



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			
<b>Growth-Oriented Portfolio</b>													
<b>Event Driven</b>													
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
<b>Event Driven - HF Total</b>	<b>51,818,486</b>	<b>5.4%</b>	<b>-2.11%</b>	<b>-0.13%</b>	<b>10.92%</b>	<b>-0.13%</b>	<b>-4.24%</b>	<b>4.52%</b>	<b>2.84%</b>	<b>7.16%</b>	<b>7.97%</b>	<b>0.78</b>	<b>May-12</b>
<b>Equity Long/Short</b>													
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
<b>Equity Long/Short - HF Total</b>	<b>46,161,861</b>	<b>4.8%</b>	<b>4.13%</b>	<b>3.14%</b>	<b>18.42%</b>	<b>3.14%</b>	<b>6.64%</b>	<b>5.31%</b>	<b>5.30%</b>	<b>5.86%</b>	<b>9.55%</b>	<b>0.53</b>	<b>Jul-13</b>
<b>Multi-Strategy</b>													
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
<b>Multi-Strategy - HF Total</b>	<b>50,073,063</b>	<b>5.3%</b>	<b>-0.98%</b>	<b>-2.57%</b>	<b>9.57%</b>	<b>-2.57%</b>	<b>3.84%</b>	<b>7.17%</b>	<b>4.82%</b>	<b>6.83%</b>	<b>5.12%</b>	<b>1.13</b>	<b>Jan-12</b>
<b>Fund of Funds</b>													
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
<b>Fund of Funds - HF Total</b>	<b>152,856,321</b>	<b>16.0%</b>	<b>-0.48%</b>	<b>-0.98%</b>	<b>4.27%</b>	<b>-0.98%</b>	<b>-1.93%</b>	<b>5.06%</b>	<b>2.73%</b>	<b>4.33%</b>	<b>5.93%</b>	<b>0.45</b>	<b>Sep-04</b>
<b>Growth-Oriented Portfolio Total</b>	<b>300,909,731</b>	<b>31.6%</b>	<b>-0.18%</b>	<b>-0.48%</b>	<b>8.19%</b>	<b>-0.48%</b>	<b>-1.12%</b>	<b>5.08%</b>	<b>3.11%</b>	<b>4.62%</b>	<b>6.28%</b>	<b>0.47</b>	<b>Sep-04</b>
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
<b>Market Indices</b>													
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			
<b>Diversifying Portfolio</b>													
<b>Market Neutral</b>													
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
<b>Market Neutral - HF Total</b>	<b>132,838,207</b>	<b>13.9%</b>	<b>-0.19%</b>	<b>-1.60%</b>	<b>1.78%</b>	<b>-1.60%</b>	<b>2.75%</b>	<b>4.96%</b>	<b>6.69%</b>	<b>5.48%</b>	<b>4.82%</b>	<b>0.88</b>	<b>Mar-14</b>
<b>Event Driven</b>													
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
<b>Event Driven - HF Total</b>	<b>90,168,235</b>	<b>9.5%</b>	<b>0.49%</b>	<b>0.86%</b>	<b>4.52%</b>	<b>0.86%</b>	<b>4.56%</b>	<b>6.61%</b>	<b>5.85%</b>	<b>7.08%</b>	<b>3.32%</b>	<b>1.77</b>	<b>Apr-12</b>
<b>Equity Long/Short</b>													
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
<b>Equity Long/Short - HF Total</b>	<b>41,155,247</b>	<b>4.3%</b>	<b>-2.59%</b>	<b>0.43%</b>	<b>2.89%</b>	<b>0.43%</b>	<b>3.87%</b>	<b>3.87%</b>	<b>3.87%</b>	<b>3.87%</b>	<b>5.82%</b>	<b>0.27</b>	<b>Apr-12</b>
<b>Macro-Systematic</b>													
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
<b>Macro-Systematic - HF Total</b>	<b>75,405,468</b>	<b>7.9%</b>	<b>-3.42%</b>	<b>6.16%</b>	<b>12.12%</b>	<b>6.16%</b>	<b>4.35%</b>	<b>-</b>	<b>-</b>	<b>2.60%</b>	<b>9.85%</b>	<b>0.11</b>	<b>Jan-17</b>
<b>Multi-Strategy</b>													
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
<b>Multi-Strategy - HF Total</b>	<b>44,274,499</b>	<b>4.6%</b>	<b>-0.49%</b>	<b>-1.39%</b>	<b>-7.19%</b>	<b>-1.39%</b>	<b>-11.54%</b>	<b>-5.71%</b>	<b>-0.60%</b>	<b>0.15%</b>	<b>5.87%</b>	<b>-0.13</b>	<b>May-13</b>
<b>Fund of Funds</b>													
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
<b>Fund of Funds - HF Total</b>	<b>267,920,861</b>	<b>28.1%</b>	<b>-0.09%</b>	<b>0.51%</b>	<b>4.31%</b>	<b>0.51%</b>	<b>1.78%</b>	<b>0.24%</b>	<b>-0.77%</b>	<b>1.40%</b>	<b>2.80%</b>	<b>0.17</b>	<b>Dec-11</b>
<b>Diversifying Portfolio Total</b>	<b>651,762,516</b>	<b>68.4%</b>	<b>-0.64%</b>	<b>0.73%</b>	<b>3.58%</b>	<b>0.73%</b>	<b>0.86%</b>	<b>1.61%</b>	<b>1.03%</b>	<b>2.04%</b>	<b>2.52%</b>	<b>0.43</b>	<b>Dec-11</b>
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
<b>SCERS Absolute Return Portfolio</b>	<b>952,672,247</b>	<b>100.0%</b>	<b>-0.49%</b>	<b>0.33%</b>	<b>5.06%</b>	<b>0.33%</b>	<b>-0.02%</b>	<b>3.22%</b>	<b>1.97%</b>	<b>3.90%</b>	<b>5.62%</b>	<b>0.40</b>	<b>Sep-04</b>
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

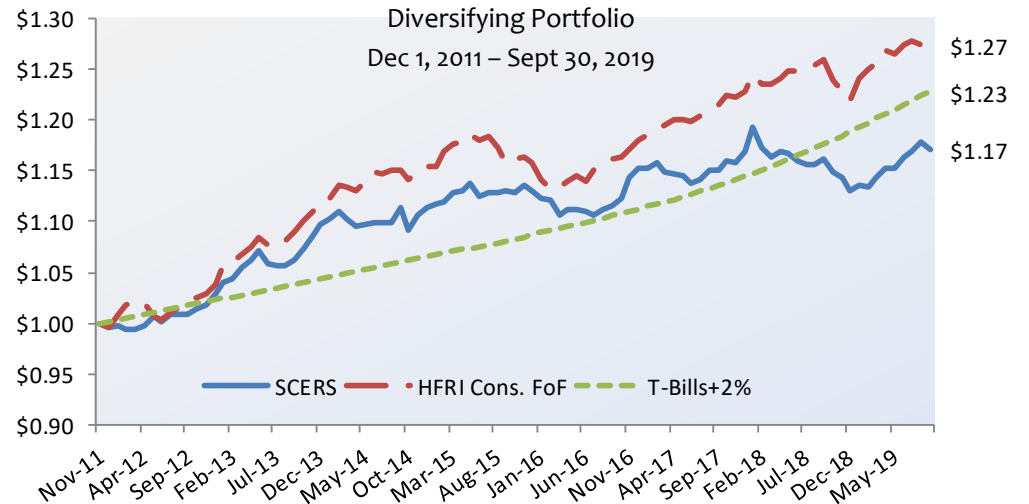
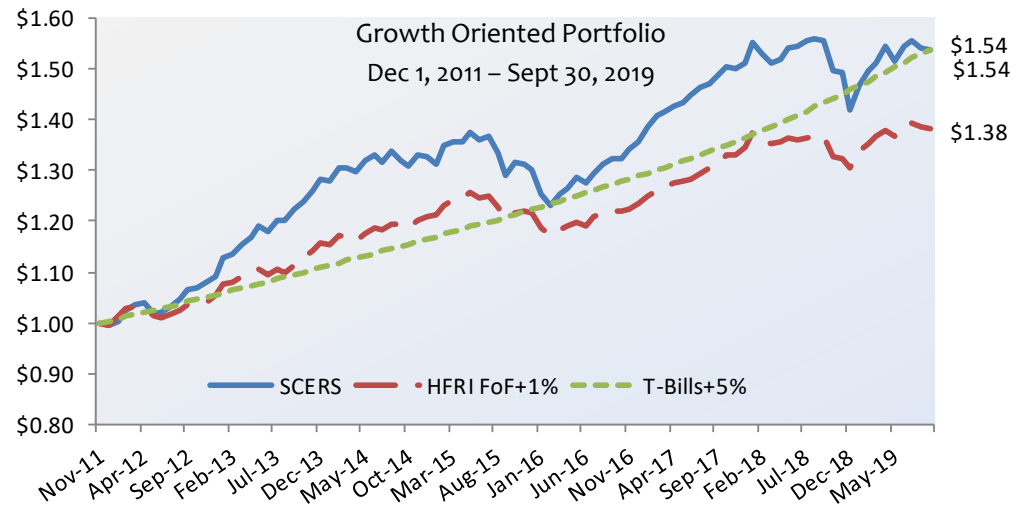
# Absolute Return Portfolios Cumulative Performance – Dec 2011 to September 2019

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

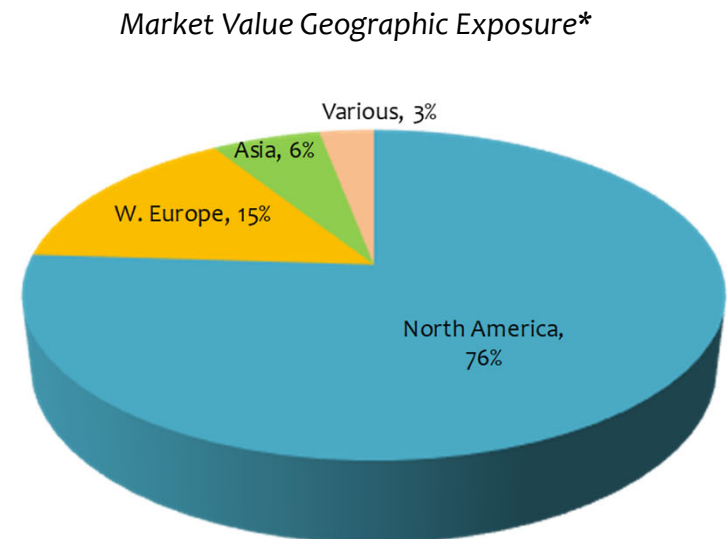
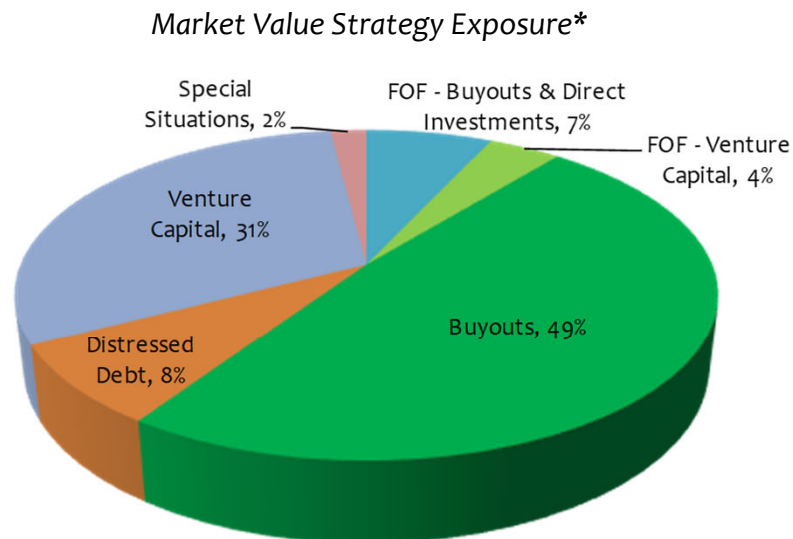
The SCERS Private Equity portfolio is diversified by strategy and geography

- 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
<b>Vintage Year 2006</b>												
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
<b>Vintage Year 2006 Total</b>		<b>50,000</b>	<b>2,038</b>	<b>47,963</b>	<b>96%</b>	<b>66,773</b>	<b>16,377</b>	<b>83,150</b>	<b>35,187</b>	<b>10.60%</b>	<b>7.29%</b>	<b>1.73x</b>
<b>Vintage Year 2008</b>												
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
<b>Vintage Year 2008 Total</b>		<b>186,607</b>	<b>16,487</b>	<b>180,452</b>	<b>91%</b>	<b>186,345</b>	<b>115,161</b>	<b>301,506</b>	<b>121,054</b>	<b>12.13%</b>	<b>8.25%</b>	<b>1.67x</b>
<b>Vintage Year 2011</b>												
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
<b>Vintage Year 2011 Total</b>		<b>28,190</b>	<b>3,774</b>	<b>25,491</b>	<b>87%</b>	<b>37,262</b>	<b>31,430</b>	<b>68,692</b>	<b>43,201</b>	<b>29.76%</b>	<b>13.46%</b>	<b>2.69x</b>
<b>Vintage Year 2012</b>												
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
<b>Vintage Year 2012 Total</b>		<b>61,350</b>	<b>3,622</b>	<b>62,495</b>	<b>94%</b>	<b>49,496</b>	<b>59,022</b>	<b>108,518</b>	<b>46,023</b>	<b>12.91%</b>	<b>13.21%</b>	<b>1.74x</b>
<b>Vintage Year 2013</b>												
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

<sup>1</sup>Benchmarks:

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
<b>Vintage Year 2013 Total</b>		<b>169,000</b>	<b>39,699</b>	<b>141,605</b>	<b>77%</b>	<b>93,477</b>	<b>124,679</b>	<b>218,156</b>	<b>76,551</b>	<b>14.60%</b>	<b>13.36%</b>	<b>1.54x</b>
<b>Vintage Year 2014</b>												
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
<b>Vintage Year 2014 Total</b>		<b>175,916</b>	<b>41,772</b>	<b>163,810</b>	<b>76%</b>	<b>86,994</b>	<b>175,317</b>	<b>262,312</b>	<b>98,502</b>	<b>21.28%</b>	<b>15.48%</b>	<b>1.60x</b>
<b>Vintage Year 2015</b>												
* 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
<b>Vintage Year 2015 Total</b>		<b>159,106</b>	<b>71,097</b>	<b>109,998</b>	<b>55%</b>	<b>39,913</b>	<b>128,346</b>	<b>168,259</b>	<b>58,261</b>	<b>23.69%</b>	<b>15.13%</b>	<b>1.53x</b>
<b>Vintage Year 2016</b>												
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

<sup>1</sup>Benchmarks:

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
<b>Vintage Year 2016 Total</b>		<b>214,779</b>	<b>70,525</b>	<b>165,627</b>	<b>67%</b>	<b>29,175</b>	<b>212,150</b>	<b>241,325</b>	<b>75,698</b>	<b>23.75%</b>	<b>12.99%</b>	<b>1.46x</b>
<b>Vintage Year 2017</b>												
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
<b>Vintage Year 2017 Total</b>		<b>79,106</b>	<b>50,678</b>	<b>37,268</b>	<b>36%</b>	<b>8,626</b>	<b>35,985</b>	<b>44,611</b>	<b>7,343</b>	<b>27.01%</b>	<b>11.92%</b>	<b>1.20x</b>
<b>Vintage Year 2018</b>												
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
<b>Vintage Year 2018 Total</b>		<b>352,650</b>	<b>291,145</b>	<b>62,394</b>	<b>17%</b>	<b>3,000</b>	<b>60,471</b>	<b>63,471</b>	<b>1,077</b>	<b>N/M</b>	<b>N/M</b>	<b>1.02x</b>
<b>Vintage Year 2019</b>												
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
<b>Vintage Year 2019 Total</b>		<b>95,000</b>	<b>78,924</b>	<b>16,076</b>	<b>17%</b>	<b>0</b>	<b>15,889</b>	<b>15,889</b>	<b>-187</b>	<b>N/M</b>	<b>N/M</b>	<b>0.99x</b>

<sup>1</sup>Benchmarks:

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
<b>Portfolio Strategy Totals</b>											
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
<b>Portfolio Total :</b>	<b>1,571,703</b>	<b>669,761</b>	<b>1,013,179</b>	<b>57%</b>	<b>601,061</b>	<b>974,827</b>	<b>1,575,888</b>	<b>562,710</b>	<b>15.50%</b>	<b>13.02%</b>	<b>1.56x</b>
<b>Portfolio Geography Totals</b>											
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
<b>Portfolio Total</b>	<b>1,571,703</b>	<b>669,761</b>	<b>1,013,179</b>	<b>57%</b>	<b>601,061</b>	<b>974,827</b>	<b>1,575,888</b>	<b>562,710</b>	<b>15.50%</b>	<b>13.02%</b>	<b>1.56x</b>

<sup>1</sup>Benchmarks:

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%

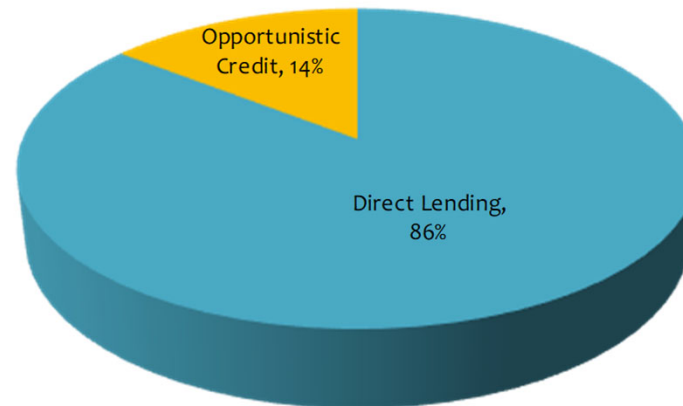
The Private Credit funds reported another quarter of steady gains in Q2

- 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
<b>Vintage Year 2011</b>												
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
<b>Vintage Year 2011 Total</b>		<b>20,000</b>	<b>2,125</b>	<b>20,697</b>	<b>89%</b>	<b>23,919</b>	<b>2,762</b>	<b>26,682</b>	<b>5,985</b>	<b>8.93%</b>	<b>13.46%</b>	<b>1.29x</b>
<b>Vintage Year 2014</b>												
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
<b>Vintage Year 2014 Total</b>		<b>35,000</b>	<b>7,454</b>	<b>44,643</b>	<b>79%</b>	<b>24,927</b>	<b>27,129</b>	<b>52,055</b>	<b>7,412</b>	<b>9.06%</b>	<b>15.48%</b>	<b>1.17x</b>
<b>Vintage Year 2015</b>												
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
<b>Vintage Year 2015 Total</b>		<b>32,000</b>	<b>6,570</b>	<b>38,545</b>	<b>79%</b>	<b>31,030</b>	<b>13,189</b>	<b>44,218</b>	<b>5,674</b>	<b>8.32%</b>	<b>15.13%</b>	<b>1.15x</b>
<b>Vintage Year 2017</b>												
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
<b>Vintage Year 2017 Total</b>		<b>25,000</b>	<b>12,967</b>	<b>15,528</b>	<b>48%</b>	<b>3,460</b>	<b>12,126</b>	<b>15,586</b>	<b>58</b>	<b>0.36%</b>	<b>11.92%</b>	<b>1.00x</b>
<b>Vintage Year 2018</b>												
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
<b>Vintage Year 2018 Total</b>		<b>200,000</b>	<b>82,413</b>	<b>119,996</b>	<b>59%</b>	<b>7,597</b>	<b>120,123</b>	<b>127,720</b>	<b>7,724</b>	<b>N/M</b>	<b>N/M</b>	<b>1.06x</b>
<b>Vintage Year 2019</b>												
OrbiMed Royalty & Credit Opportunities III, LP	Opportunistic Credit	35,000	35,000	0	0%	0	0	0	0	N/M	N/M	N/A
<b>Vintage Year 2019 Total</b>		<b>35,000</b>	<b>35,000</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>N/M</b>	<b>N/M</b>	<b>N/A</b>
<b>Portfolio Total :</b>		<b>347,000</b>	<b>146,529</b>	<b>239,408</b>	<b>58%</b>	<b>90,933</b>	<b>175,329</b>	<b>266,262</b>	<b>26,853</b>	<b>8.12%</b>	<b>7.13%</b>	<b>1.11x</b>
<b>Portfolio Strategy Totals</b>												
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
<b>Portfolio Total :</b>		<b>347,000</b>	<b>146,529</b>	<b>239,408</b>	<b>58%</b>	<b>90,933</b>	<b>175,329</b>	<b>266,262</b>	<b>26,853</b>	<b>8.12%</b>	<b>7.13%</b>	<b>1.11x</b>

<sup>1</sup>Benchmarks:

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
<b>Vintage Year 2013</b>												
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
<b>Vintage Year 2013 Total</b>		<b>33,000</b>	<b>2,082</b>	<b>37,040</b>	<b>94%</b>	<b>27,596</b>	<b>21,246</b>	<b>48,842</b>	<b>11,803</b>	<b>12.03%</b>		<b>1.32x</b>
<b>Vintage Year 2014</b>												
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
<b>Vintage Year 2014 Total</b>		<b>255,000</b>	<b>82,610</b>	<b>195,400</b>	<b>68%</b>	<b>60,664</b>	<b>203,182</b>	<b>263,846</b>	<b>68,446</b>	<b>17.39%</b>		<b>1.35x</b>
<b>Vintage Year 2015</b>												
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
<b>Vintage Year 2015 Total</b>		<b>180,000</b>	<b>101,338</b>	<b>110,389</b>	<b>44%</b>	<b>48,098</b>	<b>86,790</b>	<b>134,888</b>	<b>24,499</b>	<b>11.12%</b>		<b>1.22x</b>
<b>Vintage Year 2016</b>												
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
<b>Vintage Year 2016 Total</b>		<b>190,053</b>	<b>45,054</b>	<b>149,134</b>	<b>76%</b>	<b>41,554</b>	<b>141,043</b>	<b>182,597</b>	<b>33,463</b>	<b>13.08%</b>		<b>1.22x</b>
<b>Vintage Year 2017</b>												
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
<b>Vintage Year 2017 Total</b>		<b>90,000</b>	<b>71,760</b>	<b>20,598</b>	<b>20%</b>	<b>2,416</b>	<b>17,487</b>	<b>19,903</b>	<b>-695</b>	<b>N/M</b>		<b>0.97x</b>
<b>Vintage Year 2018</b>												
Paine Schwartz Food Chain Fund V, LP	Agriculture	40,000	40,000	0	0%	0	-467	-467	-467	N/M	N/M	N/A

<sup>1</sup> Benchmarks:

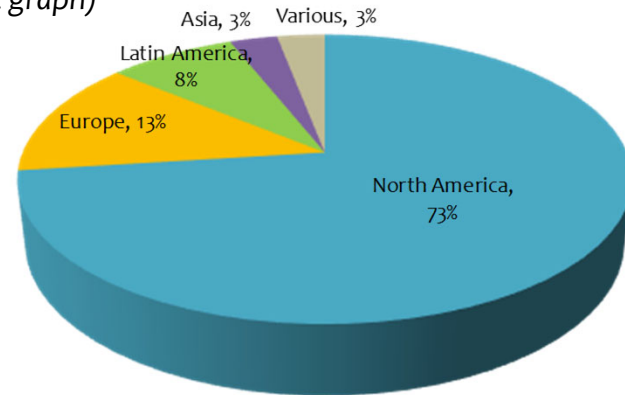
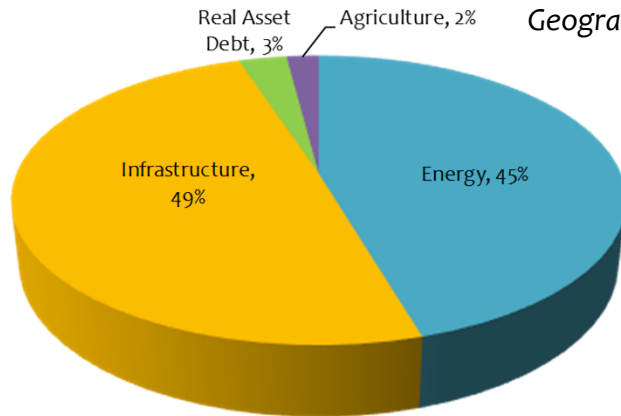
Real Assets Portfolio: 45% Cambridge Infrastructure, 35% Cambridge Energy, 10% NCREIF Timberland, 10% NCREIF Farmland  
 Energy Investments: Cambridge Associates median return for the respective vintage years.  
 Infrastructure Investments: Cambridge Associates median return for the respective vintage 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
<b>Vintage Year 2018 Total</b>		<b>144,500</b>	<b>106,352</b>	<b>41,477</b>	<b>26%</b>	<b>2,935</b>	<b>40,439</b>	<b>43,374</b>	<b>1,898</b>	<b>NM</b>		<b>1.05x</b>
<b>Vintage Year 2019</b>												
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
<b>Vintage Year 2019 Total</b>		<b>35,000</b>	<b>33,574</b>	<b>1,400</b>	<b>4%</b>	<b>0</b>	<b>1,116</b>	<b>1,116</b>	<b>-284</b>	<b>NM</b>		<b>0.80x</b>
<b>Portfolio Total :</b>		<b>927,553</b>	<b>442,768</b>	<b>555,438</b>	<b>52%</b>	<b>183,263</b>	<b>511,304</b>	<b>694,567</b>	<b>139,129</b>	<b>13.74%</b>	<b>6.80%</b>	<b>1.25x</b>
<b>Portfolio Strategy Totals</b>												
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

<sup>1</sup> 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
<b>Vintage Year 2007</b>												
* 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
<b>Vintage Year 2007 Total</b>		<b>18,000</b>	<b>0</b>	<b>18,000</b>	<b>100%</b>	<b>25,384</b>	<b>0</b>	<b>25,384</b>	<b>7,384</b>	<b>8.96%</b>		<b>1.41x</b>
<b>Vintage Year 2008</b>												
* 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
<b>Vintage Year 2008 Total</b>		<b>12,000</b>	<b>0</b>	<b>12,000</b>	<b>100%</b>	<b>35,277</b>	<b>0</b>	<b>35,277</b>	<b>23,277</b>	<b>34.39%</b>		<b>2.94x</b>
<b>Vintage Year 2009</b>												
* 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
<b>Vintage Year 2009 Total</b>		<b>45,000</b>	<b>0</b>	<b>45,248</b>	<b>100%</b>	<b>68,687</b>	<b>0</b>	<b>68,687</b>	<b>23,439</b>	<b>19.71%</b>		<b>1.52x</b>
<b>Vintage Year 2013</b>												
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
<b>Vintage Year 2013 Total</b>		<b>25,000</b>	<b>1,117</b>	<b>24,875</b>	<b>96%</b>	<b>22,900</b>	<b>8,012</b>	<b>30,912</b>	<b>6,037</b>	<b>7.99%</b>		<b>1.24x</b>
<b>Portfolio Total :</b>		<b>100,000</b>	<b>1,117</b>	<b>100,123</b>	<b>99%</b>	<b>152,248</b>	<b>8,012</b>	<b>160,259</b>	<b>60,137</b>	<b>18.39%</b>	<b>7.00%</b>	<b>1.60x</b>

\* Liquidated partnership

<sup>1</sup> 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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