



INVESTMENT ADVISORY SERVICES

Los Angeles • New York

## Sacramento County Employees' Retirement System Quarterly Performance Review

September 21, 2022

# Absolute Return Portfolio Performance Summary – as of June 30, 2022

## Diversifying Strategies

- The Diversifying Portfolio returned -0.73% in Q2 and 1.77% for the one-year period ending June 30, 2022
  - Outperformed the HFRI Conservative FoF Index benchmark by 128 bps in Q2 and 198 bps for the one-year period
  - Outperformed the T-bills + 2% long term objective by 42 bps (annualized) over the trailing 5-year period
- Graham Tactical Trend led performance in Q2 (+11.16%), followed by PSquared (+2.65%) and LMR (+0.85%)
  - Sculptor (-9.49%) and Eisler (-4.57%) were the biggest detractors in Q2
- Graham Tactical Trend (+32.34%), Elliott (+12.78%), and Two Sigma (+11.29%) led performance for the one-year period
  - Laurion (-15.25%) and Sculptor (-12.58%) suffered the largest declines over this period

## Growth Oriented Strategies

- The Growth Oriented Portfolio returned -2.18% in Q2 and -8.17% for the one-year period ending June 30, 2022
  - Exceeded the HFRI FoF Index + 1% benchmark by 118 bps in Q2 but trailed by 398 bps for the one-year period
- The portfolio was significantly downsized in Q1 '22 following the 2021 decision to eliminate the Growth Oriented Portfolio
  - The only investments in the portfolio are the remaining holdings of the Grosvenor Growth portfolio
    - Grosvenor Growth will continue to wind-down as that portfolio's liquidity allows

## Portfolio risk and market sensitivity are near expectations for the Diversifying portfolio

- Diversifying Portfolio
  - Target standard deviation < 25% of global equities, with an equity beta < 0.2 and equity correlation < 0.5
    - Standard deviation of 3.47% compared to the ACWI standard deviation of 13.60% since December 2011 (26% ratio)
    - Portfolio equity beta of 0.14 with an equity correlation of 0.54
- The Growth Oriented portfolio is being eliminated in connection with the 2021 asset liability study

# Diversifying Absolute Return Portfolio Performance – as of June 30, 2022

Fund	Market Value	Actual %	Returns								Std Dev	Sharpe Ratio	Incep Date
			Jun	QTD	YTD	FYTD	1 Year	3 Year	5 Year	Incep			
<b>Diversifying Portfolio</b>													
<b>Market Neutral</b>													
Aristeia Partners, L.P.	48,443,546	5.4%	0.09%	0.07%	-0.49%	1.80%	1.80%	-	-	5.04%	5.47%	0.83	Jan-21
Laurion Capital, Ltd.	57,975,244	6.5%	1.92%	0.15%	-7.00%	-15.25%	-15.25%	11.98%	10.50%	8.32%	10.16%	0.74	Mar-14
LMR Fund Limited	51,261,093	5.7%	0.38%	0.85%	3.10%	9.20%	9.20%	-	-	5.01%	16.79%	0.35	Nov-19
Two Sigma Risk Premia Enhanced Fund, LP	49,358,286	5.5%	-2.69%	-1.33%	0.54%	11.29%	11.29%	-	-	3.32%	10.70%	0.29	Sep-19
<b>Market Neutral - HF Total</b>	<b>207,038,169</b>	<b>23.2%</b>	<b>-0.02%</b>	<b>-0.05%</b>	<b>-1.33%</b>	<b>-0.10%</b>	<b>-0.10%</b>	<b>4.58%</b>	<b>5.78%</b>	<b>5.53%</b>	<b>6.01%</b>	<b>0.75</b>	<b>Mar-14</b>
<b>Event Driven</b>													
BlackRock Event Driven Equity Fund (BILPX)	52,641,147	5.9%	-1.12%	-2.11%	-1.92%	-2.64%	-2.64%	-	-	4.00%	5.80%	0.62	Mar-20
Davidson Kempner Institutional Partners LP	57,035,693	6.4%	-1.36%	-2.95%	-2.85%	-2.87%	-2.87%	5.49%	-	5.33%	5.34%	0.83	May-19
Elliott International Limited - Class A & B	77,888,132	8.7%	-1.20%	-0.11%	4.96%	12.78%	12.78%	11.24%	9.04%	8.44%	3.28%	2.19	Apr-12
PSquared US Feeder Fund LP	53,584,337	6.0%	2.10%	2.65%	1.85%	5.34%	5.34%	-	-	3.79%	4.77%	0.72	Aug-20
<b>Event Driven - HF Total</b>	<b>241,149,309</b>	<b>27.0%</b>	<b>-0.51%</b>	<b>-0.65%</b>	<b>0.82%</b>	<b>3.63%</b>	<b>3.63%</b>	<b>6.82%</b>	<b>6.27%</b>	<b>7.09%</b>	<b>3.33%</b>	<b>1.78</b>	<b>Apr-12</b>
<b>Equity Long/Short</b>													
Marshall Wace Funds LP - MW Global Opportunities (US) Fund	52,960,214	5.9%	-0.77%	-1.87%	1.17%	2.27%	2.27%	5.30%	-	5.25%	8.19%	0.54	Jan-19
<b>Equity Long/Short - HF Total</b>	<b>52,960,214</b>	<b>5.9%</b>	<b>-0.77%</b>	<b>-1.87%</b>	<b>1.17%</b>	<b>2.27%</b>	<b>2.27%</b>	<b>5.30%</b>	<b>5.25%</b>	<b>5.25%</b>	<b>8.19%</b>	<b>0.54</b>	<b>Apr-12</b>
<b>Macro-Discretionary</b>													
Eisler Capital Fund LP - Class A	41,136,798	4.6%	-1.25%	-4.57%	-3.68%	-8.58%	-8.58%	-	-	-8.58%	4.14%	-2.27	Jul-21
<b>Macro-Discretionary - HF Total</b>	<b>41,136,798</b>	<b>4.6%</b>	<b>-1.25%</b>	<b>-4.57%</b>	<b>-3.68%</b>	<b>-8.58%</b>	<b>-8.58%</b>	<b>-8.58%</b>	<b>0.42%</b>	<b>-0.11%</b>	<b>4.41%</b>	<b>-0.21</b>	<b>May-12</b>
<b>Macro-Systematic</b>													
Graham Global Investment Fund II SPC Ltd. - Tactical Trend Segregated Por	51,246,842	5.7%	3.43%	11.16%	37.36%	32.34%	32.34%	14.98%	9.33%	7.29%	13.02%	0.50	Feb-17
<b>Macro-Systematic - HF Total</b>	<b>51,246,842</b>	<b>5.7%</b>	<b>3.43%</b>	<b>11.16%</b>	<b>37.36%</b>	<b>32.34%</b>	<b>32.34%</b>	<b>11.07%</b>	<b>7.66%</b>	<b>6.10%</b>	<b>10.92%</b>	<b>0.48</b>	<b>Jan-17</b>
<b>Multi-Strategy</b>													
Sculptor Domestic Partners II, L.P.	58,161,078	6.5%	-3.22%	-9.49%	-11.93%	-12.58%	-12.58%	4.21%	5.21%	6.51%	6.84%	0.83	Jan-12
<b>Multi-Strategy - HF Total</b>	<b>58,161,078</b>	<b>6.5%</b>	<b>-3.22%</b>	<b>-9.49%</b>	<b>-11.93%</b>	<b>-12.58%</b>	<b>-12.58%</b>	<b>0.86%</b>	<b>-0.48%</b>	<b>3.55%</b>	<b>6.61%</b>	<b>0.42</b>	<b>May-13</b>
<b>Fund of Funds</b>													
Grosvenor SC Absolute Return Fund LLC (Diversifying)	218,779,861	24.5%	0.34%	-0.35%	-0.37%	2.61%	2.61%	4.90%	2.93%	2.48%	3.69%	0.44	Dec-11
<b>Fund of Funds - HF Total</b>	<b>218,779,861</b>	<b>24.5%</b>	<b>0.34%</b>	<b>-0.35%</b>	<b>-0.37%</b>	<b>2.60%</b>	<b>2.60%</b>	<b>4.87%</b>	<b>2.82%</b>	<b>2.35%</b>	<b>3.54%</b>	<b>0.42</b>	<b>Dec-11</b>
<b>Diversifying Portfolio Total</b>	<b>870,472,271</b>	<b>97.5%</b>	<b>-0.19%</b>	<b>-0.73%</b>	<b>0.40%</b>	<b>1.77%</b>	<b>1.77%</b>	<b>4.89%</b>	<b>3.53%</b>	<b>3.43%</b>	<b>3.47%</b>	<b>0.73</b>	<b>Dec-11</b>
HFRI FOF: Conservative Index			-1.32%	-2.01%	-1.86%	14.77%	-0.21%	4.53%	3.96%	3.61%	3.45%	0.78	Dec-11
3 Month T-Bills+2%			0.18%	0.60%	1.14%	4.31%	2.17%	2.63%	3.11%	2.61%	0.24%	-	Dec-11

# Growth Oriented Absolute Return Portfolio Performance – as of June 30, 2022

Fund	Market Value	Actual %	Returns								Std Dev	Sharpe Ratio	Incep Date
			Jun	QTD	YTD	FYTD	1 Year	3 Year	5 Year	Incep			
<b>Growth-Oriented Portfolio</b>													
<b>Fund of Funds</b>													
Grosvenor SC Absolute Return Fund LLC (Growth)	22,184,737	2.5%	-0.27%	-2.18%	-6.91%	-6.98%	-6.98%	2.40%	3.08%	4.76%	6.64%	0.60	Dec-11
Fund of Funds - HF Total	22,184,737	2.5%	-0.27%	-2.18%	-6.91%	-6.98%	-6.98%	2.40%	2.99%	4.13%	6.86%	0.40	Sep-04
<b>Growth-Oriented Portfolio Total</b>	<b>22,184,737</b>	<b>2.5%</b>	<b>-0.27%</b>	<b>-2.18%</b>	<b>-11.67%</b>	<b>-8.17%</b>	<b>-8.17%</b>	<b>5.19%</b>	<b>4.15%</b>	<b>4.71%</b>	<b>7.98%</b>	<b>0.42</b>	<b>Sep-04</b>
HFRI FoF Composite + 1%			-0.78%	-3.36%	-5.78%	14.30%	-4.19%	5.06%	4.69%	4.26%	5.39%	0.51	Sep-04
3 Month T-Bills+5%			0.42%	1.35%	2.63%	10.56%	5.20%	5.64%	6.11%	6.25%	0.46%	-	Sep-04
<b>Market Indices</b>													
Libor3Month			0.19%	0.42%	0.57%	0.85%	0.65%	0.78%	1.34%	1.57%	0.47%	-	Sep-04
Bloomberg US Aggregate Bond Index			-1.57%	-4.69%	-10.35%	-10.59%	-10.29%	-0.93%	0.88%	3.25%	3.45%	0.49	Sep-04
Bloomberg US High Yield Bond Index			-6.73%	-9.83%	-14.19%	0.58%	-12.82%	0.20%	2.10%	6.18%	9.30%	0.52	Sep-04
S&P 500 TR			-8.25%	-16.10%	-19.96%	25.85%	-10.62%	10.60%	11.31%	9.32%	14.73%	0.57	Sep-04
MSCI AC World Index Free - Net			-8.43%	-15.66%	-20.18%	17.33%	-15.75%	6.21%	7.00%	7.11%	15.66%	0.42	Sep-04
MSCI EAFE - Net			-9.28%	-14.51%	-19.57%	8.83%	-17.77%	1.07%	2.20%	4.84%	16.76%	0.27	Sep-04
MSCI EMF (Emerging Markets Free) - Net			-6.65%	-11.45%	-17.63%	5.28%	-25.29%	0.57%	2.18%	7.23%	20.98%	0.37	Sep-04

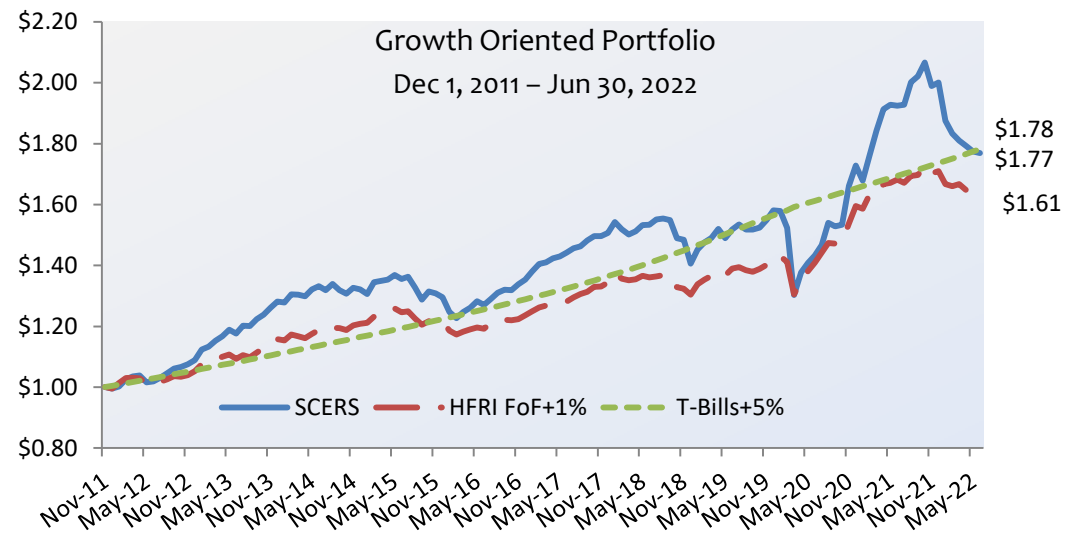
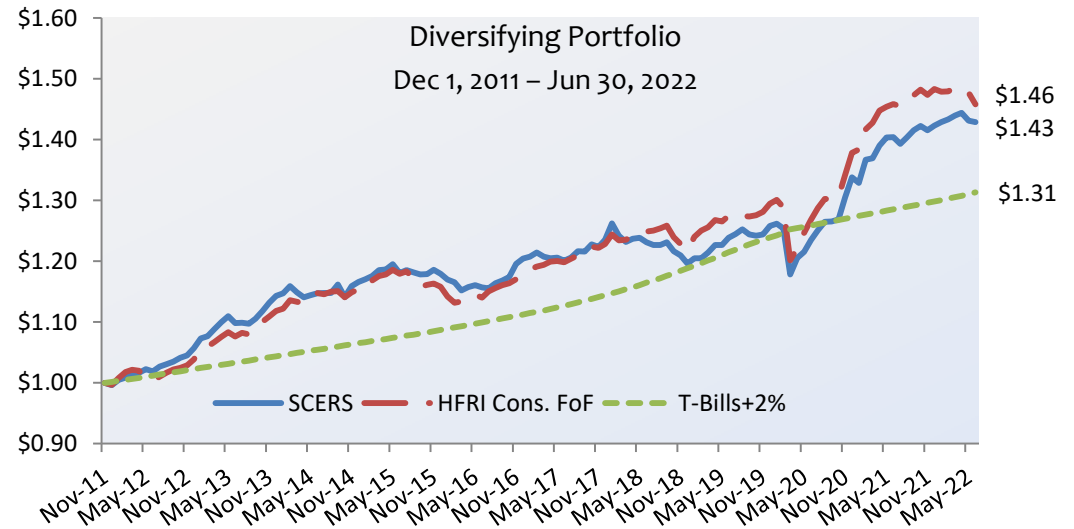
# Absolute Return Portfolios Cumulative Performance – December 2011 to June 2022

The Diversifying portfolio is above its T-bills + 2% long term objective though trails the HFRI Fund of Funds Conservative Index over this period

Despite sharp downturns in Q1 2020 and 2022, the Growth Oriented portfolio continued to meet the T-bills + 5% long term objective and remained ahead of the Fund of Funds Index + 1% benchmark

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 March 31, 2022

The Private Equity portfolio's net IRR since inception is 18.96%, versus the Cambridge Associates benchmark IRR of 15.71%

- The long-term Policy objective (Russell 3000 + 3%) has a 17.21% IRR over this period

The portfolio returned -1.3% in Q1 as global equity markets fell with increased geopolitical and economic concerns (ACWI -5.4%)

- The largest declines came from some of the portfolio's Venture Capital and other Technology-focused funds
  - RRJ III, Khosla Ventures IV and V, Spectrum VII, Thoma Bravo XI, and Atalaya SOF VI reported the largest declines in Q1
  - However, several of the portfolio's funds did report positive returns for the quarter
- Distributions slowed somewhat during the quarter though remained relatively strong
  - \$67.0 million in distributions, led by Summit Europe II, NEA 15, Abbott VI, and Waterland VI

Longer-term performance remains quite strong across most of the private equity funds

- Double-digit net IRRs for all vintage years prior to 2020, with all vintage years exceeding peer universes
- Summit VC IV (47.9%), Spectrum VII (43.8%), Trinity Ventures XII (42.2%), Waterland V (40.3%), AKKR IV (39.0%), Linden III (37.0%), AKKR V (34.5%), and Marlin Heritage (33.8%) are leading performance among SCERS' more mature funds

The legacy fund of funds, comprising 5.3% of the Private Equity portfolio, were generally down 5 – 6% during the quarter

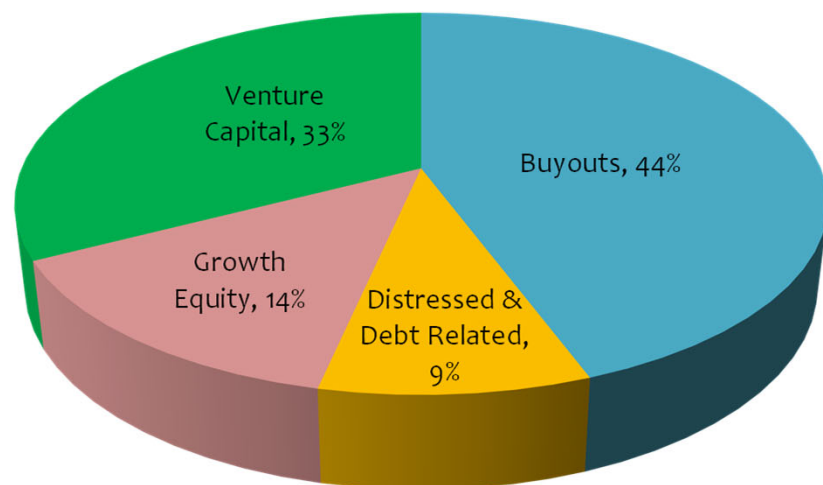
- The legacy fund of funds distributed \$7.9 million during the quarter

Changes during the quarter

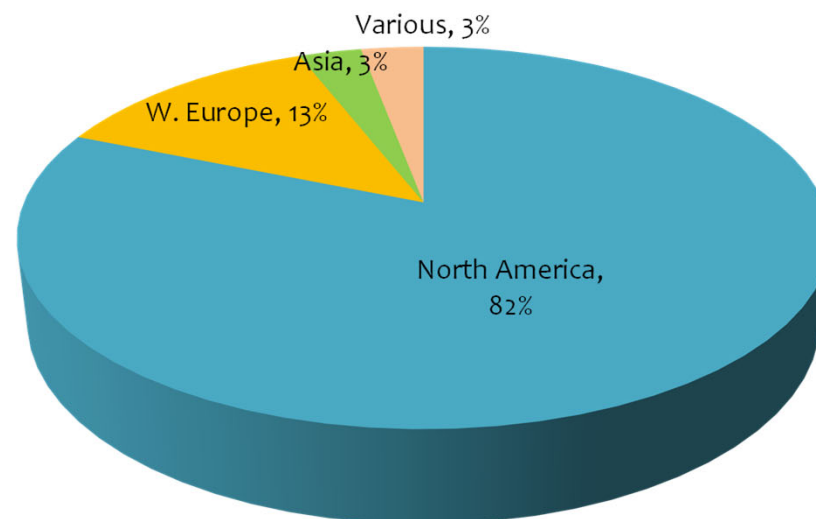
- SCERS committed \$77.5 million in total across two VC funds and one Growth Equity fund (all re-ups) during Q1
  - SCERS also committed \$107.5 million in total across four funds (all re-ups, included Buyout, VC, and Credit strategies) in Q2 2022
- \$39.7 million in new contributions, \$67.0 million in distributions
- Total portfolio gain decreased by \$23.0 million while the total portfolio IRR decreased by 0.68%

# Private Equity Portfolio Exposures as of March 31, 2022

Private Equity Portfolio Strategy Exposure\*



Private Equity Portfolio Geographic Exposure\*



Portfolio Strategy Totals	(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	TVPI Bench.
Buyout	784,502	269,051	620,222	66%	503,370	673,683	1,177,053	556,830	24.44%		1.90x	
Distressed Debt	330,000	110,949	273,023	66%	193,137	155,196	348,333	75,310	8.92%		1.28x	
Fund of Funds	310,805	41,169	281,061	87%	344,890	161,941	506,830	225,769	12.42%		1.80x	
Growth Equity	280,268	147,963	209,974	47%	227,053	255,707	482,760	272,786	35.51%		2.30x	
Opportunistic Credit	20,000	13,160	9,178	34%	2,333	6,991	9,323	145	N/M		1.02x	
Venture Capital	402,500	110,957	291,561	72%	133,014	530,083	663,097	371,536	23.76%		2.27x	
<b>Portfolio Total :</b>	<b>2,128,075</b>	<b>693,249</b>	<b>1,685,019</b>	<b>67%</b>	<b>1,403,796</b>	<b>1,783,601</b>	<b>3,187,397</b>	<b>1,502,377</b>	<b>18.96%</b>	<b>15.71%</b>	<b>1.89x</b>	

\* Exposures are based on the market values of investments as of 3/31/22.

# Private Equity Portfolio Performance Details – as of March 31, 2022

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	TVPI Bench.
<b>Vintage Year 2006</b>													
HarbourVest Partners VIII - Buyout Fund L.P.	Fund of Funds	37,500	1,125	36,375	97%	61,272	5,267	66,539	30,164	11.06%	7.94%	1.83x	1.74x
HarbourVest Partners VIII - Mezzanine and Distressed Debt Fund L.P.	Fund of Funds	5,000	200	4,800	96%	6,241	330	6,571	1,771	7.00%	7.94%	1.37x	1.74x
HarbourVest Partners VIII - Venture Fund L.P.	Fund of Funds	7,500	150	7,350	98%	12,974	3,668	16,642	9,292	11.90%	7.94%	2.26x	1.74x
<b>Vintage Year 2006 Total</b>		<b>50,000</b>	<b>1,475</b>	<b>48,525</b>	<b>97%</b>	<b>80,488</b>	<b>9,266</b>	<b>89,753</b>	<b>41,228</b>	<b>10.93%</b>	<b>7.20%</b>	<b>1.85x</b>	<b>1.48x</b>
<b>Vintage Year 2008</b>													
Abbott Capital Private Equity Fund VI, L.P.	Fund of Funds	75,000	375	74,625	100%	113,776	34,980	148,756	74,131	13.68%	13.74%	1.99x	2.18x
Goldman Sachs Private Equity Partners X, L.P.	Fund of Funds	75,000	13,433	69,027	82%	102,497	22,203	124,700	55,673	11.68%	13.74%	1.81x	2.18x
HarbourVest International Private Equity Partners VI-Partnership Fund L.P.	Fund of Funds	35,805	1,790	37,980	95%	44,388	28,100	72,488	34,508	12.12%	1.06%	1.91x	1.04x
<b>Vintage Year 2008 Total</b>		<b>185,805</b>	<b>15,599</b>	<b>181,632</b>	<b>92%</b>	<b>260,661</b>	<b>85,282</b>	<b>345,943</b>	<b>164,311</b>	<b>12.56%</b>	<b>8.68%</b>	<b>1.90x</b>	<b>1.52x</b>
<b>Vintage Year 2011</b>													
Waterland Private Equity Fund V C.V.	Buyout	17,791	2,916	16,235	84%	43,025	4,345	47,370	31,135	35.00%	10.85%	2.92x	1.65x
Khosla Ventures IV, L.P.	Venture Capital	10,000	190	9,810	98%	27,022	21,386	48,408	38,598	26.47%	18.45%	4.93x	2.89x
<b>Vintage Year 2011 Total</b>		<b>27,791</b>	<b>3,106</b>	<b>26,045</b>	<b>89%</b>	<b>70,048</b>	<b>25,731</b>	<b>95,778</b>	<b>69,734</b>	<b>30.37%</b>	<b>13.23%</b>	<b>3.68x</b>	<b>1.82x</b>
<b>Vintage Year 2012</b>													
Garrison Opportunity Fund III A LLC	Distressed Debt	20,000	0	20,000	100%	13,627	10,682	24,308	4,308	3.05%	15.89%	1.22x	1.66x
Summit Partners Venture Capital III-A, LP	Growth Equity	16,350	1,849	19,764	89%	37,774	4,033	41,807	22,043	17.81%	14.44%	2.12x	2.04x
New Enterprise Associates 14, L.P.	Venture Capital	25,000	875	24,125	97%	25,788	55,299	81,086	56,961	20.48%	19.31%	3.36x	2.76x
<b>Vintage Year 2012 Total</b>		<b>61,350</b>	<b>2,724</b>	<b>63,889</b>	<b>96%</b>	<b>77,188</b>	<b>70,014</b>	<b>147,202</b>	<b>83,313</b>	<b>14.89%</b>	<b>13.72%</b>	<b>2.30x</b>	<b>1.75x</b>
<b>Vintage Year 2013</b>													
Accel-KKR Capital Partners IV, L.P.	Buyout	15,000	318	15,501	98%	35,781	19,659	55,440	39,939	38.97%	17.16%	3.58x	1.91x
H.I.G. Capital Partners V, L.P.	Buyout	14,000	431	13,569	97%	16,392	13,762	30,153	16,584	24.65%	17.16%	2.22x	1.91x
Marlin Equity IV, L.P.	Buyout	20,000	0	20,070	100%	16,955	12,217	29,171	9,101	9.20%	17.16%	1.45x	1.91x
RRJ Capital Master Fund II, L.P.	Buyout	35,000	3,824	35,989	89%	43,482	9,577	53,059	17,069	10.62%	14.79%	1.47x	1.73x

<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 March 31, 2022 (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	TVPI Bench.
Atalaya Special Opportunities Fund V, L.P.	Distressed Debt	25,000	1,117	24,875	96%	30,017	1,916	31,933	7,058	7.84%	8.60%	1.28x	1.37x
H.I.G. Bayside Loan Opportunity Fund III (Europe-US\$), L.P.	Distressed Debt	30,000	5,400	24,600	82%	28,963	3,943	32,906	8,306	7.76%	2.91%	1.34x	1.11x
Wayzata Opportunities Fund III, L.P.	Distressed Debt	30,000	25,318	14,718	16%	10,063	3,706	13,769	-949	-1.70%	8.60%	0.94x	1.37x
Trinity Ventures XI, L.P.	Venture Capital	25,000	375	24,625	99%	4,835	61,181	66,016	41,391	17.40%	18.06%	2.68x	2.58x
<b>Vintage Year 2013 Total</b>		<b>194,000</b>	<b>36,783</b>	<b>173,947</b>	<b>81%</b>	<b>186,487</b>	<b>125,960</b>	<b>312,447</b>	<b>138,500</b>	<b>14.31%</b>	<b>14.19%</b>	<b>1.80x</b>	<b>1.69x</b>
<b>Vintage Year 2014</b>													
Dyal Capital Partners II	Buyout	35,000	9,081	34,264	74%	11,933	32,647	44,580	10,316	7.65%	19.55%	1.30x	2.06x
H.I.G. Europe Capital Partners II, L.P.	Buyout	15,567	3,391	15,054	78%	11,559	10,408	21,967	6,913	12.86%	17.56%	1.46x	1.82x
Marlin Heritage Fund	Buyout	10,000	2,211	10,513	78%	18,276	8,422	26,697	16,185	33.77%	19.55%	2.54x	2.06x
Thoma Bravo XI	Buyout	30,000	3,203	32,531	89%	61,926	46,444	108,370	75,839	28.57%	19.55%	3.33x	2.06x
TPG Opportunities Partners III	Distressed Debt	40,000	11,819	50,098	70%	50,190	12,943	63,133	13,035	10.44%	9.63%	1.26x	1.36x
Spectrum Equity Investors VII, L.P.	Growth Equity	25,000	1,625	23,375	94%	54,675	55,040	109,715	86,340	43.75%	24.50%	4.69x	2.43x
Khosla Ventures V	Venture Capital	20,000	700	19,300	97%	21,634	49,971	71,606	52,306	28.51%	22.81%	3.71x	2.81x
<b>Vintage Year 2014 Total</b>		<b>175,567</b>	<b>32,029</b>	<b>185,136</b>	<b>82%</b>	<b>230,193</b>	<b>215,875</b>	<b>446,068</b>	<b>260,932</b>	<b>25.82%</b>	<b>18.73%</b>	<b>2.41x</b>	<b>1.93x</b>
<b>Vintage Year 2015</b>													
* WPEF VI Overflow Fund C.V.	Buyout	6,672	6,662	10	0%	0	0	0	-10	0.00%	17.90%	0.00x	1.84x
RRJ Capital Master Fund III, LP	Buyout	40,000	4,392	39,069	89%	35,534	8,855	44,389	5,320	6.83%	17.90%	1.14x	1.84x
WPEF VI Feeder, L.P.	Buyout	26,687	16,424	24,125	38%	30,207	23,011	53,217	29,093	27.26%	17.90%	2.21x	1.84x
Accel-KKR Growth Capital Partners II	Growth Equity	15,000	220	15,445	99%	24,284	11,469	35,752	20,307	32.46%	24.40%	2.31x	2.41x
Summit Partners Venture Capital Fund IV-A, L.P.	Growth Equity	35,000	34,921	38,991	0%	38,912	54,365	93,277	54,286	47.91%	24.40%	2.39x	2.41x
New Enterprise Associates 15, L.P.	Venture Capital	35,000	1,925	33,079	95%	21,723	51,102	72,826	39,746	17.94%	22.81%	2.20x	2.46x
<b>Vintage Year 2015 Total</b>		<b>158,359</b>	<b>64,544</b>	<b>150,719</b>	<b>59%</b>	<b>150,660</b>	<b>148,802</b>	<b>299,461</b>	<b>148,742</b>	<b>24.69%</b>	<b>17.56%</b>	<b>1.99x</b>	<b>1.74x</b>
<b>Vintage Year 2016</b>													
Accel-KKR Capital Partners V, L.P.	Buyout	25,000	270	24,730	99%	18,460	29,424	47,884	23,154	34.50%	22.66%	1.94x	1.92x
Dyal III Pension Investors LP	Buyout	35,000	21,793	22,721	38%	19,529	24,790	44,320	21,599	23.47%	22.66%	1.95x	1.92x
Linden Capital Partners III	Buyout	35,000	2,157	39,843	94%	60,797	55,166	115,963	76,120	37.04%	22.66%	2.91x	1.92x

<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 March 31, 2022 (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	TVPI Bench.
Marlin Heritage Europe, L.P.	Buyout	14,455	1,685	13,138	88%	1,677	39,225	40,902	27,764	41.08%	16.23%	3.11x	1.66x
Thoma Bravo Fund XII, L.P.	Buyout	30,000	7,578	40,687	75%	20,525	50,417	70,942	30,255	17.79%	22.66%	1.74x	1.92x
TSG7 A L.P.	Buyout	16,000	3,255	12,745	80%	6,670	31,099	37,769	25,024	29.86%	22.66%	2.96x	1.92x
TSG7 B L.P.	Buyout	4,000	180	3,994	96%	1,498	4,904	6,402	2,408	19.61%	22.66%	1.60x	1.92x
Atalaya Special Opportunities Fund VI, L.P.	Distressed Debt	25,000	2,454	28,940	90%	38,137	4,250	42,388	13,447	13.94%	8.72%	1.46x	1.22x
Trinity Ventures XII, L.P.	Venture Capital	30,000	4,275	25,725	86%	25,510	75,393	100,904	75,179	42.17%	28.75%	3.92x	2.40x
<b>Vintage Year 2016 Total</b>		<b>214,455</b>	<b>43,646</b>	<b>212,523</b>	<b>80%</b>	<b>192,804</b>	<b>314,669</b>	<b>507,473</b>	<b>294,950</b>	<b>29.55%</b>	<b>18.19%</b>	<b>2.39x</b>	<b>1.56x</b>
<b>Vintage Year 2017</b>													
Marlin Heritage II	Buyout	10,000	-78	10,078	101%	2,117	13,696	15,813	5,735	18.90%	26.60%	1.57x	1.93x
Summit Partners Europe Growth Equity Fund II, SCSP	Growth Equity	33,359	30,106	35,796	10%	50,657	41,569	92,226	56,430	86.43%	18.86%	2.58x	1.49x
New Enterprise Associates 16, L.P.	Venture Capital	35,000	4,375	30,625	88%	4,566	44,836	49,402	18,777	17.75%	33.22%	1.61x	2.32x
<b>Vintage Year 2017 Total</b>		<b>78,359</b>	<b>34,403</b>	<b>76,499</b>	<b>56%</b>	<b>57,340</b>	<b>100,101</b>	<b>157,441</b>	<b>80,942</b>	<b>38.18%</b>	<b>21.00%</b>	<b>2.06x</b>	<b>1.50x</b>
<b>Vintage Year 2018</b>													
Linden Capital Partners IV LP	Buyout	44,330	12,010	36,029	73%	7,749	41,731	49,480	13,451	22.89%	24.40%	1.37x	1.58x
Marlin Equity V	Buyout	25,000	4,117	21,030	84%	7,998	26,717	34,715	13,685	29.75%	24.40%	1.65x	1.58x
TSG8 L.P.	Buyout	45,000	22,067	22,986	51%	132	22,470	22,602	-384	-1.19%	24.40%	0.98x	1.58x
Davidson Kempner Long-Term Distressed Opportunities Fund IV LP	Distressed Debt	35,000	2,400	33,198	93%	6,809	43,951	50,760	17,563	16.06%	20.01%	1.53x	1.39x
TSSP Opportunities Partners IV (A), L.P.	Distressed Debt	35,000	8,287	40,478	76%	15,056	32,541	47,597	7,120	17.35%	20.01%	1.18x	1.39x
RCP Fund XIII	Fund of Funds	50,000	20,107	29,893	60%	1,904	36,407	38,311	8,418	21.09%	34.42%	1.28x	1.58x
RCPDirect III	Fund of Funds	25,000	3,989	21,011	84%	1,837	30,986	32,823	11,812	27.20%	11.30%	1.56x	1.25x
Accel-KKR Growth Capital Partners III	Growth Equity	33,320	5,527	27,793	83%	0	32,162	32,162	4,369	12.68%	27.13%	1.16x	1.79x
Spectrum Equity VIII, L.P.	Growth Equity	25,000	2,500	22,500	90%	20,752	31,332	52,084	29,584	47.13%	27.13%	2.31x	1.79x
Khosla Ventures VI, L.P.	Venture Capital	35,000	2,380	32,620	93%	0	53,074	53,074	20,454	26.35%	37.61%	1.63x	2.14x
<b>Vintage Year 2018 Total</b>		<b>352,650</b>	<b>83,383</b>	<b>287,537</b>	<b>76%</b>	<b>62,238</b>	<b>351,371</b>	<b>413,609</b>	<b>126,072</b>	<b>23.29%</b>	<b>21.15%</b>	<b>1.44x</b>	<b>1.32x</b>
<b>Vintage Year 2019</b>													
Cortec Group Fund VII, L.P.	Buyout	30,000	10,610	25,865	65%	6,478	27,464	33,942	8,077	30.67%	29.69%	1.31x	1.42x

<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 March 31, 2022 (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	TVPI Bench.
Gridiron Capital Fund IV, L.P.	Buyout	30,000	6,021	25,416	80%	1,493	36,496	37,989	12,573	N/M	N/M	1.49x	1.42x
Thoma Bravo Fund XIII, LP	Buyout	45,000	9,278	49,289	79%	23,173	65,137	88,311	39,021	42.36%	29.69%	1.79x	1.42x
New Enterprise Associates 17, L.P.	Venture Capital	25,000	7,750	17,264	69%	1,935	22,783	24,718	7,454	30.40%	36.57%	1.43x	1.57x
Threshold Ventures III, L.P.	Venture Capital	20,000	4,700	15,300	77%	0	29,788	29,788	14,488	60.92%	36.57%	1.95x	1.57x
<b>Vintage Year 2019 Total</b>		<b>150,000</b>	<b>38,359</b>	<b>133,134</b>	<b>74%</b>	<b>33,080</b>	<b>181,667</b>	<b>214,748</b>	<b>81,614</b>	<b>41.16%</b>	<b>23.13%</b>	<b>1.61x</b>	<b>1.24x</b>
<b>Vintage Year 2020</b>													
Accel-KKR Capital Partners VI, LP	Buyout	30,000	22,524	7,476	25%	0	7,476	7,476	0	N/M	N/M	1.00x	1.31x
Wynnchurch Capital Partners V	Buyout	20,000	14,104	5,896	29%	0	7,644	7,644	1,748	N/M	N/M	1.30x	1.31x
Davidson Kempner Long-Term Distressed Opportunities Fund V LP	Distressed Debt	30,000	3,904	26,367	87%	274	30,583	30,856	4,490	N/M	N/M	1.17x	1.15x
Spectrum Equity IX-A, L.P.	Growth Equity	25,000	12,750	12,250	49%	0	11,728	11,728	-522	N/M	N/M	0.96x	1.27x
Summit Partners Europe Growth Equity Fund III, SCSp	Growth Equity	22,239	15,139	7,385	32%	0	7,396	7,396	11	N/M	N/M	1.00x	1.10x
Summit Partners Venture Capital Fund V-A, L.P.	Growth Equity	20,000	13,325	6,675	33%	0	6,882	6,882	206	N/M	N/M	1.03x	1.27x
Shamrock Capital Content Fund II, L.P.	Opportunistic Credit	20,000	13,160	9,178	34%	2,333	6,991	9,323	145	N/M	N/M	1.02x	1.19x
Canvas Ventures 3, L.P.	Venture Capital	20,000	12,322	7,678	38%	0	9,011	9,011	1,333	N/M	N/M	1.17x	1.32x
OrbiMed Private Investments VIII, LP	Venture Capital	15,000	8,513	6,488	43%	0	6,635	6,635	147	N/M	N/M	1.02x	1.32x
<b>Vintage Year 2020 Total</b>		<b>202,239</b>	<b>115,740</b>	<b>89,393</b>	<b>43%</b>	<b>2,607</b>	<b>94,344</b>	<b>96,951</b>	<b>7,558</b>	<b>N/M</b>	<b>N/M</b>	<b>1.08x</b>	<b>1.08x</b>
<b>Vintage Year 2021</b>													
Linden Capital Partners V LP	Buyout	30,000	30,000	0	0%	0	-400	-400	-400	N/M	N/M	N/A	N/A
Marlin Heritage III, L.P.	Buyout	30,000	30,000	0	0%	0	0	0	0	N/M	N/M	N/A	N/A
Shamrock Capital Growth Fund V, L.P.	Buyout	20,000	18,630	1,370	7%	3	883	886	-484	N/M	N/M	0.65x	1.02x
Strategic Value Special Situations Fund V, L.P.	Distressed Debt	30,000	20,250	9,750	33%	0	10,682	10,682	932	N/M	N/M	1.10x	1.08x
CRV Select Fund I, LP	Venture Capital	20,000	2,500	17,500	88%	0	18,983	18,983	1,483	N/M	N/M	1.08x	1.01x
CRV XVIII, LP	Venture Capital	20,000	4,850	15,150	76%	0	17,846	17,846	2,696	N/M	N/M	1.18x	1.01x
Khosla Ventures VII, L.P.	Venture Capital	20,000	11,440	8,560	43%	0	9,385	9,385	825	N/M	N/M	1.10x	1.01x

<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 March 31, 2022 (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	TVPI Bench.
Vintage Year 2021 Total		170,000	117,670	52,330	31%	3	57,378	57,381	5,051	N/M	N/M	1.10x	N/A
<b>Vintage Year 2022</b>													
Sixth Street Opportunities Partners V (A), L.P.	Distressed Debt	30,000	30,000	0	0%	0	0	0	0	N/M	N/M	N/A	N/A
Accel-KKR Growth Capital Partners IV	Growth Equity	30,000	30,000	0	0%	0	-269	-269	-269	N/M	N/M	N/A	N/A
CRV Select Fund II, LP	Venture Capital	22,500	18,788	3,713	17%	0	3,411	3,411	-302	N/M	N/M	0.92x	0.96x
Threshold Ventures IV, L.P.	Venture Capital	25,000	25,000	0	0%	0	0	0	0	N/M	N/M	N/A	N/A
Vintage Year 2022 Total		107,500	103,788	3,713	3%	0	3,142	3,142	-570	N/M	N/M	0.85x	N/A
<b>Portfolio Total :</b>		<b>2,128,075</b>	<b>693,249</b>	<b>1,685,019</b>	<b>67%</b>	<b>1,403,796</b>	<b>1,783,601</b>	<b>3,187,397</b>	<b>1,502,377</b>	<b>18.96%</b>	<b>15.71%</b>	<b>1.89x</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 March 31, 2022

The Private Credit portfolio's net IRR since inception is 9.16%, versus the benchmark return of 6.80%

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

The Private Credit funds reported another quarter of gains, despite increased market volatility

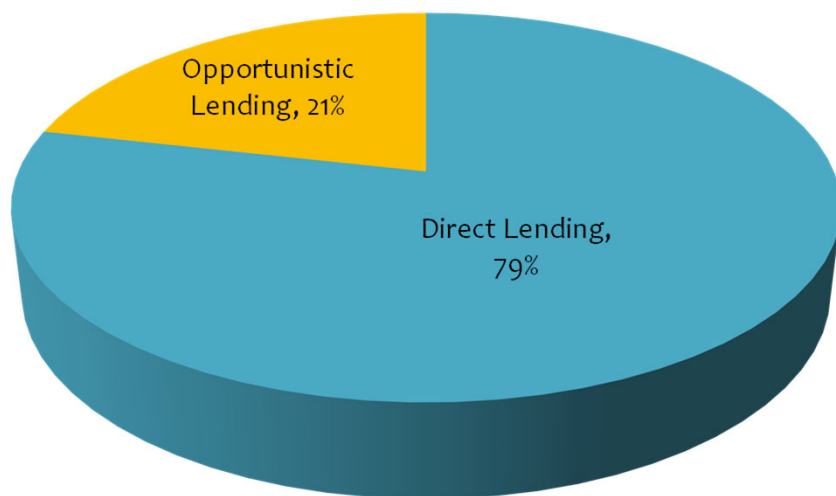
- The portfolio returned 0.6% in Q1 and 8.2% for the trailing 1-year period ending March 31, 2022
  - Most of the funds showed positive returns of 1% - 3% for the quarter
  - However, the healthcare-focused Athyrium funds and OrbiMed Royalty III reported declines in Q1
    - The declines ranged from -1.0% to -8.6% for these funds
    - Summit Credit II also declined in Q1, returning -1.2% for the quarter
- Longer term performance remains steady despite the modest sell-off in Q1 2020
  - 9.8% net IRR for the 3-year period and 9.0% net IRR for the 5-year period

Changes during the quarter

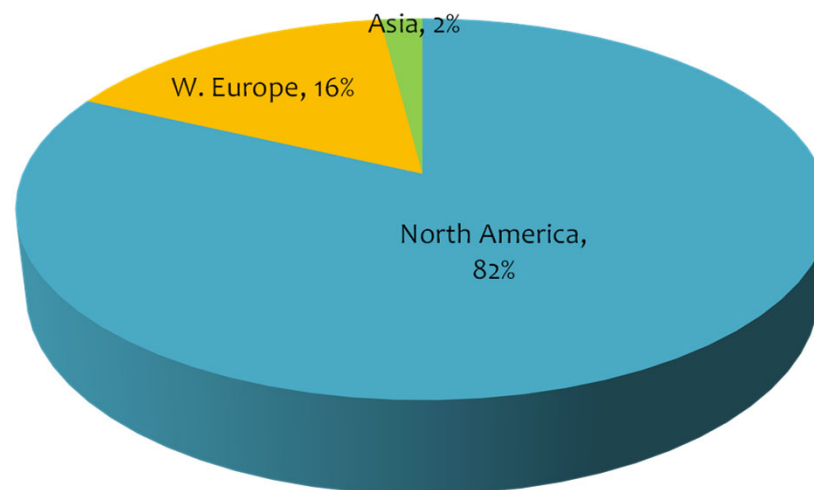
- SCERS made no new commitments to Private Credit funds during the quarter
  - SCERS committed \$40 million (re-up) to an Opportunistic Lending fund in Q2 2022
- \$14.4 million in new contributions, \$18.1 million in distributions
- Total portfolio gain increased by \$2.0 million while the total portfolio IRR declined by 0.45%

# Private Credit Portfolio Exposures as of March 31, 2022

Private Credit Portfolio Strategy Exposure\*



Private Credit Portfolio Geographic Exposure\*



Portfolio Strategy Totals	(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	TVPI Bench.
Direct Lending	485,138	208,397	351,056	57%	168,765	250,875	419,640	68,584	8.98%		1.20x	
Opportunistic Lending	152,000	65,565	123,283	57%	78,486	65,547	144,033	20,750	9.78%		1.17x	
<b>Portfolio Total :</b>	<b>637,138</b>	<b>273,962</b>	<b>474,339</b>	<b>57%</b>	<b>247,251</b>	<b>316,422</b>	<b>563,673</b>	<b>89,333</b>	<b>9.16%</b>	<b>6.80%</b>	<b>1.19x</b>	

\* Exposures are based on the market values of investments as of 3/31/22.

## Private Credit Portfolio Details – as of March 31, 2022

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	TVPI Bench.
<b>Vintage Year 2011</b>													
Summit Partners Credit Fund, LP	Direct Lending	20,000	2,125	20,697	89%	26,391	404	26,795	6,098	8.84%	N/A	1.29x	N/A
<b>Vintage Year 2011 Total</b>		20,000	2,125	20,697	89%	26,391	404	26,795	6,098	8.84%	13.23%	1.29x	1.82x
<b>Vintage Year 2014</b>													
Summit Partners Credit Fund II, L.P.	Direct Lending	35,000	3,040	49,057	91%	44,139	14,806	58,945	9,887	6.98%	4.45%	1.20x	N/A
<b>Vintage Year 2014 Total</b>		35,000	3,040	49,057	91%	44,139	14,806	58,945	9,887	6.98%	18.73%	1.20x	1.93x
<b>Vintage Year 2015</b>													
Athyrium Opportunities Fund II	Opportunistic Lending	32,000	2,671	42,702	92%	41,768	10,386	52,154	9,452	8.95%	9.83%	1.22x	1.41x
<b>Vintage Year 2015 Total</b>		32,000	2,671	42,702	92%	41,768	10,386	52,154	9,452	8.95%	17.56%	1.22x	1.74x
<b>Vintage Year 2017</b>													
Athyrium Opportunities Fund III	Opportunistic Lending	25,000	6,629	27,628	73%	17,951	11,910	29,861	2,234	3.84%	13.29%	1.08x	1.32x
<b>Vintage Year 2017 Total</b>		25,000	6,629	27,628	73%	17,951	11,910	29,861	2,234	3.84%	21.00%	1.08x	1.50x
<b>Vintage Year 2018</b>													
Benefit Street Partners Senior Secured Opportunities Fund L.P.	Direct Lending	50,000	14,052	50,953	72%	31,127	29,927	61,054	10,102	5.94%	4.07%	1.20x	N/A
Summit Partners Credit Fund III, L.P.	Direct Lending	50,000	29,819	57,401	40%	41,476	29,316	70,792	13,390	16.68%	4.07%	1.23x	N/A
TCP Direct Lending Fund VIII-S, LLC	Direct Lending	125,000	25,070	99,930	80%	20,997	101,631	122,629	22,698	9.52%	4.07%	1.23x	N/A
<b>Vintage Year 2018 Total</b>		225,000	68,940	208,284	69%	93,600	160,874	254,475	46,191	9.38%	21.15%	1.22x	1.32x
<b>Vintage Year 2019</b>													
BSP Levered US SOF II (Senior Secured Opportunities) Fund L.P.	Direct Lending	50,000	27,513	23,232	45%	2,064	24,424	26,488	3,257	13.47%	6.09%	1.14x	N/A
OrbiMed Royalty & Credit Opportunities III, LP	Opportunistic Lending	35,000	26,964	22,393	23%	15,709	11,561	27,270	4,877	27.53%	26.03%	1.22x	1.35x
<b>Vintage Year 2019 Total</b>		85,000	54,477	45,625	36%	17,773	35,985	53,759	8,134	19.61%	23.13%	1.18x	1.24x
<b>Vintage Year 2020</b>													
MCP Private Capital Fund IV (Feeder)	Direct Lending	35,138	22,153	13,546	37%	133	13,712	13,845	300	N/M	N/M	1.02x	N/A

<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%

## Private Credit Portfolio Details – as of March 31, 2022 (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	TVPI Bench.
Silver Point Specialty Credit Fund II, L.P.	Opportunistic Lending	40,000	11,403	28,458	71%	3,057	29,643	32,699	4,241	N/M	N/M	1.15x	1.19x
<b>Vintage Year 2020 Total</b>		75,138	33,556	42,004	55%	3,190	43,355	46,545	4,541	N/M	N/M	1.11x	1.08x
<b>Vintage Year 2021</b>													
Ares Capital Europe V	Direct Lending	40,000	23,252	16,748	42%	282	17,948	18,230	1,481	N/M	N/M	1.09x	N/A
IFM USIDF (Offshore) B Feeder	Direct Lending	40,000	27,682	13,185	31%	2,156	12,308	14,464	1,280	N/M	N/M	1.10x	N/A
Summit Partners Credit Fund IV, L.P.	Direct Lending	40,000	33,692	6,308	16%	0	6,398	6,398	90	N/M	N/M	1.01x	N/A
Shamrock Capital Debt Opportunities Fund I, L.P.	Opportunistic Lending	20,000	17,898	2,102	11%	0	2,047	2,047	-55	N/M	N/M	0.97x	1.05x
<b>Vintage Year 2021 Total</b>		140,000	102,523	38,343	27%	2,438	38,701	41,139	2,796	N/M	N/M	1.07x	1.01x
<b>Portfolio Total :</b>		637,138	273,962	474,339	57%	247,251	316,422	563,673	89,333	9.16%	6.80%	1.19x	

<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 March 31, 2022

The Real Assets portfolio's net IRR since inception is 12.32%, versus the blended benchmark return of 7.92%

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

The Real Assets portfolio is primarily Infrastructure and Energy and Power partnerships

- Performance of the Energy and Power partnerships was materially impacted by significant markdowns in Q1 2020
  - However, most of the Energy and Power (particularly upstream energy) partnerships have rebounded sharply since Q3 2020
- Infrastructure partnerships saw smaller declines in Q1 2020 and have maintained good performance since inception
- Since inception net IRRs of 12.5% for Infrastructure and 13.0% for Energy and Power

The Real Assets portfolio generated a 5.3% net return in Q1

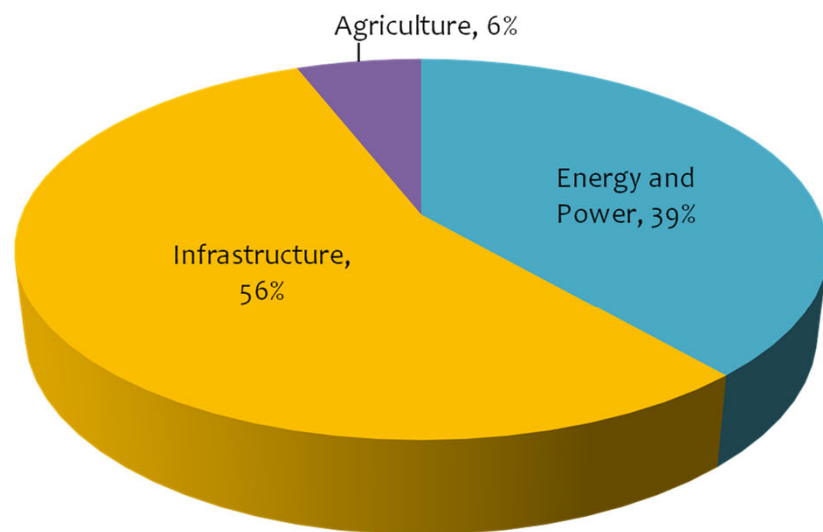
- The portfolio's Energy and Power funds led performance during the quarter
  - Most of the Energy and Power funds reported returns between 5% and 20% in Q1 on continued oil price strength
- The Infrastructure funds also reported good performance during the quarter, generally returning 4% to 7% in Q1
- EnCap IX and X (energy), NGP Royalty (energy), and Meridiam N. America III (infrastructure) each gained 20%+ in Q1

Changes during the quarter

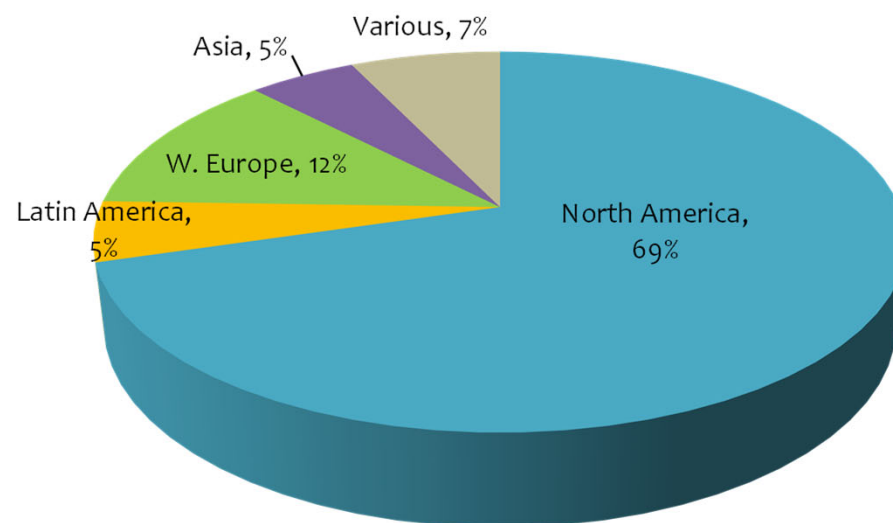
- SCERS made no new commitments to Real Assets funds during the quarter
- \$27.6 million in new contributions, \$21.7 million in distributions
- Portfolio IRR increased by 0.60% while the total portfolio gain increased by \$44.1 million

# Real Assets Portfolio Exposures as of March 31, 2022

Real Assets Portfolio Strategy Exposure\*



Real Assets Portfolio Geographic Exposure\*



Portfolio Strategy Totals	(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
Agriculture	65,000	18,505	52,564	72%	6,892	49,070	55,962	3,398	3.16%		1.06x
Energy and Power	412,500	81,008	383,262	80%	201,614	341,545	543,158	159,897	12.99%		1.42x
Infrastructure	669,531	215,070	480,002	68%	157,398	496,113	653,511	173,509	12.53%		1.36x
Real Asset Debt	100,000	84,789	36,169	15%	45,101	0	45,101	8,932	10.27%		1.25x
<b>Portfolio Total :</b>	<b>1,247,031</b>	<b>399,372</b>	<b>951,996</b>	<b>68%</b>	<b>411,004</b>	<b>886,728</b>	<b>1,297,732</b>	<b>345,736</b>	<b>12.32%</b>	<b>7.92%</b>	<b>1.36x</b>

\* Exposures are based on the market values of investments as of 3/31/22.

# Real Assets Portfolio Performance Details – as of March 31, 2022

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 and Power	33,000	1,373	37,908	96%	35,025	16,762	51,787	13,879	9.66%	2.69%	1.37x
<b>Vintage Year 2013 Total</b>		<b>33,000</b>	<b>1,373</b>	<b>37,908</b>	<b>96%</b>	<b>35,025</b>	<b>16,762</b>	<b>51,787</b>	<b>13,879</b>	<b>9.66%</b>		<b>1.37x</b>
<b>Vintage Year 2014</b>												
Carlyle Power Partners II, L.P.	Energy and Power	40,000	6,919	45,671	83%	18,169	39,418	57,587	11,917	8.05%	8.14%	1.26x
EnCap Flatrock Midstream III	Energy and Power	20,000	920	23,532	95%	15,131	14,015	29,146	5,614	8.32%	8.14%	1.24x
Global Energy & Power Infrastructure Fund II	Energy and Power	35,000	842	38,561	98%	35,354	15,198	50,552	11,991	15.60%	8.14%	1.31x
Quantum Energy Partners VI, LP	Energy and Power	35,000	7,917	33,066	77%	23,673	49,632	73,306	40,240	27.26%	8.14%	2.22x
Pantheon SCERS SIRF MM, LLC	Infrastructure	100,000	27,668	76,632	72%	69,900	52,831	122,731	46,099	12.24%	10.47%	1.60x
Wastewater Opportunity Fund	Infrastructure	25,000	1,205	25,739	95%	9,371	20,314	29,685	3,946	4.69%	10.47%	1.15x
<b>Vintage Year 2014 Total</b>		<b>255,000</b>	<b>45,472</b>	<b>243,200</b>	<b>82%</b>	<b>171,598</b>	<b>191,409</b>	<b>363,007</b>	<b>119,807</b>	<b>13.29%</b>		<b>1.49x</b>
<b>Vintage Year 2015</b>												
ArcLight Energy Partners Fund VI	Energy and Power	40,000	5,604	42,665	86%	18,944	27,271	46,215	3,550	2.23%	9.20%	1.08x
EnCap Energy Capital Fund X, L.P.	Energy and Power	40,000	2,146	40,531	95%	24,251	46,065	70,316	29,785	15.75%	9.20%	1.73x
* Atalaya Real Assets SMA	Real Asset Debt	100,000	84,789	36,169	15%	45,101	0	45,101	8,932	10.27%	N/A	1.25x
<b>Vintage Year 2015 Total</b>		<b>180,000</b>	<b>92,539</b>	<b>119,365</b>	<b>49%</b>	<b>88,296</b>	<b>73,336</b>	<b>161,632</b>	<b>42,267</b>	<b>9.57%</b>		<b>1.35x</b>
<b>Vintage Year 2016</b>												
ACM Fund II, LLC	Agriculture	25,000	1,694	27,453	93%	4,581	17,365	21,946	-5,506	-7.66%	N/A	0.80x
Brookfield Infrastructure Fund III, L.P.	Infrastructure	40,000	6,655	35,406	83%	13,511	37,944	51,455	16,049	12.17%	9.76%	1.45x
IFM Global Infrastructure Fund	Infrastructure	125,053	0	125,053	100%	43,616	148,094	191,709	66,657	12.75%	9.76%	1.53x
<b>Vintage Year 2016 Total</b>		<b>190,053</b>	<b>8,349</b>	<b>187,912</b>	<b>96%</b>	<b>61,708</b>	<b>203,402</b>	<b>265,111</b>	<b>77,199</b>	<b>10.63%</b>		<b>1.41x</b>
<b>Vintage Year 2017</b>												
Quantum Energy Partners VII, LP	Energy and Power	40,000	11,728	32,799	71%	11,061	41,541	52,603	19,804	20.16%	12.36%	1.60x
Meridiam Infrastructure North America Fund III	Infrastructure	50,000	37,206	12,794	26%	1	20,403	20,404	7,610	39.05%	8.59%	1.59x
<b>Vintage Year 2017 Total</b>		<b>90,000</b>	<b>48,934</b>	<b>45,593</b>	<b>46%</b>	<b>11,062</b>	<b>61,945</b>	<b>73,007</b>	<b>27,414</b>	<b>23.04%</b>		<b>1.60x</b>

<sup>1</sup>Benchmarks:

Real Assets Portfolio: 60% Cambridge Infrastructure, 30% Cambridge Energy, 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 March 31, 2022 (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
Paine Schwartz Food Chain Fund V, LP	Agriculture	40,000	16,811	25,111	58%	2,311	31,705	34,016	8,905	36.95%	N/A	1.35x
EnCap Flatrock Midstream IV, L.P.	Energy and Power	22,500	11,207	11,883	50%	5,492	8,647	14,138	2,256	7.89%	8.01%	1.19x
Tailwater Energy Fund III, LP	Energy and Power	32,000	1,689	32,365	95%	2,133	32,382	34,516	2,150	2.38%	8.01%	1.07x
ISQ Global Infrastructure Fund II	Infrastructure	50,000	13,013	46,577	74%	10,083	51,402	61,486	14,909	15.64%	11.98%	1.32x
<b>Vintage Year 2018 Total</b>		<b>144,500</b>	<b>42,721</b>	<b>115,936</b>	<b>70%</b>	<b>20,019</b>	<b>124,136</b>	<b>144,155</b>	<b>28,219</b>	<b>11.53%</b>		<b>1.24x</b>
<b>Vintage Year 2019</b>												
Tailwater Energy Fund IV, LP	Energy and Power	35,000	14,176	20,814	59%	0	27,241	27,241	6,427	20.44%	27.54%	1.31x
Brookfield Infrastructure Fund IV	Infrastructure	40,000	13,310	27,962	67%	3,816	30,531	34,347	6,385	13.66%	10.00%	1.23x
EQT Infrastructure IV (No.2) USD SCSp	Infrastructure	35,000	8,570	31,190	76%	5,162	34,528	39,691	8,501	16.05%	10.00%	1.27x
<b>Vintage Year 2019 Total</b>		<b>110,000</b>	<b>36,056</b>	<b>79,966</b>	<b>67%</b>	<b>8,978</b>	<b>92,300</b>	<b>101,278</b>	<b>21,312</b>	<b>16.22%</b>		<b>1.27x</b>
<b>Vintage Year 2020</b>												
NGP Royalty Partners, L.P.	Energy and Power	40,000	16,485	23,467	59%	12,380	23,371	35,752	12,285	N/M	N/M	1.52x
<b>Vintage Year 2020 Total</b>		<b>40,000</b>	<b>16,485</b>	<b>23,467</b>	<b>59%</b>	<b>12,380</b>	<b>23,371</b>	<b>35,752</b>	<b>12,285</b>	<b>N/M</b>		<b>1.52x</b>
<b>Vintage Year 2021</b>												
DigitalBridge Partners II, LP	Infrastructure	35,000	19,571	16,966	44%	1,642	15,991	17,633	667	N/M	N/M	1.04x
Harrison Street Social Infrastructure Fund, L.P.	Infrastructure	75,000	1,972	73,028	97%	296	77,073	77,369	4,341	N/M	N/M	1.06x
ISQ Global Infrastructure Fund III (UST), L.P.	Infrastructure	50,000	46,072	3,927	8%	0	3,229	3,229	-699	N/M	N/M	0.82x
Meridiam Sustainable Infrastructure Europe IV	Infrastructure	44,478	39,827	4,728	10%	0	3,774	3,774	-954	N/M	N/M	0.80x
<b>Vintage Year 2021 Total</b>		<b>204,478</b>	<b>107,443</b>	<b>98,649</b>	<b>47%</b>	<b>1,937</b>	<b>100,067</b>	<b>102,004</b>	<b>3,355</b>	<b>N/M</b>		<b>1.03x</b>
<b>Portfolio Total :</b>		<b>1,247,031</b>	<b>399,372</b>	<b>951,996</b>	<b>68%</b>	<b>411,004</b>	<b>886,728</b>	<b>1,297,732</b>	<b>345,736</b>	<b>12.32%</b>	<b>7.92%</b>	<b>1.36x</b>

<sup>1</sup>Benchmarks:

Real Assets Portfolio: 60% Cambridge Infrastructure, 30% Cambridge Energy, 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.

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