

## Public Employees' Retirement Fund (PERF) Portfolio &amp; Partnership Report



As of December 31, 2019

## Public Equity Ending Market Value &amp; Performance Summary (By Portfolio)

Portfolio <sup>1</sup>	Ending Market Value (MM)	10-Yr			5-Yr			3-Yr			1-Yr		
		Net Return	BM Return	Excess Bps	Net Return	BM Return	Excess Bps	Net Return	BM Return	Excess Bps	Net Return	BM Return	Excess Bps
Allianz - Global	\$ 1.8	-	-	-	-	-	-	NM	NM	-	NM	NM	-
Arrowstreet Global	\$ 3,390.6	-	-	-	-	-	-	15.2%	12.7%	255	26.6%	27.0%	(48)
Baillie Gifford	\$ 1,152.4	8.3%	5.5%	281	8.8%	6.1%	272	13.5%	10.4%	316	30.4%	22.2%	828
CalPERS Cap Wtd Transition	\$ 2,968.2	NM	NM	-	NM	NM	-	NM	NM	-	NM	NM	-
CalPERS Dev Small Cap Index	\$ 4,724.0	7.3%	7.0%	36	6.9%	6.5%	40	9.6%	9.1%	44	23.7%	23.2%	50
CalPERS Domestic Fundamental	\$ 0.1	NM	NM	-	NM	NM	-	NM	NM	-	NM	NM	-
CalPERS EM	\$ 12,371.2	4.0%	3.9%	12	5.9%	5.7%	21	11.7%	11.6%	14	20.8%	20.6%	16
CalPERS EM Small Cap	\$ 1,235.9	-	-	-	4.9%	3.8%	108	9.0%	8.0%	104	18.1%	17.0%	115
CalPERS External Int'l Transition	\$ 0.8	NM	NM	-	NM	NM	-	NM	NM	-	NM	NM	-
CalPERS Fundamental Dev Int'l	\$ 1.7	NM	NM	-	NM	NM	-	NM	NM	-	NM	NM	-
CalPERS GE Cap Wtd Beta Rep	\$ 1,289.9	-	-	-	-	-	-	-	-	-	-	-	-
CalPERS Global All Cap AXA ESG	\$ 0.3	-	-	-	-	-	-	-	-	-	NM	NM	-
CalPERS Gbl All Cap AXA ESG - BR	\$ 0.4	-	-	-	-	-	-	-	-	-	-	-	-
CalPERS Global All Cap Quality	\$ 223.7	-	-	-	-	-	-	-	-	-	27.7%	27.0%	68
CalPERS Gbl All Cap Momentum	\$ 224.0	-	-	-	-	-	-	-	-	-	-	-	-
CalPERS Global All Cap Value	\$ 451.5	-	-	-	-	-	-	-	-	-	24.6%	27.0%	(248)
CalPERS Global All Cap Vol Adj	\$ 225.3	-	-	-	-	-	-	-	-	-	27.7%	27.0%	69
CalPERS Gbl Max Diversification	\$ 0.1	-	-	-	-	-	-	-	-	-	NM	NM	-
CalPERS Int'l Dev	\$ 40,758.4	5.9%	5.8%	12	6.2%	6.1%	11	10.2%	10.1%	12	22.7%	22.5%	14
CalPERS QMA	\$ 0.1	-	-	-	-	-	-	-	-	-	NM	NM	-
CalPERS QSI	\$ 0.3	-	-	-	-	-	-	-	-	-	NM	NM	-
CalPERS Factor Weighted	\$ 59,164.6	-	-	-	-	-	-	-	-	-	22.6%	22.6%	(7)
CalPERS Mom Dev ex US All Cap	\$ 0.3	-	-	-	-	-	-	NM	NM	-	NM	NM	-
CalPERS Quality Dev ex US	\$ 0.3	-	-	-	-	-	-	NM	NM	-	NM	NM	-
CalPERS US Enhanced	\$ 6,113.3	-	-	-	-	-	-	-	-	-	31.1%	31.1%	(5)
CalPERS US FTSE 3000	\$ 70,452.6	13.4%	13.4%	9	11.2%	11.2%	3	14.8%	14.8%	(4)	31.0%	31.1%	(4)
CalPERS Volatility Adj Dev Int'l	\$ 1.6	-	-	-	NM	NM	-	NM	NM	-	NM	NM	-
Cartica Capital Partners, LP	\$ 16.0	-	-	-	NM	NM	-	NM	NM	-	NM	NM	-
Epoch Global	\$ 3.0	-	-	-	-	-	-	NM	NM	-	NM	NM	-
Genesis	\$ 0.7	NM	NM	-	NM	NM	-	NM	NM	-	NM	NM	-
Hermes	\$ 1.6	-	-	-	-	-	-	NM	NM	-	NM	NM	-
Lazard	\$ 0.3	NM	NM	-	NM	NM	-	NM	NM	-	NM	NM	-
Pyramis Global	\$ 0.7	NM	NM	-	NM	NM	-	NM	NM	-	NM	NM	-
Taiyo Fund (Public)	\$ 0.5	NM	NM	-	NM	NM	-	NM	NM	-	NM	NM	-
Tobam Anti-Benchmarking	\$ 0.1	-	-	-	-	-	-	NM	NM	-	NM	NM	-
Tobam Ventures	\$ 5.0	-	-	-	NM	NM	-	NM	NM	-	NM	NM	-
Wellington	\$ 1,109.1	-	-	-	-	-	-	13.9%	12.7%	122	29.3%	27.0%	227
<b>Total Public Equity</b>	<b>\$ 205,890.5</b>												

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Partnership <sup>1</sup>	Ending Market Value (MM)	10-Yr	5-Yr	3-Yr	1-Yr
		Net Return	Net Return	Net Return	Net Return
AACP AP Investors	\$ 0.3	3.4%	11.4%	-14.5%	-58.3%
AACP China Growth	\$ 2.0	1.2%	-9.3%	-17.5%	13.5%
AACP China Venture Invest	\$ 1.9	6.5%	5.2%	1.9%	-12.2%
AACP India A	\$ 0.1	-10.5%	-32.1%	-58.1%	-44.6%
AACP India B	\$ 7.8	9.6%	4.5%	5.9%	-15.5%
AACP India C	\$ 7.1	11.1%	-3.4%	-24.9%	-11.3%
Aberdare Ventures IV LP	\$ 20.9	-	-14.6%	-14.6%	-25.2%
Advent International GPE V D	\$ 4.0	-	-1.2%	2.7%	-17.2%
Advent International GPE VI A	\$ 77.1	13.1%	6.2%	-0.4%	-19.2%
Advent International GPE VII C LP	\$ 331.8	-	-	11.9%	-13.8%
Advent International GPE VIII	\$ 553.2	-	-	-	11.8%
Advent International GPE IX	\$ 63.3	-	-	-	-
Advent Latin American PEF III	\$ 6.1	0.3%	2.6%	12.4%	6.9%
Advent Latin American Private	\$ 32.9	2.7%	-4.6%	-0.7%	7.8%
Advent Latin American Private	\$ 58.2	-	-1.6%	-1.6%	-2.9%
Affinity Asia Pacific Fund III	\$ 18.6	5.1%	-12.9%	-11.5%	-26.4%
Aisling Capital II	\$ 4.1	-	16.0%	49.0%	-35.1%
Aisling Capital III	\$ 7.1	NM	NM	NM	NM
AP Alternative Assets LP	\$ 1.0	12.6%	-6.0%	-16.3%	-23.1%
Apollo Co Investors (MHE), LP	\$ 20.6	-	-	-31.9%	-46.4%
Apollo Credit Opport Fund I LP	\$ 2.5	-	2.6%	18.9%	10.4%
Apollo Euro Principal Finance	\$ 0.3	12.4%	1.1%	-6.5%	-2.3%
Apollo Investment Fund V	\$ 1.4	-23.2%	-45.9%	-24.9%	-42.9%
Apollo Investment Fund VI	\$ 9.8	8.7%	2.4%	10.0%	12.8%
Apollo Investment Fund VII LP	\$ 106.9	11.0%	-6.1%	-7.3%	-27.8%
Apollo Investment Fund VIII	\$ 409.3	-	10.1%	12.0%	4.1%
Apollo Investment Fund IX	\$ 89.9	-	-	-	-
Apollo SVF Mgmt L P	\$ 126.7	1.9%	-5.0%	-1.7%	0.1%
Arflight Energy Partners Fund IV	\$ 0.5	21.2%	17.1%	8.5%	-8.5%
Ares Corporate Opportunity Fund LP	\$ 2.5	-5.6%	-9.8%	-29.6%	-59.3%
Ares Corp Opportunity Fund II	\$ 0.6	7.4%	-3.1%	-20.7%	-22.8%
Ares Corporate Opportunity Fund III	\$ 91.6	21.7%	22.6%	27.1%	38.4%
Ares Corp Opportunity Fund V L.P.	\$ 356.5	-	-	-	10.5%
Asia Alternatives Capital	\$ 6.9	4.7%	-8.1%	-19.4%	-25.6%
Asia Alternatives Capital II	\$ 45.5	14.1%	13.9%	3.1%	-22.9%
Avatar International Investors LP	\$ 42.6	-	-	-1.1%	39.6%
Avatar NA Investors LP	\$ 0.8	-	-	2.4%	2.2%
Avenue Special Situations Fund VI (A) LP	\$ 11.0	-	-5.4%	-2.2%	-0.3%
Banc of America Cal Comm	\$ 7.6	-0.5%	-7.1%	-9.1%	-14.9%
Baring Vostok Private Equity Fund IV	\$ 33.2	6.8%	-3.5%	6.4%	-19.7%

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		Net Return	Net Return	Net Return	Net Return
BDC III C LP	\$ 88.9	-	-	-	20.9%
BE VI LP	\$ 50.0	-	-	-	-
Birch Hill Equity Partners III LP	\$ 11.9	15.2%	17.5%	11.4%	4.3%
Birch Hill Equity Partners IV LP	\$ 126.7	-	18.6%	22.0%	32.0%
Blackstone Capital PRTS VI LP	\$ 378.1	-	10.6%	14.0%	-3.3%
Blackstone Communications I	\$ 0.6	6.2%	10.8%	-12.1%	-24.6%
Blackstone First Eagle	\$ 74.7	-	-	11.6%	-14.4%
Blackstone GST	\$ 154.5	-	9.0%	11.8%	-48.3%
Blackstone Mgmt Partners IV	\$ 4.9	14.3%	10.2%	17.1%	17.2%
Blackstone Mgmt Partners V	\$ 23.6	12.2%	5.6%	2.4%	-14.4%
Blackstone Tactical	\$ 83.5	-	-	-	4.6%
Blackstone Tactical Opportunity	\$ 89.7	-	-	-	-0.9%
Blackstone Tactical Opportunity Fund	\$ 98.9	-	2.4%	10.0%	-3.2%
Blackstone Tactical Opportunity LP	\$ 290.2	-	8.2%	7.2%	-6.9%
Blackstone Tactical Opportunity Fund II	\$ 382.6	-	-	12.5%	8.1%
Blackstone TOF	\$ 61.7	-	-	6.6%	12.5%
Bridgepoint Europe III C LP	\$ 7.7	-	-	8.0%	-3.3%
Bridgepoint Europe III D	\$ 45.9	5.5%	4.8%	9.4%	-3.3%
Bridgepoint Europe IV B LP	\$ 17.3	-	-	2.0%	-21.9%
Bridgepoint Europe IV D	\$ 65.7	-	8.0%	2.3%	-22.0%
Bridgepoint Europe V LP	\$ 362.4	-	-	17.0%	10.0%
California Asia Investors LP	\$ 228.4	21.5%	14.4%	-5.0%	-35.0%
California EM Ventures II LLC	\$ 28.1	2.7%	-2.2%	-11.6%	-28.9%
California EM Ventures IV LLC	\$ 142.7	12.4%	8.7%	4.7%	0.4%
California Emerging Ventures III LLC	\$ 39.0	7.5%	2.9%	1.0%	-13.2%
California Emerging Ventures LLC	\$ 4.1	-10.7%	-27.6%	-25.3%	-12.1%
California Mezz Investment Fund LP	\$ 30.6	-	-	3.8%	11.1%
Capital Link Fund I	\$ 149.1	8.9%	3.7%	3.7%	7.8%
Capital Link Fund II	\$ 112.0	13.1%	11.7%	13.4%	-4.7%
Carlyle Acosta Co-Investment LP	\$ 1.0	-	-59.4%	-77.7%	-98.0%
Carlyle Asia Growth Partners III	\$ 0.2	-	-3.6%	-13.8%	1.4%
Carlyle Asia Growth Partners IV	\$ 33.0	-	-5.8%	-12.7%	-12.8%
Carlyle Asia Partners GP II	\$ 1.5	34.2%	55.5%	112.3%	-0.7%
Carlyle Asia Partners III	\$ 29.9	11.3%	10.6%	0.9%	17.4%
Carlyle Asia Partners V	\$ 43.2	-	-	-	3.0%
Carlyle Europe Partners II	\$ 0.5	NM	NM	NM	0.7%
Carlyle Europe Partners III LP	\$ 33.7	21.5%	24.1%	26.9%	-23.0%
Carlyle Europe Partners V	\$ 67.9	-	-	-	-
Carlyle Europe Tech Partners II	\$ 1.4	27.8%	36.4%	43.3%	-16.7%
Carlyle Global Fin Serv Partners	\$ 7.8	-31.2%	57.7%	89.3%	11.0%
Carlyle Havasu Co-Investment LP	\$ 75.9	-	-	3.7%	16.6%

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		Net Return	Net Return	Net Return	Net Return
Carlyle Japan Partners II	\$ 2.0	-3.0%	-6.7%	-24.9%	-52.8%
Carlyle Mexico Partners	\$ 1.1	0.8%	7.1%	7.9%	-5.6%
Carlyle Partners IV, L.P.	\$ 7.8	19.0%	4.9%	-3.7%	0.0%
Carlyle Partners V	\$ 108.7	18.2%	15.3%	21.1%	2.1%
Carlyle Partners VI L.P.	\$ 505.1	-	11.5%	10.3%	1.3%
Carlyle Partners VII L.P.	\$ 216.4	-	-	-	-18.0%
Carlyle Realty III LP	\$ 21.8	19.4%	34.2%	21.3%	12.7%
Carlyle Strategic Partners II	\$ 2.8	16.0%	13.7%	23.8%	47.3%
Carlyle Strategic Partners IV	\$ 40.4	-	-	9.1%	1.6%
Carlyle US Equity Opportunity	\$ 144.1	-	-	5.1%	-7.4%
Carlyle Venture Partners II LP	\$ 2.9	-5.8%	-16.8%	-30.2%	-73.1%
Carlyle Venture Partners III	\$ 1.5	12.8%	11.7%	12.5%	5.1%
Carlyle/River Renew+Alt Energy II	\$ 114.1	4.0%	-0.5%	-0.8%	-4.1%
Carlyle/Riverstone Glb Energy and Power	\$ 0.5	NM	NM	NM	NM
Carlyle/Riverstone Glb E+P IV	\$ 90.1	-0.8%	-11.9%	-3.7%	-32.4%
Carlyle/Riverstone Global	\$ 15.4	0.2%	-1.0%	9.6%	-29.9%
CDH Fund V, LP	\$ 198.8	-	10.9%	12.3%	3.4%
Centerbridge Cap Partners III	\$ 114.6	-	-	13.7%	18.8%
Centinela Investment Partners	\$ 2.6	-	-	11.3%	22.1%
Central Valley Fund II SBIC LP	\$ 11.0	-	22.1%	16.6%	29.5%
Cerberus Cal II Partners LP	\$ 344.9	-	-	-	-9.6%
Cerberus Cal III Partners	\$ 81.7	-	-	-	-
Cerberus CP Partners LP	\$ 635.8	-	17.4%	7.5%	18.9%
Cerberus Institutional Partner LP	\$ 292.0	-	7.4%	5.5%	7.1%
CHK Mid Con Co-Investment Vehicle	\$ 4.8	-	-34.0%	-25.0%	-40.8%
CHK Mid Con Royalty LP	\$ 1.0	-	-31.7%	-23.9%	-38.9%
Clarus Lifesciences I LP	\$ 5.1	1.5%	-7.7%	-10.0%	-47.1%
Clarus Lifesciences II LP	\$ 6.4	11.8%	6.0%	-2.6%	-0.3%
Clayton Dubilier + Rice Fund X	\$ 65.1	-	-	-	15.9%
Clearlake Capital Partners III LP	\$ 29.1	-	48.2%	54.6%	30.2%
Clearlake Capital Partners IV LP	\$ 67.4	-	-	31.8%	27.6%
Clearlake Capital Partners V	\$ 68.0	-	-	-	42.8%
Clearlake Opportunity Partners (P) LP	\$ 45.5	-	-	12.7%	11.2%
Clearwater Capital Partners	\$ 2.0	-3.5%	-12.7%	-13.3%	-25.6%
Clearwater Capital Partners Fund III	\$ 36.2	0.0%	-8.5%	-8.7%	-20.8%
Coller International Partners	\$ 24.6	5.7%	-2.3%	-4.7%	-12.6%
Corporate Partners LP	\$ 1.5	-32.3%	-61.6%	-73.2%	-96.0%
CVC Capital Partners VI	\$ 554.3	-	-	-	28.8%
CVC Capital Partners VII	\$ 296.9	-	-	-	15.1%
CVC Compounding Capital	\$ 962.4	-	-	32.2%	4.4%
CVC EURO Equity Partners III	\$ 13.1	21.1%	9.8%	5.3%	-8.4%
CVC European Equity Partners IV(B)LP	\$ 0.3	15.2%	6.9%	0.9%	-7.4%

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		Net Return	Net Return	Net Return	Net Return
CVC European Equity Tandom Fund B	\$ 0.4	10.2%	7.0%	13.4%	15.1%
CVC European Equity V LP	\$ 55.1	29.0%	47.1%	53.0%	14.7%
EM Alternative Investments	\$ 41.0	5.0%	0.5%	-1.0%	-8.6%
Essex W Health Ventures VIII	\$ 55.7	-	-	-9.0%	-13.8%
First Reserve Fund XI LP	\$ 25.4	-10.3%	-21.5%	9.9%	-0.5%
First Reserve Fund XII	\$ 49.6	-9.7%	-23.6%	-12.8%	-17.3%
First Reserve Fund XIII, LP	\$ 294.4	-	-	22.3%	-4.2%
Foundation Radiology	\$ 12.6	-	-16.1%	-6.0%	-16.9%
Francisco Partners II LP	\$ 28.2	5.7%	-3.5%	3.2%	-4.8%
Francisco Partners III LP	\$ 75.7	-	26.7%	35.7%	21.2%
GCM Grosvenor DEM LP	\$ 78.1	-	9.0%	12.5%	12.2%
GCM Grosvenor DEM II LP	\$ 158.8	-	8.2%	7.0%	9.8%
GCM Grosvenor DEM III LP	\$ 28.3	-	-	-	-
Golden State Investment Fund	\$ 118.2	15.0%	11.5%	12.7%	22.6%
Grandval	\$ 13.9	-	-	-	-7.2%
Grandval II	\$ 74.6	-	-	-	-
Green Equity Investors V LP	\$ 151.8	20.5%	20.3%	25.0%	0.5%
GSO Capital Opportunity	\$ 1.3	-	-	-26.8%	-35.6%
GSO Capital Opportunity Fund II L.P.	\$ 80.1	-	5.1%	6.9%	-2.2%
GSO Capital Solutions,LP	\$ 14.7	-	-8.5%	-9.1%	-32.9%
GSO Capital Solutions Fund II LP	\$ 72.3	-	-	-13.6%	-44.9%
GSO Energy Partners C LP	\$ 216.1	-	-4.5%	-7.3%	-19.4%
GSO Energy Partners C II	\$ 158.9	-	-	5.6%	0.0%
H + F Capital Partners VIII LP	\$ 547.2	-	-	21.5%	6.0%
H + F Hockey Partners LP	\$ 117.6	-	29.4%	42.8%	21.0%
H + F Kronos LP	\$ 182.6	-	-	-	57.3%
Hellman + Friedman Cap PAR VI	\$ 25.8	17.2%	5.5%	-3.0%	-28.1%
Hellman + Friedman VII L.P.	\$ 431.9	-	33.6%	40.8%	28.2%
ICV Partners II LP	\$ 0.6	2.5%	-11.4%	-38.7%	-16.8%
Insight Venture Partners VI	\$ 0.9	-	64.4%	117.4%	585.6%
Insight Venture Partners IX LP	\$ 190.3	-	-	32.2%	28.4%
Insight Venture Partners X LP	\$ 237.8	-	-	-	17.1%
Insight VP Growth BO Co-Invest B	\$ 745.0	-	-	38.4%	16.7%
Ithaca LP	\$ 132.5	-	-	22.0%	3.6%
Kholsa Ventures III	\$ 46.6	20.0%	22.7%	53.3%	99.5%
Kholsa Ventures Seed, LP	\$ 32.6	-1.8%	-16.4%	-25.3%	0.7%
KKR 2006	\$ 126.5	16.6%	17.4%	23.2%	17.5%
KKR AsiaN Fund	\$ 6.9	-	-	-	-45.7%
KKR AsiaN Fund II	\$ 530.4	-	-	7.2%	12.7%
KKR European Fund II	\$ 0.7	3.1%	-8.2%	-12.1%	1082.8%
KKR European Fund III	\$ 25.0	7.6%	9.3%	9.5%	-19.9%

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KKR Millennium Fund	\$ 0.1	6.5%	-2.8%	-5.7%	-58.7%
KPS Special Situations Fund III	\$ 0.5	33.7%	40.5%	54.4%	95.0%
Lackstone Capital Partners VII	\$ 426.6	-	-	11.9%	17.3%
Lime Rock Partners IV	\$ 0.1	46.1%	70.7%	109.5%	-2.5%
Lime Rock Partners IV	\$ 73.0	-	-	-	-17.1%
Lime Rock Partners V	\$ 16.1	-5.8%	-12.7%	-4.5%	-37.8%
Lindsay Goldberg IV LP	\$ 155.7	-	-	28.3%	-6.0%
Lion Capital Fund II L.P.	\$ 7.0	-12.9%	-20.4%	-17.7%	-37.9%
Madison Dearborn Cap Partner IV	\$ 5.7	-	-	-	-15.1%
Madison Dearborn Cap Partner V	\$ 6.6	23.2%	27.9%	43.0%	-14.0%
MHR Institutional ADV II LLC	\$ 24.4	8.0%	-3.1%	10.5%	18.9%
MHR Institutional INV III	\$ 111.0	4.7%	-8.2%	-7.0%	-22.2%
New Mountain Partners II	\$ 1.9	27.6%	27.6%	-9.0%	-34.2%
New Mountain Partners III	\$ 286.9	15.0%	21.3%	15.0%	7.1%
Newbridge Asia IV LP	\$ 3.0	6.3%	-5.4%	10.8%	-36.2%
Oak Hill Capital Partners II	\$ 1.0	-	-	-	-
Oak Hill CR Partners III LTD	\$ 52.6	11.6%	8.9%	5.7%	-3.1%
Oaktree Opportunity Fund VIII B LP	\$ 65.6	-	5.7%	14.7%	6.1%
Onex Partners IV LP	\$ 210.5	-	3.8%	6.0%	12.5%
Onex Partners V LP	\$ 104.5	-	-	-	-38.0%
Onex SIG Co-Investment LP	\$ 101.7	-	-	26.7%	19.4%
PAG Asia I LP	\$ 85.6	-	19.0%	17.0%	-14.7%
PAG Asia III LP	\$ 22.4	-	-	-	-
PAGAC Drone Holdings I LP	\$ 66.6	-	-	13.4%	9.3%
Palladium Equity Partners III	\$ 13.2	7.2%	-16.1%	-18.5%	-48.6%
Palladium Equity Partners V	\$ 16.7	-	-	-	-5.9%
Patria Brazilian PE FD V LP	\$ 103.3	-	-	24.3%	17.1%
PCG Clean Energy + Technology	\$ 61.3	-14.5%	-18.0%	-23.2%	-24.9%
PCG Corporate Partners II	\$ 96.4	8.3%	4.5%	11.0%	-15.8%
PCG Int'l Emerging Market	\$ 124.8	6.3%	2.3%	2.7%	-3.2%
PCGI Global Opportunity Fund 2	\$ 501.0	10.8%	10.2%	13.1%	10.7%
Permira Europe III LP 2	\$ 0.4	-	-	-	-
Permira Growth Opportunities	\$ 65.8	-	-	-	-
Permira IV	\$ 34.6	21.0%	18.4%	11.0%	1.6%
Permira V LP 2	\$ 361.3	-	23.5%	36.0%	56.3%
Permira VI L.P.1	\$ 455.5	-	-	9.8%	8.2%
Polish Enterprise Fund VI	\$ 9.4	24.1%	42.0%	64.1%	-28.0%
Providence Equity Partners V LP	\$ 1.5	-15.3%	-29.9%	-46.8%	-61.6%
Providence Equity VI	\$ 79.2	4.8%	-1.0%	-7.5%	-8.8%
Resolute Fund II	\$ 77.4	8.8%	4.6%	4.5%	3.4%
RFG Private Equity	\$ 0.2	-	-	-	-

<sup>1</sup> Private Equity Partnerships time weighted rate of returns are computed by State Street Bank. Market values are based on General Partners' most recent received financial statements and any cash adjustments made through the reporting date. Only partnerships with market values greater than \$50,000 are included in reporting.

## Public Employees' Retirement Fund (PERF) Portfolio &amp; Partnership Report

As of December 31, 2019



## Private Equity Ending Market Value &amp; Performance Summary (By Partnership)

Partnership <sup>1</sup>	Ending Market Value (MM)	10-Yr	5-Yr	3-Yr	1-Yr
		Net Return	Net Return	Net Return	Net Return
Riverstone Fieldwood Partners	\$ 3.6	-	-46.3%	-58.9%	-37.4%
Riverstone Global Energy + Power V	\$ 184.0	-	-12.4%	-10.8%	-44.2%
Riverstone Global Energy Power VI	\$ 221.6	-	-	6.3%	-41.8%
Riverwood Cap Partners LP	\$ 54.7	-	2.0%	3.5%	4.6%
Sacramento Partners	\$ 122.0	16.8%	17.5%	22.3%	14.8%
SAIF Partners III	\$ 166.4	-	17.4%	11.9%	0.5%
SAIF Partners IV, LP	\$ 167.9	-	8.8%	5.6%	6.7%
Sankaty Managed	\$ 244.0	-	6.7%	8.1%	9.1%
Silver Lake Partners II	\$ 0.8	8.3%	-1.9%	-15.4%	-44.1%
Silver Lake Partners III	\$ 89.0	23.3%	18.9%	18.1%	-26.0%
Silver Lake Partners IV, L.P.	\$ 410.4	-	-	23.1%	19.2%
Silver Lake Partners V, L.P.	\$ 203.4	-	-	-	17.0%
Silver Lake Technology Investors	\$ 64.0	-	-	-	20.2%
Silver Lake Technology Investors IV	\$ 113.0	-	-	33.6%	22.6%
Siris Partners III LP	\$ 51.1	-	-	14.2%	6.3%
Siris Partners IV LP	\$ 47.0	-	-	-	-
SL SPV 1, L.P.	\$ 101.6	-	-	-	16.5%
SL SPV 2, L.P.	\$ 55.1	-	-	-	-
T VI Co Investment A LP	\$ 81.6	-	-	42.7%	47.5%
Tailwind Capital Partners LP	\$ 4.1	8.4%	-1.9%	-1.7%	-19.6%
Tailwind Capital Partners II, LP	\$ 114.5	-	17.6%	9.3%	7.5%
Tailwind Capital Partners III, LP	\$ 54.4	-	-	-	8.9%
TCP II Co-Investment B LP	\$ 60.4	-	-	13.8%	22.9%
TCV X LP	\$ 54.2	-	-	-	-
The Rise Fund (A), L.P.	\$ 55.3	-	-	-	14.4%
The Second European Equity	\$ 0.3	-20.5%	-30.3%	-18.2%	-17.7%
THL Managers VI	\$ 16.4	8.3%	4.0%	-1.0%	-11.8%
Towerbrook Investors II	\$ 2.8	7.0%	-8.7%	-15.4%	-31.2%
Towerbrook Investors III L.P.	\$ 27.4	7.0%	-1.8%	-3.9%	-9.6%
Towerbrook Investors IV LP	\$ 305.1	-	32.6%	15.0%	4.0%
Towerbrook Investors V	\$ 1.6	-	-	-	-
Towerbrook Structured Opp Fund	\$ 160.9	-	-	10.9%	13.0%
Towerbrook Structured Opp Fund II	\$ 10.8	-	-	-	-
TPG Asia V	\$ 68.6	12.3%	14.9%	10.7%	7.9%
TPG Asia VII (A)	\$ 101.8	-	-	-	7.5%
TPG BioTechnology Partner	\$ 6.1	-	1.3%	37.2%	90.5%
TPG BioTechnology Partners III	\$ 68.9	-	0.6%	8.8%	35.5%
TPG Credit Strategies LP	\$ 9.3	-1.5%	-16.4%	-21.1%	-10.4%
TPG Golden Bear Partners LP	\$ 97.7	-	-	-	8.2%
TPG Growth IV, L.P.	\$ 38.1	-	-	-	2.7%
TPG Healthcare Partners, L.P.	\$ 2.5	-	-	-	-

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## Public Employees' Retirement Fund (PERF) Portfolio &amp; Partnership Report

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## Private Equity Ending Market Value &amp; Performance Summary (By Partnership)

Partnership <sup>1</sup>	Ending Market Value (MM)	10-Yr	5-Yr	3-Yr	1-Yr
		Net Return	Net Return	Net Return	Net Return
TPG Partners IV	\$ 6.0	6.6%	-9.2%	-18.2%	-32.1%
TPG Partners V	\$ 32.6	10.6%	5.5%	1.6%	4.7%
TPG Partners VI	\$ 190.9	9.6%	7.2%	4.7%	-2.3%
TPG Partners VIII	\$ 4.8	-	-	-	-
TPG Star	\$ 32.2	1.1%	-12.4%	-21.8%	-38.7%
TPG Venture Holding	\$ 45.5	14.4%	32.4%	3.7%	5.4%
Trident VI, L.P.	\$ 266.2	-	16.3%	24.0%	20.9%
Trident VII, L.P.	\$ 238.3	-	-	-	19.4%
Triton Fund IV L.P.	\$ 41.3	-	-	14.8%	3.0%
Triton Fund V L.P.	\$ 34.2	-	-	-	-
Valor Equity Partners IV, L.P.	\$ 78.7	-	-	-	12.9%
Vantagepoint 2006	\$ 28.5	-10.0%	-11.2%	-4.0%	17.9%
Vantagepoint Clean Tech Partner	\$ 4.7	-13.4%	-21.5%	-20.4%	-18.0%
Vicente Cap Partners Growth Equity Fund	\$ 27.3	-	1.6%	1.6%	-2.9%
Vista Equity Partners Fund VII	\$ 96.4	-	-	-	-
W Capital Partners II	\$ 7.3	4.7%	-2.6%	-9.1%	-20.6%
WCAS XIII L.P.	\$ 63.5	-	-	-	-
Wellspring Capital Partners V	\$ 69.7	-	23.1%	14.6%	9.4%
Wellspring V LP	\$ 14.7	-	-	13.9%	9.2%
Welsh Carson Anderson + Stowe	\$ 330.0	-	-	29.4%	27.9%
Welsh Carson Anderson Stowe XI	\$ 43.2	8.4%	7.1%	6.8%	-6.6%
Wigmore Street II(BDC III) LP	\$ 16.9	-	-	-	43.1%
Wigmore Street Co-Investment	\$ 100.8	-	-	31.5%	29.4%
Wigmore Street Co-investment VI LP	\$ 15.6	-	-	-	-
WLR Recovery Fund II LP	\$ 0.3	0.1%	3.9%	-18.2%	24.6%
WLR Recovery Fund III	\$ 12.3	-14.2%	-19.7%	-26.2%	59.8%
WLR Recovery Fund IV	\$ 20.7	1.3%	-4.8%	-7.6%	-23.5%
Yucaipa American Alliance Fund	\$ 19.1	3.4%	3.0%	26.3%	30.5%
Yucaipa American Alliance II	\$ 366.1	7.2%	1.8%	11.3%	9.6%
Yucaipa Corp Initiative Fund	\$ 10.8	-2.9%	-3.2%	5.8%	-9.2%
Yucaipa Corp Initiatives II LP	\$ 27.0	-6.5%	1.9%	-1.9%	-11.9%
Other <sup>2</sup>	\$ 46.0	-	-	-	-
<b>Total Private Equity</b>	<b>\$ 26,104.4</b>				

<sup>1</sup> Private Equity Partnerships time weighted rate of returns are computed by State Street Bank. Market values are based on General Partners' most recent received financial statements and any cash adjustments made through the reporting date. Only partnerships with market values greater than \$50,000 are included in reporting.

<sup>2</sup> Other includes Cash, Unclassified & Distributed Stock.



## Public Employees' Retirement Fund (PERF) Portfolio &amp; Partnership Report

As of December 31, 2019



## Income Ending Market Value &amp; Performance Summary (By Portfolio)

Portfolio <sup>1</sup>	Ending Market Value (MM)	10-Yr			5-Yr			3-Yr			1-Yr		
		Net Return	BM Return	Excess Bps	Net Return	BM Return	Excess Bps	Net Return	BM Return	Excess Bps	Net Return	BM Return	Excess Bps
Alliance Bernstein	\$ 0.2	NM	NM	-	NM	NM	-	NM	NM	-	NM	NM	-
Baring Asset Mgmt	\$ 0.2	NM	NM	-	NM	NM	-	NM	NM	-	NM	NM	-
CalPERS Agency Mortgage	\$ 12,027.5	-	-	-	2.9%	2.6%	28	3.6%	3.2%	31	7.0%	6.4%	68
CalPERS BB/B High Yield	\$ 335.1	-	-	-	-	-	-	-	-	-	15.6%	14.9%	68
CalPERS BB/B High Yield FOF	\$ 11,790.0	-	-	-	-	-	-	-	-	-	15.2%	14.7%	49
CalPERS Equitable CCMF	\$ 0.8	8.3%	3.3%	502	8.4%	2.6%	574	8.3%	3.3%	503	8.4%	6.4%	200
CalPERS Governments	\$ 43,219.2	-	-	-	3.6%	3.5%	6	5.5%	5.5%	8	12.1%	12.0%	11
CalPERS High Yield Bond Managers	\$ 2,238.5	8.4%	7.2%	119	6.5%	5.8%	69	6.3%	6.0%	32	14.4%	13.8%	56
CalPERS High Yield Mortgage	\$ 353.3	10.1%	7.2%	286	7.1%	5.8%	123	7.0%	6.0%	100	4.9%	13.8%	(897)
CalPERS High Yield Transition	\$ 0.0	-	-	-	-	-	-	-	-	-	NM	NM	-
CalPERS Int'l Emerging Markets	\$ 0.2	-	-	-	NM	NM	-	NM	NM	-	NM	NM	-
CalPERS Investment Grade Corp	\$ 23,690.8	8.1%	7.4%	66	6.4%	5.9%	47	8.5%	7.9%	67	21.2%	20.7%	49
CalPERS Spread Opportunistic	\$ 11.8	NM	NM	-	NM	NM	-	NM	NM	-	NM	NM	-
CalPERS Member Home Loan Program	\$ 34.2	7.2%	3.3%	389	7.3%	2.6%	468	7.6%	3.3%	434	8.0%	6.4%	151
CalPERS Non-Traditional High Yield	\$ 84.1	7.7%	7.2%	51	4.7%	5.8%	(113)	3.8%	6.0%	(218)	(8.1%)	13.8%	(2,195)
CalPERS Life Settlements	\$ 63.1	NM	NM	-	NM	NM	-	NM	NM	-	NM	NM	-
CalPERS Passive Fallen Angels	\$ 108.5	-	-	-	8.2%	5.8%	235	6.4%	6.0%	39	17.3%	13.8%	349
CalPERS Sovereign Bonds	\$ 2,757.6	7.0%	6.6%	39	5.5%	5.2%	32	9.0%	8.5%	45	19.4%	19.1%	33
CalPERS Spread & Treasury Transition	\$ 0.0	NM	NM	-	NM	NM	-	NM	NM	-	NM	NM	-
CalPERS Spread Segment Duration Mgmt	\$ 36.1	-	-	-	-	-	-	-	-	-	NM	NM	-
CalPERS Structured Mortgage	\$ 16,566.6	5.6%	3.3%	230	3.8%	2.6%	114	4.3%	3.3%	97	7.2%	6.4%	74
Highland CLN - Longhorn A	\$ 8.3	6.9%	5.2%	176	5.3%	4.5%	80	4.0%	4.5%	(48)	29.7%	8.2%	2,157
Highland CLN - Longhorn B	\$ 57.0	8.9%	7.2%	169	2.9%	5.8%	(289)	2.3%	6.0%	(370)	(5.3%)	13.8%	(1,915)
PIMCO	\$ 0.5	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Income</b>	<b>\$ 113,383.4</b>												

<sup>1</sup> Portfolios time weighted rate of returns are computed by State Street Bank.

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## Public Employees' Retirement Fund (PERF) Portfolio &amp; Partnership Report

As of December 31, 2019



## Real Assets Ending Market Value &amp; Performance Summary (By Partnership)

Partnership <sup>1</sup>	Ending Market Value (MM)	10-Yr	5-Yr	3-Yr	1-Yr
		Net Return	Net Return	Net Return	Net Return
Alinda Infrastructure Fund I, L.P.	\$ 0.2	3.8 %	-1.0 %	-5.1 %	-12.1 %
Alinda Infrastructure Fund II, L.P.	\$ 118.5	3.0 %	-0.1 %	-6.0 %	-3.1 %
ARA Asia Dragon Fund II	\$ 0.9	-	NM	NM	NM
ARA China Long Term Hold	\$ 894.8	-	5.6 %	3.1 %	-2.7 %
Archmore International Infrastructure Fund II (B), L.P.	\$ 46.1	-	NM	3.3 %	-0.7 %
Archmore International Infrastructure Fund II (C), L.P.	\$ 97.9	-	NM	3.3 %	-0.7 %
Blackstone Property Partners Europe, L.P.**	\$ 831.9	-	-	-	13.2%
CalEast Canada Limited Partnership	\$ 3.3	-	-6.2 %	-7.9 %	-1.9 %
CalEast Industrial Investors, LLC	\$ 2.5	-	NM	NM	NM
CalEast Solstice - Base	\$ 4,244.0	-	-	14.7 %	14.5 %
CalEast Solstice - DT Land	\$ 197.5	-	-	-12.6 %	-11.9 %
CalEast Solstice - DT Other	\$ 781.6	-	-	7.5 %	12.5 %
CalWest - CalPERS GIP	\$ 9.6	-	-	-	-
Canyon Catalyst Fund II, LLC	\$ 543.5	-	-	-	11.7 %
Canyon Catalyst Fund, LLC	\$ 0.2	-	NM	NM	-6.6 %
Carlyle Infrastructure Partners, L.P.	\$ 1.1	7.0 %	7.8 %	13.3 %	-9.6 %
CIM Fund III, LP	\$ 337.5	3.0 %	5.1 %	4.0 %	1.0 %
CIM Infrastructure Fund, L.P.	\$ 413.6	14.7 %	4.9 %	2.1 %	2.1 %
CIM Urban Real Estate Fund, LP	\$ 325.8	-	-4.3 %	-4.5 %	-2.5 %
CIM Urban REIT LLC	\$ 0.1	2.3 %	-2.5 %	-7.5 %	-26.7 %
CMCT	\$ 53.7	-	-	-	-
Concession Investment Holdings, LLC	\$ 580.1	-	-	12.1 %	13.7 %
FSP - Base	\$ 6,421.0	-	11.0 %	6.5 %	8.0 %
FSP - DT 2012 and Beyond	\$ 8.6	-	NM	NM	NM
Global Infrastructure Partners II, L.P.	\$ 299.0	-	15.2 %	14.8 %	9.7 %
Golden Reef Infrastructure Trust**	\$ 499.3	-	-	12.2%	15.2%
GRI - Base	\$ 3,025.4	-	9.6 %	6.7 %	5.9 %
GRI - DT 2012 and Beyond	\$ 23.6	-	-	-	17.3 %
Harbert Gulf Pacific Power, LLC (HGPP)	\$ 1,209.9	-	7.7 %	10.8 %	5.3 %
Harbert Power Fund V, L.P. (HPF V)	\$ 85.6	-	10.9 %	11.3 %	5.0 %
HC Green Development Fund LP	\$ 383.8	10.9 %	9.9 %	18.0 %	77.1 %
HC LTH LLC**	\$ 754.6	-	-	-	-
HCB Interests II LP	\$ 73.2	8.9 %	-0.2 %	-3.7 %	4.8 %
HCC Interests LP	\$ 0.3	NM	-19.7 %	-11.0 %	-14.1 %
HCM Holdings II LP	\$ 0.1	NM	NM	NM	-29.4 %
Hearthstone Housing Partners II, LLC	\$ 0.4	NM	NM	NM	NM
Hines European Development Fund LP	\$ 6.8	NM	NM	-2.1 %	-1.4 %
IHP Investment Fund III, L.P.	\$ 158.6	-0.3 %	2.5 %	0.6 %	10.9 %
IMI - Base	\$ 6,229.8	-	9.0 %	0.4 %	-1.1 %
IMP - Abaca	\$ 189.2	-	-	-	2.8 %
IMP - Base	\$ 5,323.1	-	9.1 %	7.5 %	7.1 %

<sup>1</sup> Market values and time weighted returns of Real Asset Partnerships reflect financial statements received through the end of the reporting period. This information may differ from other reporting due to timing of recognizing cashflow activity. Only partnerships with market values greater than \$50,000 are included in reporting.

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\*\*Ending Market Value and Net Returns include the impact of CalPERS foreign currency hedges on the underlying Real Estate partnership.

## Public Employees' Retirement Fund (PERF) Portfolio &amp; Partnership Report

As of December 31, 2019



## Real Assets Ending Market Value &amp; Performance Summary (By Partnership)

Partnership <sup>1</sup>	Ending Market Value (MM)	10-Yr	5-Yr	3-Yr	1-Yr
		Net Return	Net Return	Net Return	Net Return
IMP - DT 2012 and Beyond	\$ 367.7	-	18.2 %	14.9 %	13.2 %
IMP - ICMI	\$ 637.7	-	-	-	8.7 %
Institutional Logistics Partners, LLC	\$ 930.8	-	17.0 %	15.7 %	18.7 %
Ivy Investment Vehicle LDC (SWPM)	\$ 40.1	-	24.4 %	28.1 %	8.7 %
KC 2011, LLC	\$ 41.7	-	16.9 %	16.1 %	-9.9 %
KSC Affordable Housing Investment Fund, LLC	\$ 0.2	-1.4 %	-5.9 %	-12.7 %	-36.6 %
Land Management Company, LLC	\$ 395.6	-	-4.9 %	4.9 %	-7.5 %
LaSalle Japan Logistics Fund II LP	\$ 0.2	NM	-17.3 %	-2.6 %	-3.9 %
Lincoln Timber L.P.	\$ 885.7	-3.7 %	-4.1 %	-3.2 %	2.1 %
National Office Partners, LLC (CWP)	\$ 0.3	-	5.1 %	0.0 %	3.0 %
Neptune Regional Transmission System, LLC	\$ 281.0	-	9.2 %	15.6 %	9.3 %
North Haven Infrastructure Partners II LP	\$ 260.1	-	10.9 %	17.0 %	14.6 %
ORA Multifamily Investments I, LLC	\$ 44.0	NM	16.9 %	12.8 %	4.5 %
ORA Residential Investments I, L.P.	\$ 127.4	21.9 %	10.9 %	4.2 %	2.5 %
Pacific Multifamily Investors, LLC	\$ 1,548.1	-	10.7 %	10.0 %	7.5 %
PLA Retail Fund I, LP	\$ 1.3	-2.1 %	-13.3 %	-12.2 %	-4.9 %
PMI Tactical	\$ 1.0	-	-	-	-
Sacramento Venture - Base	\$ 51.3	-	-	-	17.0 %
Sacramento Venture - DT	\$ 50.4	-	-	-	-1.4 %
Southern Diversified	\$ 2.1	-	-	-	0.6 %
Stockbridge Hollywood Park Co-Investors, LP	\$ 57.8	10.0 %	9.3 %	10.7 %	10.8 %
Stockbridge Real Estate Fund II -B, LP	\$ 25.0	-1.8 %	2.1 %	5.5 %	-6.4 %
Strategic Property Fund Asia SCSP**	\$ 271.3	-	-	4.1 %	2.1 %
Sylvanus LLC	\$ 439.9	6.2 %	1.3 %	3.5 %	7.3 %
TechCore, LLC	\$ 1,388.7	-	12.4 %	9.3 %	8.5 %
Tower Bridge Infrastructure Partners, L.P.**	\$ 777.4	-	-	-	-
Whitney Ranch Venture, LLC	\$ 39.1	-	-8.7 %	13.4 %	-6.3 %
Xander Co-Investment	\$ 0.7	-17.3 %	-14.5 %	-16.3 %	-3.5 %
<b>Total Real Assets</b>	<b>\$ 42,843.3</b>				

<sup>1</sup> Market values and time weighted returns of Real Asset Partnerships reflect financial statements received through the end of the reporting period. This information may differ from other reporting due to timing of recognizing cashflow activity. Only partnerships with market values greater than \$50,000 are included in reporting.

\*\*NM (not meaningful) generally applies to instances when a portfolio or partnership is either funding or liquidating. In these instances, any profit and loss relative to a small capital deployed can materially distort time weighted return results.

\*\*Ending Market Value and Net Returns include the impact of CalPERS foreign currency hedges on the underlying Real Estate partnership.

## Public Employees' Retirement Fund (PERF) Portfolio &amp; Partnership Report



As of December 31, 2019

## Liquidity Ending Market Value &amp; Performance Summary (By Portfolio)

Portfolio <sup>1</sup>	Ending Market Value (MM)	10-Yr			5-Yr			3-Yr			1-Yr		
		Net Return	BM Return	Excess Bps	Net Return	BM Return	Excess Bps	Net Return	BM Return	Excess Bps	Net Return	BM Return	Excess Bps
CalPERS Short Term	\$ 3,882.0	0.8%	0.6%	17	1.3%	1.1%	25	2.0%	1.6%	39	2.6%	2.1%	50
<b>Total Liquidity</b>	<b>\$ 3,882.0</b>												

## Trust Level Ending Market Value &amp; Performance Summary (By Portfolio)

Portfolio <sup>1</sup>	Ending Market Value (MM)	10-Yr			5-Yr			3-Yr			1-Yr		
		Net Return	BM Return	Excess Bps	Net Return	BM Return	Excess Bps	Net Return	BM Return	Excess Bps	Net Return	BM Return	Excess Bps
Absolute Return Strategies	\$ 161.0	0.6%	5.9%	(525)	(3.1%)	6.3%	(938)	(3.7%)	6.9%	(1,057)	(12.6%)	8.1%	(2,062)
AQR MAC Fund LP	\$ 516.1	-	-	-	5.4%	7.5%	(212)	6.3%	7.5%	(117)	18.2%	7.5%	1,073
CalPERS Int Hldg Fixed Income	\$ 0.8	-	-	-	-	-	-	NM	NM	-	NM	NM	-
CalPERS MHLP	\$ 4.3	-	-	-	3.7%	2.6%	105	3.4%	3.3%	8	1.2%	6.4%	(528)
CalPERS Securities Lending	\$ 0.5	NM	NM	-	NM	NM	-	NM	NM	-	NM	NM	-
FIS CalBear	\$ 69.4	-	-	-	-	-	-	8.9%	9.8%	(92)	25.2%	24.2%	101
Legato	\$ 546.7	-	-	-	-	-	-	7.2%	10.3%	(311)	19.2%	22.2%	(301)
LEIA GEM	\$ 32.3	-	-	-	-	-	-	10.8%	8.8%	200	33.4%	24.7%	867
Perella Weinberg MAC	\$ 582.0	-	-	-	-	-	-	-	-	-	22.5%	21.7%	82
Progress II	\$ 66.3	-	-	-	-	-	-	7.1%	9.4%	(234)	21.2%	22.5%	(129)
Standard Life MAC	\$ 0.4	-	-	-	NM	NM	-	NM	NM	-	NM	NM	-
Strategic II	\$ 0.2	-	-	-	-	-	-	NM	NM	-	NM	NM	-
<b>Total Trust Level</b>	<b>\$ 1,980.1</b>												

## Risk Mitigation Ending Market Value &amp; Contribution to Total Fund (By Portfolio)

Portfolio	Ending Market Value (MM)	Contribution to Total Fund (bps)			
		10-Yr	5-Yr	3-Yr	1-Yr
Longtail Alpha	\$ 38.7	-	-	-	(2)
Universa	\$ 51.2	-	-	-	(3)
<b>Total Risk Mitigation</b>	<b>\$ 90.0</b>				

<sup>1</sup> Portfolios time weighted rate of returns are computed by State Street Bank.

\*NM (not meaningful) generally applies to instances when a portfolio or partnership is either funding or liquidating. In these instances, any profit and loss relative to a small capital deployed can materially distort time weighted return results.