%</b> 12.6%	<b>%</b> %	<b>%</b> %	<b>%</b> %		N/A N/A	N/A N/A
Sovereign Bonds CalPERS Sovereign Benchmark	\$	3.2	<b>4.0%</b> 3.6%	<b>11.5%</b> 10.3%	<b>9.2%</b> 8.5%	<b>8.7%</b> 8.1%	<b>7.1%</b> 6.6%		0.9 0.8	1.0 0.0
High Yield (Cash Pay) CalPERS HY Cash Pay Benchmark	\$	3.3	<b>6.3%</b> 6.4%	<b>6.5%</b> 5.7%	<b>6.0%</b> 5.5%	<b>8.9%</b> 8.2%	<b>7.1%</b> 6.4%		1.0 0.9	0.5 0.0
Non-Core/Opportunistic	\$	1.1	13.7%	66.3%	%	%	%		N/A	N/A
			7	reasury						
Internal US Treasury/Agency CalPERS Custom Treasury Benchmark	\$	28.2	<b>-2.4%</b> -2.5%	<b>14.6%</b> 15.0%	<b>8.3%</b> 8.4%	<b>6.7%</b> 6.6%	<b>6.1%</b> 6.2%		0.7 0.6	0.1 0.0
			Н	igh Yield						
BB/B High Yield Fund of Funds BBG Barclays US High Yield BB/B Liqu	\$ uid Inde	13.2	<b>5.6%</b> 5.6%	<b>5.1%</b> 5.2%	<b>%</b> %	<b>%</b> %	<b>%</b> %		N/A N/A	N/A N/A

<sup>&</sup>lt;sup>6</sup> The CalPERS actual asset allocation weights and asset values shown include derivative exposure.



## INCOME PERIOD ENDED DECEMBER 31, 2020

#### **PERFORMANCE NOTES - INCOME**

#### Helped Performance:

**High Yield:** High yield securities had an impressive quarter, both in absolute terms as well as when compared to Treasuries. While market volatility did pick up during October as the U.S. election drew near, spreads against U.S. Treasuries had maintained a tightening path since the beginning of the fourth quarter as investors hunt for yield in the current low-yield environment. Spread compression further gained momentum in November following a resolution of a contentious presidential election and very positive news on vaccine efficacy, bolstering the risk-on sentiment. The CalPERS High Yield program, constructed with a high quality focus, did not disappoint under this benign 4<sup>th</sup> quarter backdrop by turning in a very good 5.6% total return. While this output matched the program's own benchmark measure, it came in well ahead of the Income Spread/Treasury programs, and helped provide some welcoming lift to the Income asset class's overall Q4 return.

Having previously lost -12.2% when prices collapsed during a massive flight-to-safety shift in Q1, the High Yield program currently holds the softest full-year return (at 5.1%) when compared to the other two Income programs. But as demonstrated by its fourth quarter performance, there is a place for High Yield within CalPERS' fixed income portfolio as it provides the important benefit of diversification and potentials for value-added.

**Spread:** As mentioned above, the risk sentiment recovery from November and on allowed a further tightening of credit spreads, which essentially helped drive positive quarterly results for nearly every major spread sector: CalPERS Income's Spread program concluded the fourth quarter with a solid 2.6% overall return. This Q4 performance was considered a definitive contributor from an attribution perspective, as it comfortably outpaced both the Income Policy Benchmark (by +177 bps) and the program's own benchmark measure (by +19 bps).

Within the program, all components finished in the positive territory. The gains were led by the smaller-sized Non-Core/Opportunistic portfolio (+13.7%) and externally-managed High Yield Cash Pay portfolio (+6.3%), while the Investment Grade Corporate Credit portfolio and the Sovereign Bonds portfolio also reported robust gains of 4.5% and 4.0%, respectively. The Mortgage portfolio, the largest Spread component representing 47% of assets, was the laggard among the group with a meager 0.3% return as this sector's upside remains clouded by the ongoing residential prepayment risks and record-low mortgage rates. The Spread program currently holds a 9.2% 1-yr return that sits comfortably ahead of its own benchmark (by +103 bps) but is behind the Income Policy Benchmark's 11.2% total return rate.

#### Impeded Performance:

**Treasury:** The Treasury program did not make much contribution to the Income asset class's Q4 results, not in an absolute sense as it followed its own benchmark measure's path to be down -2.1% for the quarter following a sizable jump in intermediate- to long-term Treasury yields. But despite the negative finish, the program actually had a banner year whereby it returned 14.9% in 2020, with a 16.4% Q1 gain that came amid the frantic Feb-Mar financial market meltdown to provide major support to the Income asset class (as well as to Total Fund). Unfortunately, this full-year result also came in approximately -16 bps behind its benchmark measure, and served as a relative drag on the asset class for the year.



### REAL ASSETS PERIOD ENDED DECEMBER 31, 2020

#### REAL ASSETS ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

	Actual Asset	Target Asset	
Asset Class	Allocation	Allocation	Difference
REAL ASSETS	<u>10.0%</u>	13.0%	<u>-3.0%</u>
Real Estate	8.4%	5.5	-,-
Forestland	0.3%	5.5	-,-
Infrastructure	1.3%		-,-

#### REAL ASSETS SEGMENT & PORTFOLIOS PERFORMANCE 7

	Asset Value								5-Year	Ratios
	<u>(</u> \$B	illion)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	10-Year	(\$Billior	) <u>Sharpe</u>	<u>Info</u>
REAL ASSETS	\$	44.3	0.5%	-0.1%	3.4%	4.9%	8.5%	\$ 6.4	1.4	-0.2
Real Assets Policy Benchmark			0.2%	0.4%	4.1%	5.4%	8.5%		1.5	0.0
Real Estate	\$	37.3	0.6%	0.0%	3.4%	5.0%	9.1%	\$ 5.4	1.4	-0.3
CalPERS Custom Real Estate Benchm	ark		0.2%	0.4%	4.2%	5.6%	9.2%		1.5	0.0
Infrastructure	\$	5.8	-0.1%	-0.4%	6.0%	8.8%	13.8%	\$ 0.8	1.2	0.6
CalPERS Custom Infrastructure Bench	mark		0.2%	0.4%	3.9%	4.7%	5.4%		1.8	0.0
Forestland	\$	1.3	0.2%	-1.0%	-3.0%	-3.6%	-2.4%	\$ 0.2	-0.7	-1.0
CalPERS Custom Forestland Benchma	rk		0.2%	0.4%	3.7%	3.5%	4.9%		1.1	0.0

#### **PERFORMANCE NOTES - REAL ASSETS**

Real Estate: Currently representing 84% of the Real Assets asset class, the Real Estate program earned a mildly positive Q4 return of 0.6% that compared favorably to the asset class policy benchmark and was RA's sole performance driver this quarter. However, due to the unique pandemic challenges that have severely crimped private real estate's cash flows and valuations, this program ended the year 2020 essentially flat and was a drag to the asset class in relative terms. Looking past the severe near-term shock, Real Estate does continue to hold a steady long-term track record that has also contributed to Real Assets' success.

**Infrastructure:** The Infrastructure portfolio remains the laggard in Real Assets in Q4, reporting a -0.1% return that was its third straight negative quarterly finish; although the magnitude of the losses has moderated significantly since the severe initial drop of -6.2% in Q2. With a cumulative -0.4% return for the year, both of these Infrastructure's performance figures trailed the Real Assets Policy Benchmark and detracted. But prior to the Covid selloff, this was Real Assets' best performing program and its impressive track record remains.

**Forestland:** Performance of Real Assets' smallest component has been muted during the second half of 2020, with gains of 0.2% in Q4 and 0.4% in Q3 that were not enough to offset Q2's -3.3% loss. This resulted a full-year return of -1.0% that disappointed in relative terms as well. Coupled with drag from the sale of a legacy timber investment that represented a markdown of portfolio value at the beginning of Q3 2018, Forestland's trailing 3- and 5-year returns currently also stand in the red, underperforming the Real Assets Policy Benchmark.

<sup>&</sup>lt;sup>7</sup> Performance of CalPERS' Real Assets investments is reported on a 1-quarter lagged basis.



## LIQUIDITY PERIOD ENDED DECEMBER 31, 2020

#### LIQUIDITY ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
LIQUIDITY (+ FINANCING)	<u>-1.6%</u>	<u>1.0%</u>	<u>-2.6%</u>
LIQUIDITY - Internal Short Term Portfolio	2.3%	1.0%	1.3%
Trust Level Financing	-3.9%	0.0%	-3.9%

#### LIQUIDITY SEGMENT & PORTFOLIO PERFORMANCE

	Asset Value									5-Year Ratios	
	<u>(</u> \$B	illion)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u> 10-Year</u>	<u>(\$Bil</u>	lion)	<u>Sharpe</u>	<u>Info</u>
LIQUIDITY	\$	10.3	0.0%	0.5%	1.8%	1.4%	1.3%	\$	0.1	0.7	4.2
Liquidity Policy Benchmark			0.0%	0.4%	1.4%	1.1%	1.3%			-0.5	0.0
Internal Short Term Cash Portfolio CalPERS Short Term Benchmark	\$	10.3	<b>0.0%</b> 0.0%	<b>0.5%</b> 0.4%	<b>1.8%</b> 1.4%	<b>1.4%</b> 1.2%	<b>0.8%</b> 0.6%	\$	0.1	0.7 -0.5	4.2 0.0
Trust Level Financing	\$	(17.4)	%	%	%	%	%			N/A	N/A

# LLER PERIOD ENDED DECEMBER 31, 2020

#### LIQUIDITY ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

	Actual Asset	Target Asset	
Asset Class/Program	Allocation	Allocation	Difference
LLER	2.5%	0.0%	<u>2.5%</u>

#### LLER SEGMENT & PORTFOLIO PERFORMANCE

						VaR	5-Year	Ratios
Billion)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>	(\$Billion)	<u>Sharpe</u>	<u>Info</u>
11.1	1.3%	2.0%	3.0%	3.1%	%	\$ 0.3	N/A	N/A
	0.0%	0.4%	1.1%	0.9%	%		N/A	N/A
9.6	1.2%	2.2%	3.0%	3.2%	%		N/A	N/A
1.2	1.8%	1.1%	%	%	%		N/A	N/A
0.2	0.6%	2.5%	%	%	%		N/A	N/A
	0.1%	0.6%	1.3%	1.1%	%		N/A	N/A
0.0	NM	NM	%	%	%		N/A	N/A
	0.4%	2.1%	%	%	%		N/A	N/A
0.0	NIM	NIM	0/	0/	0/		N/A	N/A
0.0								N/A
	1.2 0.2 0.0	11.1 1.3% 0.0% 0.0% 0.0% 1.2% 1.8% 0.2 0.6% 0.1% 0.0 NM 0.4%	11.1 1.3% 2.0% 0.0% 0.4%  9.6 1.2% 2.2% 1.1%  0.2 0.6% 2.5% 0.1% 0.6%  0.0 NM NM 0.4% 2.1%  0.0 NM NM	3.0% 0.0% 0.4% 1.1% 3.0% 0.0% 0.4% 1.1% 3.0% 3.0% 1.1% 3.0% 3.0% 3.0% 3.0% 3.0% 3.0% 3.0% 3.0	3.1.1       1.3%       2.0%       3.0%       3.1%         0.0%       0.4%       1.1%       0.9%         3.9.6       1.2%       2.2%       3.0%       3.2%         3.1.2       1.8%       1.1%      %      %         3.0%       3.2%      %      %      %         3.0%       3.2%       3.2%      %      %         3.0%       3.2%       3.2%      %      %         3.0%       3.2%       3.2%       3.2%      %         3.0%       3.2%       3.2%       3.2%       3.2%      %         3.0%       3.2%       3	3.11.1       1.3%       2.0%       3.0%       3.1%      %         0.0%       0.4%       1.1%       0.9%      %         3.96       1.2%       2.2%       3.0%       3.2%      %         3.12       1.8%       1.1%      %      %      %         3.0%       3.2%      %      %      %         3.0%       3.2%      %      %      %         3.0%       3.2%      %      %      %         3.0%       3.2%      %      %      %         3.0%       3.2%      %      %      %         3.0%       3.2%      %      %      %         3.0%       3.2%      %      %      %         3.0%       3.2%      %      %      %         3.0%       3.2%      %      %      %         3.0%       3.2%      %      %      %         3.0%       3.2%      %      %      %         3.0%       3.2%      %      %      %         3.0%       3.2%      %	\$ 11.1 1.3% 2.0% 3.0% 3.1%% \$ 0.3   0.0% 0.4% 1.1% 0.9%%  9.6 1.2% 2.2% 3.0% 3.2%%  1.2 1.8% 1.1%%%%  0.2 0.6% 2.5%%%%  0.1% 0.6% 1.3% 1.1%%  0.0 NM NM%%%  0.4% 2.1%%%%  0.0 NM NM%%%  0.0 NM NM%%%	11.1 1.3% 2.0% 3.0% 3.1%% \$ 0.3 N/A N/A



### OPPORTUNISTIC STRATEGIES PERIOD ENDED DECEMBER 31, 2020

#### OPPORTUNISTIC STRATEGIES ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

	Actual Asset	Target Asset	
Asset Class/Program	Allocation	Allocation	Difference
OPPORTUNISTIC STRATEGIES	0.2%	0.0%	<u>0.2%</u>

#### **OPPORTUNISTIC STRATEGIES SEGMENT & PORTFOLIOS PERFORMANCE**

	Asset	Value						VaR	5-Year l	Ratios
	<u>(\$Bill</u>	lion)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>	(\$Billion)	<u>Sharpe</u>	<u>Info</u>
OPPORTUNISTIC STRATEGIES  Custom Opportunistic Strategies Benchma	<b>\$</b> nrk	0.9	<b>1.2%</b> 1.2%	<b>%</b> %	<b>%</b> %	<b>%</b> %	<b>%</b> %	\$ 0.06	N/A N/A	N/A N/A
CalPERS PIMCO DISCO III SSA Custom Absolute 7%	\$	0.2	<b>4.5%</b> 1.7%	<b>%</b> %	<b>%</b> %	<b>%</b> %	<b>%</b> %		N/A N/A	N/A N/A
Sixth St Partners-Fundamental Strategy SSA Custom Absolute 7%	\$	0.02	<b>1.2%</b> 1.7%	<b>%</b> %	<b>%</b> %	<b>%</b> %	<b>%</b> %		N/A N/A	N/A N/A
Sixth St Partners-TAO SSA Custom Absolute 7%	\$	0.2	<b>3.1%</b> 1.7%	<b>%</b> %	<b>%</b> %	<b>%</b> %	<b>%</b> %		N/A N/A	N/A N/A
Oaktree Strategic Lending SSA Custom Absolute 7%	\$	0.1	<b>1.9%</b> 1.7%	<b>%</b> %	<b>%</b> %	<b>%</b> %	<b>%</b> %		N/A N/A	N/A N/A
West Street Strategic Solution Fund SSA Custom Absolute 7%	\$	0.3	<b>0.1%</b> 1.7%	<b>%</b> %	<b>%</b> %	<b>%</b> %	<b>%</b> %		N/A N/A	N/A N/A
West Street Co-Invest II SSA Custom Absolute 7%	\$	0.05	<b>0.1%</b> 1.7%	<b>%</b> %	<b>%</b> %	<b>%</b> %	<b>%</b> %		N/A N/A	N/A N/A
Blackstone RE Debt Stat IV-Parallel SSA Custom Absolute 7%	\$	0.1	% %	<b>%</b> %	<b>%</b> %	<b>%</b> %	<b>%</b> %		N/A N/A	N/A N/A
West Street Co-Invest, L.P. SSA Custom Absolute 7%	\$	0.1	<b>%</b> %	<b>%</b> %	<b>%</b> %	<b>%</b> %	<b>%</b> %		N/A N/A	N/A N/A

## SECURITIES LENDING PERIOD ENDED DECEMBER 31, 2020

#### **SEC LENDING SEGMENT & PORTFOLIO PERFORMANCE**

Asset Value								VaR	5-Year I	Ratios
	<u>(</u> \$Bi	illion)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u> 10-Year</u>	(\$Billion)	<u>Sharpe</u>	<u>Info</u>
Sec Lending Composite	\$	1.7	0.0%	0.5%	1.7%	1.3%	1.1%		N/A	N/A
Internal Sec Lending Portfolio	\$	1.6	0.0%	0.5%	1.8%	1.4%	%		N/A	N/A
CalPERS GSTIF			0.0%	0.6%	1.7%	1.3%	%		N/A	N/A



#### OTHER PERF PERIOD ENDED DECEMBER 31, 2020

#### OTHER PERF ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

	Actual Asset	Target Asset	
Asset Class	Allocation	Allocation	Difference
OTHER PERF	<u>0.1%</u>	0.0%	<u>0.1%</u>
Absolute Return Strategies	0.1%	-,-	5-5
Other Plan Level - Fixed Income	0.0%	-,-	55

#### OTHER PERF SEGMENT & PORTFOLIO PERFORMANCE

Asset Value										5-Year Ratios	
	<u>(\$Bi</u>	llion)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>	<u>(\$Bil</u>	llion)	<u>Sharpe</u>	<u>Info</u>
OTHER PERF	\$	0.2	NM	NM	NM	NM	NM	\$		N/A	N/A
Absolute Return Strategies Total ARS Program Blended Benchmark	\$	0.2	<b>7.3%</b> 1.3%	<b>59.1%</b> 6.9%	<b>10.1%</b> 7.3%	<b>5.8%</b> 6.7%	<b>4.6%</b> 6.0%			0.2 9.2	0.0 0.0

# TRUST LEVEL PORTFOLIO MANAGEMENT PERIOD ENDED DECEMBER 31, 2020

#### TLPM ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

	Actual Asset	Target Asset	
Asset Class	Allocation	Allocation	Difference
TRUST LEVEL PORTFOLIO MANAGEMENT	0.0%	0.0%	0.0%
External Multi-Asset Class	0.0%	-,-	55
PE Premium Replication	0.0%	-,-	55
TLPM Transition	0.0%	-,-	5-5

#### **TLPM SEGMENT & PORTFOLIOS PERFORMANCE**

	Asset Value									5-Year l	Ratios
	<u>(\$B</u>	illion)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>	<u>(\$Bi</u>	llion)	<u>Sharpe</u>	<u>Info</u>
TRUST LEVEL PORTFOLIO MGMT	\$	0.04	NM	NM	NM	NM	NM	\$	0.0	N/A	N/A
CalPERS Reference Portfolio Benchmark			11.1%	13.2%	9.1%	10.1%	8.2%			N/A	N/A
External Multi-Asset Class  CalPERS Reference Portfolio Benchmar	<b>\$</b> k	0.02	<b>%</b> %	<b>%</b> %	<b>%</b> %	<b>%</b> %	<b>%</b> %			N/A N/A	N/A N/A
PE Premium Replication  CalPERS STIF	\$	0.02	<b>2.5%</b>	<b>2.5%</b> 0.6%	<b>%</b> %	<b>%</b> %	<b>%</b> %			N/A N/A	N/A N/A
TLPM Transition	\$	0.00	%	%	% %	%	%			N/A	N/A



### **AFFILIATE FUND INFORMATION**

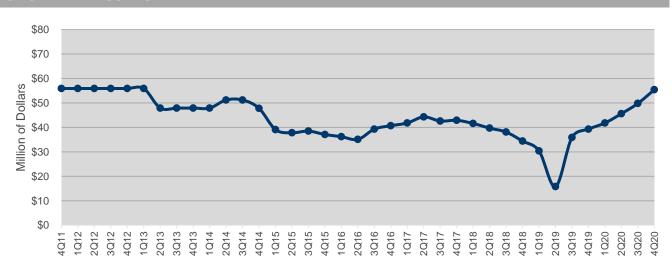


### JUDGES RETIREMENT SYSTEM I FUND



## JUDGES I PERFORMANCE PERIOD ENDED DECEMBER 31, 2020

#### **GROWTH IN ASSETS**



#### NET OF FEE PLAN PERFORMANCE RESULTS – JUDGES I 8

	Asset	Value					
	<u>(\$M</u>	lillion)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u> 10-Year</u>
Judges Retirement I Fund	\$	55.4	0.0%	0.6%	1.7%	1.3%	0.7%
91-Day Treasury Bill			0.0%	0.7%	1.6%	1.2%	0.6%
Judges I Programs:							
Judges I Internal Short-Term	\$	55.4	0.0%	0.6%	1.7%	1.3%	0.7%
91-Day Treasury Bill			0.0%	0.7%	1.6%	1.2%	0.6%

<sup>&</sup>lt;sup>8</sup> 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.

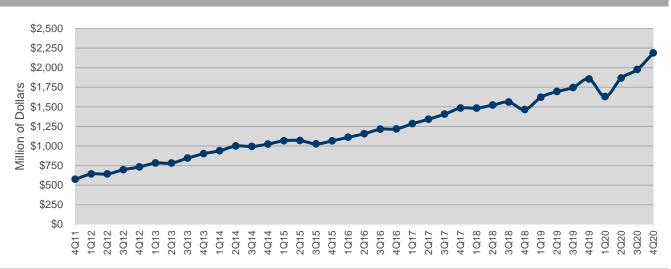


### **JUDGES RETIREMENT SYSTEM II FUND**



#### JUDGES II PERFORMANCE PERIOD ENDED DECEMBER 31, 2020

#### **GROWTH IN ASSETS**



#### NET OF FEE PLAN PERFORMANCE RESULTS - JUDGES II 9

	Asse	et Value							
	<u>(\$</u>	Million)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u> 10-Year</u>		
Judges Retirement II Fund	\$	2,188.2	10.0%	13.2%	8.7%	9.8%	8.2%		
Weighted Policy Benchmark			9.9%	12.8%	8.4%	9.5%	8.0%		
Judges II Programs:									
JRS II Global Equity	\$	1,138.7	15.8%	16.7%	10.2%	12.7%	9.8%		
Global Equity Benchmark			15.7%	16.3%	9.9%	12.5%	9.7%		
JRS II US Fixed Income	\$	698.2	0.5%	11.2%	7.3%	6.9%	6.2%		
Custom Benchmark			0.5%	11.1%	7.1%	6.4%	5.7%		
JRS II TIPS	\$	109.2	1.6%	11.0%	5.9%	5.1%	%		
Bloomberg Barclays U.S. TIPS Index			1.6%	11.0%	5.9%	5.1%	%		
JRS II REITs	\$	175.8	13.5%	-7.9%	2.6%	4.8%	6.4%		
Custom Benchmark			13.3%	-8.9%	1.8%	4.3%	6.1%		
JRS II Commodities	\$	66.4	14.4%	-23.5%	-8.1%	-1.7%	%		
GSCI Total Return			14.5%	-23.7%	-8.2%	-1.9%	%		
JRS II Cash/Short-Term	\$	0.04	NM	NM	NM	NM	NM		
91-Day T-Bill			0.0%	0.7%	1.6%	1.2%	0.6%		

<sup>&</sup>lt;sup>9</sup> 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 Barclays Long Liability Index. Barclays 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, 2020

#### JUDGES II ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

	Actual Asset	Target Asset	
Asset Class	Allocation	Allocation	Difference
JUDGES II TOTAL FUND	<u>100.0%</u>	<u>100.0%</u>	0.0%
Global Equity	52.0%	52.0%	0.0%
US Fixed Income	31.9%	32.0%	-0.1%
TIPS	5.0%	5.0%	0.0%
REITs	8.0%	8.0%	0.0%
Commodities	3.0%	3.0%	0.0%
Cash/Short-Term	0.0%	0.0%	0.0%

#### **PERFORMANCE NOTES – JUDGES II**

Fueled by a number of positive developments, chief among them the announcement/distribution of two highly effective COVID-19 vaccines, the conclusion of the U.S. presidential election, continued government stimulus support, and record low interest rates, global markets easily carried forward the ongoing price recovery in the fourth quarter of 2020. The Judges II ("JRS II, the Plan") investment portfolio also responded favorably with a 10.0% return. For the year, this Plan climbed 13.2%, which is considered a tremendous finish despite enduring a global economic shutdown early in the year. Both figures were ahead of the Plan's weighted policy benchmark returns of 9.9% and 12.8%, respectively. There are also no concerns with JRS II's performance over longer-term horizon, as its 8.7% 3-year gain and all other annualized returns shown continue to fare well against the weighted policy benchmark.

At the end of Q4, Judges II's asset allocation across all major asset classes were closely tracking their policy targets, with very little deviation.

The global equity fund finished the year on a very positive note with three straight quarters of strong gains. With the risk-on sentiment that originally began in early spring largely continued unabated, this fund climbed 15.8% in the fourth quarter and ended 2020 up 16.7%, fully recovering its lost ground from the March bottom. Both the quarterly and full-year returns compared favorably to the custom benchmark's pace of 15.7% and 16.3%, respectively, and allows the global equity fund to maintain its solid longer-term track record, where it continues to perform in line with expectations while pacing ahead of the market.

Having previously rallied 9.7% in the first six months of 2020 that was in large part driven by a severe risk-off rotation and the sharp credit spread recovery that immediately followed, the U.S. fixed income fund saw its returns notably moderated in the back half of the year. With investors' appetite for risk assets re-ignited by unprecedented government stimulus and vaccine hopes, return of this bond fund was subdued in Q4, closely following the custom benchmark to a 0.5% gain. For the cumulative 12-month period, the U.S. fixed income fund took the boost from its big early-year gains to finish at 11.2%, which was a more than solid output that also represented a +10 bps outperformance, while further allowing the fund to maintain its longer-term edge in relative terms.

CalPERS
December 31, 2020



#### JUDGES II PERFORMANCE PERIOD ENDED DECEMBER 31, 2020

#### PERFORMANCE NOTES - JUDGES II (CONTINUED)

The TIPS segment showed welcoming results this quarter and was an even better contributor for JRS II for the year. Despite the reality remains that gapping economic slack inflicted by covid-containment measures will persist for some time, inflation expectations have actually trended upward, pushed higher by the massive fiscal/monetary relief pumped into the economy, vaccine-fueled spending recovery, and the potential shortages/bottlenecks that may arise from a snapback in economic activity. As a result the breakeven inflation rate rose again during Q4 and carried the JRS II TIPS portfolio to a 1.6% return that mirrored the fund custom benchmark the Bloomberg Barclays U.S. TIPS Index. Supported by such dynamic which persisted for a large part of 2020, the TIPS fund actually quietly stringed together an impressive 1-year output of 11.0%, and propped up its 3- and 5-year returns to above 5%; all of these solid performance figures compared well in relative terms, too.

Similar to global equities, real estate securities returns were also notably higher in the fourth quarter, as market sentiment was driven up by strong efficacy results from two leading covid-19 vaccines. The JRS II REIT portfolio returned 13.5% during this period that was its largest quarterly gain for the year, and bested the REIT custom benchmark by a +22 bps margin. Unfortunately, this otherwise strong year-end finish was not enough to recoup losses incurred early in the year, when it lost -28.1% during Q1's severe market pullback. In the end the REIT fund closed 2020 with a full-year return of -7.9%; the good news is, this figure too, was in the black in relative terms by a healthy margin of +98 bps. Looking past the short-term volatility, this 16-year old portfolio's longer-term track record does still remain on solid footing, with an annualized 6.4% return over the past decade that tracks modestly ahead of the custom benchmark.

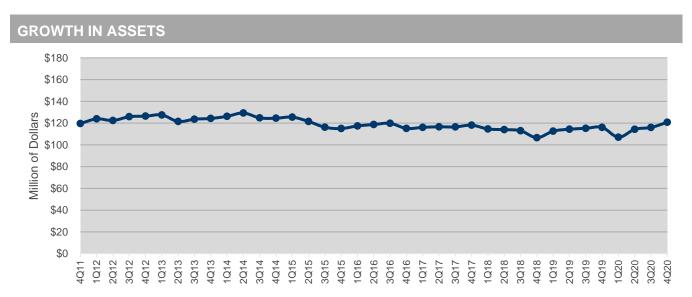
Performance results of the commodities portfolio could be painted in a similar pattern to the REIT portfolio: it was higher in Q4 by 14.4% (supported by the rise in energy, industrial metals and agricultural prices), but down for the full year with a -23.5% return (held back by Q1's risk assets selloff, particularly the collapse of oil prices). Despite having now recorded three straight positive quarters, the commodities portfolio's near- and medium-term track record continues to reel from the negative impact of Q1's massive -42.4% loss and remain in the red (-8.1% at the 3-year mark and -1.7% at the 5-year mark), but they do compare better against the assigned benchmark.



### LEGISLATORS' RETIREMENT SYSTEM FUND



## LEGISLATORS' RETIREMENT SYSTEM PERFORMANCE PERIOD ENDED DECEMBER 31, 2020



#### NET OF FEE PLAN PERFORMANCE RESULTS - LEGISLATORS' 10

	Asse	t Value					
	<u>(\$1</u>	Million)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u> 10-Year</u>
Legislators' Retirement System Fund Weighted Policy Benchmark	\$	120.8	<b>5.8%</b> 5.7%	<b>10.8%</b> <i>10.5%</i>	<b>7.4%</b> 7.2%	<b>7.8%</b> 7.5%	<b>6.6%</b> 6.4%
LRS Programs:							
LRS Global Equity  Global Equity Benchmark	\$	26.6	<b>15.8%</b> 15.7%	<b>16.6%</b> 16.3%	<b>10.2%</b> 9.9%	<b>12.7%</b> 12.5%	<b>9.9%</b> 9.8%
LRS US Fixed Income Custom Benchmark	\$	59.1	<b>0.5%</b> 0.5%	<b>11.2%</b> 11.1%	<b>7.3%</b> 7.1%	<b>6.9%</b> 6.4%	<b>6.2%</b> 5.7%
LRS TIPS  Custom Benchmark	\$	19.3	<b>1.6%</b>	<b>11.0%</b> 11.0%	<b>6.0%</b> 5.9%	<b>5.1%</b> 5.1%	<b>3.8%</b>
LRS REITs  Custom Benchmark	\$	9.7	<b>13.5%</b> 13.3%	<b>-7.9%</b> -8.9%	<b>2.6%</b> 1.8%	<b>4.8%</b> 4.3%	<b>%</b> %
LRS Commodities  GSCI Total Return	\$	6.1	<b>14.5%</b> 14.5%	<b>-23.6%</b> -23.7%	<b>-7.7%</b> -8.2%	<b>-1.4%</b> -1.9%	<b>%</b> %
LRS Cash/Short-Term 91-Day T-Bill	\$	0.0	<b>NM</b> 0.0%	<b>NM</b> 0.7%	<b>NM</b> 1.6%	<b>NM</b> 1.2%	<b>NM</b> 0.6%

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 Barclays Long Liability Index. Barclays Long Liability ex TIPS was used a

Current US Fixed Income Custom Benchmark is the Bloomberg Barclays Long Liability Index. Barclays 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 Barclays U.S. TIPS Index. Prior of July 2017 it was the Barclays 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, 2020

#### 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	22.0%	22.0%	0.0%
US Fixed Income	48.9%	49.0%	-0.1%
TIPS	16.0%	16.0%	0.0%
REITs	8.0%	8.0%	0.0%
Commodities	5.1%	5.0%	0.1%
Cash/Short-Term	0.0%	0.0%	0.0%

#### **PERFORMANCE NOTES - LEGISLATORS'**

Under a more conservative profile targeting 35% growth / 65% income asset allocation split, the California Legislators' Retirement System ("LRS, the System") unsurprisingly saw a softer total return than JRS II in the 4<sup>th</sup> quarter of 2020. But with all three of its growth asset class portfolios seeing double-digit rate of advance during Q4's risk momentum rebound and provided lift, the System's total return for this period still showed very well, coming in at 5.8% that was on par with its weighted policy benchmark. The recent rebound in asset valuations have translated well into the overall track record as well: for the year, LRS reached a total return of 10.8%, which in turn boosted its 3- and 5-year annualized returns to the mid-7% range. All of these rate of returns mildly outpaced the weighted policy benchmark.

At the end of Q4, the System's asset allocation showed a mild overweight in commodities with a small underweight to U.S. fixed income; it was on target in global equity, TIPS, and REITs.

The global equity fund finished the year on a very positive note with three straight quarters of strong gains. With the risk-on sentiment that originally began in early spring largely continued unabated, this fund climbed 15.8% in the fourth quarter and ended 2020 up 16.6%, fully recovering its lost ground from the March bottom. Both the quarterly and full-year returns compared favorably to the custom benchmark's pace of 15.7% and 16.3%, respectively, and allows the global equity fund to maintain its solid longer-term track record, where it continues to perform in line with expectations while pacing ahead of the market.

Having previously rallied 9.6% in the first six months of 2020 that was in large part driven by a severe risk-off rotation and the sharp credit spread recovery that immediately followed, the U.S. fixed income fund saw its returns notably moderated in the back half of the year. With investors' appetite for risk assets re-ignited by unprecedented government stimulus and vaccine hopes, return of this bond fund was subdued in Q4, closely following the custom benchmark to a 0.5% gain. For the cumulative 12-month period, the U.S. fixed income fund took the boost from its big early-year gains to finish at 11.2%, which was a more than solid output that also represented a +9 bps outperformance, while further allowing the fund to maintain its longer-term edge in relative terms.

CalPERS
December 31, 2020



## LEGISLATORS' RETIREMENT SYSTEM PERFORMANCE PERIOD ENDED DECEMBER 31, 2020

#### PERFORMANCE NOTES - LEGISLATORS' (CONTINUED)

The TIPS segment showed welcoming results this quarter and was an even better contributor for LRS for the year. Despite the reality remains that gapping economic slack inflicted by covid-containment measures will persist for some time, inflation expectations have actually trended upward, pushed higher by the massive fiscal/monetary relief pumped into the economy, vaccine-fueled spending recovery, and the potential shortages/bottlenecks that may arise from a snapback in economic activity. As a result the breakeven inflation rate rose again during Q4 and carried the LRS TIPS portfolio to a 1.6% return that mirrored the fund custom benchmark the Bloomberg Barclays U.S. TIPS Index. Supported by such dynamic which persisted for a large part of 2020, the TIPS fund actually quietly stringed together an impressive 1-year output of 11.0%, and propped up its 3- and 5-year returns to above 5%; all of these solid performance figures compared well in relative terms, too.

Similar to global equities, real estate securities returns were also notably higher in the fourth quarter, as market sentiment was driven up by strong efficacy results from two leading covid-19 vaccines. The LRS REIT portfolio returned 13.5% during this period that was its largest quarterly gain for the year, and bested the REIT custom benchmark by a +19 bps margin. Unfortunately, this otherwise strong year-end finish was not enough to recoup losses incurred early in the year, when it lost -28.2% during Q1's severe market pullback. In the end the REIT fund closed 2020 with a full-year return of -7.9%; the good news is, this figure too, was in the black in relative terms by a healthy margin of +92 bps. Looking past the short-term volatility, this 9-year old portfolio's longer-term track record does still remain on solid footing, with an annualized 4.8% return over the past five years that tracks modestly ahead of the custom benchmark.

Performance results of the LRS commodities portfolio could be painted in a similar pattern to the REIT portfolio: it was higher in Q4 by 14.5% (supported by the rise in energy, industrial metals and agricultural prices), but down for the full year with a -23.6% return (held back by Q1's risk assets selloff, particularly the collapse of oil prices). Despite having now recorded three straight positive quarters, the commodities portfolio's near- and medium-term track record continues to reel from the negative impact of Q1's massive -42.4% loss and remain in the red (-7.7% at the 3-year mark and -1.4% at the 5-year mark), but they do compare better against the assigned benchmark.

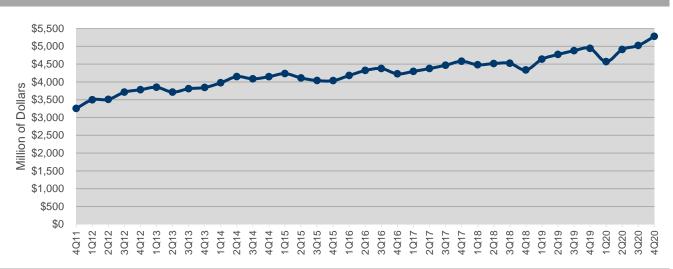


### **LONG-TERM CARE FUND**



### LONG-TERM CARE FUND PERFORMANCE PERIOD ENDED DECEMBER 31, 2020

#### **GROWTH IN ASSETS**



#### NET OF FEE PLAN PERFORMANCE RESULTS - LONG-TERM CARE FUND 11

	Asse	et Value					
	<u>(\$</u>	Million)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u> 10-Year</u>
Long-Term Care Fund	\$	5,279.0	5.5%	8.4%	6.3%	6.7%	5.2%
Weighted Policy Benchmark			5.3%	8.6%	6.4%	6.7%	5.2%
LTC Programs:							
LTC Global Equity	\$	878.7	15.8%	16.6%	10.0%	12.5%	9.8%
Custom Benchmark			15.7%	16.3%	9.7%	12.2%	9.6%
LTC US Fixed Income	\$	3,083.4	0.5%	11.2%	7.2%	6.4%	5.7%
Custom Benchmark			0.5%	11.1%	7.1%	6.4%	5.7%
LTC TIPS	\$	297.4	1.6%	11.0%	5.9%	5.1%	3.8%
Bloomberg Barc. US TIPS Index			1.6%	11.0%	5.9%	5.1%	3.8%
LTC REITs	\$	555.3	13.4%	-7.9%	2.5%	4.3%	5.9%
Custom Benchmark			13.3%	-8.9%	1.6%	3.4%	5.3%
LTC Commodities	\$	464.2	14.4%	-23.6%	-8.2%	-1.8%	%
GSCI Total Return			14.5%	-23.7%	-8.2%	-1.9%	%
LTC Cash/Short-Term	\$	0.1	NM	NM	NM	NM	NM
91-Day T-Bill			0.0%	0.7%	1.6%	1.2%	0.6%

<sup>11</sup> 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 Barclays Long Liability Index. Barclays Long Liability ex TIPS ex High Yield was the benchmark between June 2007 and July 2005. Prior of that the benchmark was Barclays 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, 2020

#### 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%	<u>100.0%</u>	0.0%
Global Equity	16.6%	15.0%	1.6%
US Fixed Income	58.4%	60.0%	-1.6%
TIPS	5.6%	6.0%	-0.4%
REITs	10.5%	11.0%	-0.5%
Commodities	8.8%	8.0%	0.8%
Cash/Short-Term	0.0%	0.0%	0.0%

### PERFORMANCE NOTES - LONG-TERM CARE FUND

Among the three major Affiliates programs, the Long-Term Care Fund ("LTC, the Fund") has the lowest exposure to global equities, currently at 16.6% (with a 15% target). As a result, despite risk assets in general having post another quarter of strong appreciation, LTC's Q4 total return came in ranking the lowest among this group. Relative to LTC's own weighted policy benchmark, though, this quarter's 5.5% return did represent a +15 bps out-performance. Over longer time horizon, the LTC has done relatively well as its track record currently sits comfortably near the policy benchmark over time periods 3-year and beyond.

At the end of Q4, the LTC's asset allocation showed modest overweight in global equity and commodities, with mild underweight in U.S. fixed income, TIPS and REITs.

The global equity fund finished the year on a very positive note with three straight quarters of strong gains. With the risk-on sentiment that originally began in early spring largely continued unabated, this fund climbed 15.8% in the fourth quarter and ended 2020 up 16.6%, fully recovering its lost ground from the March bottom. Both the quarterly and full-year returns compared favorably to the custom benchmark's pace of 15.7% and 16.3%, respectively, and allows the global equity fund to maintain its solid longer-term track record, where it continues to perform in line with expectations while pacing ahead of the market.

Having previously rallied 9.7% in the first six months of 2020 that was in large part driven by a severe risk-off rotation and the sharp credit spread recovery that immediately followed, the U.S. fixed income fund saw its returns notably moderated in the back half of the year. With investors' appetite for risk assets re-ignited by unprecedented government stimulus and vaccine hopes, return of this bond fund was subdued in Q4, closely following the custom benchmark to a 0.5% gain. For the cumulative 12-month period, the U.S. fixed income fund took the boost from its big early-year gains to finish at 11.2%, which was a more than solid output that also represented a +11 bps outperformance, while further allowing the fund to maintain its longer-term edge in relative terms.

CalPERS
December 31, 2020



### LONG-TERM CARE FUND PERFORMANCE PERIOD ENDED DECEMBER 31, 2020

#### PERFORMANCE NOTES - LONG-TERM CARE FUND (CONTINUED)

The TIPS segment showed welcoming results this quarter and was an even better contributor for LTC for the year. Despite the reality remains that gapping economic slack inflicted by covid-containment measures will persist for some time, inflation expectations have actually trended upward, pushed higher by the massive fiscal/monetary relief pumped into the economy, vaccine-fueled spending recovery, and the potential shortages/bottlenecks that may arise from a snapback in economic activity. As a result the breakeven inflation rate rose again during Q4 and carried the LRS TIPS portfolio to a 1.6% return that mirrored the fund custom benchmark the Bloomberg Barclays U.S. TIPS Index. Supported by such dynamic which persisted for a large part of 2020, the TIPS fund actually quietly stringed together an impressive 1-year output of 11.0%, and propped up its 3- and 5-year returns to above 5%; all of these solid performance figures compared well in relative terms, too.

Similar to global equities, real estate securities returns were also notably higher in the fourth quarter, as market sentiment was driven up by strong efficacy results from two leading covid-19 vaccines. The LTC REIT portfolio returned 13.4% during this period that was its largest quarterly gain for the year, and bested the REIT custom benchmark by a +16 bps margin. Unfortunately, this otherwise strong year-end finish was not enough to recoup losses incurred early in the year, when it lost -28.2% during Q1's severe market pullback. In the end the REIT fund closed 2020 with a full-year return of -7.9%; the good news is, this figure too, was in the black in relative terms by a healthy margin of +92 bps. Looking past the short-term volatility, this 15.5-year old portfolio's longer-term track record does still remain on solid footing, with an annualized 5.9% return over the past decade that tracks modestly ahead of the custom benchmark.

Performance results of the LTC commodities portfolio could be painted in a similar pattern to the REIT portfolio: it was higher in Q4 by 14.4% (supported by the rise in energy, industrial metals and agricultural prices), but down for the full year with a -23.6% return (held back by Q1's risk assets selloff, particularly the collapse of oil prices). Despite having now recorded three straight positive quarters, the commodities portfolio's near- and medium-term track record continues to reel from the negative impact of Q1's massive -42.4% loss and remain in the red (-8.2% at the 3-year mark and -1.8% at the 5-year mark), but they are currently tracking the assigned benchmark within a reasonable range.



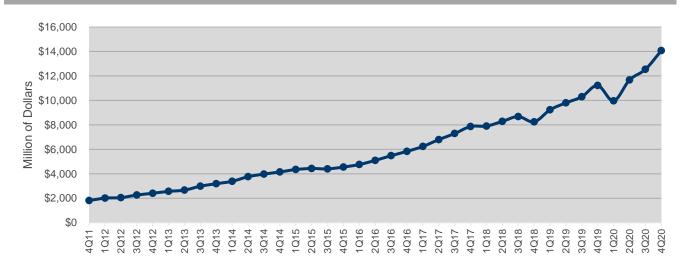
# CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST



# CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST AGGREGATE

PERIOD ENDED DECEMBER 31, 2020

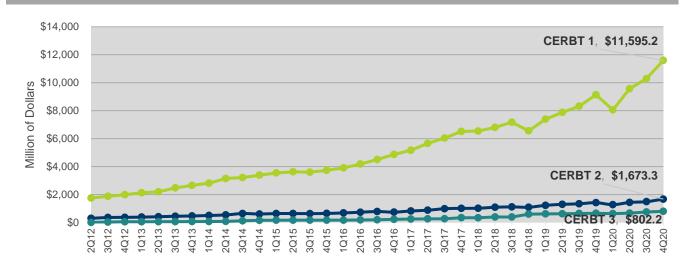
### **GROWTH IN ASSETS – CERBT AGGREGATE**



#### **NET OF FEE PLAN PERFORMANCE RESULTS – CERBT AGGREGATE**

	Ass	et Value					
	(\$Million)		<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u> 10-Year</u>
CERBT Aggregate	\$	14,070.6	10.4%	13.1%	8.5%	9.8%	7.8%
CERBT Trust Aggregate Benchmark			10.3%	12.7%	8.2%	9.4%	7.6%

#### **GROWTH IN ASSETS - CERBT 1, 2, 3**





## CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST 1 PERIOD ENDED DECEMBER 31, 2020

### **CERBT 1 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS**

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
TOTAL CERBT 1	100.0%	<u>100.0%</u>	0.0%
Global Equity	59.0%	59.0%	0.0%
US Fixed Income	24.9%	25.0%	-0.1%
TIPS	5.0%	5.0%	0.0%
REITs	8.0%	8.0%	0.0%
Commodities	3.0%	3.0%	0.0%
Cash/Short-Term	0.1%	0.0%	0.1%

### NET OF FEE PLAN PERFORMANCE RESULTS – CERBT 1 12

	Asset Value						
	<u>(</u> 9	Million)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u> 10-Year</u>
CERBT Strategy 1	\$	11,595.2	11.0%	13.4%	8.7%	10.0%	8.0%
Total CERBT Strategy 1 Benchmark			11.0%	13.0%	8.4%	9.6%	7.8%
CERBT 1 Programs:							
Global Equity	\$	6,840.3	15.8%	16.6%	10.0%	12.5%	9.8%
CERBT Global Equity Benchmark			15.7%	16.3%	9.7%	12.2%	9.5%
Domestic Fixed Income	\$	2,888.2	0.5%	11.2%	7.3%	6.9%	6.2%
CalPERS Custom Long Liability			0.5%	11.1%	7.1%	6.4%	5.7%
TIPS	\$	578.1	1.6%	11.0%	5.9%	5.1%	%
CaIPERS TIPS			1.6%	11.0%	5.9%	5.1%	%
REITs	\$	930.4	13.5%	-7.9%	2.5%	4.3%	6.0%
Custom Benchmark			13.3%	-8.9%	1.6%	3.4%	5.3%
Commodities	\$	351.3	14.4%	-23.5%	-8.1%	-1.8%	%
GSCI Total Return			14.5%	-23.7%	-8.2%	-1.9%	%
Cash/Short-Term	\$	6.9	NM	NM	NM	NM	NM
91-Day T-Bill			0.0%	0.7%	1.6%	1.2%	0.6%

<sup>&</sup>lt;sup>12</sup> CERBT Strategy 1 cash balances are inclusive of employer fund contributions that are in the process of being invested into asset classes. These contributions occur daily, but 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, 2020

### **CERBT 2 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS**

	Actual Asset	Target Asset	
Asset Class	Allocation	Allocation	Difference
TOTAL CERBT 2	<u>100.0%</u>	<u>100.0%</u>	0.0%
Global Equity	40.0%	40.0%	0.0%
US Fixed Income	42.9%	43.0%	-0.1%
TIPS	5.0%	5.0%	0.0%
REITs	8.0%	8.0%	0.0%
Commodities	4.0%	4.0%	0.0%
Cash/Short-Term	0.0%	0.0%	0.0%

### NET OF FEE PLAN PERFORMANCE RESULTS – CERBT 2 13

	Asset Value								
	<u>(\$</u>	<u>Million)</u>	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>		
CERBT Strategy 2	\$	1,673.3	8.3%	12.3%	8.2%	9.0%	%		
Total CERBT Strategy 2 Benchmark			8.2%	12.0%	8.0%	8.6%	%		
CERBT 2 Programs:									
Global Equity	\$	670.0	15.8%	16.5%	10.0%	12.5%	%		
CERBT Global Equity Benchmark			15.7%	16.3%	9.7%	12.2%	%		
Domestic Fixed Income	\$	717.6	0.5%	11.2%	7.3%	6.9%	%		
CalPERS Custom Long Liability			0.5%	11.1%	7.1%	6.4%	%		
TIPS	\$	83.5	1.6%	11.0%	5.9%	5.1%	%		
CalPERS TIPS			1.6%	11.0%	5.9%	5.1%	%		
REITs	\$	134.4	13.5%	-7.9%	2.5%	4.3%	%		
Custom Benchmark			13.3%	-8.9%	1.6%	3.4%	%		
Commodities	\$	67.7	14.5%	-23.5%	-7.9%	-1.7%	%		
GSCI Total Return			14.5%	-23.7%	-8.2%	-1.9%	%		
Cash/Short-Term	\$	0.0	NM	NM	NM	NM	%		
91-Day T-Bill			0.0%	0.7%	1.6%	1.2%	%		

<sup>&</sup>lt;sup>13</sup> CERBT Strategy 2 cash balances are inclusive of employer fund contributions that are in the process of being invested into asset classes. These contributions occur daily, but 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, 2020

### **CERBT 3 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS**

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
TOTAL CERBT 3	<u>100.0%</u>	100.0%	0.0%
Global Equity	22.0%	22.0%	0.0%
US Fixed Income	48.9%	49.0%	-0.1%
TIPS	16.0%	16.0%	0.0%
REITs	8.0%	8.0%	0.0%
Commodities	5.1%	5.0%	0.1%
Cash/Short-Term	0.0%	0.0%	0.0%

### NET OF FEE PLAN PERFORMANCE RESULTS – CERBT 3 14

	Asset Value								
	<u>(\$1</u>	Million)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u> 10-Year</u>		
CERBT Strategy 3	\$	802.2	5.8%	10.8%	7.3%	7.7%	%		
Total CERBT Strategy 3 Benchmark			5.7%	10.5%	7.2%	7.3%	%		
CERBT 3 Programs:									
Global Equity	\$	176.7	15.8%	16.5%	10.0%	12.5%	%		
CERBT Global Equity Benchmark			15.7%	16.3%	9.7%	12.2%	%		
Domestic Fixed Income	\$	392.2	0.5%	11.2%	7.3%	6.8%	%		
CalPERS Custom Long Liability			0.5%	11.1%	7.1%	6.4%	%		
TIPS	\$	128.2	1.6%	10.9%	5.9%	5.1%	%		
CalPERS TIPS			1.6%	11.0%	5.9%	5.1%	%		
REITs	\$	64.5	13.5%	-7.9%	2.5%	4.3%	%		
Custom Benchmark			13.3%	-8.9%	1.6%	3.4%	%		
Commodities	\$	40.6	14.5%	-23.6%	-7.7%	-1.4%	%		
GSCI Total Return			14.5%	-23.7%	-8.2%	-1.9%	%		
Cash/Short-Term	\$	0.0	NM	NM	NM	NM	%		
91-Day T-Bill			0.0%	0.7%	1.6%	1.2%	%		

<sup>14</sup> CERBT Strategy 3 cash balances are inclusive of employer fund contributions that are in the process of being invested into asset classes. These contributions occur daily, but 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



### CA PENSION PREFUNDING TRUST PERFORMANCE PERIOD ENDED DECEMBER 31, 2020

### CEPPT STRATEGY 1 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS 15

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
PENSION PREFUNDING TRUST-STRATEGY 1	100.0%	<u>100.0%</u>	0.0%
Global Equity	40.1%	40.0%	0.1%
US Fixed Income	47.0%	47.0%	0.0%
REITs	7.9%	8.0%	-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 16

	Asset Value						
	<u>(\$N</u>	lillion)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>
Pension Prefunding Trust - Strategy 1	\$	15.3	7.9%	11.4%	%	%	%
CEPPT Strategy 1 Policy Benchmark			7.7%	11.5%	%	%	%
CEPPT Strategy 1 Programs:							
CEPPT S1 Equity	\$	6.1	15.7%	16.5%	%	%	%
MSCI ACWI IMI Net			15.7%	16.3%	%	%	%
CEPPT S1 Fixed Income	\$	7.2	0.7%	7.6%	%	%	%
Bloomberg Barc. US Aggregate Bond Idx			0.7%	7.5%	%	%	%
CEPPT S1 REITs	\$	1.2	13.4%	-8.1%	%	%	%
Custom Benchmark			13.3%	-8.9%	%	%	%
CEPPT S1 TIPS	\$	0.8	1.6%	10.9%	%	%	%
CalPERS TIPS			1.6%	11.0%	%	%	%
CEPPT S1 Cash	\$	-	NM	NM	%	%	%
91-Day Treasury Bill			0.0%	0.7%	%	%	%

<sup>&</sup>lt;sup>15</sup> CEPPT Strategy 1 actual asset allocation and underlying program values shown are based on 1/05/2021 market values due to a significant employer contribution that was received in the fund on 12/31/2020 but not fully reflected in the asset allocation until 1/05/2021.

<sup>&</sup>lt;sup>16</sup> 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, 2020

### CEPPT STRATEGY 2 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS 17

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
PENSION PREFUNDING TRUST-STRATEGY 2	100.0%	<u>100.0%</u>	0.0%
Global Equity	14.1%	14.0%	0.1%
US Fixed Income	73.0%	73.0%	0.0%
REITs	7.9%	8.0%	-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 2 18

	Asset Value							
	<u>(\$Mi</u>	llion)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u> 10-Year</u>	
Pension Prefunding Trust - Strategy 2	\$	8.0	3.8%	8.7%	%	%	%	
CEPPT Strategy 2 Policy Benchmark			3.8%	8.7%	%	%	%	
CEPPT Strategy 2 Programs:								
CEPPT S2 Equity	\$	1.1	15.7%	16.5%	%	%	%	
MSCI ACWI IMI Net			15.7%	16.3%	%	%	%	
CEPPT S2 Fixed Income	\$	5.8	0.7%	6.8%	%	%	%	
Bloomberg Barc. US Aggregate Bond Idx			0.7%	7.5%	%	%	%	
CEPPT S2 REITS	\$	0.6	13.4%	-7.9%	%	%	%	
Custom Benchmark			13.3%	-8.9%	%	%	%	
CEPPT S2 TIPS	\$	0.4	1.6%	10.9%	%	%	%	
CalPERS TIPS			1.6%	11.0%	%	%	%	
CEPPT S2 Cash	\$	-	NM	NM	%	%	%	
91-Day Treasury Bill			0.0%	0.7%	%	%	%	

<sup>&</sup>lt;sup>17</sup> CEPPT Strategy 2 actual asset allocation and underlying program values shown are based on 1/05/2021 market values due to a significant employer contribution that was received in the fund on 12/31/2020 but not fully reflected in the asset allocation until 1/05/2021.

<sup>&</sup>lt;sup>18</sup> CEPPT Strategy 2 funding occurred during December 2019; official performance reporting began 1/01/2020.
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.

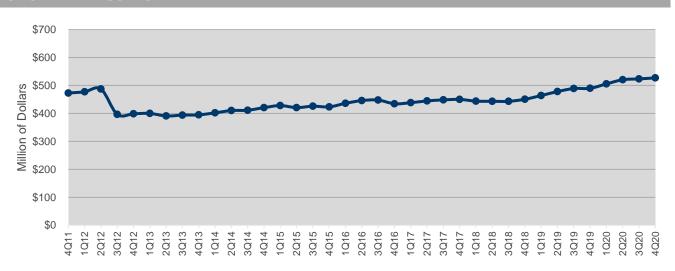


### **HEALTH CARE FUND**



#### HEALTH CARE FUND PERFORMANCE PERIOD ENDED DECEMBER 31, 2020

### GROWTH IN ASSETS 19



### NET OF FEE PLAN PERFORMANCE RESULTS - HEALTH CARE FUND

	Asse	t Value					
	(\$Million)		<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>
CalPERS Health Care Bond Fund	\$	527.0	0.7%	7.6%	5.4%	4.5%	4.1%
Bloomberg Barc. US Aggregate Bond Idx		0.7%	7.5%	5.3%	4.4%	3.8%	

<sup>&</sup>lt;sup>19</sup> The decline in assets in the 3<sup>rd</sup> quarter of 2012 was due to a \$100 million withdrawal from the fund.

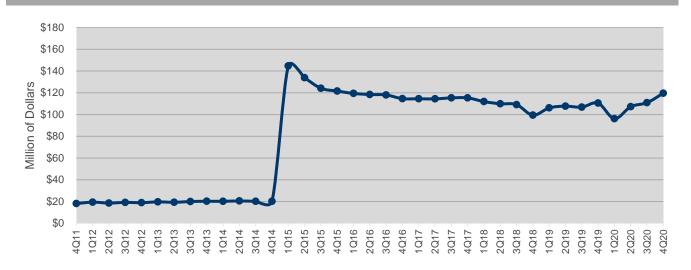


### **SUPPLEMENTAL INCOME PLANS**

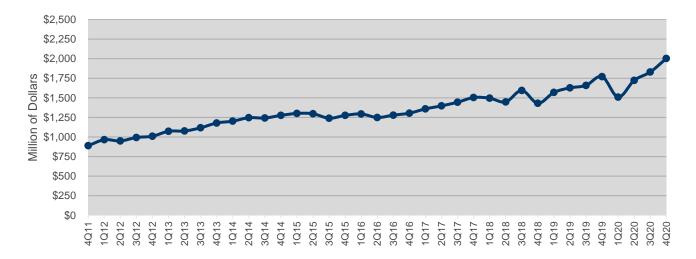


#### SUPPLEMENTAL INCOME PLANS PERIOD ENDED DECEMBER 31, 2020

#### GROWTH IN ASSETS - SUPPLEMENTAL CONTRIBUTION PLAN 20



#### **GROWTH IN ASSETS – 457 PROGRAM**



<sup>&</sup>lt;sup>20</sup> SCP experienced a steep increase in assets during the 1<sup>st</sup> 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, 2020

### NET OF FEE PLAN PERFORMANCE RESULTS – SCP

	Asset Value						
	<u>(\$1</u>	Million)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>
CalPERS Target Income Fund	\$	18.3	5.7%	11.4%	7.1%	6.3%	5.3%
SIP Income Policy			5.7%	10.9%	7.0%	6.1%	5.1%
CalPERS Target 2015 Fund	\$	16.2	6.0%	11.7%	7.2%	6.3%	5.6%
SIP 2015 Policy			6.0%	11.2%	7.0%	6.1%	5.6%
CalPERS Target 2020 Fund	\$	23.7	7.8%	13.1%	7.7%	7.0%	6.1%
SIP 2020 Policy		/	7.8%	12.5%	7.5%	6.8%	6.1%
CalPERS Target 2025 Fund	\$	22.1	<b>9.6%</b> 9.7%	14.2%	<b>8.2%</b> 8.0%	<b>8.2%</b>	<b>6.9%</b> 6.8%
SIP 2025 Policy	•	40.4		13.6%		8.0%	
CalPERS Target 2030 Fund SIP 2030 Policy	\$	16.4	<b>11.4%</b> 11.5%	<b>14.7%</b> 14.5%	<b>8.4%</b> 8.3%	<b>9.0%</b> 8.8%	<b>7.4%</b> 7.4%
•	¢	0.2					
CalPERS Target 2035 Fund SIP 2035 Policy	\$	8.3	<b>13.3%</b> 13.4%	<b>15.5%</b> 15.2%	<b>8.8%</b> 8.7%	<b>9.9%</b> 9.7%	% %
CalPERS Target 2040 Fund	\$	4.5	14.8%	16.0%	9.2%	10.8%	8.5%
SIP 2040 Policy	Ψ	4.5	14.9%	15.8%	9.1%	10.7%	8.5%
CalPERS Target 2045 Fund	\$	1.0	14.8%	16.0%	9.3%	11.4%	%
SIP 2045 Policy	*		14.9%	15.8%	9.2%	11.3%	%
CalPERS Target 2050 Fund	\$	0.2	14.8%	16.0%	9.3%	11.4%	%
SIP 2050 Policy	•		14.9%	15.8%	9.2%	11.3%	%
CalPERS Target 2055 Fund	\$	0.1	14.8%	16.0%	9.3%	11.4%	%
SIP 2055 Policy			14.9%	15.8%	9.2%	11.3%	%
CalPERS Target 2060 Fund	\$	-	%	%	%	%	%
SIP 2060 Policy			%	%	%	%	%
SSgA Russell All Cap Index SL	\$	5.4	14.7%	20.8%	14.5%	15.4%	%
Russell 3000			14.7%	20.9%	14.5%	15.4%	%
SSgA Global All Cap ex-US SL	\$	0.6	17.0%	11.3%	5.1%	9.3%	%
MSCI ACWI ex-US IMI (N)			17.2%	11.1%	4.8%	9.0%	%
SSgA US Bond Index SL	\$	0.5	0.7%	7.7%	5.4%	4.5%	%
Bloomberg Barc. US Aggregate Bond Idx			0.7%	7.5%	5.3%	4.4%	%
SSgA US Short Term Bond	\$	0.6	0.2%	3.3%	2.9%	2.1%	%
Bloomberg Barc. US Gov/Credit			0.2%	3.3%	3.0%	2.2%	%
SSgA Real Asset NL	\$	0.2	11.2%	3.2%	2.9%	6.2%	%
Real Assets Blended Index			11.3%	2.6%	2.7%	6.2%	%
SSgA STIF	\$	1.5	0.0%	0.6%	1.8%	1.4%	%
BofAML 3 Months US T-Bill			0.0%	0.7%	1.6%	1.2%	%
SCP AGGREGATE	\$	119.6					



# 457 PROGRAM PERFORMANCE PERIOD ENDED DECEMBER 31, 2020

### NET OF FEE PLAN PERFORMANCE RESULTS – 457

		et Value					
	(5	Million)	<u>Quarter</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>
CalPERS Target Income Fund	\$	102.2	5.7%	11.5%	7.2%	6.3%	5.3%
SIP Income Policy			5.7%	10.9%	7.0%	6.1%	5.1%
CalPERS Target 2015 Fund	\$	83.0	6.0%	11.7%	7.2%	6.3%	5.7%
SIP 2015 Policy			6.0%	11.2%	7.0%	6.1%	5.6%
CalPERS Target 2020 Fund	\$	165.0	7.8%	13.1%	7.7%	7.0%	6.1%
SIP 2020 Policy			7.8%	12.5%	7.5%	6.8%	6.1%
CalPERS Target 2025 Fund	\$	187.6	9.6%	14.2%	8.2%	8.2%	6.9%
SIP 2025 Policy			9.7%	13.6%	8.0%	8.0%	6.8%
CalPERS Target 2030 Fund	\$	174.2	11.4%	14.7%	8.4%	9.0%	7.4%
SIP 2030 Policy			11.5%	14.5%	8.3%	8.8%	7.4%
CalPERS Target 2035 Fund SIP 2035 Policy	\$	108.0	<b>13.3%</b>	<b>15.5%</b> 15.2%	<b>8.8%</b> 8.7%	<b>9.9%</b> 9.7%	<b>8.0%</b> 8.0%
•	•	400.0					
CalPERS Target 2040 Fund SIP 2040 Policy	\$	103.6	<b>14.8%</b> 14.9%	<b>16.0%</b> 15.8%	<b>9.2%</b> 9.1%	<b>10.8%</b> 10.7%	<b>8.5%</b> 8.5%
CalPERS Target 2045 Fund	\$	58.8	14.8%	16.0%	9.3%	11.4%	8.8%
SIP 2045 Policy	φ	36.6	14.9%	15.8%	9.2%	11.4%	8.8%
CalPERS Target 2050 Fund	\$	33.2	14.8%	16.0%	9.3%	11.4%	8.8%
SIP 2050 Policy	Ψ	33.2	14.9%	15.8%	9.2%	11.3%	8.8%
CalPERS Target 2055 Fund	\$	12.3	14.8%	16.0%	9.3%	11.4%	%
SIP 2055 Policy	*		14.9%	15.8%	9.2%	11.3%	%
CalPERS Target 2060 Fund	\$	5.3	14.8%	15.9%	%	%	%
SIP 2060 Policy			14.9%	15.8%	%	%	%
SSgA Russell All Cap Index SL	\$	650.7	14.7%	20.8%	14.5%	15.4%	%
Russell 3000			14.7%	20.9%	14.5%	15.4%	%
SSgA Global All Cap ex-US SL	\$	75.0	17.0%	11.3%	5.0%	9.3%	%
MSCI ACWI ex-US IMI (N)			17.2%	11.1%	4.8%	9.0%	%
SSgA US Bond Index SL	\$	73.7	0.7%	7.7%	5.4%	4.5%	%
Bloomberg Barc. US Aggregate Bond Idx			0.7%	7.5%	5.3%	4.4%	%
SSgA US Short Term Bond	\$	44.1	0.2%	3.3%	2.9%	2.1%	%
Bloomberg Barc. US Gov/Credit			0.2%	3.3%	3.0%	2.2%	%
SSgA Real Asset NL	\$	7.9	11.2%	3.2%	2.9%	6.2%	%
Real Assets Blended Index			11.3%	2.6%	2.7%	6.2%	%
SSgA STIF	\$	118.3	0.0%	0.6%	1.8%	1.4%	%
BofAML 3 Months US T-Bill			0.0%	0.7%	1.6%	1.2%	%
457 AGGREGATE	\$	2,003.0					