

# INVESTMENT ADVISORY SERVICES

Los Angeles • New York

Alternative Investment Performance Merced County Employees' Retirement Association

December 12, 2019

# MCERA Private Equity Capital Budget & Implementation Plan

# 15% fund level target

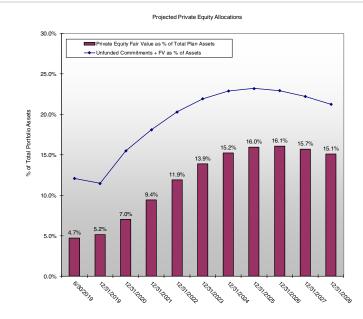
- Annual capital budget target of \$40 million, range of \$30-\$50 million
- Target 4-7 investments, range of \$5-\$15 million per inv; average size of \$8 million per

## Performance comparisons:

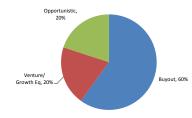
- Long term investment objective: Earn a return premium over public equity (Russell 3000 + 3%)
- Recommended primary asset class benchmark:
   Cambridge Associates Global Private Equity & VC Index
- Recommended fund benchmarks: Each fund will be compared to the Cambridge Associates strategy universe for the respective vintage years and each vintage year will be compared to Cambridge Associates Global Private Equity & VC Index

### MCERA CY 2019 commitments:

- Summit X growth capital (VY 2019), \$8 mm
- Genstar IX mid market buyout (VY 2019), \$8 mm
- Spark Capital VI early stage VC (VY 2019), \$3 mm
- Spark Capital Growth III late stage VC (VY 2019), \$6 mm
- Accel-KKR Capital VI software buyout (VY 2019), \$5 mm
- Cortec VII lower mid mkt buyout (VY 2020), \$10 mm



# **Target Strategy Diversification**



_	Target	Ranges
Buyout	60%	40-80%
Venture/Growth Eq	20%	10-30%
Opportunistic	20%	10-30%
	100%	=

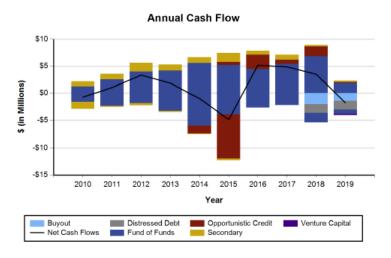


# MCERA Private Equity Investment Structure & Portfolio Assessment

### Investment structure (15% fund target; 4.7% invested as of Jun 2019):

- Current portfolio is barbelled with half of commitments in 2007 & earlier FoFs and half in 2011 & later FoFs
  - Overall portfolio has not met performance expectations; 2011 & later portfolio is still in development with the funds in VY 2017 and 2018 beginning their investment period
  - Quarterly performance improvement due to VY 2007 & 2011 funds; contributions & distributions are similar over the past year as the newer portfolios are being built out
  - Portfolio is diversified by strategy but overall it is in a negative cash flow situation

Annual Summary									
(in thousands)									
	Total	Total	(A)	(B)	(C ) Fair	(B+C) Total	(B+C-A)		
	Partnerships	Commitments	Contributions	Distributions	Value	Value	Gain/ Loss	Net IRR	Benchmark
June 30, 2018	23	\$89,049	\$60,664	\$50,134	\$38,868	\$89,002	\$28,338	8.51%	10.90%
June 30, 2019	30	\$130,973	\$68,676	\$58,769	\$42,006	\$100,775	\$32,100	8.60%	11.44%
Annual Change	7	\$41,924	\$8,012	\$8,635	\$3,138	\$11,773	\$3,762		_



Note: Net cash flow is the for the respective calendar year.

# MCERA Private Equity Performance – as of Jun 30, 2019

		(A) Commit.	Unfund.	(B) Cumulat.		( C) Cumulat.	(D) Fair	(C+D) Total	(C+D-B)		IRR	
Partnership Name (\$000)	Strategy	Amount	Amount	Cont.	% Drawn	Dist.	Value	Value	Gain/ Loss	Net IRR	Bench.	TVPI
Vintage Year 2004												
Invesco Partnership Fund IV, L.P.	Fund of Funds	10,000	2,417	7,898	76%	15,814	188	16,002	8,105	11.62%	7.19%	2.03
Vintage Year 2004 Total		10,000	2,417	7,898	76%	15,814	188	16,002	8,105	11.62%	7.85%	2.03
Vintage Year 2005												
ASP 2005 Non-US Fund	Fund of Funds	1,500	74	1,426	95%	1,634	324	1,958	532	4.91%	5.12%	1.37
ASP 2005 US Fund	Fund of Funds	3,500	177	3,323	95%	4,358	800	5,159	1,835	6.95%	7.47%	1.55
Pantheon Ventures Euro Fund IV	Fund of Funds	1,137	54	1,278	95%	1,535	135	1,671	393	4.72%	5.12%	1.31
Pantheon Ventures USA Fund VI	Fund of Funds	3,750	206	3,544	95%	4,695	854	5,549	2,005	6.96%	7.47%	1.57
Vintage Year 2005 Total		9,887	511	9,570	95%	12,222	2,114	14,336	4,766	6.40%	7.39%	1.50
Vintage Year 2006												
Pantheon Global Secondary Fund III "B"	Secondary	10,000	540	9,460	95%	9,630	1,041	10,671	1,211	2.17%	N/A	1.13
Vintage Year 2006 Total		10,000	540	9,460	95%	9,630	1,041	10,671	1,211	2.17%	7.29%	1.13
Vintage Year 2007												
ASP 2007 Direct Fund	Fund of Funds	450	14	436	97%	745	292	1,037	601	12.21%	10.57%	2.38
ASP 2007 Non-US Fund	Fund of Funds	1,575	78	1,497	95%	1,613	719	2,332	835	7.90%	7.76%	1.56
ASP 2007 US Fund	Fund of Funds	2,475	115	2,360	95%	3,049	1,382	4,431	2,071	12.12%	10.57%	1.88
Vintage Year 2007 Total		4,500	207	4,293	95%	5,408	2,392	7,800	3,507	10.80%	9.22%	1.82
Vintage Year 2011												
ASP 2011 Direct Fund	Fund of Funds	500	43	457	91%	482	383	865	408	15.66%	15.95%	1.89
ASP 2011 Emerging Markets Fund	Fund of Funds	500	64	436	87%	142	607	749	313	12.97%	11.56%	1.72
ASP 2011 Non-US Developed Fund	Fund of Funds	1,500	322	1,178	79%	830	1,087	1,917	739	13.20%	11.56%	1.63
ASP 2011 US Fund	Fund of Funds	2,500	326	2,175	87%	1,229	2,483	3,713	1,538	14.75%	15.95%	1.71
Pantheon Asia Fund VI	Fund of Funds	1,000	139	862	86%	358	989	1,347	484	11.07%	11.56%	1.56
Pantheon Euro Fund VII	Fund of Funds	1,586	228	1,478	86%	896	1,293	2,189	711	9.93%	11.56%	1.48
Pantheon Ventures USA Fund IX	Fund of Funds	2,000	254	1,746	87%	1,122	1,892	3,014	1,268	13.82%	15.95%	1.73
Vintage Year 2011 Total		9,586	1,377	8,332	86%	5,058	8,735	13,793	5,462	13.07%	13.46%	1.66
Vintage Year 2013												
Invesco Partnership Fund VI, L.P.	Fund of Funds	5,000	1,548	3,958	69%	989	6,750	7,739	3,780	18.04%	18.53%	1.96
Vintage Year 2013 Total		5,000	1,548	3,958	69%	989	6,750	7,739	3,780	18.04%	13.36%	1.96

Note:. The benchmark represents the Cambridge Associates LLC median for the respective strategy and vintage year. At the vintage year level, the Cambridge Associates LLC Global Private Equity & VC ® median is used for the respective vintage year.



# MCERA Private Equity Performance – as of Jun 30, 2019

		(A) Commit.		(B) Cumulat.		(C) Cumulat.	(D) Fair	(C+D) Total	(C+D-B)		IRR	
Partnership Name (\$000)	Strategy	Amount	Amount	Cont.	% Drawn	Dist.	Value	Value	Gain/ Loss	Net IRR	Bench.	TVPI
Vintage Year 2014 Ocean Avenue Fund II	Fund of Funds	10.000	1 200	8.700	87%	3.647	10.487	14122	5.433	16.60%	13.97%	1.62
Raven Asset-Based Opportunity Fund II	Opportunistic Credit	10,000	1,300 474	9,526	95%	5,958	3,452	14,133 9,410	-116	-0.43%	8.32%	0.99
Vintage Year 2014 Total	Opportunistic Credit	20,000	1,774	18,226	91%	9,604	13,939	23,543	5,317	8.71%	15.48%	1.29
Vintage Year 2017		20,000	1,774	18,220	31/0	3,004	13,333	23,343	3,317	0.71/0	13.40/0	1.23
GTCR XII	Buyout	5,000	3,762	1,238	25%	44	1,002	1,047	-191	N/M	N/M	0.85
Vintage Year 2017 Total	Dayout	5.000	3,762		25%	44	1,002	1.047	-191	N/M	N/M	0.85
Vintage Year 2018		3,000	3,702	1,200	2370		1,002	2,0	101	,	,	0.00
Carrick Capital Partners III, L.P.	Buyout	5,000	3,850	1.150	23%	0	1,240	1.240	90	N/M	N/M	1.08
Cressey & Company Fund VI LP	Buyout	5,000	3,900	•	22%	0	1,051	1,051	-49	N/M	N/M	0.96
Davidson Kempner Long-Term Distressed Opport	,	5,000	1,800		64%	0	3,384	3,384	184	N/M	N/M	1.06
Vintage Year 2018 Total		15,000	9,550	5,450	36%	0	5,675	5,675	225	N/M	N/M	1.04
Vintage Year 2019		,		,			<u>, , , , , , , , , , , , , , , , , , , </u>	•		<u> </u>	<u> </u>	
Accel-KKR Capital Partners VI, LP	Buyout	8,000	8,000	0	0%	0	0	0	0	N/M	N/M	N/A
Accel-KKR Growth Capital Partners III	Buyout	5,000	5,000	0	0%	0	0	0	0	N/M	N/M	N/A
Genstar Capital Partners IX, L.P.	Buyout	7,000	7,000	0	0%	0	-29	-29	-29	N/M	N/M	N/A
Summit Partners Growth Equity Fund X-A, L.P.	Buyout	8,000	8,000	0	0%	0	0	0	0	N/M	N/M	N/A
Spark Capital Growth Fund III, L.P.	Venture Capital	6,000	6,000	0	0%	0	0	0	0	N/M	N/M	N/A
Spark Capital VI, L.P.	Venture Capital	3,000	3,000	0	0%	0	0	0	0	N/M	N/M	N/A
TCV X, L.P.	Venture Capital	5,000	4,750	250	5%	0	199	199	-51	N/M	N/M	N/A
Vintage Year 2019 Total		42,000	41,750	250	1%	0	169	169	-81	N/M	N/M	N/A
Total Portfolio:		130,973	63,437	68,675	52%	58,770	42,006	100,776	32,100	8.60%	11.44%	1.47
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Portfolio Strategy Totals												
Buyout		43,000	39,512	3,488	8%	44	3,264	3,308	-180	N/M		0.95
Distressed Debt		5,000	1,800	3,200	64%	0	3,384	3,384	184	N/M		1.06
Fund of Funds		40,175	6,401	34,597	84%	36,131	25,511	61,642	27,045	11.41%		1.78
Non-US		8,798	960	8,155	89%	7,007	5,155	12,162	4,008	7.70%		1.49
Opportunistic Credit		10,000	474	9,526	95%	5,958	3,452	9,410	-116	-0.43%		0.99
Secondary		10,000	540	9,460	95%	9,630	1,041	10,671	1,211	2.17%		1.13
Venture Capital		14,000	13,750	250	2%	0	199	199	-51	N/M		N/A
Total Portfolio:		130,973	63,437	68,675	52%	58,770	42,006	100,776	32,100	8.60%	11.44%	1.47

Note:. The benchmark represents the Cambridge Associates LLC median for the respective strategy and vintage year. At the vintage year level, the Cambridge Associates LLC Global Private Equity & VC ® median is used for the respective vintage year.



# MCERA Real Estate Capital Budget & Implementation Plan

### 8% fund level target

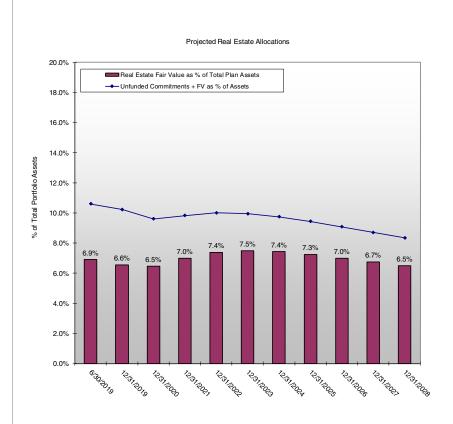
- Annual capital budget target of \$15 million, range of \$10-\$25 million
- Target 2-4 investments, range of \$4-\$7 million per inv
  - Average investment size of \$5 million
  - If an average of 2-4 GP partnership commitments per year, expect a total of 8-16 GP relationships over a 4 year fund raising cycle
- Retain core real estate exposure but lower it to 25% of the portfolio due to current valuations; use REITS as a substitute until funding private real estate investments is needed

### Performance comparisons:

- Long term investment objective: Earn a return premium over inflation (CPI-U + 5%)
- Recommended primary asset class benchmark: NCREIF NFI-ODCE; revisit over time as the structure of the portfolio changes
- Recommended fund benchmarks: Cambridge Associates strategy universe for the respective vintage years and each vintage year will be compared to Cambridge Associates Global Real Estate Index

## MCERA CY 2019 commitments (\$5 mm):

Rockpoint VI – opportunistic RE (VY 2019)







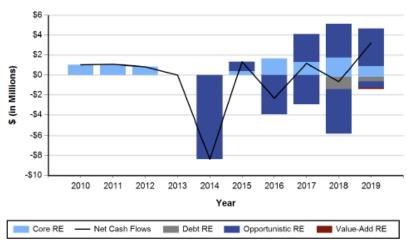
# MCERA Real Estate Investment Structure & Portfolio Assessment

# Real estate investment structure (8% target, 7% actual as of Jun 2019)

- MCERA invested in 1999 in a private core real estate fund; gains have been re-invested in the fund
- Distributions exceed contributions by \$5 million over the past year as overall RE activity has declined and Greenfield has been making distributions

<b>Annual Summary</b>									
(in thousands)									
	Total	Total	(A)	(B)	(C ) Fair	(B+C) Total	(B+C-A)		
	Partnerships	Commitments	Contributions	Distributions	Value	Value	Gain/Loss	Net IRR	Benchmark
June 30, 2018	4	\$48,908	\$34,704	\$23,777	\$62,598	\$86,375	\$51,671	9.37%	8.57%
June 30, 2019	8	\$68,529	\$38,616	\$32,415	\$59,653	\$92,069	\$53,452	9.09%	8.92%
Annual Change	4	\$19,621	\$3,912	\$8,638	-\$2,945	\$5,694	\$1,781		

### **Annual Cash Flow**

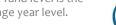


# MCERA Real Estate Performance – as of Jun 30, 2019

# Real Estate Portfolio

- MCERA began investing in the UBS Trumbull core real estate fund in 1999 and this represents the bulk of the real estate portfolio
  - Opportunistic funds began being added in 2014 and they are in the early stages of development with the VY 2016 fund now out of its "i-curve"
  - Valuation declined for the quarter due to UBS write down of retail properties
- Overall performance has met objectives, driven by the core RE fund; opportunistic fund performance is not meaningful

		(A) Commit.	Unfund.	(B) Cumulat.		( C) Cumulat.	(D) Fair	(C+D) Total	(C+D-B)		IRR	
Partnership Name	Strategy	Amount	Amount	Cont.	% Drawn	Dist.	Value	Value	Gain/ Loss	Net IRR	Bench.	TVPI
(in thousands)												
Vintage Year 1999												
UBS Trumbull Property Fund	Core RE	17,000	0	17,371	100%	22,359	41,122	63,482	46,111	8.89%	10.20%	3.65
Vintage Year 1999 Total		17,000	0	17,371	100%	22,359	41,122	63,482	46,111	8.89%	12.95%	3.65
Vintage Year 2014												
Greenfield Acquisition Partners VII, L.P.	Opportunistic RE	13,000	1,876	12,662	86%	8,921	9,989	18,909	6,248	13.38%	13.09%	1.49
Vintage Year 2014 Total		13,000	1,876	12,662	86%	8,921	9,989	18,909	6,248	13.38%	11.70%	1.49
Vintage Year 2016												
Patron Capital Fund V	Opportunistic RE	13,529	7,801	5,841	42%	1,135	5,960	7,095	1,254	12.05%	10.53%	1.21
Vintage Year 2016 Total		13,529	7,801	5,841	42%	1,135	5,960	7,095	1,254	12.05%	11.30%	1.21
Vintage Year 2017												
Carlyle Realty Partners VIII, L.P.	Opportunistic RE	5,000	4,459	541	11%	0	424	424	-117	N/M	N/M	0.78
Vintage Year 2017 Total		5,000	4,459	541	11%	0	424	424	-117	N/M	N/M	0.78
Vintage Year 2018												
Taconic CRE Dislocation Fund II	Debt RE	5,000	3,300	1,700	34%	0	1,758	1,758	58	N/M	N/M	1.03
AG Realty Value Fund X, L.P.	Opportunistic RE	5,000	4,625	375	8%	0	312	312	-63	N/M	N/M	0.83
Vintage Year 2018 Total		10,000	7,925	2,075	21%	0	2,070	2,070	-5	N/M	N/M	1.00
Vintage Year 2019												
Rockpoint Real Estate Fund VI, L.P.	Opportunistic RE	5,000	5,000	0	0%	0	0	0	0	N/M	N/M	0.00
Carmel Partners Investment Fund VII, L.	P Value-Add RE	5,000	4,874	126	3%	0	89	89	-37	N/M	N/M	0.71
Vintage Year 2019 Total		10,000	9,874	126	1%	0	89	89	-37	N/M	N/M	0.71
Total Portfolio:		68,529	31,935	38,616	53%	32,415	59,653	92,069	53,452	9.09%	8.92%	2.38



# MCERA Real Asset Capital Budget & Implementation Plan

### 5% fund level target

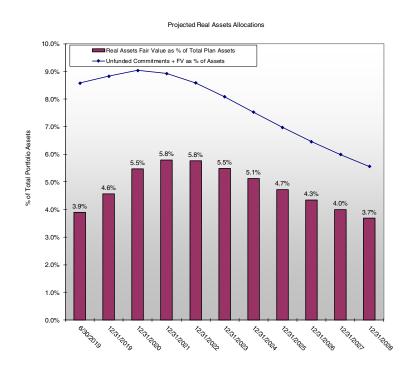
- Annual capital budget target of \$10 million, range of \$5-\$15 million
- Target 2-4 investments, range of \$3-\$7 million per inv
  - Average investment size of \$5 million
  - If an average of 2-4 GP partnership commitments per year, expect a total of 8-16 GP relationships over a 4 year fund raising cycle
- Portfolio targeted to be equally split between infrastructure and energy/natural resource funds

### Performance comparisons:

- Long term investment objective: Earn a return premium over inflation (CPI-U + 5%)
- Recommended primary asset class benchmark: 50/50
   Cambridge Global Infrastructure/Cambridge Energy
   Upstream & Royalties and Private Energy Index
- Recommended fund benchmarks: Each fund will be compared to the Cambridge Associates strategy universe for the respective vintage years and each vintage year will be compared to the 50/50 index

# MCERA CY 2019 commitments (\$5 mm):

Tailwater IV – mid-stream energy (VY 2019)





# MCERA Real Assets Investment Structure & Portfolio Assessment

# Real assets investment structure (5% target, 5.7% actual as of Jun 2019)

- Program is designed to be equally divided between private infrastructure and natural resource funds along with a public real asset component
- Private fund commitments began in 2014 to infrastructure and 2015 to natural resources
- The overall portfolio is immature with the funds in the early stage of development
  - Contributions exceed distributions by \$7 mm as the newer funds are being built out

<b>Annual Summary</b>									
(in thousands)									
	Total	Total	(A)	(B)	(C ) Fair	(B+C) Total	(B+C-A)		
	Partnerships	Commitments	Contributions	Distributions	Value	Value	Gain/ Loss	Net IRR	Benchmark
June 30, 2018	9	\$55,500	\$24,034	\$4,217	\$23,593	\$27,810	\$3,776	12.88%	5.02%
June 30, 2019	12	\$69,890	\$35,859	\$9,386	\$33,617	\$43,003	\$7,145	12.43%	1.06%
Annual Change	3	\$14,390	\$11,825	\$5,169	\$10,024	\$15,193	\$3,369		

# Annual Cash Flow \$5 \$0 -\$10 -\$15 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 Year Energy — Net Cash Flows Infrastructure Mining

# MCERA Real Assets Performance – as of Jun 30, 2019

### Real Asset Portfolio

- MCERA began allocating to real assets in 2014 via direct fund commitments
- Portfolio is in its early stages of development so performance is not meaningful; the 2014-16 funds had valuation improvements for the quarter; the VY 2017-19 funds are being built out

		(A) Commit.	Unfund.	(B) Cumulat.		(C) Cumulat.	(D) Fair	(C+D) Total	(C+D-B)		IRR	
Partnership Name	Strategy	Amount	Amount	Cont.	% Drawn	Dist.	Value	Value	Gain/ Loss	Net IRR	Bench.	TVPI
(in thousands)												
Vintage Year 2014												
KKR Global Infrastructure II	Infrastructure	10,000	813	10,386	92%	1,681	11,180	12,861	2,475	11.53%	9.12%	1.24
Vintage Year 2014 Total		10,000	813	10,386	92%	1,681	11,180	12,861	2,475	11.53%		1.24
Vintage Year 2015												
GSO Energy Select Opportunities Fund	Energy	7,500	3,789	4,167	49%	743	4,448	5,191	1,024	12.20%	11.40%	1.25
North Haven Infrastructure Partners II LP	Infrastructure	10,000	1,650	10,758	83%	4,197	8,678	12,875	2,117	12.16%	9.30%	1.20
Taurus Mining Finance Fund	Mining	5,000	2,179	3,698	56%	1,693	2,932	4,624	926	16.79%	N/A	1.25
Vintage Year 2015 Total		22,500	7,618	18,622	66%	6,633	16,057	22,690	4,068	13.00%		1.22
Vintage Year 2016												
Taurus Mining Finance Annex Fund	Mining	5,000	2,957	2,649	41%	944	2,365	3,309	660	31.38%	N/A	1.25
Vintage Year 2016 Total		5,000	2,957	2,649	41%	944	2,365	3,309	660	31.38%		1.25
Vintage Year 2017												
EnCap Energy Capital Fund XI, L.P.	Energy	5,000	4,093	907	18%	0	756	756	-151	N/M	N/M	0.83
ISQ Global Infrastructure Fund II	Infrastructure	5,000	3,750	1,377	25%	129	1,371	1,499	122	N/M	N/M	1.09
Vintage Year 2017 Total		10,000	7,844	2,284	22%	129	2,127	2,255	-29	N/M		0.99
Vintage Year 2018												
EnCap Flatrock Midstream IV, L.P.	Energy	3,000	2,113	887	30%	0	963	963	76	N/M	N/M	1.09
KKR Global Infrastructure Investors III	Infrastructure	5,000	4,370	630	13%	0	560	560	-70	N/M	N/M	N/A
Vintage Year 2018 Total		8,000	6,483	1,517	19%	0	1,524	1,524	6	N/M		1.00
Vintage Year 2019												
BlackRock Global Energy & Power Infrastru	ctuıEnergy	5,000	4,802	198	4%	0	185	185	-13	N/M	N/M	0.93
Global Energy & Power Infrastructure Fund	III Energy	5,000	4,802	198	4%	0	185	185	-13	N/M	N/M	0.93
Ardian Infrastructure Fund V	Infrastructure	4,390	4,386	4	0%	0	-5	-5	-10	N/M	N/M	N/A
Vintage Year 2019 Total		14,390	13,990	400	3%	0	365	365	-35	N/M		0.91
Total Portfolio:		69,890	39,704	35,859	43%	9,386	33,617	43,003	7,145	12.43%	1.06%	1.20
Portfolio Strategy Totals												
Energy		20,500	14,797	6,158	28%	743	6,352	7,095	937	9.56%		1.15
Infrastructure		25,000	6,833	21,774	73%	5,878	20,418	26,297	4,522	11.59%		1.21
Non-US		24,390	18,074		26%	2,765	6,847	9,612	1,686	19.56%		1.21
Total Portfolio:		69,890	39,704	35,859	43%	9,386	33,617	43,003	7,145	12.43%	1.06%	1.20
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Note: Benchmark is 50% S&P Natural Resources and 50% S&P Infrastructure. Benchmarks for individual funds are the respective Cambridge strategy benchmark.



# MCERA Hedge Fund Performance – as of Oct 31, 2019

# Equity oriented managers have been the best performers CYTD while credit has lagged

						Returns					Sharpe	Incep
Fund	Market Value	Actual %	Oct	QTD	YTD	1 Year	3 Year	5 Year	Incep	Std Dev	Ratio	Date
Market Neutral												
KLS Diversified Fund LP	9,059,387	11.9%	-0.71%	-0.71%	-0.18%	-4.79%	-	-	0.87%	3.89%	-0.33	Oct-17
Laurion Capital, Ltd.	5,386,468	7.1%	1.37%	1.37%	5.29%	6.14%	-	-	5.74%	4.60%	0.72	Jul-18
Market Neutral - HF Total	14,445,855	19.0%	0.06%	0.06%	1.79%	-0.21%	-	-	3.18%	2.89%	0.32	Oct-17
HFRI Relative Value (Total) Index			0.37%	0.37%	5.97%	3.66%	-	-	3.13%	2.87%	0.31	Oct-17
Credit/Distressed												
Silver Point Capital Fund, L.P.	11,862,443	15.6%	-1.40%	-1.40%	-0.18%	-5.46%	-	-	-0.37%	4.77%	-0.54	Dec-17
Credit/Distressed - HF Total	11,862,443	15.6%	-1.40%	-1.40%	-0.18%	-5.46%	-	-	-0.37%	4.77%	-0.54	Dec-17
HFRI ED: Distressed/Restructuring Index			-0.25%	-0.25%	2.77%	-1.40%	-	-	1.23%	4.33%	-0.23	Dec-17
Event Driven												
Taconic Opportunity Fund L.P.	10,378,412	13.7%	0.28%	0.28%	4.19%				3.78%	1.68%		Dec-18
Event Driven - HF Total	10,378,412	13.7%	0.28%	0.28%	4.19%				3.78%	1.68%		Dec-18
HFRI Event-Driven (Total) Index	10,378,412	13.770	0.75%	0.75%	5.33%	-		-	2.88%	5.27%	-	Dec-18
Til Ki Event-Dilven (Total) index			0.7370	0.7370	3.3370				2.8870	3.2770		Dec-10
Equity Long/Short												
Archipelago Partners, L.P.	11,857,205	15.6%	0.55%	0.55%	9.94%	6.69%	-	-	4.15%	7.08%	0.30	Sep-17
Marshall Wace Funds LP - MW Eureka (US) Fund	3,275,728	4.3%	0.63%	0.63%	8.65%	6.59%	-	-	4.69%	5.37%	0.45	Dec-17
Equity Long/Short - HF Total	15,132,933	19.9%	0.56%	0.56%	9.66%	6.81%	-	-	4.54%	6.17%	0.39	Sep-17
HFRI Equity Hedge (Total) Index			1.31%	1.31%	9.25%	4.85%	-	-	2.87%	7.33%	0.12	Sep-17
Global Macro-Discretionary												
Graham Absolute Return Trading Ltd.	7,528,866	9.9%	1.34%	1.34%	7.47%	3.39%	-	-	3.51%	6.95%	0.21	Sep-17
Global Macro-Discretionary - HF Total	7,528,866	9.9%	1.34%	1.34%	7.47%	3.39%	-	-	3.51%	6.95%	0.21	Sep-17
HFRI Macro (Total) Index			-1.29%	-1.29%	5.38%	5.00%	-	-	1.20%	5.12%	-0.17	Sep-17
Global Macro-Systematic												
Winton Fund Limited	6,192,149	8.2%	-1.17%	-1.17%	2.20%	2.08%	_	_	2.08%	7.50%	0.01	Nov-17
Global Macro-Systematic - HF Total	6,192,149	8.2%	-1.17%	-1.17%	2.20%	2.08%	-	-	2.08%	7.50%	0.01	Nov-17
HFRI Macro (Total) Index	0,132,113	0.270	-1.29%	-1.29%	5.38%	5.00%	-	-	0.75%	5.12%	-0.27	Nov-17
Multi-Strategy												
Sculptor Domestic Partners II, L.P.	10,422,136	13.7%	1.84%	1.84%	12.47%	9.98%	8.31%	6.01%	5.70%	5.69%	0.78	Jul-14
Multi-Strategy - HF Total	10,422,136	13.7%	1.84%	1.84%	12.47%	9.98%	8.31%	6.01%	5.70%	5.69%	0.78	Jul-14
HFRI Relative Value (Total) Index	10,422,130	13.770	0.37%	0.37%	5.97%	3.66%	4.06%	3.51%	3.19%	2.80%	0.78	Jul-14
MCERA Hedge Fund Portfolio	75.962.795	100.0%	0.22%	0.22%	5.26%	2.72%	6.08%	3.80%	3.58%	4.11%	0.57	Jul-14
HFRI Fund of Funds Composite Index	75,962,795	100.0%	0.45%	0.45%	5.76%	3.56%	3.43%	2.18%	1.98%	3.62%	0.57	Jul-14 Jul-14
Til Ni Tuliu di Tulius Composite ilidex			0.4370	0.4370	3.70%	3.30%	3.43/0	2.10/0	1.3070	3.0270	0.21	Jui-14
Market Indices												
Libor3Month			0.16%	0.16%	1.97%	2.44%	1.93%	1.35%	1.28%	0.25%	-	Jul-14
Bloomberg Barclays US Aggregate Bond Index			0.30%	0.30%	8.86%	11.53%	3.30%	3.25%	3.26%	3.04%	0.66	Jul-14
Bloomberg Barclays US High Yield Bond Index			0.28%	0.28%	11.70%	8.37%	6.03%	5.18%	4.71%	5.37%	0.65	Jul-14
S&P 500 TR			2.17%	2.17%	23.16%	14.33%	14.91%	10.78%	10.80%	11.72%	0.83	Jul-14
MSCI AC World Index Free - Net			2.74%	2.74%	19.38%	12.59%	11.33%	7.08%	6.30%	11.54%	0.48	Jul-14
MSCI EAFE - Net			3.59%	3.59%	16.86%	11.04%	8.48%	4.31%	2.58%	12.11%	0.17	Jul-14
MSCI EMF (Emerging Markets Free) - Net			4.22%	4.22%	10.37%	11.86%	7.36%	2.93%	2.29%	15.56%	0.14	Jul-14



# Cliffwater Disclosures

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