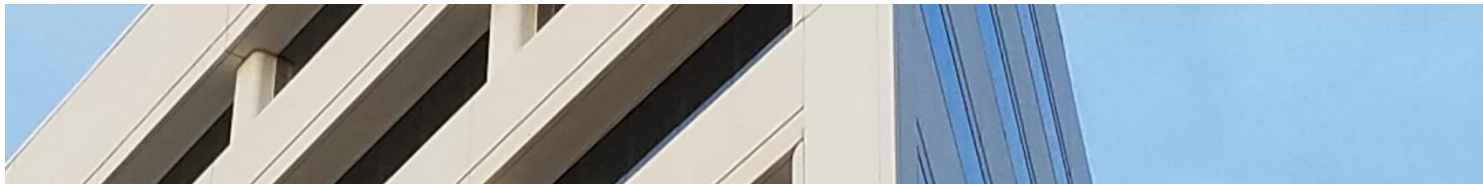




WILSHIRE ASSOCIATES

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 2019

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CAPITAL MARKET OVERVIEW

U.S. Equity Market

The U.S. stock market, represented by the Wilshire 5000 Total Market IndexSM, was up 9.08% for the fourth quarter of 2019 and 31.02% for the full year. This marks the strongest year for U.S. equities since 2013. In December, the U.S. and China agreed to terms on a “Phase One” trade deal that is reported to reduce U.S. tariffs and increase Chinese purchases of some U.S. products. While few specific details have been released, China’s top trade negotiator is scheduled to visit Washington to sign the deal in early January once the agreement is translated and formalized.

Large capitalization stocks outperformed small caps by a slim margin for the quarter as the Wilshire Large-Cap IndexSM was up 9.09% versus 9.01% for the Wilshire US Small-Cap IndexSM. The Wilshire US Micro-Cap IndexSM was up 8.48% for the quarter and 17.79% for the one-year. Growth stocks led value during the fourth quarter and have outperformed during the past twelve months.

All of the eleven major sectors were in positive territory during the fourth quarter. The strongest performing sectors were Health Care (+15.4%), Information Technology (+14.3%) and Financials (+10.0%). The worst performing sectors were Utilities (+0.4%) and Real Estate (+0.5%).

Fixed Income Market

The U.S. Treasury yield curve fell in the short portion of the curve but rose across intermediate and long-term maturities. The largest increase occurred with the 20-year Treasury, up 31 basis points. The 10-year Treasury yield ended the quarter at 1.92%, up 24 basis points from September. The Federal Open Market Committee decreased its overnight rate by 0.25% at the October meeting. The committee members are nearly unanimous about not changing rates at all during 2020 after being evenly split about future changes as they entered the fourth quarter. Credit spreads were down by quarter-end within both the investment grade and high yield markets.

The year 2019 was a sensational year for investing. U.S. equities were as strong as they have been in six years – while international equities also produced double-digit returns. U.S. core bonds were even more remarkable with returns not seen since 2002. Of course, the important question is what can we expect from here? The curve is no longer inverted so there is some reward for taking duration risk. However, that premium is currently more modest than it has been historically. Expectations for equities are a good news, bad news situation. The equity risk premium is higher than what is typical. The bad news is that the absolute equity forecast is still quite depressed. Entering 2020, investors face a familiar scenario, which is how to balance the tension between return requirements and prospects.

Non-U.S. Market

Equity markets outside of the U.S. produced very strong results in 2019, although they generally underperformed the U.S. equity market. News out of Britain is mixed with notable economic weakness in the manufacturing and services sectors. However, consumer sentiment surveys are improving after a fourth-quarter election resulted in strong support for a pro-Brexit government. Conditions in Germany are quite similar with signs of economic weakness but improving sentiment. Japan experienced its fourth consecutive quarter of expansion during 2019, while also beating forecasts, due mostly to capital expenditures and private consumption. Emerging Markets were up, in aggregate, for the quarter but generally trailed developed markets for the year. China benefitted from good news on the trade front although the country's economic growth has cooled to near 30-year lows.

Real Assets Market

U.S. real estate securities were down during the fourth quarter but produced strong results for the year. Global real estate securities are up for both periods and exhibited double-digit gains for the year. Commodity results were positive for the quarter as crude oil rose 12.9% to \$61.06 per barrel. Natural gas prices were down -6.1%, ending the quarter at \$2.19 per million BTUs. MLPs were down for the quarter (-4.08%) but produced positive results for 2019. Finally, gold prices were up and finished at approximately \$1,523 per troy ounce, up +3.9% from last quarter.

SUMMARY OF INDEX RETURNS – DECEMBER 31, 2019

	<u>Quarter</u>	<u>One Year</u>	<u>Three Years</u>	<u>Five Years</u>	<u>Ten Years</u>
Domestic Equity					
Standard & Poor's 500	9.07%	31.49%	15.27%	11.70%	13.56%
Wilshire 5000	9.08	31.02	14.52	11.38	13.44
Wilshire 4500	8.69	28.06	10.93	9.51	13.09
Wilshire Large Cap	9.09	31.51	15.18	11.72	13.54
Wilshire Small Cap	9.01	26.21	8.49	8.26	12.56
Wilshire Micro Cap	8.48	17.79	4.77	5.38	10.48
Domestic Equity					
Wilshire Large Value	7.12%	27.72%	11.79%	9.86%	12.55%
Wilshire Large Growth	11.24	35.79	18.69	13.54	14.51
Wilshire Mid Value	5.19	23.54	8.39	8.82	12.46
Wilshire Mid Growth	8.04	31.32	12.95	9.48	12.98
Wilshire Small Value	8.03	23.08	5.16	7.26	11.69
Wilshire Small Growth	10.08	29.49	11.81	9.14	13.32
International Equity					
MSCI All World ex U.S. (USD)	8.92%	21.52%	9.86%	5.51%	4.97%
MSCI EAFE	8.17	22.01	9.56	5.67	5.50
MSCI Europe	8.84	23.77	9.76	5.06	5.17
MSCI Pacific	7.03	19.25	9.35	7.00	6.32
MSCI Emerging Markets Index	11.84	18.43	11.57	5.61	3.68
Domestic Fixed Income					
Barclays Aggregate Bond	0.18%	8.72%	4.03%	3.05%	3.75%
Barclays Credit	1.05	13.80	5.75	4.39	5.32
Barclays Mortgage	0.71	6.35	3.25	2.58	3.15
Barclays Treasury	-0.79	6.86	3.31	2.36	3.13
Citigroup High Yield Cash Pay	2.82	14.06	6.09	5.84	7.23
Barclays US TIPS	0.79	8.43	3.32	2.62	3.36
91-Day Treasury Bill	0.46	2.28	1.67	1.07	0.58
Currency*					
Euro vs. \$	2.96%	-1.81%	2.10%	-1.49%	-2.42%
Yen vs. \$	-0.55	0.96	2.38	1.98	-1.54
Pound vs. \$	7.50	4.02	2.35	-3.21	-1.96
Real Estate					
Wilshire REIT Index	-1.14%	25.76%	7.63%	6.87%	11.94%
Wilshire RESI	-1.07	25.79	7.88	7.21	12.11

SUMMARY REVIEW OF PLANS

PERIOD ENDED DECEMBER 31, 2019

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CalPERS Total Fund	\$ 394,843.8	4.0%	17.3%	9.4%	7.1%	8.4%
Total Fund Policy Benchmark ¹		3.8%	17.3%	9.6%	7.3%	8.5%
Actuarial Rate		1.8%	7.3%	7.3%	7.4%	7.5%
Affiliate Funds:						
Judges I	\$ 39.3	0.5%	2.3%	1.8%	1.2%	0.7%
91-Day Treasury Bill		0.5%	2.3%	1.7%	1.1%	0.6%
Judges II	\$ 1,855.4	5.0%	20.8%	9.4%	6.6%	8.2%
Weighted Policy Benchmark		4.9%	20.6%	9.2%	6.4%	8.0%
Legislators' Retirement System	\$ 116.1	2.4%	16.2%	7.2%	5.1%	6.7%
Weighted Policy Benchmark		2.3%	16.1%	7.0%	4.9%	6.5%
Long-Term Care ("LTC")	\$ 4,940.6	1.8%	15.9%	6.6%	4.4%	5.7%
Weighted Policy Benchmark		1.8%	16.0%	6.5%	4.3%	5.5%
CERBT Strategy 1	\$ 9,137.5	5.6%	21.7%	9.7%	6.8%	8.0%
CERBT Strategy 1 Policy Benchmark		5.6%	21.6%	9.4%	6.5%	7.8%
CERBT Strategy 2	\$ 1,418.7	3.9%	19.1%	8.6%	6.0%	-.%
CERBT Strategy 2 Policy Benchmark		3.8%	19.0%	8.3%	5.7%	-.%
CERBT Strategy 3	\$ 662.6	2.4%	16.2%	7.1%	5.1%	-.%
CERBT Strategy 3 Policy Benchmark		2.3%	16.1%	6.9%	4.8%	-.%
CEPPT Strategy 1	\$ 3.7	3.8%	-.%	-.%	-.%	-.%
CEPPT Strategy 1 Policy Benchmark		3.9%	-.%	-.%	-.%	-.%
Health Care Fund	\$ 489.8	0.2%	8.7%	4.1%	3.1%	4.1%
Barclays U.S. Aggregate		0.2%	8.7%	4.0%	3.1%	3.8%
Supplemental Contribution Plan	\$ 110.5	NM	NM	NM	NM	NM
CalPERS Custom SCP Plan Index		NM	NM	NM	NM	NM
457 Program	\$ 1,771.0	NM	NM	NM	NM	NM
CalPERS Custom 457 Plan Index		NM	NM	NM	NM	NM

¹ CalPERS Total Fund Policy Benchmark return equals the return of each asset class benchmark weighted at the approved target asset allocation.

TOTAL FUND

PERIOD ENDED DECEMBER 31, 2019

TOTAL FUND PERFORMANCE

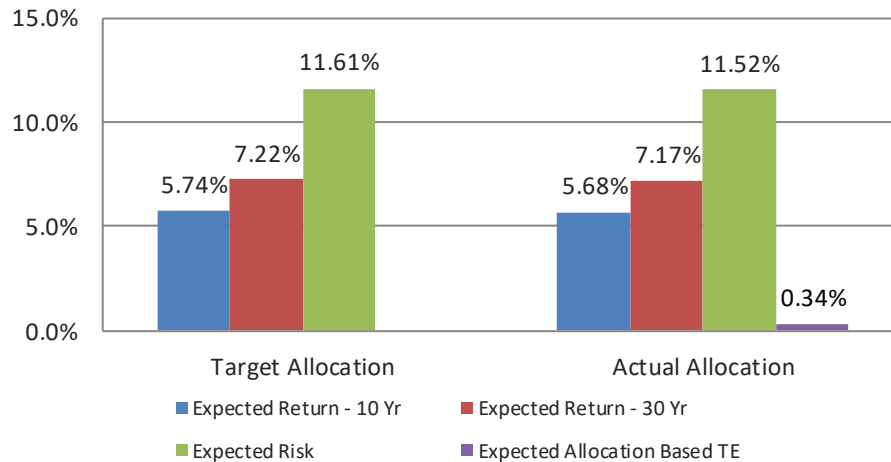
	Asset Value						VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year		Sharpe	Info
TOTAL FUND	\$ 394.8	4.0%	17.3%	9.4%	7.1%	8.4%	\$ 52.7	1.0	-0.2
<i>Total Fund Policy Benchmark</i>		3.8%	17.3%	9.6%	7.3%	8.5%		1.1	0.0
<i>Actuarial Rate</i>		1.8%	7.3%	7.3%	7.4%	7.5%			
PUBLIC EQUITY	\$ 202.9	7.5%	25.8%	12.4%	8.8%	9.5%	\$ 40.6	0.7	-0.2
<i>Public Equity Policy Benchmark</i>		7.5%	26.0%	12.7%	8.9%	9.4%		0.7	0.0
Public Equity - Cap Weighted	\$ 143.8	9.1%	26.7%	12.3%	8.7%	9.5%	\$ 31.5	0.6	-0.2
<i>FTSE Global All Cap Custom Index Net</i>		9.1%	27.0%	12.7%	8.8%	9.3%		0.6	0.0
Public Equity - Factor Weighted	\$ 59.2	3.9%	22.5%	-.%	-.%	-.%	\$ 9.5	N/A	N/A
<i>MSCI ACWI Select Factor Weighted Index</i>		3.9%	22.6%	-.%	-.%	-.%		N/A	N/A
PRIVATE EQUITY	\$ 26.1	0.2%	2.9%	11.0%	9.0%	12.4%	\$ 10.7	2.2	-0.1
<i>Private Equity Policy Benchmark</i>		0.3%	2.6%	12.5%	10.3%	13.4%		0.8	0.0
INCOME	\$ 113.4	-0.3%	12.8%	5.9%	4.3%	5.8%	\$ 10.7	0.7	1.3
<i>Income Policy Benchmark</i>		-0.3%	12.4%	5.4%	3.8%	5.0%		0.5	0.0
Treasury	\$ 43.2	-3.1%	12.1%	-.%	-.%	-.%	\$ 6.0	N/A	N/A
<i>CalPERS Custom Treasury Benchmark</i>		-3.2%	12.0%	-.%	-.%	-.%		N/A	N/A
Spread	\$ 58.4	1.2%	13.0%	-.%	-.%	-.%	\$ 4.9	N/A	N/A
<i>BBG Barc Custom Global Long Spread Index</i>		1.0%	12.2%	-.%	-.%	-.%		N/A	N/A
High Yield	\$ 11.8	2.7%	15.1%	-.%	-.%	-.%	\$ 1.4	N/A	N/A
<i>BBG Barclays US High Yield BB/B Liquid Index</i>		2.7%	14.7%	-.%	-.%	-.%		N/A	N/A
REAL ASSETS	\$ 43.5	1.6%	6.3%	6.3%	7.7%	8.1%	\$ 6.2	1.5	0.0
<i>Real Assets Policy Benchmark</i>		1.0%	4.6%	6.2%	7.9%	9.2%		2.0	0.0
LIQUIDITY	\$ 3.9	0.5%	2.6%	2.0%	1.4%	1.2%	\$ 0.01	0.5	0.7
<i>Liquidity Policy Benchmark</i>		0.4%	2.1%	1.6%	1.2%	1.3%		0.1	0.0
TRUST LEVEL PORTFOLIO MGMT *	\$ 4.9	NM	NM	-.%	-.%	-.%	\$ 0.7	N/A	N/A
<i>CalPERS Reference Portfolio Benchmark</i>		5.0%	22.5%	-.%	-.%	-.%		N/A	N/A
OTHER PERF **	\$ 0.2	NM	NM	NM	NM	NM		N/A	N/A
TERMINATED AGENCY POOL	\$ 0.2	-0.8%	11.7%	4.9%	3.5%	-.%		N/A	N/A
TOTAL FUND PLUS TAP	\$ 395.0	4.0%	17.3%	9.4%	7.1%	8.4%		N/A	N/A

* More detail of the TLPM return can be found in the program section, page 20.

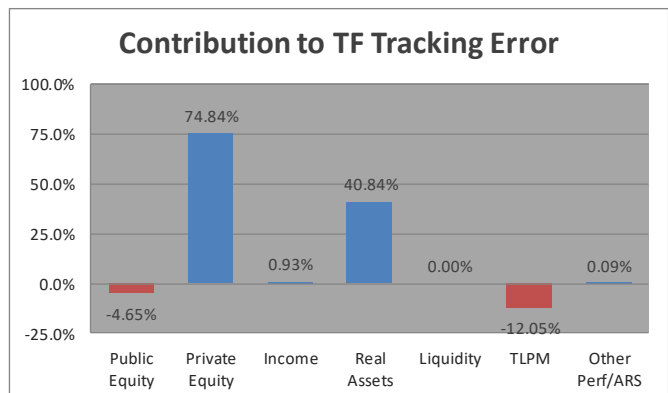
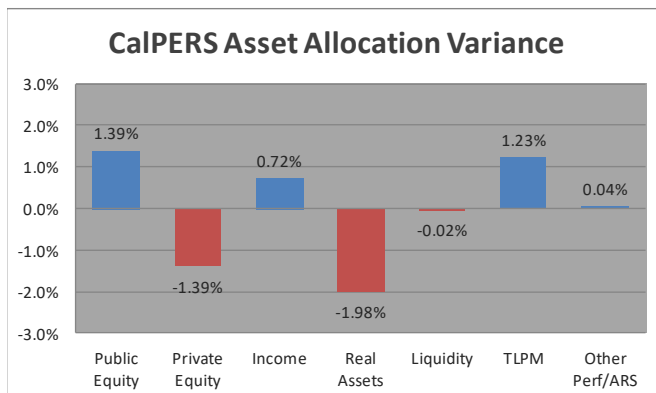
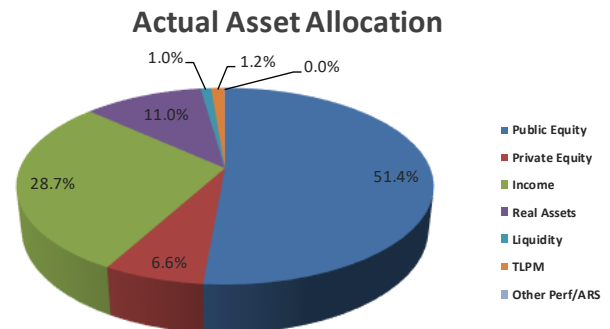
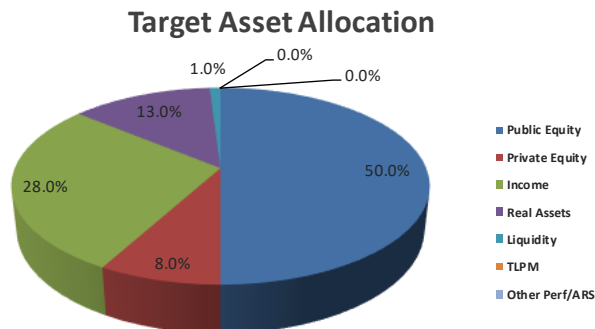
** More detail of the OTHER PERF return can be found in the program section, page 21.

TOTAL FUND PERIOD ENDED DECEMBER 31, 2019

EXPECTED RETURN AND RISK²



TOTAL FUND ASSET ALLOCATION BASED TRACKING ERROR

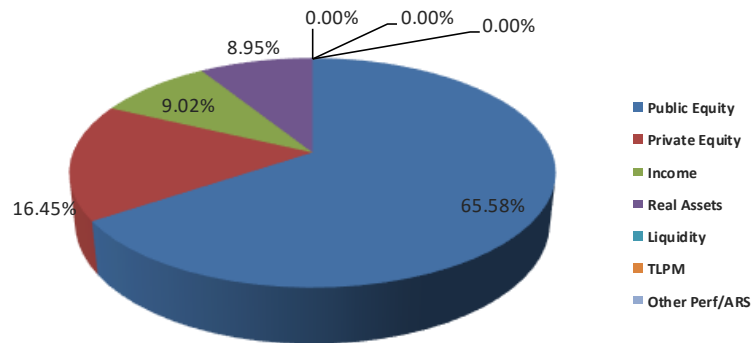


² Return and risk values expressed in this page are derived based on Wilshire Consulting Capital Market Assumptions, which are forward looking in nature.

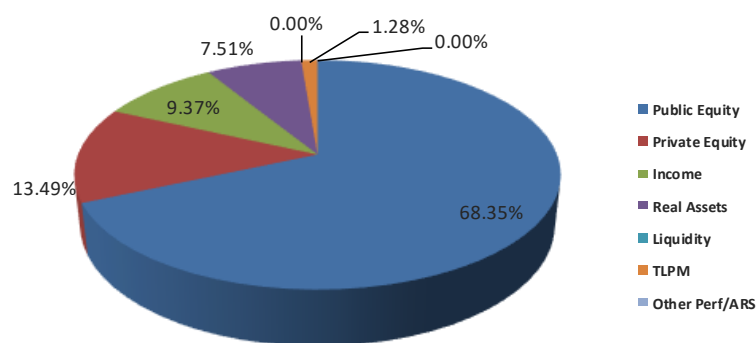
TOTAL FUND PERIOD ENDED DECEMBER 31, 2019

CONTRIBUTION TO TOTAL RISK³

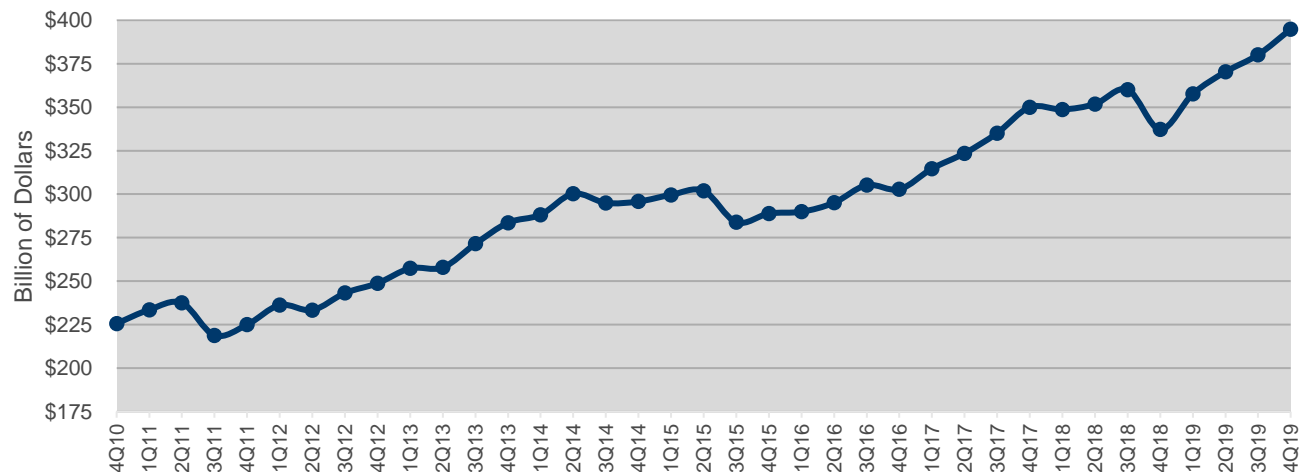
Contribution to Total Risk - Target Allocation



Contribution to Total Risk - Actual Allocation



CHANGES IN ASSET VALUE



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

TOTAL FUND

PERIOD ENDED DECEMBER 31, 2019

TOTAL FUND ATTRIBUTION – QUARTER

Asset Class	Actual (%)		Policy (%)		Difference (%)		Total Fund Return Contribution (%)		
	Weight *	Return	Weight *	Return	Weight	Return	Actual Allocation	Active Management	Total
Public Equity	50.72	7.54	50.00	7.53	0.72	0.01	0.04	-0.01	0.03
Public Equity - Cap Weighted	35.77	9.08	35.00	9.09	0.77	-0.01	0.02	-0.00	0.02
Public Equity - Factor Weighted	14.95	3.92	15.00	3.94	-0.05	-0.02	0.02	-0.00	0.01
Private Equity	6.81	0.19	8.00	0.30	-1.19	-0.11	0.04	-0.01	0.03
Income	29.21	-0.25	28.00	-0.32	1.21	0.07	-0.06	0.03	-0.02
Treasury	10.62	-3.08	10.00	-3.15	0.62	0.07	-0.02	0.01	-0.01
Spread	15.51	1.16	15.00	0.99	0.51	0.17	-0.03	0.03	0.00
High Yield	3.07	2.69	3.00	2.72	0.07	-0.02	-0.00	-0.00	-0.01
Real Assets	11.06	1.60	13.00	1.04	-1.94	0.55	0.05	0.06	0.12
Inflation	0.00	0.00	0.00	2.46	0.00	-2.46	0.00	0.00	0.00
Liquidity	0.89	0.53	1.00	0.41	-0.11	0.13	0.00	0.00	0.00
TLPM	1.27	NM**	0.00	5.02	1.27	NM**	0.02	-0.00	0.01
Other PERF/ARS	0.05	NM***	0.00	0.00	0.05	NM***	0.00	0.00	0.00
Monthly Linked Return	100.00	3.97	100.00	3.80		0.17	0.09	0.08	0.17
Residual		-0.01		0.00		-0.01			-0.02
Total		3.95		3.80		0.15			0.15

* Average period weight displayed.

** More detail of the TLPM return can be found in the program section, page 20.

*** More detail of the OTHER PERF return can be found in the program section, page 21.

TOTAL FUND

PERIOD ENDED DECEMBER 31, 2019

TOTAL FUND ATTRIBUTION – CALENDAR YEAR-TO-DATE

Asset Class	Actual (%)		Policy (%)		Difference (%)		Total Fund Return Contribution (%)		
	Weight *	Return	Weight *	Return	Weight	Return	Actual Allocation	Active Management	Total
Public Equity	49.71	25.75	49.89	26.00	-0.18	-0.25	-0.11	-0.13	-0.23
Public Equity - Cap Weighted	37.06	26.71	36.68	27.03	0.38	-0.31	-0.09	-0.12	-0.21
Public Equity - Factor Weighted	12.65	22.54	13.21	22.63	-0.56	-0.09	-0.01	-0.01	-0.02
Private Equity	7.30	2.92	8.00	2.58	-0.70	0.34	-0.06	-0.01	-0.06
Income	28.57	12.81	27.96	12.38	0.61	0.43	-0.11	0.14	0.03
Treasury	10.42	12.11	10.00	12.03	0.42	0.08	-0.04	0.01	-0.03
Spread	15.13	12.95	15.03	12.21	0.11	0.74	-0.05	0.12	0.07
High Yield	3.02	15.13	2.93	14.67	0.09	0.46	-0.01	0.01	-0.00
Real Assets	11.19	6.30	12.80	4.55	-1.61	1.75	0.15	0.21	0.37
Inflation	0.29	3.67	0.32	10.99	-0.03	-7.32	-0.00	-0.01	-0.01
Liquidity	1.10	2.55	1.03	2.07	0.06	0.47	-0.00	0.01	0.00
TLPM	1.78	NM**	0.00	22.53	1.78	NM**	0.07	-0.16	-0.08
Other PERF/ARS	0.05	NM***	0.00	0.00	0.05	NM***	-0.01	-0.00	-0.01
Monthly Linked Return	100.00	17.31	100.00	17.32	-0.01		-0.06	0.06	-0.01
Residual		0.00		0.00		0.00			0.00
Total		17.31		17.32		-0.01			-0.01

* Average period weight displayed.

** More detail of the TLPM return can be found in the program section, page 20.

*** More detail of the OTHER PERF return can be found in the program section, page 21.

TOTAL FUND

PERIOD ENDED DECEMBER 31, 2019

TOTAL FUND ATTRIBUTION – FISCAL YEAR-TO-DATE

Asset Class	Actual (%)		Policy (%)		Difference (%)		Total Fund Return Contribution (%)		
	Weight *	Return	Weight *	Return	Weight	Return	Actual Allocation	Active Management	Total
Public Equity	50.26	8.14	50.00	8.19	0.26	-0.06	0.03	-0.03	0.00
Public Equity - Cap Weighted	35.46	8.94	35.00	9.02	0.46	-0.08	0.02	-0.03	-0.01
Public Equity - Factor Weighted	14.81	6.20	15.00	6.23	-0.19	-0.02	0.01	-0.00	0.01
Private Equity	6.93	1.58	8.00	4.43	-1.07	-2.85	0.01	-0.24	-0.22
Income	28.81	3.42	28.00	3.23	0.81	0.19	-0.07	0.07	0.01
Treasury	10.60	2.50	10.00	2.39	0.60	0.11	-0.02	0.01	-0.01
Spread	15.11	3.90	15.00	3.53	0.11	0.37	-0.03	0.06	0.03
High Yield	3.11	4.08	3.00	4.05	0.11	0.03	-0.01	0.00	-0.01
Real Assets	11.08	3.40	13.00	1.79	-1.92	1.60	0.08	0.18	0.26
Inflation	0.00	0.00	0.00	2.58	0.00	-2.58	0.00	0.00	0.00
Liquidity	0.99	1.17	1.00	0.90	-0.01	0.27	0.00	0.00	0.00
TLPM	1.88	NM**	0.00	7.12	1.88	NM**	0.02	-0.09	-0.06
Other PERF/ARS	0.05	NM***	0.00	0.00	0.05	NM***	-0.01	0.00	-0.01
Monthly Linked Return	100.00	5.63	100.00	5.66	-0.03		0.08	-0.10	-0.02
Residual		0.00		0.00		0.00			-0.01
Total		5.63		5.66		-0.03			-0.03

* Average period weight displayed.

** More detail of the TLPM return can be found in the program section, page 20.

*** More detail of the OTHER PERF return can be found in the program section, page 21.

TOTAL FUND PERIOD ENDED DECEMBER 31, 2019

TOTAL FUND ATTRIBUTION – WILSHIRE COMMENT

The California Public Employees' Retirement System ("CalPERS, the System") generated a total fund return of 3.95% for the quarter ended December 31, 2019. CalPERS' return can be attributed as follows:

3.80%	Strategic Policy Allocation
0.09%	Actual/Tactical Asset Allocation
0.08%	Active Management
<u>-0.02%</u>	Residual (Trading/Currency Hedging)
3.95%	Total Return

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

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

Wilshire attribution showed both asset allocation and active management aided relative performance during the fourth quarter, contributing similar level of value-added. From the allocation perspective, the largest drivers were the System's below-policy exposure to Real Assets and Private equity, as both of these asset classes' Q4 returns were muted. A slight overweight in Public Equity, which was the strongest returning CalPERS major asset class, also contributed and helped offset drags from higher-than-policy allocation to the low returning Income portfolios.

As for active management, most of the value added recorded under this component came from Real Assets, as this program finished atop of its own policy benchmark by +55 bps that was the largest outperformance margin among all of major CalPERS asset classes. A relatively favorable results produced by the Income asset class' Spread portfolio also contributed to a smaller degree.

TOTAL FUND PERIOD ENDED DECEMBER 31, 2019

RELATIVE TO TOTAL FUND POLICY BENCHMARK

Public Equity: Public equity markets built on a renewed sense of optimism from the end of third quarter and roared into 2019's closing. To be sure, the fourth quarter was not without lingering distractions, on the political front there were the Congressional impeachment effort against President Trump, on-going rocky trade negotiation between U.S. and China, and a muddled Brexit development that's griped the euro zone, while continued manufacturing weaknesses in major global economies also gave off some growth scare. But global stocks mostly charged ahead from the beginning of the quarter to end without much major interruption, riding on resilient consumer spending and accommodative central bank policies. The CalPERS Public Equity asset class wrapped up one of its best quarters in recent years to a 7.5% rally, while also closing the year on a high note of 25.8% return. Both figures led all of the System's major asset classes, while also easily topped the Total Fund Policy Benchmark's pace of 3.8% and 17.3% for the respective periods.

Private Equity: Results of the Private Equity asset class showed a precipitous drop in the second half of 2019: after notching a 3.5% advance in Q2, the program return dipped to 1.4% in Q3 and slowed further to 0.2% in the last three months of the year. Coupled with a rare loss of -2.1% from Q1, Private Equity finished 2019 on a 2.9% cumulative return that was its slowest annual pace in this past decade, while also ranked the smallest among all CalPERS major asset classes save for Liquidity. While the program's Q4 and full year results were well off Total Fund Policy Benchmark's pace, they did match closely to the program's own benchmark, which had a 0.3% return for Q4 and 2.6% return for the year.

Income: The Income asset class' consecutive quarters of strong run came to an end in the last quarter of 2019, where the fall of Treasury yields across all maturities and the curve inversion that drove bonds' impressive appreciation for much of the year reversed course during Q4. This yield curve steepening/normalization therefore adversely impacted the CalPERS Income asset class, weighing its total Q4 return to a small negative finish of -0.3%. This output marked Income as the weakest component among all major CalPERS asset classes for the quarter, and was naturally short of the Total Fund Policy Benchmark's 3.8% rate; although it did properly par Income's own policy benchmark. Due to the Fed's dovish pivot and falling interest rates that notably boosted bonds during the first three quarters of 2019, Income still concluded the year on a strong note with a 12.8% return (versus the Income policy's 12.4% gain), despite not matching Total Fund Policy Benchmark's 17.3% pace.

Real Assets: The Real Assets asset class generated steady results for CalPERS during the second half of 2019, earning returns of 1.8% in Q3 and 1.6% in Q4. These modest finishing translated into a full-year gain of 6.3% for 2019. Both the quarter and on-the-year figures came in below the Total Fund Policy Benchmark, which incorporates other higher growth components and therefore was up 3.8% and 17.3% respectively. While it did not match the Total Fund Policy's intensity, Real Assets' 2019 output was right in line with its historical annual averages and has remained one of CalPERS' most consistent investment programs.

Liquidity: The Liquidity asset class had seen its returns steadily risen since 2015 in correlation to the direction of short-term interest rates. Despite a dip in short rates following a string of Fed rate cuts this year, Liquidity still reported a 0.5% Q4 return that hovered near a 5-year high while tracking ahead of its own benchmark measure. Starting Q3 2015, this asset class is solely comprised of short-term investment funds.

PUBLIC EQUITY

PERIOD ENDED DECEMBER 31, 2019

PUBLIC EQUITY ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
PUBLIC EQUITY	51.4%	50.0%	1.4%
Public Equity - Cap Weighted	36.4%	36.0%	0.4%
Public Equity - Factor Weighted	15.0%	14.0%	1.0%

PUBLIC EQUITY SEGMENT PERFORMANCE

	Asset Value						VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year		Sharpe	Info
PUBLIC EQUITY	\$ 202.9	7.5%	25.8%	12.4%	8.8%	9.5%	\$ 40.6	0.7	-0.2
<i>Public Equity Policy Benchmark</i>		7.5%	26.0%	12.7%	8.9%	9.4%		0.7	0.0
Public Equity - Cap Weighted	\$ 143.8	9.1%	26.7%	12.3%	8.7%	9.5%	\$ 31.5	0.6	-0.2
<i>FTSE Global All Cap Custom Index Net</i>		9.1%	27.0%	12.7%	8.8%	9.3%		0.6	0.0
Public Equity - Factor Weighted	\$ 59.2	3.9%	22.5%	-.%	-.%	-.%	\$ 9.5	N/A	N/A
<i>MSCI ACWI Select Factor Weighted Index</i>		3.9%	22.6%	-.%	-.%	-.%		N/A	N/A

PUBLIC EQUITY PORTFOLIOS PERFORMANCE

Asset Value							VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info
Public Equity - Cap Weighted									
Global Equity Alternative Beta	\$ 1.1	8.8%	25.8%	11.4%	7.9%	9.0%		0.6	-0.4
GE Alternative Beta Custom Index		9.1%	27.0%	12.6%	8.5%	8.7%		0.6	0.0
Global Equity Index-Oriented Strategy	\$ 136.9	9.1%	27.5%	12.9%	9.1%	9.8%		0.7	0.8
GE Index-Oriented Strategy Benchmark		9.1%	27.5%	12.9%	9.1%	9.7%		0.7	0.0
GE Active ex-Alternative Beta	\$ 5.7	9.5%	25.6%	11.7%	8.4%	9.5%		0.6	0.2
GE Active ex-Alt Beta Custom Index		9.1%	25.3%	11.9%	8.3%	8.8%		0.6	0.0
Other	\$ 0.006	NM	NM	NM	NM	NM		N/A	N/A
Public Equity - Factor Weighted (Min Volatility)									
Internal Factor Weighted Idx Oriented	\$ 59.2	3.9%	22.6%	-.%	-.%	-.%		N/A	N/A
MSCI ACWI Select Factor Weighted Index		3.9%	22.6%	-.%	-.%	-.%		N/A	N/A

PUBLIC EQUITY

PERIOD ENDED DECEMBER 31, 2019

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 also set the tone for the entire asset class' performance during Q4: it finished with a market-like overall return of 9.1% that was well ahead of the Public Equity Benchmark's 7.5% pace. This program currently holds a 27.5% return for the year of 2019 that comfortably mirrors its own assigned benchmark measure, while also topping the asset class benchmark's 26.0% return for the same period.

Cap Weighted Public Equity – Active ex-Alternative Beta: With assets invested either directly by external managers or through models provided by external managers, the Active ex-Alternative Beta program performed very well during Q4's risk-on rally by running up 9.5%. This rate of return came in at the top of the leaderboard among all Public Equity asset class' components, and was +195 bps ahead of the Public Equity Policy Benchmark. As of December 31, the external Active program has accumulated a 25.6% 1-year return that was just behind the asset class benchmark's 26.0% pace.

Cap Weighted Public Equity – Alternative Beta: This internally managed program performed as intended during the fourth quarter, providing beta exposure with an 8.8% return that trended with its assigned benchmark (9.1%). Relative to the total Public Equity Policy Benchmark, this rate of return also fared favorably for the quarter by a +124 bps margin. For the trailing 12-month period, Alternative Beta's cumulative gains has kept pace with the asset class benchmark as well, 25.8% to 26.0%.

Impeded Performance:

Factor Weighted Public Equity: This factor weighted portfolio performed respectably well during the fourth quarter, but amid the backdrop of progress in the U.S.-China trade negotiation emboldening market sentiment and encouraging growing risk-on appetite, its 3.9% total return naturally lagged the other cap-weighted portfolios and could not match the Public Equity Policy Benchmark's 7.5% return. The Factor Weighted Public Equity portfolio did still participate in some of this year's equity rally, with its trailing 12-month performance reaching 22.6%, but this too came in a couple steps short of the Public Equity Policy Benchmark's 26.0% full-year gain.

PRIVATE EQUITY

PERIOD ENDED DECEMBER 31, 2019

PRIVATE EQUITY ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
PRIVATE EQUITY	6.6%	8.0%	-1.4%
Private Equity	6.6%	8.0%	-1.4%

PRIVATE EQUITY SEGMENT PERFORMANCE ⁴

	Asset Value						VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year		Sharpe	Info
PRIVATE EQUITY	\$ 26.1	0.2%	2.9%	11.0%	9.0%	12.4%	\$ 10.7	2.2	-0.1
<i>CalPERS Custom Private Equity Benchmark</i>		0.3%	2.6%	12.5%	10.3%	13.4%		0.8	0.0

PRIVATE EQUITY PORTFOLIOS PERFORMANCE

Asset Value							VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info
Private Equity									
Private Equity Partnership Investments	\$ 26.1	0.2%	3.0%	11.0%	9.0%	12.4%		N/A	N/A
Private Equity Distribution Stock	\$ 0.0	24.4%	68.9%	42.3%	0.1%	-5.8%		N/A	N/A

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

INCOME

PERIOD ENDED DECEMBER 31, 2019

INCOME ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
INCOME	28.7%	28.0%	0.7%
Treasury	10.9%	10.0%	0.9%
Spread	14.8%	15.0%	-0.2%
High Yield	3.0%	3.0%	0.0%

INCOME SEGMENT PERFORMANCE

	Asset Value						VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year		Sharpe	Info
INCOME	\$ 113.4	-0.3%	12.8%	5.9%	4.3%	5.8%	\$ 10.7	0.7	1.3
<i>Income Policy Benchmark</i>		-0.3%	12.4%	5.4%	3.8%	5.0%		0.5	0.0
Treasury	\$ 43.2	-3.1%	12.1%	-.-%	-.-%	-.-%	\$ 6.0	N/A	N/A
<i>CalPERS Custom Treasury Benchmark</i>		-3.2%	12.0%	-.-%	-.-%	-.-%		N/A	N/A
Spread	\$ 58.4	1.2%	13.0%	-.-%	-.-%	-.-%	\$ 4.9	N/A	N/A
<i>BBG Barc Custom Global Long Spread Index</i>		1.0%	12.2%	-.-%	-.-%	-.-%		N/A	N/A
High Yield	\$ 11.8	2.7%	15.1%	-.-%	-.-%	-.-%	\$ 1.4	N/A	N/A
<i>BBG Barclays US High Yield BB/B Liquid Index</i>		2.7%	14.7%	-.-%	-.-%	-.-%		N/A	N/A

INCOME PORTFOLIOS PERFORMANCE

Asset Value							VaR	5-Year Ratios		
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info	
Treasury										
Internal US Treasury/Agency	\$	43.2	-3.1%	12.1%	5.5%	3.6%	-.-%		0.3	0.3
CalPERS Custom Treasury Benchmark			-3.2%	12.0%	5.5%	3.5%	-.-%		0.3	0.0
Spread										
Mortgages	\$	29.0	0.8%	7.1%	4.0%	3.4%	4.7%		1.1	2.1
CalPERS Custom BBG Barc LPF Mortgage			0.6%	6.4%	3.3%	2.6%	3.3%		0.7	0.0
Investment Grade Corporate Bonds	\$	23.7	1.5%	21.2%	-.-%	-.-%	-.-%		N/A	N/A
CalPERS Corp x Sov x Tobacco Benchmark			1.3%	20.7%	-.-%	-.-%	-.-%		N/A	N/A
Sovereign Bonds	\$	2.8	0.7%	19.4%	9.0%	5.6%	7.1%		0.6	0.7
CalPERS Sovereign Benchmark			0.5%	19.1%	8.5%	5.2%	6.6%		0.6	0.0
High Yield (Cash Pay)	\$	2.8	2.9%	12.9%	6.4%	6.6%	8.1%		1.1	0.5
CalPERS HY Cash Pay Benchmark			2.8%	13.9%	6.0%	5.8%	7.2%		0.9	0.0
Non-Core/Opportunistic	\$	0.1	1.1%	5.9%	-.-%	-.-%	-.-%		N/A	N/A
High Yield										
BB/B High Yield Fund of Funds	\$	11.8	2.7%	15.2%	-.-%	-.-%	-.-%		N/A	N/A
BBG Barclays US High Yield BB/B Liquid Index			2.7%	14.7%	-.-%	-.-%	-.-%		N/A	N/A

INCOME

PERIOD ENDED DECEMBER 31, 2019

PERFORMANCE NOTES – INCOME

Helped Performance:

Spread: The overall Spread program performed well in Q4 of 2019, grinding higher in all three months to reach a 1.2% total return that was +17 bps ahead of its own benchmark measure while also easily topped the Income Policy Benchmark by +148 bps. Within the program, all components were able to generate welcoming gains thanks to a growing risk appetite that drove credit spreads to Treasury yields tighter. The Mortgages portfolio and the Investment Grade Corporate Credit portfolio, which combine represent the lion's share of the Spread program (of 50% and 41% weight, respectively), both registered modest gains of 0.8% and 1.5%; the smaller-sized high yield cash pay portfolio recorded very favorable gains of 2.9% that contributed to this quarter's success as well. For the full year, the Spread program's 13.0% return currently sits comfortably ahead of the Income Policy Benchmark by a +57 bps margin.

High Yield: Non-investment grade credits easily clinched another quarter of positive finish. While there were signs of investors becoming much more selective when investing in this space, as the lowest quality tier (typically represented by the riskiest issuers with the weakest operating fundamentals) experienced sharp selloff in October and November, the CaPERS High Yield program, which has a high quality focus, still performed in line with the broad high yield market by turning in a solid return of 2.7%. This output led all of three of Income asset class' programs for the quarter, and easily topped the Income Policy Benchmark's return of -0.3%. The High Yield program cumulatively gained 15.1% for the year, and this too was well ahead of the asset class benchmark's 12.4% return.

Impeded Performance:

Treasury: Treasury was the clear laggard among all Income programs in the fourth quarter. After posting four straight quarters of ever rising gains, which topped out in Q3 at 5.8%, Treasury experienced a sharp pullback during the last three months of the year as intermediate and long-term Treasury yields steadily rose after previously bottoming out in early September. The +24 bps rise in 10-year UST yield acted as a sizable headwind to the Treasury portfolio, which as a result fell -3.1% for the quarter. This performance was on par with the program's own benchmark measure (-3.2%), but did inevitably lag the Income Policy Benchmark's -0.3% rate. The Treasury program's full-year 2019 results painted a similar picture, where it earned a 12.1% return that kept pace with its own benchmark (12.0%) but was modestly short of the Income Policy Benchmark (12.8%).

REAL ASSETS

PERIOD ENDED DECEMBER 31, 2019

REAL ASSETS ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
REAL ASSETS	11.0%	13.0%	-2.0%
Real Estate	9.3%	-	-
Forestland	0.3%	-	-
Infrastructure	1.4%	-	-

REAL ASSETS SEGMENT & PORTFOLIOS PERFORMANCE ⁵

	Asset Value						VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year		Sharpe	Info
REAL ASSETS	\$ 43.5	1.6%	6.3%	6.3%	7.7%	8.1%	\$ 6.2	1.5	0.0
<i>Real Assets Policy Benchmark</i>		1.0%	4.6%	6.2%	7.9%	9.2%		2.0	0.0
Real Estate	\$ 36.6	2.1%	6.3%	6.0%	8.0%	8.5%	\$ 5.2	1.4	-0.1
<i>CalPERS Custom Real Estate Benchmark</i>		1.0%	4.6%	6.3%	8.3%	10.2%		2.0	0.0
Infrastructure	\$ 5.6	-1.5%	7.3%	12.2%	11.2%	14.6%	\$ 0.8	1.8	1.0
<i>CalPERS Custom Infrastructure Benchmark</i>		1.0%	4.6%	5.9%	5.5%	6.0%		2.7	0.0
Forestland	\$ 1.3	1.3%	3.8%	-2.4%	-3.4%	-2.0%	\$ 0.2	-0.7	-1.2
<i>CalPERS Custom Forestland Benchmark</i>		1.0%	4.6%	4.7%	5.3%	4.4%		1.3	0.0

PERFORMANCE NOTES – REAL ASSETS

Helped Performance:

Real Estate: Currently representing 84% of the Real Assets asset class, the Real Estate program continues to act as the main performance driver. After two uncharacteristically down quarters at the end of 2018 and early 2019 amid heightened uncertainty and volatility, performance of CalPERS' Real Estate portfolio steadied out for the rest of 2019 in a more favorable backdrop of falling bond yields and resilient economy. Both of Real Estate's 2.1% Q4 return and 6.3% full-year return were healthy numbers in line with recent year trend that helped steer Real Assets well ahead of the policy benchmark's pace.

Infrastructure: The Infrastructure portfolio slipped into its first negative quarterly finish in 7 years at the end of Q4 2019, but has otherwise posted consistently solid returns previously. Its 7.3% full-year gain, as well as the double-digit average annualized returns from 3-year and beyond, all compared favorably to the Real Assets Policy Benchmark.

Impeded Performance:

Forestland: Real Assets' smallest component saw small steady returns through most of 2019 but were too modest in relative terms, as a result its 3.8% full-year gain did not provide any material lift for Real Assets. Due to 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 stand in the red at -2.4% and -3.4% respectively; both figures underperformed the Real Assets Policy Benchmark as well.

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

LIQUIDITY

PERIOD ENDED DECEMBER 31, 2019

LIQUIDITY ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
LIQUIDITY	1.0%	1.0%	0.0%
Internal Short Term Cash Portfolio	1.0%	1.0%	--

LIQUIDITY SEGMENT & PORTFOLIO PERFORMANCE

	Asset Value						VaR (\$Billion)	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year		Sharpe	Info
LIQUIDITY	\$ 3.9	0.5%	2.6%	2.0%	1.4%	1.2%	\$ 0.01	0.5	0.7
<i>Liquidity Policy Benchmark</i>		0.4%	2.1%	1.6%	1.2%	1.3%		0.1	0.0
Internal Short Term Cash Portfolio	\$ 3.9	0.5%	2.6%	2.0%	1.3%	0.8%	\$ 0.01	0.5	0.7
<i>CalPERS Short Term Benchmark</i>		0.4%	2.1%	1.6%	1.1%	0.6%		0.1	0.0

TRUST LEVEL PORTFOLIO MANAGEMENT

PERIOD ENDED DECEMBER 31, 2019

TLPM ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
TRUST LEVEL PORTFOLIO MANAGEMENT	1.2%	0.0%	1.2%
External Multi-Asset Class	0.3%	-.%	-.%
TLPM Risk Mitigation	0.0%	-.%	-.%
TLPM Transition	0.8%	-.%	-.%
TLPM Emerging Manager Program	0.2%	-.%	-.%

TLPM SEGMENT & PORTFOLIOS PERFORMANCE

	Asset Value						VaR (\$Billion)	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year		Sharpe	Info
TRUST LEVEL PORTFOLIO MGMT	\$ 4.9	3.4%	2.5%	-.%	-.%	-.%	\$ 0.7	N/A	N/A
<i>CalPERS Reference Portfolio Benchmark</i>		5.0%	22.5%	-.%	-.%	-.%		N/A	N/A
External Multi-Asset Class	\$ 1.1	1.7%	13.9%	5.2%	3.9%	-.%		N/A	N/A
<i>CalPERS Reference Portfolio Benchmark</i>		5.0%	22.5%	9.8%	7.0%	-.%		N/A	N/A
TLPM Risk Mitigation *	\$ 0.1	-39.3%	-78.7%	-.%	-.%	-.%		N/A	N/A
TLPM Transition	\$ 3.0	-.%	-.%	-.%	-.%	-.%		N/A	N/A
GE Emerging Managers Program	\$ 0.7	8.5%	-.%	-.%	-.%	-.%		N/A	N/A
<i>FTSE Global All Cap Custom Index</i>		9.1%	-.%	-.%	-.%	-.%		N/A	N/A

* The Risk Mitigation portfolio is a small component whose average monthly market values over the 2019 calendar year represented 0.036% of CalPERS total assets.

Due to its relative size, performance contribution to CalPERS Total Fund is estimated to be -0.028%, over the same period.

OTHER PERF

PERIOD ENDED DECEMBER 31, 2019

OTHER PERF ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
OTHER PERF	0.0%	0.0%	0.0%
Absolute Return Strategies	0.0%	-.-	-.-

OTHER PERF SEGMENT & PORTFOLIO PERFORMANCE

	Asset Value						VaR (\$Billion)	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year		Sharpe	Info
OTHER PERF	\$ 0.2	NM	NM	NM	NM	NM	\$ -	N/A	N/A
Absolute Return Strategies *	\$ 0.2	0.9%	-12.6%	-3.7%	-3.1%	0.6%		-0.6	-1.4
<i>Total ARS Program Blended Benchmark</i>		1.8%	8.1%	6.9%	6.3%	5.9%		12.4	0.0

* The Absolute Return Strategies portfolio is a small component whose average monthly market values over the 2019 calendar year represented 0.05% of CalPERS total assets.

Due to its relative size, performance contribution to CalPERS Total Fund is estimated to be -0.006% over the same period.

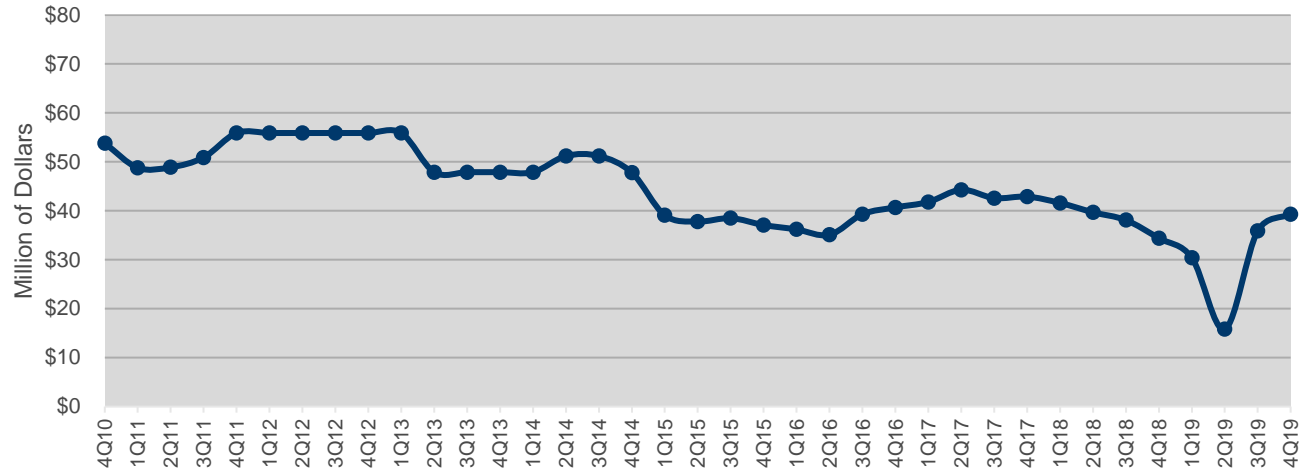
AFFILIATE FUND INFORMATION

JUDGES RETIREMENT SYSTEM I FUND

JUDGES I PERFORMANCE

PERIOD ENDED DECEMBER 31, 2019

GROWTH IN ASSETS



NET OF FEE PLAN PERFORMANCE RESULTS – JUDGES I ⁶

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
Judges Retirement I Fund	\$ 39.3	0.5%	2.3%	1.8%	1.2%	0.7%
<i>91-Day Treasury Bill</i>		<i>0.5%</i>	<i>2.3%</i>	<i>1.7%</i>	<i>1.1%</i>	<i>0.6%</i>
Judges I Programs:						
Judges I Internal Short-Term	\$ 39.3	0.5%	2.3%	1.8%	1.2%	0.7%
<i>91-Day Treasury Bill</i>		<i>0.5%</i>	<i>2.3%</i>	<i>1.7%</i>	<i>1.1%</i>	<i>0.6%</i>

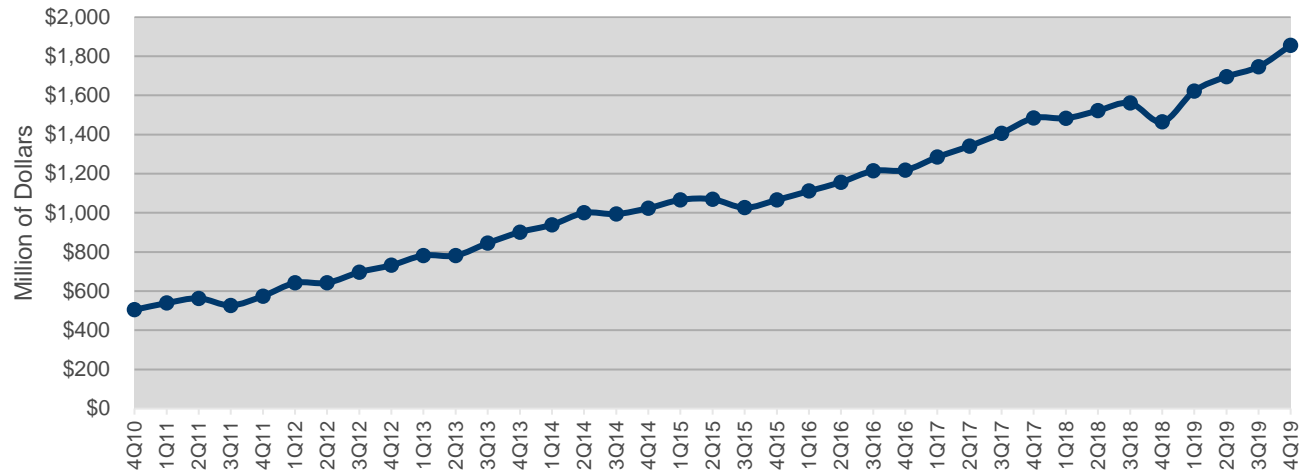
⁶ JRS I maintains a reserve balance of approximately two months of benefit payments. Prior to 2009-2010 fiscal year, the fund held approximately one month of benefit reserve with the majority of funds held at the State Treasurer's Office.

JUDGES RETIREMENT SYSTEM II FUND

JUDGES II PERFORMANCE

PERIOD ENDED DECEMBER 31, 2019

GROWTH IN ASSETS



NET OF FEE PLAN PERFORMANCE RESULTS – JUDGES II ⁷

	Asset Value		Quarter	1-Year	3-Year	5-Year	10-Year
	(\$Million)						
Judges Retirement II Fund	\$ 1,855.4		5.0%	20.8%	9.4%	6.6%	8.2%
<i>Weighted Policy Benchmark</i>			4.9%	20.6%	9.2%	6.4%	8.0%
Judges II Programs:							
JRS II Global Equity	\$ 1,002.9		9.1%	26.9%	12.6%	8.9%	9.5%
<i>Global Equity Benchmark</i>			9.1%	26.4%	12.4%	8.7%	9.4%
JRS II US Fixed Income	\$ 562.1		-0.7%	12.7%	5.9%	4.5%	6.2%
<i>Custom Benchmark</i>			-0.7%	12.6%	5.5%	4.0%	5.5%
JRS II TIPS	\$ 89.1		0.8%	8.4%	3.4%	2.6%	-.%
<i>Bloomberg Barclays U.S. TIPS Index</i>			0.8%	8.4%	3.3%	2.6%	-.%
JRS II REITs	\$ 143.7		1.7%	22.3%	9.3%	6.5%	9.2%
<i>Custom Benchmark</i>			1.6%	21.6%	8.9%	6.3%	9.1%
JRS II Commodities	\$ 57.5		8.3%	17.8%	2.5%	-4.1%	-.%
<i>GSCI Total Return</i>			8.3%	17.6%	2.4%	-4.3%	-.%
JRS II Cash/Short-Term	\$ 0.02		NM	NM	NM	NM	NM
<i>91-Day T-Bill</i>			0.5%	2.3%	1.7%	1.1%	0.6%

⁷ JRS II weighted policy benchmark is calculated based on asset class index returns weighted at their respective asset class policy targets. JRS II Global Equity Benchmark is MSCI ACWI IMI Net starting 6/07/2018. Between 6/06/2018 and 9/08/2011 the custom benchmark was run by FTSE. Prior of that it was calculated as an asset weighted benchmark of its underlying domestic and international funds. Current US Fixed Income Custom Benchmark is the Bloomberg 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 Liquid (net) Index starting 6/07/2018. 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.

JUDGES II PERFORMANCE

PERIOD ENDED DECEMBER 31, 2019

JUDGES II ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
JUDGES II TOTAL FUND	100.0%	100.0%	0.0%
Global Equity	54.1%	52.0%	2.1%
US Fixed Income	30.3%	32.0%	-1.7%
TIPS	4.8%	5.0%	-0.2%
REITs	7.7%	8.0%	-0.3%
Commodities	3.1%	3.0%	0.1%
Cash/Short-Term	0.0%	0.0%	0.0%

PERFORMANCE NOTES – JUDGES II

Boosted by accommodative world central bank monetary policies, hopes of a “phase one” trade deal between U.S. and China, and resilient economic conditions that are largely underpinned by consumer spending, investor sentiment saw broad improvement during the last quarter of 2019, as did most investment asset valuations. Judges II (“JRS II, the Plan”) also rode this rising momentum to a solid quarterly finish by earning 5.0% total return; this return essentially matched the pace of the Plan’s weighted policy benchmark. Q4’s welcoming gains capped off an impressive 2019 where JRS II netted a 20.8% full-year return, which marked the Plan’s strongest annual investment result in the past decade; this gain, too, easily matched the policy benchmark’s return for the same period. There are also no concerns with JRS II’s performance over longer-term horizon, as its 9.4% 3-year gain and all other annualized returns shown currently compare favorably against the weighted policy benchmark.

At the end of Q4, Judges II’s asset allocation showed minor overweight in global equity commodities, and was underweight in U.S. fixed income, TIPS and REITs.

Global equities were buoyant in the last quarter of 2019, continuing optimism from the end of Q3 that was primarily underpinned by improving global trade environment in light of progress made in the U.S.-China trade negotiations. The global equity fund did not deviate much from this market pattern, closely following its custom benchmark’s steps to reach a 9.1% return. This notable Q4 gain marked the third quarterly advance for the fund in 2019, as it bookended the year with a 12.4% rally from the first quarter. In total the global equity fund returned an outstanding 26.9% for Judges II in 2019 that feeds into an already solid longer-term track record, where the fund continues to perform in line with expectations while pacing ahead of the market.

The U.S. fixed income fund’s Q4 performance was a sharp contrast to the result of the global equity fund. Where the latter registered sizable advance, the fixed income fund, which previously logged three straight +4%-or-higher quarters, fell victim to the rise in intermediate/longer-term UST yields and finished the quarter decidedly in the red (-0.7%). But supported by the strong gains from the first three quarters of 2019, the U.S. fixed income fund did still close out the year with a double-digit rate of gain (+12.7%). Both figures mirrored the fund’s custom benchmark’s pace, while allowing the fund to maintain its longer-term edge in relative terms.

JUDGES II PERFORMANCE

PERIOD ENDED DECEMBER 31, 2019

PERFORMANCE NOTES – JUDGES II (CONTINUED)

Thanks to a moderate economic growth and a stimulative-minded Fed, inflation protected bonds in general performed much better than nominal Treasuries during Q4. The JRS II TIPS portfolio did not disappoint, either, by advancing 0.8% and easily mirrored its custom benchmark, the Bloomberg Barclays U.S. TIPS Index. Within a backdrop of falling real yields that's pretty much persisted throughout 2019, the TIPS fund finished the year on a very strong note, accumulating a total gain of 8.4% that also closely followed the steps of its benchmark measure.

Compared to the also-publicly traded global equity portfolio (which was up more than 9%), the JRS II REIT portfolio's Q4 results were tepid, returning a very modest 1.7%. A large part of this return disparity could be attributed to market sentiment shifts, as this mild rate of gain from the generally defensive type of public equity coincided with a large stretch of the fourth quarter where growth and cyclical issues attracted more investor attention. But supported by a very strong performance from the first half of the year, the REIT portfolio did still finish 2019 on a high note with a 22.3% return. Both the quarterly and yearly figures were comfortably ahead of the REIT custom benchmark.

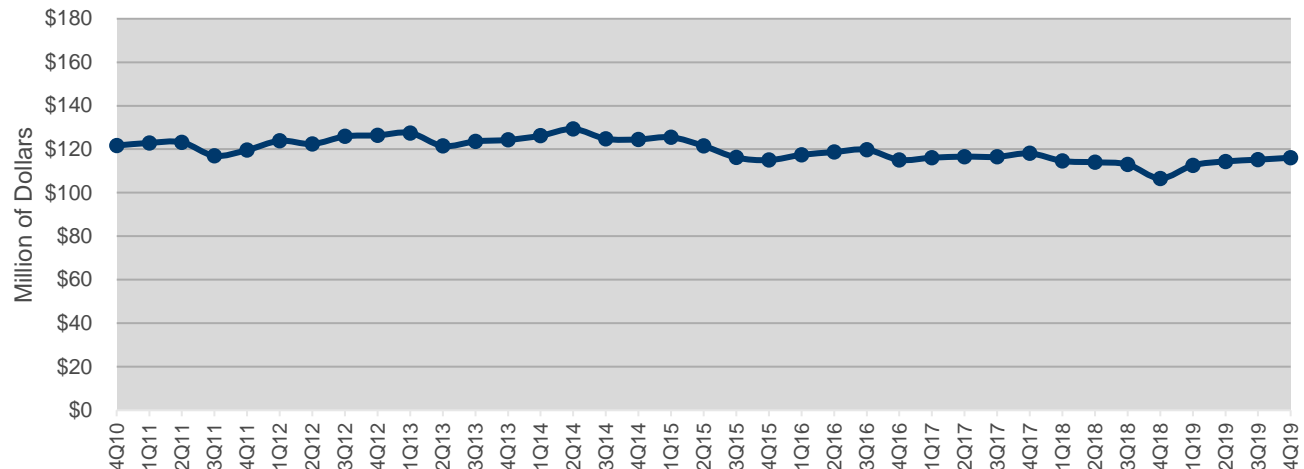
The commodities portfolio posted the second highest rate of gains for JRS II during Q4, matching the benchmark GSCI Commodity Total Return Index to a 8.3% gain largely on the back of a sharp oil price rebound that occurred amid breakthrough in U.S.-China trade talks and an output cut pledged by OPEC/allies. A strong run by crude oil in 2019 (Brent crude price gained 24% and West Texas Intermediate crude rose 36%) also loosely translated into a very good year for the commodities portfolio, as it tallied a cumulative gain of 17.8% that remains in virtual lockstep with its assigned benchmark.

LEGISLATORS' RETIREMENT SYSTEM FUND

LEGISLATORS' RETIREMENT SYSTEM PERFORMANCE

PERIOD ENDED DECEMBER 31, 2019

GROWTH IN ASSETS



NET OF FEE PLAN PERFORMANCE RESULTS – LEGISLATORS' ⁸

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
Legislators' Retirement System Fund	\$ 116.1	2.4%	16.2%	7.2%	5.1%	6.7%
<i>Weighted Policy Benchmark</i>		2.3%	16.1%	7.0%	4.9%	6.5%
LRS Programs:						
LRS Global Equity	\$ 27.2	9.1%	26.9%	12.6%	8.9%	9.6%
<i>Global Equity Benchmark</i>		9.1%	26.4%	12.4%	8.7%	9.5%
LRS US Fixed Income	\$ 55.2	-0.7%	12.7%	5.8%	4.5%	6.2%
<i>Custom Benchmark</i>		-0.7%	12.6%	5.5%	4.0%	5.5%
LRS TIPS	\$ 18.3	0.8%	8.4%	3.4%	2.6%	3.3%
<i>Custom Benchmark</i>		0.8%	8.4%	3.3%	2.6%	3.4%
LRS REITs	\$ 9.2	1.7%	22.3%	9.3%	6.5%	-.-%
<i>Custom Benchmark</i>		1.6%	21.6%	8.9%	6.3%	-.-%
LRS Commodities	\$ 6.1	8.3%	17.8%	2.9%	-3.8%	-.-%
<i>GSCI Total Return</i>		8.3%	17.6%	2.4%	-4.3%	-.-%
LRS Cash/Short-Term	\$ 0.00	NM	NM	NM	NM	NM
<i>91-Day T-Bill</i>		0.5%	2.3%	1.7%	1.1%	0.6%

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

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

Current US Fixed Income Custom Benchmark is the Bloomberg 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 Liquid (net) Index starting 6/07/2018. 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, 2019

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	23.4%	22.0%	1.4%
US Fixed Income	47.6%	49.0%	-1.4%
TIPS	15.8%	16.0%	-0.2%
REITs	7.9%	8.0%	-0.1%
Commodities	5.3%	5.0%	0.3%
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 milder total return than JRS II during the fourth quarter of 2019. On the other hand, given the sizable fixed income exposure (investment grade), the System's Q4 return also stayed range bound relative to the two previous quarters, closing at 2.4% that just matched its weighted policy benchmark. This relatively consistent pace of return does extend further into the System's longer-term track record as well, as outside of the unusually strong 16.2% 2019 full-year return, which was in large part propelled by the early-year risk-on rally, its 3-, 5-, and 10-year returns have all averaged at or near the mid-single digit range; they have also modestly outpaced the weighted policy benchmark.

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

Global equities were buoyant in the last quarter of 2019, continuing optimism from the end of Q3 that was primarily underpinned by improving global trade environment in light of progress made in the U.S.-China trade negotiations. The global equity fund did not deviate much from this market pattern, closely following its custom benchmark's steps to reach a 9.1% return. This notable Q4 gain marked the third quarterly advance for the fund in 2019, as it bookended the year with a 12.4% rally from the first quarter. In total the global equity fund returned an outstanding 26.9% for LRS in 2019 that feeds into an already solid longer-term track record, where the fund continues to perform in line with expectations while pacing ahead of the market.

The U.S. fixed income fund's Q4 performance was a sharp contrast to the result of the global equity fund. Where the latter registered sizable advance, the fixed income fund, which previously logged three straight +4%-or-higher quarters, fell victim to the rise in intermediate/longer-term UST yields and finished the quarter decidedly in the red (-0.7%). But supported by the strong gains from the first three quarters of 2019, the U.S. fixed income fund did still close out the year with a double-digit rate of gain (+12.7%). Both figures mirrored the fund's custom benchmark's pace, while allowing the fund to maintain its longer-term edge in relative terms.

LEGISLATORS' RETIREMENT SYSTEM PERFORMANCE

PERIOD ENDED DECEMBER 31, 2019

PERFORMANCE NOTES – LEGISLATORS' (CONTINUED)

Thanks to a moderate economic growth and a stimulative-minded Fed, inflation protected bonds in general performed much better than nominal Treasuries during Q4. The LRS TIPS portfolio did not disappoint, either, by advancing 0.8% and easily mirrored its custom benchmark, the Bloomberg Barclays U.S. TIPS Index. Within a backdrop of falling real yields that's pretty much persisted throughout 2019, the TIPS fund finished the year on a very strong note, accumulating a total gain of 8.4% that also closely followed the steps of its benchmark measure.

Compared to the also-publicly traded global equity portfolio (which was up more than 9%), the LRS REIT portfolio's Q4 results were tepid, returning a very modest 1.7%. A large part of this return disparity could be attributed to market sentiment shifts, as this mild rate of gain from the generally defensive type of public equity coincided with a large stretch of the fourth quarter where growth and cyclical issues attracted more investor attention. But supported by a very strong performance from the first half of the year, the REIT portfolio did still finish 2019 on a high note with a 22.3% return. Both the quarterly and yearly figures were comfortably ahead of the REIT custom benchmark.

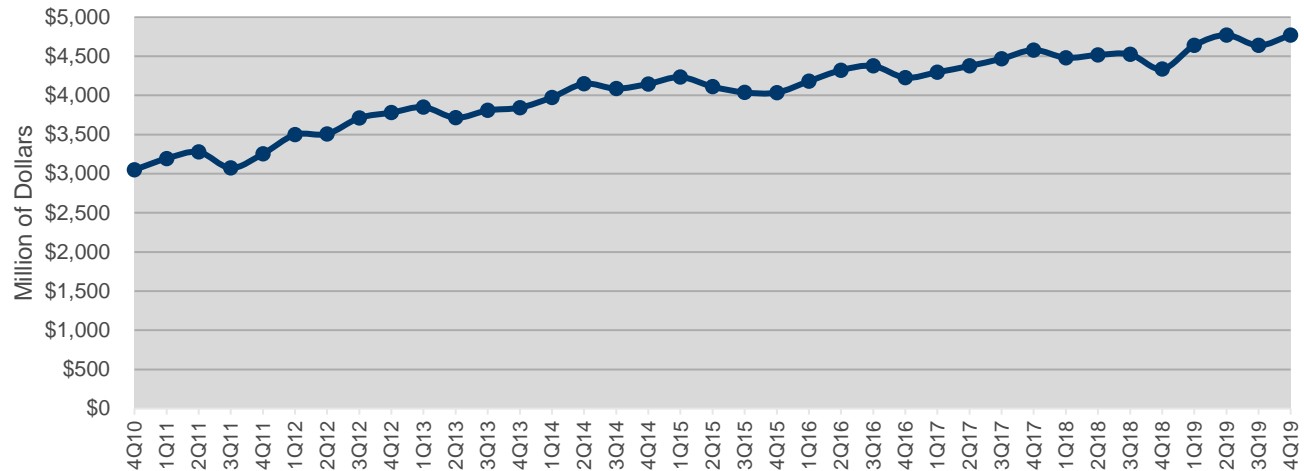
The commodities portfolio posted the second highest rate of gains for the System during Q4, matching the benchmark GSCI Commodity Total Return Index to a 8.3% gain largely on the back of a sharp oil price rebound that occurred amid breakthrough in U.S.-China trade talks and an output cut pledged by OPEC/allies. A strong run by crude oil in 2019 (Brent crude price gained 24% and West Texas Intermediate crude rose 36%) also loosely translated into a very good year for the commodities portfolio, as it tallied a cumulative gain of 17.8% that remains in virtual lockstep with its assigned benchmark.

LONG-TERM CARE FUND

LONG-TERM CARE FUND PERFORMANCE

PERIOD ENDED DECEMBER 31, 2019

GROWTH IN ASSETS



NET OF FEE PLAN PERFORMANCE RESULTS – LONG-TERM CARE FUND ⁹

	Asset Value		Quarter	1-Year	3-Year	5-Year	10-Year
	(\$Million)						
Long-Term Care Fund	\$ 4,940.6		1.8%	15.9%	6.6%	4.4%	5.7%
<i>Weighted Policy Benchmark</i>			1.8%	16.0%	6.5%	4.3%	5.5%
LTC Programs:							
LTC Global Equity	\$ 792.7		9.1%	26.7%	12.4%	8.7%	9.5%
<i>Custom Benchmark</i>			9.1%	26.4%	12.1%	8.3%	9.3%
LTC US Fixed Income	\$ 2,909.3		-0.7%	12.7%	5.5%	4.0%	5.7%
<i>Custom Benchmark</i>			-0.7%	12.6%	5.5%	4.0%	5.5%
LTC TIPS	\$ 277.8		0.8%	8.5%	3.3%	2.6%	3.3%
<i>Bloomberg Barc. US TIPS Index</i>			0.8%	8.4%	3.3%	2.6%	3.4%
LTC REITs	\$ 566.1		1.7%	22.4%	9.1%	6.1%	8.8%
<i>Custom Benchmark</i>			1.6%	21.6%	8.2%	5.2%	8.3%
LTC Commodities	\$ 394.6		8.3%	17.7%	2.2%	-4.3%	-.%
<i>GSCI Total Return</i>			8.3%	17.6%	2.4%	-4.3%	-.%
LTC Cash/Short-Term	\$ 0.04		NM	NM	NM	NM	NM
<i>91-Day T-Bill</i>			0.5%	2.3%	1.7%	1.1%	0.6%

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

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

Current US Fixed Income Custom Benchmark is the Bloomberg 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 Liquid (net) Index starting 12/12/2012.

LONG-TERM CARE FUND PERFORMANCE

PERIOD ENDED DECEMBER 31, 2019

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

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
LONG-TERM CARE TOTAL FUND	100.0%	100.0%	0.0%
Global Equity	16.0%	15.0%	1.0%
US Fixed Income	58.9%	60.0%	-1.1%
TIPS	5.6%	6.0%	-0.4%
REITs	11.5%	11.0%	0.5%
Commodities	8.0%	8.0%	0.0%
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 16.0% (with a 15% target). As a result, despite risk assets in general having enjoyed a standout quarter, LTC’s Q4 total return remained the softest among this group. Relative to LTC’s own weighted policy benchmark, though, this quarter’s 1.8% did come in right on par. Over longer time horizon, the LTC has done relatively well as its track record currently sits comfortably ahead of 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 REITs, with mild underweight in U.S. fixed income and TIPS; it was on target in commodities and short-term cash.

Global equities were buoyant in the last quarter of 2019, continuing optimism from the end of Q3 that was primarily underpinned by improving global trade environment in light of progress made in the U.S.-China trade negotiations. The global equity fund did not deviate much from this market pattern, closely following its custom benchmark’s steps to reach a 9.1% return. This notable Q4 gain marked the third quarterly advance for the fund in 2019, as it bookended the year with a 12.4% rally from the first quarter. In total the global equity fund returned an outstanding 26.7% for LTC in 2019 that feeds into an already solid longer-term track record, where the fund continues to perform in line with expectations while pacing ahead of the market.

The U.S. fixed income fund’s Q4 performance was a sharp contrast to the result of the global equity fund. Where the latter registered sizable advance, the fixed income fund, which previously logged three straight +4%-or-higher quarters, fell victim to the rise in intermediate/longer-term UST yields and finished the quarter decidedly in the red (-0.7%). But supported by the strong gains from the first three quarters of 2019, the U.S. fixed income fund did still close out the year with a double-digit rate of gain (+12.7%). Both figures mirrored the fund’s custom benchmark’s pace, while allowing the fund to maintain its longer-term edge in relative terms.

LONG-TERM CARE FUND PERFORMANCE

PERIOD ENDED DECEMBER 31, 2019

PERFORMANCE NOTES – LONG-TERM CARE FUND (CONTINUED)

Thanks to a moderate economic growth and a stimulative-minded Fed, inflation protected bonds in general performed much better than nominal Treasuries during Q4. The LTC TIPS portfolio did not disappoint, either, by advancing 0.8% and easily mirrored its custom benchmark, the Bloomberg Barclays U.S. TIPS Index. Within a backdrop of falling real yields that's pretty much persisted throughout 2019, the TIPS fund finished the year on a very strong note, accumulating a total gain of 8.5% that also closely followed the steps of its benchmark measure.

Compared to the also-publicly traded global equity portfolio (which was up more than 9%), the LTC REIT portfolio's Q4 results were tepid, returning a very modest 1.7%. A large part of this return disparity could be attributed to market sentiment shifts, as this mild rate of gain from the generally defensive type of public equity coincided with a large stretch of the fourth quarter where growth and cyclical issues attracted more investor attention. But supported by a very strong performance from the first half of the year, the REIT portfolio did still finish 2019 on a high note with a 22.4% return. Both the quarterly and yearly figures were comfortably ahead of the REIT custom benchmark.

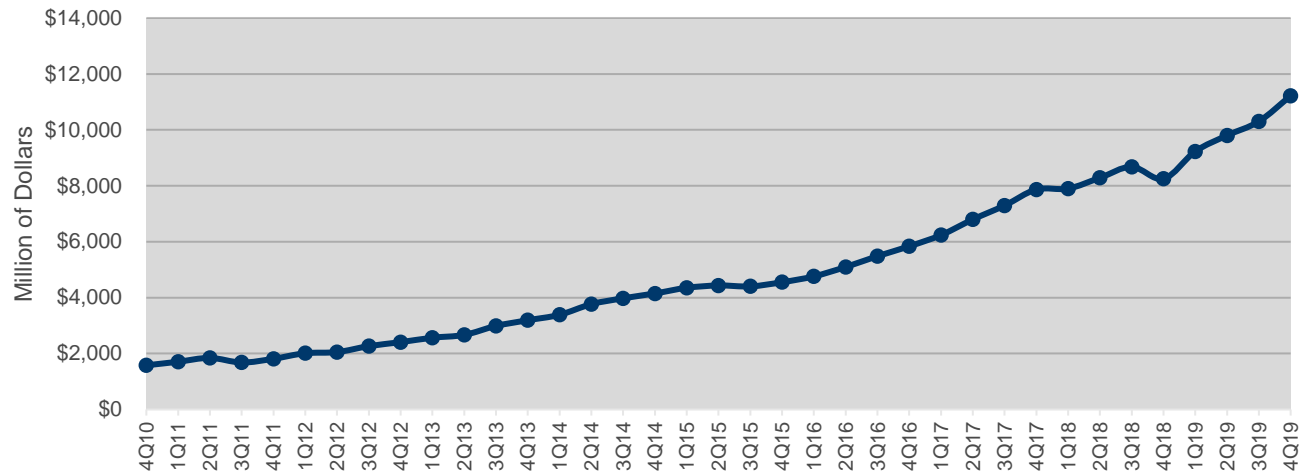
The commodities portfolio posted the second highest rate of gains for LTC during Q4, matching the benchmark GSCI Commodity Total Return Index to a 8.3% gain largely on the back of a sharp oil price rebound that occurred amid breakthrough in U.S.-China trade talks and an output cut pledged by OPEC/allies. A strong run by crude oil in 2019 (Brent crude price gained 24% and West Texas Intermediate crude rose 36%) also loosely translated into a very good year for the commodities portfolio, as it tallied a cumulative gain of 17.7% that remains in virtual lockstep with its assigned benchmark.

**CALIFORNIA EMPLOYERS' RETIREE
BENEFIT TRUST**

CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST AGGREGATE

PERIOD ENDED DECEMBER 31, 2019

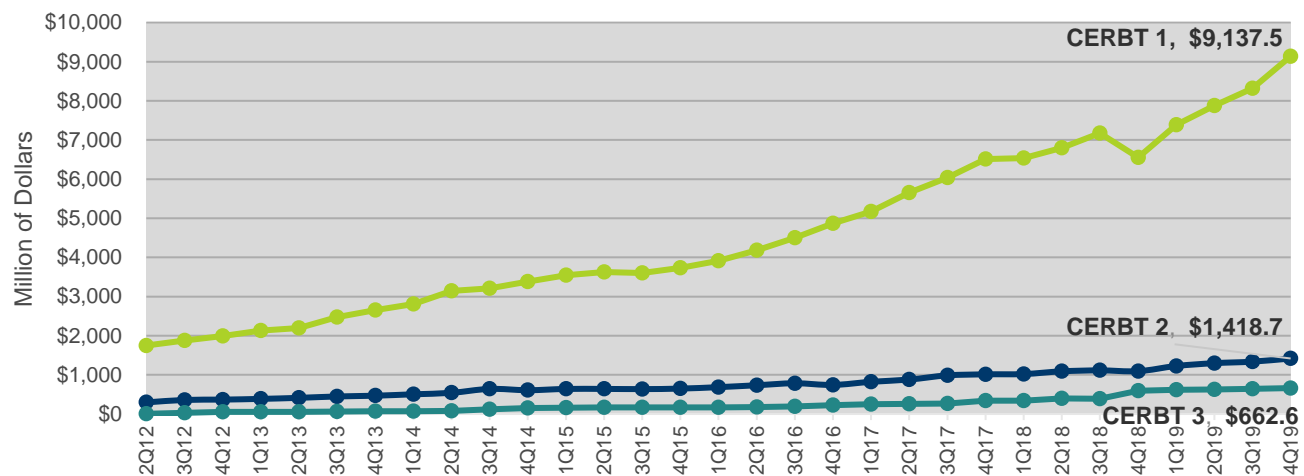
GROWTH IN ASSETS – CERBT AGGREGATE



NET OF FEE PLAN PERFORMANCE RESULTS – CERBT AGGREGATE

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CERBT Aggregate	\$ 11,218.8	5.2%	21.0%	9.4%	6.6%	7.9%
<i>CERBT Trust Aggregate Benchmark</i>		5.2%	20.8%	9.1%	6.3%	7.6%

GROWTH IN ASSETS – CERBT 1, 2, 3



CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST 1

PERIOD ENDED DECEMBER 31, 2019

CERBT 1 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
TOTAL CERBT 1	100.0%	100.0%	0.0%
Global Equity	60.9%	59.0%	1.9%
US Fixed Income	23.5%	25.0%	-1.5%
TIPS	4.8%	5.0%	-0.2%
REITs	7.7%	8.0%	-0.3%
Commodities	3.1%	3.0%	0.1%
Cash/Short-Term	0.1%	0.0%	0.1%

NET OF FEE PLAN PERFORMANCE RESULTS – CERBT 1 ¹⁰

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CERBT Strategy 1	\$ 9,137.5	5.6%	21.7%	9.7%	6.8%	8.0%
<i>Total CERBT Strategy 1 Benchmark</i>		5.6%	21.6%	9.4%	6.5%	7.8%
CERBT 1 Programs:						
Global Equity	\$ 5,564.5	9.1%	26.7%	12.4%	8.7%	9.4%
<i>CERBT Global Equity Benchmark</i>		9.1%	26.4%	12.1%	8.3%	9.1%
Domestic Fixed Income	\$ 2,147.2	-0.7%	12.7%	5.9%	4.5%	6.2%
<i>CalPERS Custom Long Liability</i>		-0.7%	12.6%	5.5%	4.0%	5.5%
TIPS	\$ 435.5	0.8%	8.4%	3.4%	2.6%	-.%
<i>CalPERS TIPS</i>		0.8%	8.4%	3.3%	2.6%	-.%
REITs	\$ 702.7	1.7%	22.4%	9.1%	6.1%	8.8%
<i>PERS FTSE/EPRA NAREIT Dev. Liquid</i>		1.6%	21.6%	8.2%	5.2%	8.3%
Commodities	\$ 280.7	8.3%	17.7%	2.5%	-4.3%	-.%
<i>GSCI Total Return</i>		8.3%	17.6%	2.4%	-4.3%	-.%
Cash/Short-Term	\$ 6.9	NM	NM	NM	NM	NM
<i>91-Day T-Bill</i>		0.5%	2.3%	1.7%	1.1%	0.6%

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

CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST 2

PERIOD ENDED DECEMBER 31, 2019

CERBT 2 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
TOTAL CERBT 2	100.0%	100.0%	0.0%
Global Equity	41.9%	40.0%	1.9%
US Fixed Income	41.0%	43.0%	-2.0%
TIPS	4.8%	5.0%	-0.2%
REITs	7.8%	8.0%	-0.2%
Commodities	4.2%	4.0%	0.2%
Cash/Short-Term	0.3%	0.0%	0.3%

NET OF FEE PLAN PERFORMANCE RESULTS – CERBT 2 ¹¹

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CERBT Strategy 2	\$ 1,418.7	3.9%	19.1%	8.6%	6.0%	-.-%
<i>Total CERBT Strategy 2 Benchmark</i>		3.8%	19.0%	8.3%	5.7%	-.-%
CERBT 2 Programs:						
Global Equity	\$ 594.2	9.1%	26.7%	12.4%	8.7%	-.-%
<i>CERBT Global Equity Benchmark</i>		9.1%	26.4%	12.1%	8.3%	-.-%
Domestic Fixed Income	\$ 581.7	-0.7%	12.7%	5.8%	4.5%	-.-%
<i>CalPERS Custom Long Liability</i>		-0.7%	12.6%	5.5%	4.0%	-.-%
TIPS	\$ 68.6	0.8%	8.4%	3.4%	2.6%	-.-%
<i>CalPERS TIPS</i>		0.8%	8.4%	3.3%	2.6%	-.-%
REITs	\$ 110.7	1.7%	22.3%	9.1%	6.1%	-.-%
<i>PERS FTSE/EPRA NAREIT Dev. Liquid</i>		1.6%	21.6%	8.2%	5.2%	-.-%
Commodities	\$ 59.0	8.3%	17.7%	2.7%	-4.2%	-.-%
<i>GSCI Total Return</i>		8.3%	17.6%	2.4%	-4.3%	-.-%
Cash/Short-Term	\$ 4.6	NM	NM	NM	NM	-.-%
<i>91-Day T-Bill</i>		0.5%	2.3%	1.7%	1.1%	-.-%

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

CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST 3

PERIOD ENDED DECEMBER 31, 2019

CERBT 3 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
TOTAL CERBT 3	100.0%	100.0%	0.0%
Global Equity	23.4%	22.0%	1.4%
US Fixed Income	47.5%	49.0%	-1.5%
TIPS	15.7%	16.0%	-0.3%
REITs	7.9%	8.0%	-0.1%
Commodities	5.3%	5.0%	0.3%
Cash/Short-Term	0.1%	0.0%	0.1%

NET OF FEE PLAN PERFORMANCE RESULTS – CERBT 3 ¹²

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CERBT Strategy 3	\$ 662.6	2.4%	16.2%	7.1%	5.1%	-.-%
<i>Total CERBT Strategy 3 Benchmark</i>		2.3%	16.1%	6.9%	4.8%	-.-%
CERBT 3 Programs:						
Global Equity	\$ 155.3	9.1%	26.7%	12.4%	8.7%	-.-%
<i>CERBT Global Equity Benchmark</i>		9.1%	26.4%	12.1%	8.3%	-.-%
Domestic Fixed Income	\$ 314.8	-0.7%	12.7%	5.9%	4.5%	-.-%
<i>CalPERS Custom Long Liability</i>		-0.7%	12.6%	5.5%	4.0%	-.-%
TIPS	\$ 104.3	0.8%	8.4%	3.4%	2.6%	-.-%
<i>CalPERS TIPS</i>		0.8%	8.4%	3.3%	2.6%	-.-%
REITs	\$ 52.6	1.7%	22.3%	9.1%	6.0%	-.-%
<i>PERS FTSE/EPRA NAREIT Dev. Liquid</i>		1.6%	21.6%	8.2%	5.2%	-.-%
Commodities	\$ 35.1	8.3%	17.7%	2.9%	-4.0%	-.-%
<i>GSCI Total Return</i>		8.3%	17.6%	2.4%	-4.3%	-.-%
Cash/Short-Term	\$ 0.5	NM	NM	NM	NM	-.-%
<i>91-Day T-Bill</i>		0.5%	2.3%	1.7%	1.1%	-.-%

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

CA EMPLOYERS' PENSION PREFUNDING TRUST

CA PENSION PREFUNDING TRUST PERFORMANCE

PERIOD ENDED DECEMBER 31, 2019

CEPPT STRATEGY 1 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
PENSION PREFUNDING TRUST-STRATEGY 1	100.0%	100.0%	0.0%
Global Equity	42.0%	40.0%	2.0%
US Fixed Income	45.3%	47.0%	-1.7%
REITs	7.8%	8.0%	-0.2%
TIPS	4.8%	5.0%	-0.2%
Cash/Short-Term	0.0%	0.0%	0.0%

NET OF FEE PERFORMANCE RESULTS – CEPPT STRATEGY 1

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
Pension Prefunding Trust - Strategy 1	\$ 3.689	3.8%	-.-%	-.-%	-.-%	-.-%
<i>CEPPT Strategy 1 Policy Benchmark</i>		3.9%	-.-%	-.-%	-.-%	-.-%
CEPPT Strategy 1 Programs:						
CEPPT S1 Equity	\$ 1.550	9.1%	-.-%	-.-%	-.-%	-.-%
<i>MSCI ACWI IMI Net</i>		9.1%	-.-%	-.-%	-.-%	-.-%
CEPPT S1 Fixed Income	\$ 1.673	0.2%	-.-%	-.-%	-.-%	-.-%
<i>Bloomberg Barc. US Aggregate Bond Idx</i>		0.2%	-.-%	-.-%	-.-%	-.-%
CEPPT S1 REITs	\$ 0.288	1.7%	-.-%	-.-%	-.-%	-.-%
<i>PERS FTSE/EPRA NAREIT Dev. Liquid</i>		1.6%	-.-%	-.-%	-.-%	-.-%
CEPPT S1 TIPS	\$ 0.178	0.8%	-.-%	-.-%	-.-%	-.-%
<i>CalPERS TIPS</i>		0.8%	-.-%	-.-%	-.-%	-.-%
CEPPT S1 Cash	\$ 0.000	NM	-.-%	-.-%	-.-%	-.-%
<i>91-Day Treasury Bill</i>		0.5%	-.-%	-.-%	-.-%	-.-%

CA PENSION PREFUNDING TRUST PERFORMANCE

PERIOD ENDED DECEMBER 31, 2019

CEPPT STRATEGY 2 ASSET ALLOCATION: ACTUAL VS. TARGET WEIGHTS

Asset Class	Actual Asset Allocation	Target Asset Allocation	Difference
PENSION PREFUNDING TRUST-STRATEGY 2	100.0%	100.0%	0.0%
Global Equity	15.1%	14.0%	1.1%
US Fixed Income	71.8%	73.0%	-1.2%
REITs	7.9%	8.0%	-0.1%
TIPS	5.0%	5.0%	0.0%
Cash/Short-Term	0.2%	0.0%	0.2%

NET OF FEE PERFORMANCE RESULTS – CEPPT STRATEGY 2 ¹³

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
Pension Prefunding Trust - Strategy 2	\$ 0.131	-.-%	-.-%	-.-%	-.-%	-.-%
<i>CEPPT Strategy 2 Policy Benchmark</i>		-.-%	-.-%	-.-%	-.-%	-.-%
CEPPT Strategy 2 Programs:						
CEPPT S2 Equity	\$ 0.020	-.-%	-.-%	-.-%	-.-%	-.-%
<i>MSCI ACWI IMI Net</i>		-.-%	-.-%	-.-%	-.-%	-.-%
CEPPT S2 Fixed Income	\$ 0.094	-.-%	-.-%	-.-%	-.-%	-.-%
<i>Bloomberg Barc. US Aggregate Bond Idx</i>		-.-%	-.-%	-.-%	-.-%	-.-%
CEPPT S2 REITs	\$ 0.010	-.-%	-.-%	-.-%	-.-%	-.-%
<i>PERS FTSE/EPRA NAREIT Dev. Liquid</i>		-.-%	-.-%	-.-%	-.-%	-.-%
CEPPT S2 TIPS	\$ 0.006	-.-%	-.-%	-.-%	-.-%	-.-%
<i>CalPERS TIPS</i>		-.-%	-.-%	-.-%	-.-%	-.-%
CEPPT S2 Cash	\$ 0.000	-.-%	-.-%	-.-%	-.-%	-.-%
<i>91-Day Treasury Bill</i>		-.-%	-.-%	-.-%	-.-%	-.-%

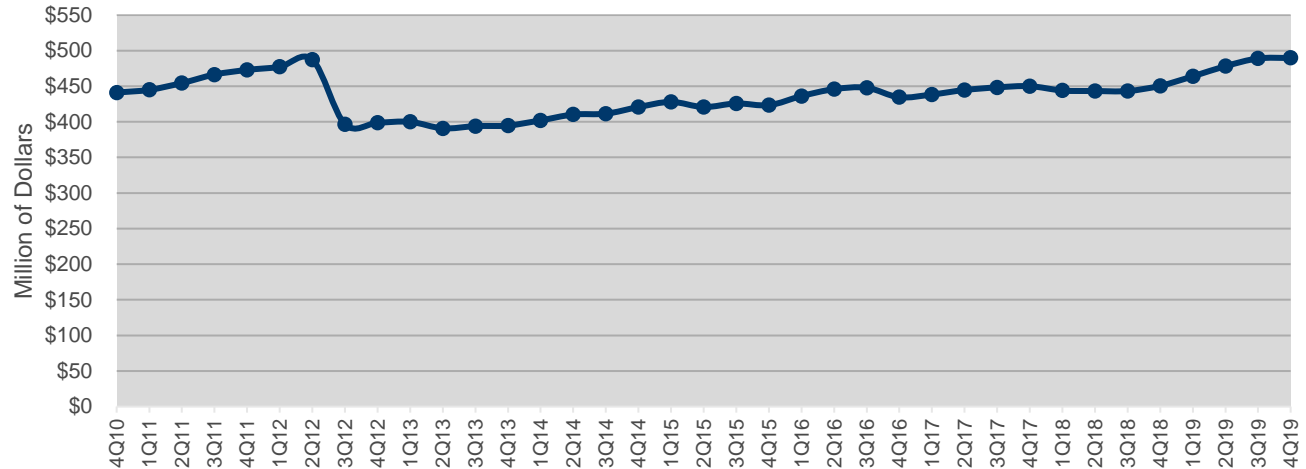
¹³ CEPPT Strategy 2 funding occurred during December 2019; official performance reporting will begin January 2020.

HEALTH CARE FUND

HEALTH CARE FUND PERFORMANCE

PERIOD ENDED DECEMBER 31, 2019

GROWTH IN ASSETS ¹⁴



NET OF FEE PLAN PERFORMANCE RESULTS – HEALTH CARE FUND

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CalPERS Health Care Bond Fund	\$ 489.8	0.2%	8.7%	4.1%	3.1%	4.1%
<i>Bloomberg Barc. US Aggregate Bond Idx</i>		<i>0.2%</i>	<i>8.7%</i>	<i>4.0%</i>	<i>3.1%</i>	<i>3.8%</i>

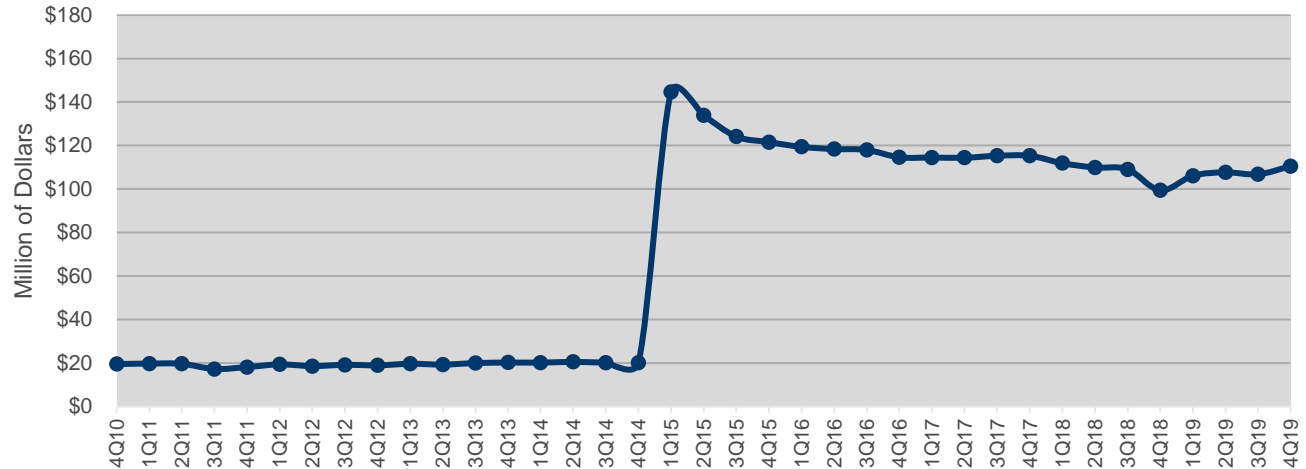
¹⁴ The decline in assets in the 3rd quarter of 2012 was due to a \$100 million withdrawal from the fund.

SUPPLEMENTAL INCOME PLANS

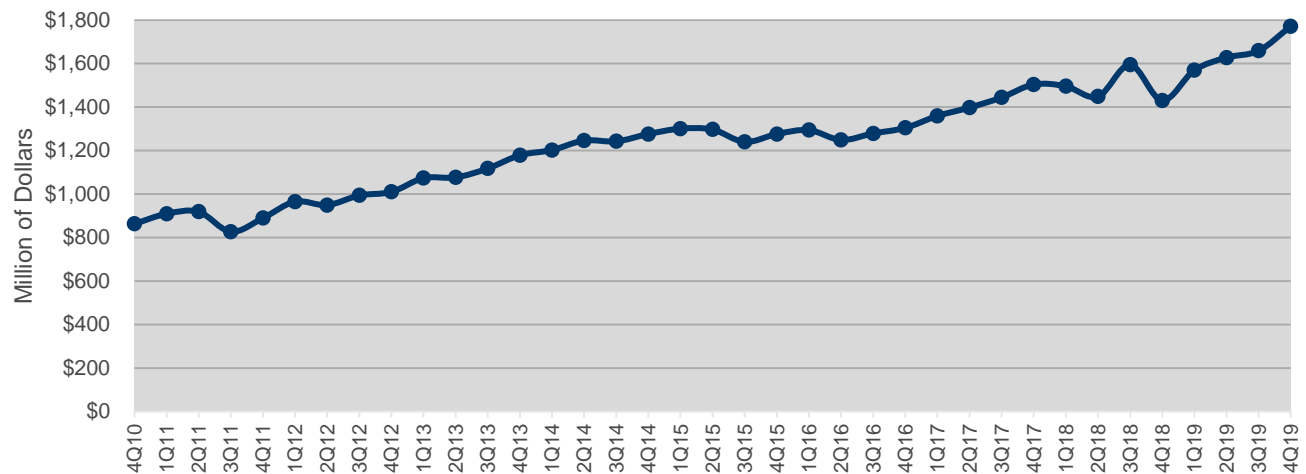
SUPPLEMENTAL INCOME PLANS

PERIOD ENDED DECEMBER 31, 2019

GROWTH IN ASSETS – SUPPLEMENTAL CONTRIBUTION PLAN ¹⁵



GROWTH IN ASSETS – 457 PROGRAM



¹⁵ SCP experienced a steep increase in assets during the 1st quarter of 2015. This was due to the termination of the State Peace Officers' and Firefighters' (POFF) Defined Contribution Plan, which took place June 1, 2014. The termination required distributions of participants' money in the POFF DC Plan in accordance with state and federal law, and SCP was designated as the default plan for participants who did not make an affirmative election to take a distribution.

SUPPLEMENTAL CONTRIBUTION PLAN PERFORMANCE

PERIOD ENDED DECEMBER 31, 2019

NET OF FEE PLAN PERFORMANCE RESULTS – SCP

	Asset Value (\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CalPERS Target Income Fund	\$ 17.3	3.0%	13.9%	5.7%	4.0%	5.0%
<i>SIP Income Policy</i>		3.1%	14.0%	5.6%	4.0%	5.0%
CalPERS Target 2015 Fund	\$ 15.2	3.4%	15.0%	5.6%	4.0%	5.6%
<i>SIP 2015 Policy</i>		3.4%	15.0%	5.5%	3.9%	5.7%
CalPERS Target 2020 Fund	\$ 22.1	4.5%	17.3%	6.1%	4.3%	6.0%
<i>SIP 2020 Policy</i>		4.5%	17.4%	6.0%	4.2%	6.1%
CalPERS Target 2025 Fund	\$ 20.5	5.6%	19.5%	7.3%	5.1%	-.%
<i>SIP 2025 Policy</i>		5.6%	19.5%	7.2%	5.0%	-.%
CalPERS Target 2030 Fund	\$ 15.6	6.7%	21.9%	8.1%	5.7%	7.3%
<i>SIP 2030 Policy</i>		6.7%	21.8%	8.0%	5.6%	7.4%
CalPERS Target 2035 Fund	\$ 7.3	7.8%	24.2%	9.0%	6.3%	-.%
<i>SIP 2035 Policy</i>		7.8%	24.1%	8.9%	6.2%	-.%
CalPERS Target 2040 Fund	\$ 3.9	8.5%	25.4%	10.0%	7.0%	8.4%
<i>SIP 2040 Policy</i>		8.5%	25.3%	10.0%	6.8%	8.5%
CalPERS Target 2045 Fund	\$ 0.9	8.5%	25.4%	10.8%	7.5%	-.%
<i>SIP 2045 Policy</i>		8.5%	25.3%	10.7%	7.4%	-.%
CalPERS Target 2050 Fund	\$ 0.2	8.5%	25.4%	10.8%	7.5%	-.%
<i>SIP 2050 Policy</i>		8.5%	25.3%	10.7%	7.4%	-.%
CalPERS Target 2055 Fund	\$ 0.1	8.5%	25.4%	10.8%	-.%	-.%
<i>SIP 2055 Policy</i>		8.5%	25.3%	10.7%	-.%	-.%
SSgA Russell All Cap Index SL	\$ 4.3	9.1%	31.0%	14.6%	11.3%	-.%
<i>Russell 3000</i>		9.1%	31.0%	14.6%	11.2%	-.%
SSgA Global All Cap ex-US SL	\$ 0.6	9.2%	22.0%	10.1%	6.1%	-.%
<i>MSCI ACWI ex-US IMI (N)</i>		9.2%	21.6%	9.8%	5.7%	-.%
SSgA US Bond Index SL	\$ 0.5	0.2%	8.7%	4.1%	3.1%	-.%
<i>Bloomberg Barc. US Aggregate Bond Idx</i>		0.2%	8.7%	4.0%	3.1%	-.%
SSgA US Short Term Bond	\$ 0.4	0.6%	3.9%	2.1%	1.6%	-.%
<i>Bloomberg Barc. US Gov/Credit</i>		0.6%	4.0%	2.2%	1.7%	-.%
SSgA Real Asset NL	\$ 0.2	3.6%	13.6%	4.6%	2.3%	-.%
<i>Real Assets Blended Index</i>		3.7%	13.7%	4.7%	2.4%	-.%
SSgA STIF	\$ 1.4	0.5%	2.4%	1.9%	1.3%	-.%
<i>BofAML 3 Months US T-Bill</i>		0.5%	2.3%	1.7%	1.1%	-.%
SCP AGGREGATE	\$ 110.5					

457 PROGRAM PERFORMANCE

PERIOD ENDED DECEMBER 31, 2019

NET OF FEE PLAN PERFORMANCE RESULTS – 457

	Asset Value (\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
CalPERS Target Income Fund	\$ 95.1	3.0%	14.0%	5.7%	4.1%	5.0%
<i>SIP Income Policy</i>		3.1%	14.0%	5.6%	4.0%	5.0%
CalPERS Target 2015 Fund	\$ 79.7	3.4%	15.0%	5.6%	4.0%	5.6%
<i>SIP 2015 Policy</i>		3.4%	15.0%	5.5%	3.9%	5.7%
CalPERS Target 2020 Fund	\$ 155.9	4.5%	17.3%	6.1%	4.3%	6.0%
<i>SIP 2020 Policy</i>		4.5%	17.4%	6.0%	4.2%	6.1%
CalPERS Target 2025 Fund	\$ 163.0	5.6%	19.5%	7.3%	5.1%	6.7%
<i>SIP 2025 Policy</i>		5.6%	19.5%	7.2%	5.0%	6.8%
CalPERS Target 2030 Fund	\$ 147.6	6.7%	21.9%	8.1%	5.7%	7.3%
<i>SIP 2030 Policy</i>		6.7%	21.8%	8.0%	5.6%	7.4%
CalPERS Target 2035 Fund	\$ 89.8	7.8%	24.1%	9.0%	6.3%	7.9%
<i>SIP 2035 Policy</i>		7.8%	24.1%	8.9%	6.2%	8.0%
CalPERS Target 2040 Fund	\$ 83.6	8.5%	25.4%	10.0%	7.0%	8.4%
<i>SIP 2040 Policy</i>		8.5%	25.3%	10.0%	6.8%	8.5%
CalPERS Target 2045 Fund	\$ 46.4	8.5%	25.4%	10.8%	7.5%	8.7%
<i>SIP 2045 Policy</i>		8.5%	25.3%	10.7%	7.4%	8.8%
CalPERS Target 2050 Fund	\$ 24.7	8.5%	25.4%	10.8%	7.5%	8.7%
<i>SIP 2050 Policy</i>		8.5%	25.3%	10.7%	7.4%	8.8%
CalPERS Target 2055 Fund	\$ 9.6	8.5%	25.4%	10.8%	7.5%	--%
<i>SIP 2055 Policy</i>		8.5%	25.3%	10.7%	7.4%	--%
CalPERS Target 2060 Fund	\$ 2.5	8.5%	25.4%	--%	--%	--%
<i>SIP 2060 Policy</i>		8.5%	25.3%	--%	--%	--%
SSgA Russell All Cap Index SL	\$ 591.1	9.1%	31.0%	14.5%	11.3%	--%
<i>Russell 3000</i>		9.1%	31.0%	14.6%	11.2%	--%
SSgA Global All Cap ex-US SL	\$ 70.8	9.2%	22.0%	10.1%	6.1%	--%
<i>MSCI ACWI ex-US IMI (N)</i>		9.2%	21.6%	9.8%	5.7%	--%
SSgA US Bond Index SL	\$ 62.9	0.2%	8.7%	4.1%	3.1%	--%
<i>Bloomberg Barc. US Aggregate Bond Idx</i>		0.2%	8.7%	4.0%	3.1%	--%
SSgA US Short Term Bond	\$ 35.3	0.6%	3.9%	2.1%	1.6%	--%
<i>Bloomberg Barc. US Gov/Credit</i>		0.6%	4.0%	2.2%	1.7%	--%
SSgA Real Asset NL	\$ 7.2	3.6%	13.6%	4.6%	2.4%	--%
<i>Real Assets Blended Index</i>		3.7%	13.7%	4.7%	2.4%	--%
SSgA STIF	\$ 105.9	0.5%	2.4%	1.9%	1.3%	--%
<i>BofAML 3 Months US T-Bill</i>		0.5%	2.3%	1.7%	1.1%	--%
457 AGGREGATE	\$ 1,771.0					