



Board of Retirement Regular Meeting

Sacramento County Employees' Retirement System

Agenda Item 18

MEETING DATE: December 18, 2019

SUBJECT: Quarterly Investment Performance Report
Alternative Assets

SUBMITTED FOR: ___ Consent ___ Deliberation and Action X Receive and File

RECOMMENDATION

Staff recommends the Board receive and file the Cliffwater Quarterly Performance Review presentation for the period ending September 30, 2019 for the Absolute Return portfolio, and the period ending June 30, 2019 for the Private Equity, Private Credit, Real Assets, and Opportunities portfolios.

PURPOSE

This item complies with SCERS' investment policy statement reporting requirements and contributes to the effective management and oversight of investment activities.

SCERS ALTERNATIVE ASSETS PORTFOLIO RETURNS

This memorandum provides a summarized table of SCERS' Alternative Assets period returns, which complements Cliffwater's Quarterly Performance Review, and it highlights notable manager performance, along with any recent alternative investments made by SCERS.

SCERS' alternative asset class period returns are as follows:

SCERS ALTERNATIVE ASSETS PERFORMANCE SUMMARY
Quarter Reporting Periods Ending September 30, 2019

SCERS ASSET CLASS	Quarter*	1-Year*	3-Year*	5-Year*	Since Inception*	Since Inception Date*
SCERS Absolute Return	0.3%	0.0%	3.2%	2.0%	3.9%	Sep-04
HFRI FoF Conservative	0.0%	1.2%	3.1%	2.1%	3.1%	
HFRI FoF Composite + 1%	-0.8%	0.8%	4.1%	2.9%	4.0%	
SCERS Private Equity	7.3%	24.7%	22.1%	17.5%	15.5%	Feb-08
Cambridge Private Equity/Venture Capital	4.1%	12.1%	16.2%	13.0%	13.0%	
SCERS Private Credit	2.0%	6.9%	8.1%	7.8%	8.1%	Oct-11
Credit Suisse Leveraged Loan + 2%	2.0%	6.2%	7.4%	5.9%	7.1%	
SCERS Real Assets	0.9%	11.1%	13.8%	13.4%	13.7%	Jan-13
(45%) Cambridge Private Infrastructure; (35%) Cambridge Private Energy; (20%) NCREIF Agriculture/Timber	0.3%	3.4%	8.7%	5.4%	6.8%	
SCERS Opportunities	4.8%	8.0%	6.2%	8.5%	18.4%	Jan-08
SCERS Portfolio Actuarial Rate of Return	1.8%	7.0%	7.0%	7.0%	7.0%	
<i>*Note: Periods ending 6/30/19 for Private Equity, Private Credit, Real Assets, and Opportunities Periods ending 9/30/19 for Absolute Return All returns are net IRR, except Absolute Return which is time-weighted</i>						

SCERS PORTFOLIO RESULTS

For the reporting quarter ended September 30, 2019, SCERS' Private Equity portfolio generated a robust +7.3% return, up significantly from last quarter's +5.0% return, and exceeding its benchmark return of +4.1%. Portfolio outperformance was driven by the impressive returns earned by the venture capital and buyout strategies. SCERS' Real Assets portfolio generated a modest +0.9% return but exceeded its benchmark return of +0.3%, driven by the infrastructure strategies.

Below are notable top and bottom performing funds among SCERS' Alternative Assets during the quarter ended September 30, 2019:

- Top performing funds:
 - Absolute Return:
 - Graham Global Investment Fund II (macro-systematic): +7.0%
 - Winton Diversified Futures Fund (macro-systematic): +5.4%
 - Lakewood Capital Partners (equity long/short): +3.1%
 - Private Equity portfolio:
 - Spectrum Equity Investors VII (venture capital): +45.6%

-
- Accel-KKR Capital Partners V (buyout): +38.3%
 - Accel-KKR Growth Capital Partners II (mezzanine): +25.6%
 - Private Credit portfolio:
 - Summit Partners Credit Fund III (direct lending): +4.4%
 - Summit Partners Credit Fund I (direct lending): +3.0%
 - Summit Partners Credit Fund II (direct lending): +2.2%
 - Real Assets portfolio:
 - Brookfield Infrastructure Fund III (infrastructure): +4.2%
 - IFM Global Infrastructure Fund (infrastructure): +3.8%
 - BlackRock Global Energy & Power Infrastructure Fund II (energy): +2.7%
 - Bottom performing funds:
 - Absolute Return portfolio:
 - Sculptor Domestic Partners (multi-strategy): -2.6%
 - Laurion Capital (market neutral): -2.1%
 - AQR Delta Fund II (multi-strategy): -1.4%
 - Private Equity portfolio:
 - Wayzata Opportunities Fund III (distressed debt): -8.3%
 - Spectrum Equity VIII (venture capital): -2.9%
 - TSG7 B (buyout): -3.0%
 - Private Credit portfolio:
 - Athyrium Opportunities Fund III (direct lending): -0.6%
 - Athyrium Opportunities Fund II (direct lending): +1.3%
 - Benefit Street Partners Senior Secured Opportunities Fund (direct lending): +1.8%
 - Real Assets portfolio:
 - EQT Infrastructure IV (infrastructure): -33.98%
 - Meridiam Infrastructure North America Fund III (infrastructure): -26.6%
 - EnCap Energy Capital Fund IX (energy): -4.2%

NEW INVESTMENTS

During the quarter ended September 30, 2019, SCERS made the following new investments:

- Accel-KKR Capital Partners VI (Private Equity - Buyout): \$30 million
- New Enterprise Associates 17 (Private Equity - Venture Capital): \$20 million

New investments made after the quarter:

- Benefit Street Partners Senior Secured Opportunities Fund II (Private Credit – Direct Lending): \$50 million
- Cortec Group Fund IV (Private Equity - Growth): \$30 million
- Davidson Kempner Long-Term Distressed Opportunities Fund V (Private Equity - Distressed Debt): \$35 million
- Gridiron Capital Fund IV (Private Equity - Buyout): \$30 million
- IFM U.S. Infrastructure Debt Fund (Private Credit - Direct Lending): \$40 million
- LMR Fund (Absolute Return - Diversifying): \$45 million
- Tailwater Energy Fund IV (Real Assets - Energy): \$35 million
- Threshold Ventures III (Private Equity - Venture Capital): \$20 million
- Two Sigma Risk Premia Enhanced Fund (Absolute Return - Diversifying): \$45 million

ATTACHMENT

Cliffwater’s Quarterly Performance Report for Alternative Assets for the Quarter ended September 30, 2019.

Prepared by:

/S/

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Investment Officer

Reviewed by:

/S/

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Chief Investment Officer

/S/

Eric Stern
Chief Executive Officer



INVESTMENT ADVISORY SERVICES

Los Angeles • New York

Sacramento County Employees' Retirement System Quarterly Performance Review

December 18, 2019



Executive Summary

Absolute Return Portfolio Performance Summary – as of September 30, 2019

Growth Oriented Strategies

- The Growth Oriented Portfolio returned -0.48% in Q3 and 8.19% for the CYTD period ending September 30, 2019
 - Outperforming the HFRI FoF Index + 1% benchmark by 36 bps in Q3 and 251 bps for the CYTD period
 - The portfolio is also outperforming that benchmark by 99 bps (annualized) over the trailing 3 year period
 - Underperforming the T-bills + 5% long term objective by 287 bps (annualized) over the trailing 5 year period
- The portfolio's CYTD outperformance was driven by the direct funds – Third Point, Lakewood, and Sculptor (Och-Ziff)

Diversifying Strategies

- The Diversifying Portfolio returned 0.73% in Q3 and 3.58% for the CYTD period ending September 30, 2019
 - Outperforming the HFRI Conservative FoF Index benchmark by 78 bps in Q3 though trailing by 102 bps for the CYTD period
 - Underperforming the T-bills + 2% long term objective by 195 bps (annualized) over the trailing 5 year period
- AQR DELTA has been the primary detractor from performance over these periods

Portfolio risk and market sensitivity remains within expectations for the Growth Oriented and Diversifying portfolios

- Growth Oriented
 - Portfolio standard deviation of 5.19% compared to the ACWI standard deviation of 11.38% since December 2011
 - Portfolio equity beta of 0.38 with an equity correlation of 0.84
 - Target standard deviation < 50% of global equities, with an equity beta < 0.5 and equity correlation < 0.8
- Diversifying
 - Portfolio standard deviation of 2.52% compared to the ACWI standard deviation of 11.38% since December 2011
 - Portfolio equity beta of 0.04 with an equity correlation of 0.19
 - Target standard deviation < 25% of global equities, with an equity beta < 0.1 and equity correlation < 0.1

Relative differences between the Growth Oriented and Diversifying portfolios reflect objectives and design

- Expect higher returns over the long-term from the Growth Oriented portfolio, though with more volatility
 - Both portfolios expected to provide diversification and risk reduction benefits for the overall SCERS portfolio

Growth Oriented Absolute Return Portfolio Performance – as of September 30, 2019

Fund	Market Value	Actual %	Returns								Std Dev	Sharpe Ratio	Incep Date
			Sep	QTD	YTD	FYTD	1 Year	3 Year	5 Year	Incep			
Growth-Oriented Portfolio													
Event Driven													
JANA Partners Qualified, L.P.	2,063,639	0.2%	0.00%	0.00%	-0.16%	0.00%	-15.95%	0.54%	-0.74%	1.19%	8.60%	0.05	Jul-13
Third Point Partners Qualified L.P.	49,754,846	5.2%	-2.20%	-0.05%	13.32%	-0.05%	0.00%	5.60%	4.66%	8.86%	7.93%	0.99	May-12
Event Driven - HF Total	51,818,486	5.4%	-2.11%	-0.13%	10.92%	-0.13%	-4.24%	4.52%	2.84%	7.16%	7.97%	0.78	May-12
Equity Long/Short													
Lakewood Capital Partners, LP	46,161,861	4.8%	4.13%	3.14%	18.42%	3.14%	6.64%	5.31%	5.30%	5.86%	9.55%	0.53	Jul-13
Equity Long/Short - HF Total	46,161,861	4.8%	4.13%	3.14%	18.42%	3.14%	6.64%	5.31%	5.30%	5.86%	9.55%	0.53	Jul-13
Multi-Strategy													
Sculptor Domestic Partners II, L.P.	50,073,063	5.3%	-0.98%	-2.57%	9.57%	-2.57%	3.84%	7.17%	4.82%	6.83%	5.12%	1.13	Jan-12
Multi-Strategy - HF Total	50,073,063	5.3%	-0.98%	-2.57%	9.57%	-2.57%	3.84%	7.17%	4.82%	6.83%	5.12%	1.13	Jan-12
Fund of Funds													
Grosvenor SC Absolute Return Fund LLC (Growth)	152,856,321	16.0%	-0.48%	-0.98%	4.27%	-0.98%	-1.93%	5.26%	2.73%	5.39%	4.49%	0.97	Dec-11
Fund of Funds - HF Total	152,856,321	16.0%	-0.48%	-0.98%	4.27%	-0.98%	-1.93%	5.06%	2.73%	4.33%	5.93%	0.45	Sep-04
Growth-Oriented Portfolio Total	300,909,731	31.6%	-0.18%	-0.48%	8.19%	-0.48%	-1.12%	5.08%	3.11%	4.62%	6.28%	0.47	Sep-04
HFRI FoF Composite + 1%			-0.53%	-0.84%	5.68%	-0.84%	0.82%	4.09%	2.91%	3.97%	4.95%	0.46	Sep-04
3 Month T-Bills+5%			0.58%	1.76%	5.50%	1.76%	7.38%	6.54%	5.98%	6.39%	0.48%	-	Sep-04
Market Indices													
Libor3Month			0.17%	0.54%	1.81%	0.54%	2.49%	1.90%	1.32%	1.74%	0.49%	-	Sep-04
Bloomberg Barclays US Aggregate Bond Index			-0.53%	2.27%	8.53%	2.27%	10.31%	2.93%	3.38%	4.21%	3.17%	0.76	Sep-04
Bloomberg Barclays US High Yield Bond Index			0.36%	1.33%	11.39%	1.33%	6.34%	6.07%	5.37%	7.40%	9.04%	0.64	Sep-04
S&P 500 TR			1.87%	1.70%	20.55%	1.70%	4.26%	13.40%	10.84%	9.03%	13.78%	0.57	Sep-04
MSCI AC World Index Free - Net			2.10%	-0.03%	16.20%	-0.03%	1.38%	9.71%	6.65%	7.17%	15.09%	0.42	Sep-04
MSCI EAFE - Net			2.87%	-1.07%	12.80%	-1.07%	-1.34%	6.48%	3.27%	5.44%	16.45%	0.30	Sep-04
MSCI EMF (Emerging Markets Free) - Net			1.91%	-4.25%	5.90%	-4.25%	-2.02%	5.97%	2.33%	8.17%	21.41%	0.40	Sep-04

Diversifying Absolute Return Portfolio Performance – as of September 30, 2019

Fund	Market Value	Actual %	Returns								Std Dev	Sharpe Ratio	Incep Date
			Sep	QTD	YTD	FYTD	1 Year	3 Year	5 Year	Incep			
Diversifying Portfolio													
Market Neutral													
Laurion Capital, Ltd.	47,493,049	5.0%	-0.33%	-2.13%	2.55%	-2.13%	3.52%	5.23%	6.85%	5.62%	5.13%	0.86	Mar-14
KLS Diversified Fund LP	40,345,158	4.2%	-0.05%	-1.00%	0.86%	-1.00%	-	-	-	0.86%	2.81%	-	Jan-19
Two Sigma Risk Premia Enhanced Fund, LP	45,000,000	4.7%	-	-	-	-	-	-	-	-	-	-	Sep-19
Market Neutral - HF Total	132,838,207	13.9%	-0.19%	-1.60%	1.78%	-1.60%	2.75%	4.96%	6.69%	5.48%	4.82%	0.88	Mar-14
Event Driven													
Elliott International Limited	57,095,906	6.0%	0.70%	0.90%	5.28%	0.90%	5.32%	6.87%	6.01%	7.18%	3.37%	1.77	Apr-12
Davidson Kempner Institutional Partners LP	33,072,329	3.5%	0.13%	0.79%	-	0.79%	-	-	-	1.22%	-	-	May-19
Event Driven - HF Total	90,168,235	9.5%	0.49%	0.86%	4.52%	0.86%	4.56%	6.61%	5.85%	7.08%	3.32%	1.77	Apr-12
Equity Long/Short													
Marshall Wace Funds LP - MW Global Opportunities (US)	41,155,247	4.3%	-2.59%	0.43%	2.89%	0.43%	-	-	-	2.89%	5.82%	-	Jan-19
Equity Long/Short - HF Total	41,155,247	4.3%	-2.59%	0.43%	2.89%	0.43%	3.87%	3.87%	3.87%	3.87%	5.82%	0.27	Apr-12
Macro-Systematic													
Graham Global Investment Fund II SPC Ltd. - Tactical Tren	36,073,157	3.8%	-4.24%	7.01%	18.81%	7.01%	4.79%	-	-	1.14%	13.42%	0.00	Feb-17
Winton Diversified Futures Fund L.P.	39,332,311	4.1%	-2.65%	5.38%	6.61%	5.38%	3.94%	-	-	4.33%	7.97%	0.32	Jan-17
Macro-Systematic - HF Total	75,405,468	7.9%	-3.42%	6.16%	12.12%	6.16%	4.35%	-	-	2.60%	9.85%	0.11	Jan-17
Multi-Strategy													
AQR DELTA Fund II, LP	44,274,499	4.6%	-0.49%	-1.39%	-7.19%	-1.39%	-11.54%	-5.71%	-0.60%	0.15%	5.87%	-0.13	May-13
Multi-Strategy - HF Total	44,274,499	4.6%	-0.49%	-1.39%	-7.19%	-1.39%	-11.54%	-5.71%	-0.60%	0.15%	5.87%	-0.13	May-13
Fund of Funds													
Grosvenor SC Absolute Return Fund LLC (Diversifying)	118,863,448	12.5%	-0.11%	0.74%	4.18%	0.74%	1.60%	0.83%	-0.44%	1.58%	3.01%	0.22	Dec-11
Grosvenor SC Absolute Return Fund LLC Series B	149,057,413	15.6%	-0.08%	0.34%	4.41%	0.34%	1.91%	-0.63%	-1.22%	0.60%	2.66%	-0.15	Feb-13
Fund of Funds - HF Total	267,920,861	28.1%	-0.09%	0.51%	4.31%	0.51%	1.78%	0.24%	-0.77%	1.40%	2.80%	0.17	Dec-11
Diversifying Portfolio Total	651,762,516	68.4%	-0.64%	0.73%	3.58%	0.73%	0.86%	1.61%	1.03%	2.04%	2.52%	0.43	Dec-11
HFRI FOF: Conservative Index			-0.03%	-0.05%	4.60%	-0.05%	1.21%	3.14%	2.05%	3.14%	2.26%	0.94	Dec-11
3 Month T-Bills+2%			0.34%	1.05%	3.29%	1.05%	4.38%	3.54%	2.98%	2.65%	0.24%	-	Dec-11
SCERS Absolute Return Portfolio	952,672,247	100.0%	-0.49%	0.33%	5.06%	0.33%	-0.02%	3.22%	1.97%	3.90%	5.62%	0.40	Sep-04
3 Month T-Bills+5%			0.58%	1.76%	5.50%	1.76%	7.38%	6.54%	5.98%	6.39%	0.48%	-	Sep-04
HFRI Fund of Funds Composite Index			-0.63%	-1.08%	5.01%	-1.08%	-0.18%	3.09%	1.91%	2.96%	5.00%	0.26	Sep-04

* Included the SCERS Total Absolute Return Portfolio performance for reference

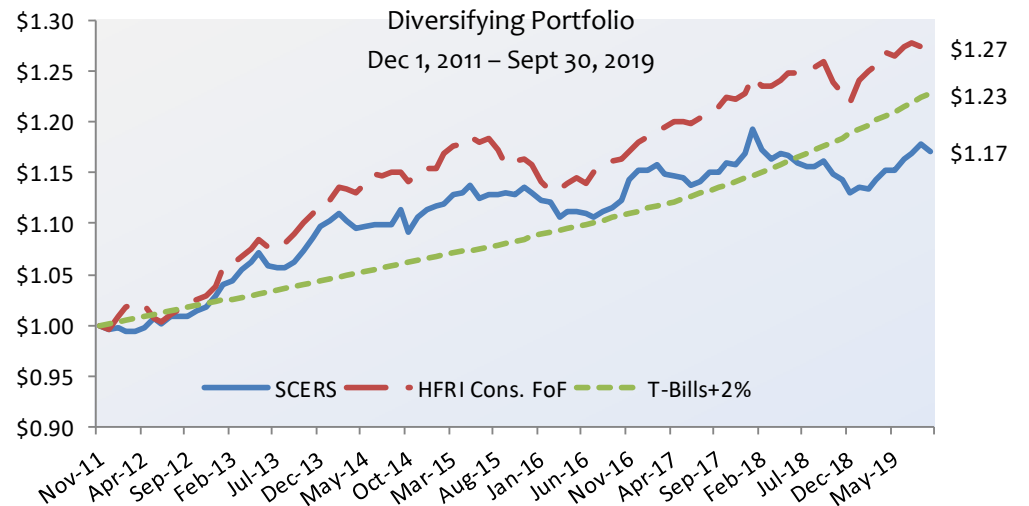
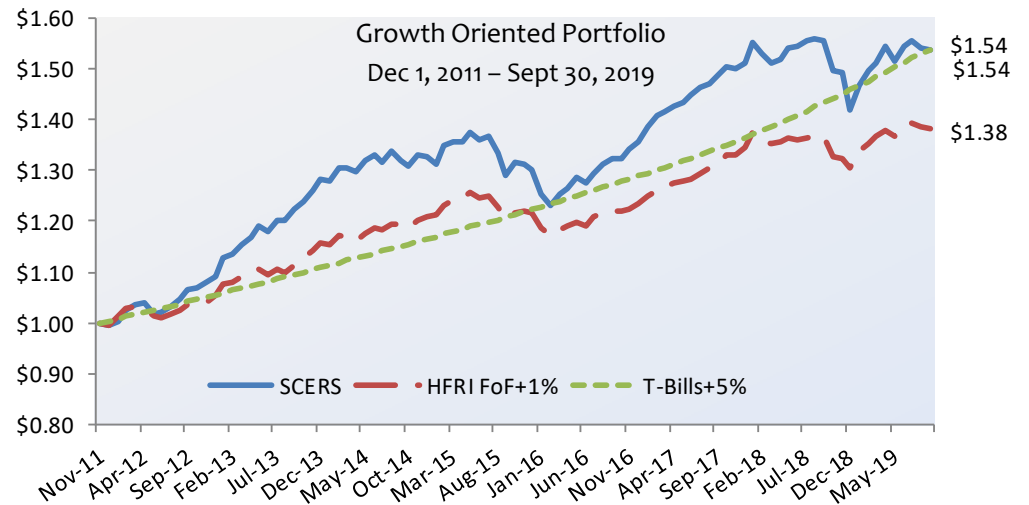
Absolute Return Portfolios Cumulative Performance – Dec 2011 to September 2019

The Growth Oriented portfolio has outperformed the Fund of Funds Index + 1% benchmark and met the T-bills + 5% long term objective

The Diversifying portfolio was tracking the T-bills + 2% long term objective until the Q4 downturn and remains below the objective; the portfolio has underperformed the HFRI Fund of Funds Conservative Index over this period

Showing cumulative performance (growth of \$1) for each portfolio since the initial restructuring of the Absolute Return portfolio in December 2011

- The prior exposure of the Absolute Return portfolio was only Equity Long/Short fund of funds investments



Private Equity Portfolio – as of June 30, 2019

The Private Equity portfolio's net IRR since inception is 15.50%, versus the Cambridge Associates benchmark IRR of 13.02%

- The long-term Policy objective (Russell 3000 + 3%) has a 15.32% IRR over this period

The private equity portfolio produced another quarter of strong gains, further improving longer term performance

- Gains were broad-based across most of the funds in Q2, with several producing double-digit returns
 - Spectrum VII, Accel-KKR IV & V and Accel-KKR Growth II, Linden III, and HIG Europe II reported the largest gains
- Distributions remained steady among the direct fund investments (\$34.4 million) and fund of funds (\$8.1 million)
 - TOP III, RRJ III, NEA 14 & 15, HIG Bayside Loan III, and Spectrum VII led distributions within directs

Continued strong longer-term performance across most of the private equity funds

- Double-digit net IRRs for all vintage years prior to 2018
- Spectrum VII (43.8%), Summit VC IV (43.2%), Accel-KKR IV (38.6%), and Linden III (38.5%) are leading performance

The legacy fund of funds reported modest increases during the quarter

- Aggregate since inception net IRR increased to 11.66% from 11.41%, during the quarter
 - The aggregate total value (TVPI) increased to 1.66x from 1.63x
- The legacy fund of funds comprise only 13.5% of the current fair value of the Private Equity portfolio

Changes during the quarter

- SCERS committed \$30 million to Accel-KKR VI (specialty buyouts) and \$20 million to NEA 17 (diversified VC) during Q2
 - SCERS committed \$30 million to a distressed fund in Q3 2019
 - All three commitments were reups with existing portfolio General Partners
- \$52.5 million in new contributions, \$42.5 million in distributions
- Total portfolio gain increased by \$65.7 million while the total portfolio IRR increased by 0.64%

Private Equity Portfolio Characteristics as of June 30, 2019

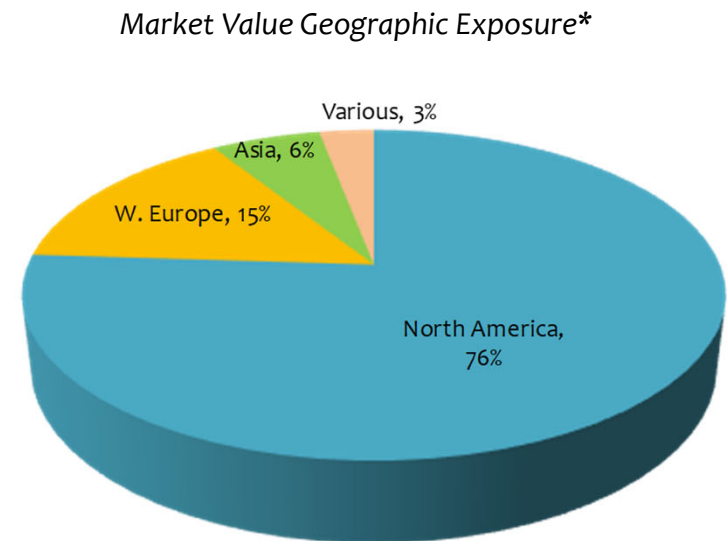
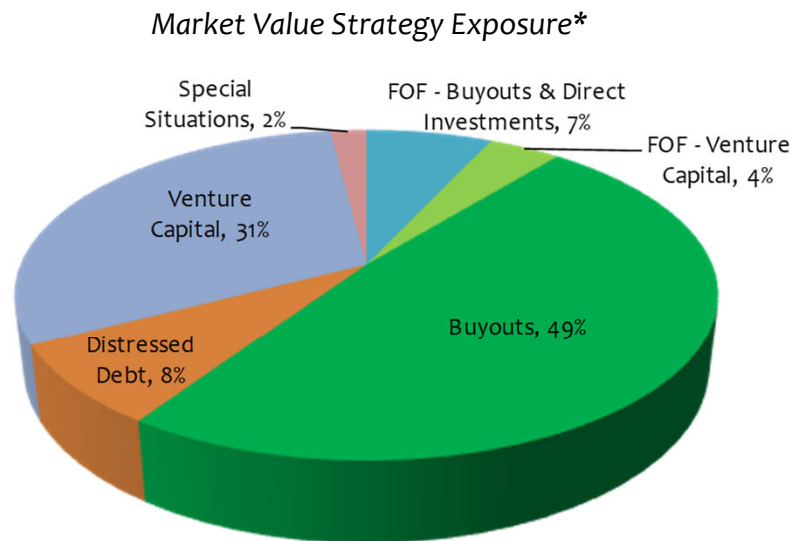
The SCERS Private Equity portfolio is diversified by strategy and geography

- Investments remain focused in North America, with meaningful exposure to Europe

The legacy fund of funds exposure remains relatively small as a percentage of the total portfolio's value

- Represents 13% of the total portfolio's value as of June 30, 2019

Portfolio strategy and geographic allocations, based on fair market value of invested capital, shown below



* Exposures are based on the market values of investments as of 6/30/19.

Private Equity Portfolio Performance Details – as of June 30, 2019

Partnership Name	Strategy	(A) Commit. Amount	Unfund. Amount	(B) Cumulat. Cont.	% Drawn	(C) Cumulat. Dist.	(D) Fair Value	(C+D) Total Value	(C+D-B) Gain/Loss	Net IRR	IRR Bench.	TVPI
Vintage Year 2006												
HarbourVest Partners VIII - Buyout Fund L.P.	Fund of Funds	37,500	1,688	35,813	96%	51,115	11,236	62,351	26,538	10.84%	7.72%	1.74x
HarbourVest Partners VIII - Mezzanine and Distressed Debt Fund L.P.	Fund of Funds	5,000	200	4,800	96%	5,865	757	6,623	1,823	7.39%	7.72%	1.38x
HarbourVest Partners VIII - Venture Fund L.P.	Fund of Funds	7,500	150	7,350	98%	9,793	4,383	14,176	6,826	10.99%	7.72%	1.93x
Vintage Year 2006 Total		50,000	2,038	47,963	96%	66,773	16,377	83,150	35,187	10.60%	7.29%	1.73x
Vintage Year 2008												
Abbott Capital Private Equity Fund VI, L.P.	Fund of Funds	75,000	1,125	73,875	99%	71,251	52,731	123,982	50,107	12.68%	12.70%	1.68x
Goldman Sachs Private Equity Partners X, L.P.	Fund of Funds	75,000	13,166	68,958	82%	90,204	26,500	116,705	47,747	11.70%	12.70%	1.69x
HarbourVest International Private Equity Partners VI-Partnership Fund L.P.	Fund of Funds	36,607	2,196	37,619	94%	24,890	35,929	60,819	23,200	12.01%	7.62%	1.62x
Vintage Year 2008 Total		186,607	16,487	180,452	91%	186,345	115,161	301,506	121,054	12.13%	8.25%	1.67x
Vintage Year 2011												
Waterland Private Equity Fund V C.V.	Buyout	18,190	3,584	15,681	80%	28,813	11,594	40,408	24,727	36.31%	13.05%	2.58x
Khosla Ventures IV, L.P.	Venture Capital	10,000	190	9,810	98%	8,448	19,836	28,284	18,474	22.99%	16.62%	2.88x
Vintage Year 2011 Total		28,190	3,774	25,491	87%	37,262	31,430	68,692	43,201	29.76%	13.46%	2.69x
Vintage Year 2012												
Garrison Opportunity Fund III A LLC	Distressed Debt	20,000	0	20,000	100%	7,660	13,657	21,317	1,317	1.34%	9.96%	1.07x
New Enterprise Associates 14, L.P.	Venture Capital	25,000	1,500	23,500	94%	21,397	30,352	51,749	28,249	18.06%	15.21%	2.20x
Summit Partners Venture Capital III-A, LP	Venture Capital	16,350	2,122	18,995	87%	20,439	15,013	35,452	16,457	17.46%	15.21%	1.87x
Vintage Year 2012 Total		61,350	3,622	62,495	94%	49,496	59,022	108,518	46,023	12.91%	13.21%	1.74x
Vintage Year 2013												
Accel-KKR Capital Partners IV, L.P.	Buyout	15,000	823	14,177	95%	20,029	16,213	36,243	22,066	38.57%	15.86%	2.56x
H.I.G. Capital Partners V, L.P.	Buyout	14,000	2,761	11,239	80%	3,685	12,741	16,426	5,187	21.26%	15.86%	1.46x
Marlin Equity IV, L.P.	Buyout	20,000	139	19,861	99%	9,877	14,347	24,225	4,364	7.47%	15.86%	1.22x
RRJ Capital Master Fund II, L.P.	Buyout	35,000	4,683	35,067	87%	27,972	20,812	48,784	13,717	11.37%	15.27%	1.39x
H.I.G. Bayside Loan Opportunity Fund III (Europe-US\$), L.P.	Distressed Debt	30,000	5,769	24,231	81%	18,522	15,388	33,910	9,679	10.38%	7.38%	1.40x
Wayzata Opportunities Fund III, L.P.	Distressed Debt	30,000	22,835	14,718	24%	8,556	5,285	13,841	-877	-2.11%	8.65%	0.94x

¹Benchmarks:

Private Equity Investments: Cambridge Associates median return for the respective strategies and vintage years

Vintage Year Comparison: Cambridge Associates Global Private Equity & Venture Capital median return for the respective vintage years

Private Equity Portfolio: Cambridge Associates Global Private Equity & Venture Capital pooled internal rate of return

Private Equity Portfolio Performance Details – as of June 30, 2019 (continued)

Partnership Name	Strategy	(A) Commit. Amount	Unfund. Amount	(B) Cumulat. Cont.	% Drawn	(C) Cumulat. Dist.	(D) Fair Value	(C+D) Total Value	(C+D-B) Gain/Loss	Net IRR	IRR Bench.	TVPI
Trinity Ventures XI, L.P.	Venture Capital	25,000	2,688	22,313	89%	4,835	39,893	44,728	22,415	18.92%	14.69%	2.00x
Vintage Year 2013 Total		169,000	39,699	141,605	77%	93,477	124,679	218,156	76,551	14.60%	13.36%	1.54x
Vintage Year 2014												
Dyal Capital Partners II	Buyout	35,000	11,353	25,154	68%	3,787	16,329	20,117	-5,037	-11.82%	17.84%	0.80x
H.I.G. Europe Capital Partners II, L.P.	Buyout	15,916	5,405	10,899	66%	2,499	9,607	12,107	1,207	6.58%	16.53%	1.11x
Marlin Heritage Fund	Buyout	10,000	-20	10,139	100%	9,153	12,207	21,359	11,221	36.74%	17.84%	2.11x
Thoma Bravo XI	Buyout	30,000	3,430	32,305	89%	22,256	48,462	70,718	38,413	25.45%	17.84%	2.19x
TPG Opportunities Partners III	Distressed Debt	40,000	17,429	44,488	56%	29,982	21,885	51,867	7,379	9.75%	9.10%	1.17x
Khosla Ventures V	Venture Capital	20,000	1,800	18,200	91%	1,013	23,319	24,332	6,132	11.50%	16.06%	1.34x
Spectrum Equity Investors VII, L.P.	Venture Capital	25,000	2,375	22,625	91%	18,304	43,508	61,811	39,186	43.79%	16.06%	2.73x
Vintage Year 2014 Total		175,916	41,772	163,810	76%	86,994	175,317	262,312	98,502	21.28%	15.48%	1.60x
Vintage Year 2015												
* WPEF VI Overflow Fund C.V.	Buyout	6,821	6,811	10	0%	0	0	0	-10	0.00%	14.48%	0.00x
RRJ Capital Master Fund III, LP	Buyout	40,000	12,716	30,114	68%	8,953	30,431	39,384	9,270	16.54%	14.48%	1.31x
WPEF VI Feeder, L.P.	Buyout	27,285	9,922	17,600	64%	445	24,672	25,117	7,517	21.12%	14.48%	1.43x
Accel-KKR Growth Capital Partners II	Mezzanine	15,000	2,841	12,159	81%	4,142	12,619	16,760	4,602	20.73%	10.08%	1.38x
New Enterprise Associates 15, L.P.	Venture Capital	35,000	4,025	30,979	89%	7,456	46,339	53,795	22,816	22.81%	15.99%	1.74x
Summit Partners Venture Capital Fund IV-A, L.P.	Venture Capital	35,000	34,782	19,136	1%	18,917	14,285	33,203	14,067	43.16%	15.99%	1.74x
Vintage Year 2015 Total		159,106	71,097	109,998	55%	39,913	128,346	168,259	58,261	23.69%	15.13%	1.53x
Vintage Year 2016												
Accel-KKR Capital Partners V, L.P.	Buyout	25,000	13,359	11,641	47%	256	16,177	16,433	4,792	30.98%	9.94%	1.41x
Dyal III Pension Investors LP	Buyout	35,000	22,596	17,287	35%	4,593	18,602	23,195	5,908	18.35%	9.94%	1.34x
Linden Capital Partners III	Buyout	35,000	4,613	32,853	87%	3,512	63,707	67,219	34,366	38.53%	9.94%	2.05x
Marlin Heritage Europe, L.P.	Buyout	14,779	8,061	6,898	45%	0	8,416	8,416	1,517	N/M	N/M	1.22x
Thoma Bravo Fund XII, L.P.	Buyout	30,000	2,083	35,366	93%	7,451	35,353	42,804	7,438	13.90%	9.94%	1.21x
TSG7 A L.P.	Buyout	16,000	5,348	10,652	67%	111	12,572	12,683	2,032	10.32%	9.94%	1.19x
TSG7 B L.P.	Buyout	4,000	2,634	1,366	34%	6	1,102	1,107	-258	-12.97%	9.94%	0.81x

¹Benchmarks:

Private Equity Investments: Cambridge Associates median return for the respective strategies and vintage years

Vintage Year Comparison: Cambridge Associates Global Private Equity & Venture Capital median return for the respective vintage years

Private Equity Portfolio: Cambridge Associates Global Private Equity & Venture Capital pooled internal rate of return

Private Equity Portfolio Performance Details – as of June 30, 2019 (continued)

Partnership Name	Strategy	(A) Commit. Amount	Unfund. Amount	(B) Cumulat. Cont.	% Drawn	(C) Cumulat. Dist.	(D) Fair Value	(C+D) Total Value	(C+D-B) Gain/Loss	Net IRR	IRR Bench.	TVPI
Atalaya Special Opportunities Fund VI, L.P.	Distressed Debt	25,000	2,454	28,940	90%	13,247	21,482	34,729	5,789	10.22%	10.28%	1.20x
Trinity Ventures XII, L.P.	Venture Capital	30,000	9,375	20,625	69%	0	34,740	34,740	14,115	37.31%	16.22%	1.68x
Vintage Year 2016 Total		214,779	70,525	165,627	67%	29,175	212,150	241,325	75,698	23.75%	12.99%	1.46x
Vintage Year 2017												
Marlin Heritage II	Buyout	10,000	4,961	5,039	50%	0	5,138	5,138	99	N/M	N/M	1.02x
Summit Partners Europe Growth Equity Fund II, SCSP	Buyout	34,106	28,829	14,117	15%	8,626	10,541	19,167	5,049	N/M	N/M	1.36x
New Enterprise Associates 16, L.P.	Venture Capital	35,000	16,888	18,113	52%	0	20,307	20,307	2,194	12.38%	11.62%	1.12x
Vintage Year 2017 Total		79,106	50,678	37,268	36%	8,626	35,985	44,611	7,343	27.01%	11.92%	1.20x
Vintage Year 2018												
Linden Capital Partners IV LP	Buyout	44,330	38,957	5,933	12%	1,907	5,069	6,976	1,044	N/M	N/M	1.18x
Marlin Equity V	Buyout	25,000	19,986	5,014	20%	375	5,181	5,556	542	N/M	N/M	1.11x
TSG8 L.P.	Buyout	45,000	44,387	613	1%	0	-85	-85	-698	N/M	N/M	-0.14x
Davidson Kempner Long-Term Distressed Opportunities Fund IV LP	Distressed Debt	35,000	12,600	22,400	64%	0	23,688	23,688	1,288	N/M	N/M	1.06x
TSSP Opportunities Partners IV (A), L.P.	Distressed Debt	35,000	30,636	4,693	12%	332	4,519	4,851	158	N/M	N/M	1.03x
RCP Fund XIII	Fund of Funds	50,000	47,000	3,000	6%	0	2,541	2,541	-459	N/M	N/M	0.85x
RCPDirect III	Fund of Funds	25,000	19,614	5,386	22%	386	5,154	5,540	154	N/M	N/M	1.03x
Accel-KKR Growth Capital Partners III	Mezzanine	33,320	33,320	0	0%	0	0	0	0	N/M	N/M	N/A
Khosla Ventures VI, L.P.	Venture Capital	35,000	27,020	7,980	23%	0	7,848	7,848	-132	N/M	N/M	0.98x
Spectrum Equity VIII, L.P.	Venture Capital	25,000	17,625	7,375	30%	0	6,555	6,555	-820	N/M	N/M	0.89x
Vintage Year 2018 Total		352,650	291,145	62,394	17%	3,000	60,471	63,471	1,077	N/M	N/M	1.02x
Vintage Year 2019												
Accel-KKR Capital Partners VI, LP	Buyout	30,000	30,000	0	0%	0	0	0	0	N/M	N/M	N/A
Thoma Bravo Fund XIII, LP	Buyout	45,000	28,924	16,076	36%	0	15,889	15,889	-187	N/M	N/M	0.99x
New Enterprise Associates 17, L.P.	Venture Capital	20,000	20,000	0	0%	0	0	0	0	N/M	N/M	N/A
Vintage Year 2019 Total		95,000	78,924	16,076	17%	0	15,889	15,889	-187	N/M	N/M	0.99x

¹Benchmarks:

Private Equity Investments: Cambridge Associates median return for the respective strategies and vintage years

Vintage Year Comparison: Cambridge Associates Global Private Equity & Venture Capital median return for the respective vintage years

Private Equity Portfolio: Cambridge Associates Global Private Equity & Venture Capital pooled internal rate of return

Private Equity Portfolio Performance Details – as of June 30, 2019 (continued)

	(A) Commit. Amount	Unfund. Amount	(B) Cumulat. Cont.	% Drawn	(C) Cumulat. Dist.	(D) Fair Value	(C+D) Total Value	(C+D-B) Gain/Loss	Net IRR	IRR Bench.	TVPI
Portfolio Strategy Totals											
Buyout	660,427	316,348	385,099	52%	164,307	415,077	579,384	194,285	21.62%		1.50x
Distressed Debt	215,000	91,724	159,470	57%	78,299	105,904	184,204	24,733	6.35%		1.16x
Fund of Funds	311,607	85,138	236,800	73%	253,504	139,233	392,737	155,936	11.66%		1.66x
Mezzanine	48,320	36,161	12,159	25%	4,142	12,619	16,760	4,602	20.73%		1.38x
Venture Capital	336,350	140,389	219,650	58%	100,809	301,995	402,804	183,153	22.68%		1.83x
Portfolio Total :	1,571,703	669,761	1,013,179	57%	601,061	974,827	1,575,888	562,710	15.50%	13.02%	1.56x
Portfolio Geography Totals											
US	1,313,000	581,783	820,942	56%	480,341	807,437	1,287,778	466,836	15.41%		1.57x
Non-US	258,703	87,977	192,237	66%	120,720	167,390	288,110	95,874	15.98%		1.50x
Portfolio Total	1,571,703	669,761	1,013,179	57%	601,061	974,827	1,575,888	562,710	15.50%	13.02%	1.56x

¹Benchmarks:

Private Equity Investments: Cambridge Associates median return for the respective strategies and vintage years

Vintage Year Comparison: Cambridge Associates Global Private Equity & Venture Capital median return for the respective vintage years

Private Equity Portfolio: Cambridge Associates Global Private Equity & Venture Capital pooled internal rate of return

Private Credit Portfolio – as of June 30, 2019

The Private Credit portfolio's net IRR since inception is 8.12%, versus the benchmark return of 7.13%

- The benchmark is the Credit Suisse Leveraged Loan Index + 2%

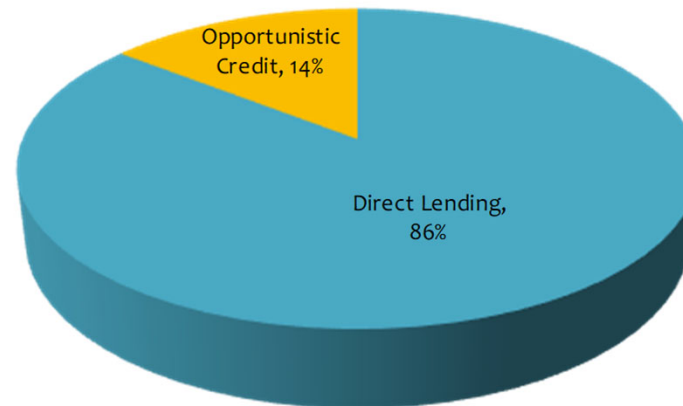
The Private Credit funds reported another quarter of steady gains in Q2

- The portfolio returned 2.0% in Q2 and 6.9% for the trailing 1 year period ending June 30, 2019
 - Athyrium III report a modest decline of 65 bps in Q2, all other funds recorded positive performance
- Longer term performance remains steady, with annualized returns of roughly 8% over multi-year periods
 - 8.1% net IRR for the 3 year period and 7.8% net IRR for the 5 year period

Changes during the quarter

- SCERS committed \$35 million to OrbiMed Royalty & Credit Opps III (healthcare focused lending/royalties) during Q2
- \$15.3 million in new contributions, \$5.4 million in distributions
- Portfolio IRR increased 0.01% while the total portfolio gain increased by \$3.2 million

*Market Value Strategy Exposure
(based on fair value of investments)
as of June 30, 2019*



Private Credit Portfolio Details – as of June 30, 2019

Partnership Name	Strategy	(A) Commit. Amount	Unfund. Amount	(B) Cumulat. Cont.	% Drawn	(C) Cumulat. Dist.	(D) Fair Value	(C+D) Total Value	(C+D-B) Gain/Loss	Net IRR	IRR Bench.	TVPI
Vintage Year 2011												
Summit Partners Credit Fund, LP	Direct Lending	20,000	2,125	20,697	89%	23,919	2,762	26,682	5,985	8.93%	N/A	1.29x
Vintage Year 2011 Total		20,000	2,125	20,697	89%	23,919	2,762	26,682	5,985	8.93%	13.46%	1.29x
Vintage Year 2014												
Summit Partners Credit Fund II, L.P.	Direct Lending	35,000	7,454	44,643	79%	24,927	27,129	52,055	7,412	9.06%	3.83%	1.17x
Vintage Year 2014 Total		35,000	7,454	44,643	79%	24,927	27,129	52,055	7,412	9.06%	15.48%	1.17x
Vintage Year 2015												
Athyrium Opportunities Fund II	Opportunistic Credit	32,000	6,570	38,545	79%	31,030	13,189	44,218	5,674	8.32%	10.08%	1.15x
Vintage Year 2015 Total		32,000	6,570	38,545	79%	31,030	13,189	44,218	5,674	8.32%	15.13%	1.15x
Vintage Year 2017												
Athyrium Opportunities Fund III	Opportunistic Credit	25,000	12,967	15,528	48%	3,460	12,126	15,586	58	0.36%	8.17%	1.00x
Vintage Year 2017 Total		25,000	12,967	15,528	48%	3,460	12,126	15,586	58	0.36%	11.92%	1.00x
Vintage Year 2018												
Benefit Street Partners Senior Secured Opportunities Fund L.P.	Direct Lending	50,000	3,877	48,532	92%	4,997	46,830	51,828	3,295	N/M	N/M	1.07x
Summit Partners Credit Fund III, L.P.	Direct Lending	50,000	39,170	10,830	22%	0	12,544	12,544	1,714	N/M	N/M	1.16x
TGP Direct Lending Fund VIII-S, LLC	Direct Lending	100,000	39,366	60,634	61%	2,600	60,749	63,349	2,714	N/M	N/M	1.04x
Vintage Year 2018 Total		200,000	82,413	119,996	59%	7,597	120,123	127,720	7,724	N/M	N/M	1.06x
Vintage Year 2019												
OrbiMed Royalty & Credit Opportunities III, LP	Opportunistic Credit	35,000	35,000	0	0%	0	0	0	0	N/M	N/M	N/A
Vintage Year 2019 Total		35,000	35,000	0	0%	0	0	0	0	N/M	N/M	N/A
Portfolio Total :		347,000	146,529	239,408	58%	90,933	175,329	266,262	26,853	8.12%	7.13%	1.11x
Portfolio Strategy Totals												
Direct Lending		255,000	91,992	185,336	64%	56,443	150,014	206,457	21,122	8.51%		1.11x
Opportunistic Credit		92,000	54,537	54,073	41%	34,490	25,314	59,804	5,732	6.92%		1.11x
Portfolio Total :		347,000	146,529	239,408	58%	90,933	175,329	266,262	26,853	8.12%	7.13%	1.11x

¹Benchmarks:

Private Credit Investments: Cambridge Associates median return for the respective debt strategies and vintage years
Private Credit Portfolio: Credit Suisse Leveraged Loan Index + 2%

Real Assets Portfolio – as of June 30, 2019

The Real Assets portfolio's net IRR since inception is 13.74%, versus the blended benchmark return of 6.80%

- The Real Assets portfolio includes private Infrastructure, Energy, and Agriculture, Timber and Other
- Real Assets is part of the broader Real Return asset category

The Real Assets portfolio is primarily Energy and Infrastructure partnerships

- Both Energy and Infrastructure partnerships have performed well since inception
 - Since inception net IRRs of 14.7% for Energy and 14.2% for Infrastructure
- The Real Asset Debt separate account has also performed well with an 11.0% since inception net IRR
 - That separate account market value remains small at \$17.1 million, with very few new investments

The portfolio generated a 0.9% net return in Q2 despite another downturn in the Energy sector

- The portfolio's infrastructure funds reported the largest gains in Q2
 - Good performance across Brookfield III, IFM, BlackRock Global Energy & Power II, and I Squared
- Most of the energy funds reported modest declines during quarter, as did Wastewater and ACM (agriculture)

Changes during the quarter

- SCERS made no new commitments to Real Assets funds during Q2
- \$17.6 million in new contributions, \$12.1 million in distributions
- Portfolio IRR declined by 1.12% while the total portfolio gain increased by \$4.6 million

Real Assets Portfolio Performance Details – as of June 30, 2019

Partnership Name	Strategy	(A) Commit. Amount	Unfund. Amount	(B) Cumulat. Cont.	% Drawn	(C) Cumulat. Dist.	(D) Fair Value	(C+D) Total Value	(C+D-B) Gain/Loss	Net IRR	IRR Bench.	TVPI
Vintage Year 2013												
EnCap Energy Capital Fund IX, L.P.	Energy	33,000	2,082	37,040	94%	27,596	21,246	48,842	11,803	12.03%	3.83%	1.32x
Vintage Year 2013 Total		33,000	2,082	37,040	94%	27,596	21,246	48,842	11,803	12.03%		1.32x
Vintage Year 2014												
Carlyle Power Partners II, L.P.	Energy	40,000	23,544	22,041	41%	5,428	18,756	24,184	2,143	4.04%	10.14%	1.10x
EnCap Flatrock Midstream III	Energy	20,000	3,464	20,304	83%	8,576	16,365	24,941	4,637	16.99%	10.14%	1.23x
Global Energy & Power Infrastructure Fund II	Energy	35,000	4,363	34,146	88%	18,957	27,847	46,804	12,659	31.58%	10.14%	1.37x
Quantum Energy Partners VI, LP	Energy	35,000	10,431	30,409	70%	17,604	32,187	49,791	19,383	33.30%	10.14%	1.64x
Pantheon SCERS SIRF MM, LLC	Infrastructure	100,000	33,968	70,332	66%	8,100	92,420	100,520	30,188	15.88%	9.12%	1.43x
Wastewater Opportunity Fund	Infrastructure	25,000	6,838	18,169	73%	1,998	15,608	17,606	-563	-2.28%	9.12%	0.97x
Vintage Year 2014 Total		255,000	82,610	195,400	68%	60,664	203,182	263,846	68,446	17.39%		1.35x
Vintage Year 2015												
ArcLight Energy Partners Fund VI	Energy	40,000	7,713	40,516	81%	15,767	35,511	51,278	10,762	11.72%	11.40%	1.27x
EnCap Energy Capital Fund X, L.P.	Energy	40,000	8,836	33,705	78%	6,562	34,135	40,697	6,992	10.41%	11.40%	1.21x
Atalaya Real Assets SMA	Real Asset Debt	100,000	84,789	36,169	15%	25,769	17,144	42,913	6,744	10.97%	N/A	1.19x
Vintage Year 2015 Total		180,000	101,338	110,389	44%	48,098	86,790	134,888	24,499	11.12%		1.22x
Vintage Year 2016												
ACM Fund II, LLC	Agriculture	25,000	10,185	18,961	59%	4,513	12,991	17,504	-1,457	-5.99%	6.37%	0.92x
Brookfield Infrastructure Fund III, L.P.	Infrastructure	40,000	9,869	30,120	75%	4,512	30,692	35,204	5,084	11.78%	N/A	1.17x
IFM Global Infrastructure Fund	Infrastructure	125,053	25,000	100,053	80%	32,529	97,360	129,889	29,837	15.84%	N/A	1.30x
Vintage Year 2016 Total		190,053	45,054	149,134	76%	41,554	141,043	182,597	33,463	13.08%		1.22x
Vintage Year 2017												
Quantum Energy Partners VII, LP	Energy	40,000	23,525	18,833	41%	2,415	17,083	19,498	666	N/M	N/M	1.04x
Meridiam Infrastructure North America Fund III	Infrastructure	50,000	48,235	1,765	4%	1	404	405	-1,361	N/M	N/M	0.23x
Vintage Year 2017 Total		90,000	71,760	20,598	20%	2,416	17,487	19,903	-695	N/M		0.97x
Vintage Year 2018												
Paine Schwartz Food Chain Fund V, LP	Agriculture	40,000	40,000	0	0%	0	-467	-467	-467	N/M	N/M	N/A

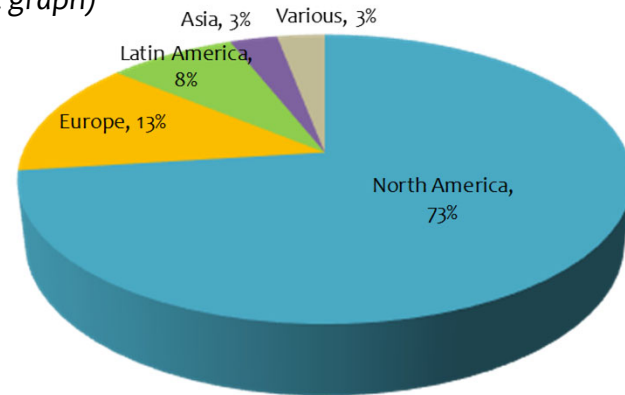
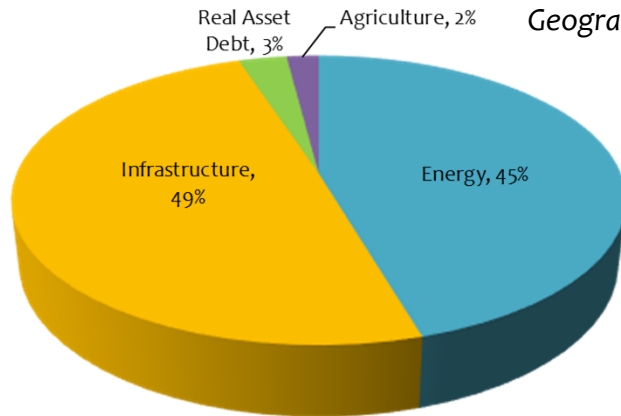
¹ Benchmarks:

Real Assets Portfolio: 45% Cambridge Infrastructure, 35% Cambridge Energy, 10% NCREIF Timberland, 10% NCREIF Farmland
 Energy Investments: Cambridge Associates median return for the respective vintage years.
 Infrastructure Investments: Cambridge Associates median return for the respective vintage years.

Real Assets Portfolio Performance Details – as of June 30, 2019 (continued)

Partnership Name	Strategy	(A) Commit. Amount	Unfund. Amount	(B) Cumulat. Cont.	% Drawn	(C) Cumulat. Dist.	(D) Fair Value	(C+D) Total Value	(C+D-B) Gain/Loss	Net IRR	IRR Bench.	TVPI
EnCap Flatrock Midstream IV, L.P.	Energy	22,500	15,847	6,653	30%	0	7,223	7,223	570	NM	NM	1.09x
Tailwater Energy Fund III, LP	Energy	32,000	13,001	21,054	59%	1,662	19,976	21,637	583	NM	NM	1.03x
ISQ Global Infrastructure Fund II	Infrastructure	50,000	37,504	13,770	25%	1,274	13,707	14,981	1,211	NM	NM	1.09x
Vintage Year 2018 Total		144,500	106,352	41,477	26%	2,935	40,439	43,374	1,898	NM		1.05x
Vintage Year 2019												
EQT Infrastructure IV (No.2) USD SCSp	Infrastructure	35,000	33,574	1,400	4%	0	1,116	1,116	-284	NM	NM	0.80x
Vintage Year 2019 Total		35,000	33,574	1,400	4%	0	1,116	1,116	-284	NM		0.80x
Portfolio Total :		927,553	442,768	555,438	52%	183,263	511,304	694,567	139,129	13.74%	6.80%	1.25x
Portfolio Strategy Totals												
Agriculture		65,000	50,185	18,961	23%	4,513	12,524	17,037	-1,924	-7.99%		0.90x
Energy		337,500	112,806	264,699	67%	104,567	230,329	334,896	70,197	14.73%		1.27x
Infrastructure		425,053	194,988	235,610	54%	48,413	251,307	299,720	64,111	14.15%		1.27x
Real Asset Debt		100,000	84,789	36,169	15%	25,769	17,144	42,913	6,744	10.97%		1.19x

Portfolio Exposures*
Strategy Exposure (left graph)
Geographic Exposure (right graph)



* Exposures are based on the market values of investments as of 6/30/19

¹ Benchmarks:
Real Assets Portfolio: 45% Cambridge Infrastructure, 35% Cambridge Energy, 10% NCREIF Timberland, 10% NCREIF Farmland
Energy Investments: Cambridge Associates median return for the respective vintage years.
Infrastructure Investments: Cambridge Associates median return for the respective vintage years.

Opportunities Portfolio – as of June 30, 2019

The Opportunities portfolio's net IRR since inception is 18.39%

- The long-term benchmark is SCERS' 7.00% total portfolio actuarial return objective
- Also tracking the portfolio's 3 year IRR versus an intermediate-term benchmark
 - 6.24% portfolio IRR v 9.40% IRR for the SCERS' total portfolio policy weighted benchmark over the last 3 years
- The portfolio only includes legacy distressed debt funds (fully liquidated) and one post-2009 distressed fund (Atalaya V)
 - The 3 year comparison, for example, reflects only the performance of Atalaya V

The legacy distressed funds performed very well, the current fund is performing at expectations

- SCERS' earlier vintage distressed debt funds are liquidated and have distributed significant capital back to SCERS
 - Stone Tower, MetWest TALF, and PIMCO have distributed \$129.3 million
- Atalaya SOF V, a vintage 2013 fund, has produced a 7.99% net IRR since inception

Changes during the quarter

- SCERS made no new commitments categorized as Opportunities funds during Q2 2019
- No new contributions, \$0.5 million in distributions
- Portfolio IRR increased 0.01%, total portfolio gain increased slightly

As mentioned, the Opportunities portfolio only includes certain distressed debt fund(s)

- SCERS has additional distressed debt investments within its Private Equity portfolio
- Categorizations were made at the time of each investment

Opportunities Portfolio Performance Details – as of June 30, 2019

Partnership Name	Strategy	(A) Commit. Amount	Unfund. Amount	(B) Cumulat. Cont.	% Drawn	(C) Cumulat. Dist.	(D) Fair Value	(C+D) Total Value	(C+D-B) Gain/Loss	Net IRR	IRR Bench.	TVPI
Vintage Year 2007												
* PIMCO Distressed Mortgage Fund, LP	Distressed Debt	18,000	0	18,000	100%	25,384	0	25,384	7,384	8.96%	9.28%	1.41x
Vintage Year 2007 Total		18,000	0	18,000	100%	25,384	0	25,384	7,384	8.96%		1.41x
Vintage Year 2008												
* PIMCO Distressed Mortgage Fund II, L.P.	Distressed Debt	12,000	0	12,000	100%	35,277	0	35,277	23,277	34.39%	12.24%	2.94x
Vintage Year 2008 Total		12,000	0	12,000	100%	35,277	0	35,277	23,277	34.39%		2.94x
Vintage Year 2009												
* MetWest Enhanced TALF Strategy Fund LP	Distressed Debt	20,000	0	20,000	100%	25,304	0	25,304	5,304	11.21%	14.89%	1.27x
* Stone Tower Structured Credit Recovery Fund LP	Distressed Debt	25,000	0	25,248	100%	43,383	0	43,383	18,135	25.30%	14.89%	1.72x
Vintage Year 2009 Total		45,000	0	45,248	100%	68,687	0	68,687	23,439	19.71%		1.52x
Vintage Year 2013												
Atalaya Special Opportunities Fund V, L.P.	Distressed Debt	25,000	1,117	24,875	96%	22,900	8,012	30,912	6,037	7.99%	8.65%	1.24x
Vintage Year 2013 Total		25,000	1,117	24,875	96%	22,900	8,012	30,912	6,037	7.99%		1.24x
Portfolio Total :		100,000	1,117	100,123	99%	152,248	8,012	160,259	60,137	18.39%	7.00%	1.60x

* Liquidated partnership

¹ Benchmarks:

Opportunities Investments: Cambridge Associates median return for the respective strategies and vintage years
Opportunities Portfolio: 7.00% actuarial return objective

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