



Board of Retirement Regular Meeting

Sacramento County Employees' Retirement System

Agenda Item 21

MEETING DATE: December 8, 2021

SUBJECT: Quarterly Investment Performance Report
Alternative Assets

SUBMITTED FOR: Consent Deliberation and Action Receive and File

RECOMMENDATION

Staff recommends the Board receive and file the Cliffwater Quarterly Performance Review presentation for the period ending September 30, 2021 for the Absolute Return portfolio, and the period ending June 30, 2021 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 highlights notable manager performance, along with any recent alternative investments made by SCERS. The returns for the private market asset classes shown in the table below, and provided within Cliffwater's reports, are lagged a quarter and reflect valuations as of June 30, 2021.

SCERS' alternative asset class returns are as follows:

SCERS ALTERNATIVE ASSETS PERFORMANCE SUMMARY
Quarter Reporting Periods Ending September 30, 2021

SCERS ASSET CLASS	Quarter*	1-Year*	3-Year*	5-Year*	Since Inception*	Since Inception Date*
SCERS Absolute Return	1.6%	15.7%	5.5%	5.2%	4.4%	Sep-04
HFRI FoF Conservative	0.7%	12.8%	5.3%	4.8%	4.0%	
HFRI FoF Composite + 1%	1.6%	16.0%	7.7%	6.9%	4.8%	
SCERS Private Equity	10.8%	64.5%	30.9%	26.7%	19.5%	Feb-08
Cambridge Private Equity/Venture Capital	12.1%	58.4%	23.7%	21.5%	15.8%	
SCERS Private Credit	2.0%	18.3%	9.6%	9.6%	9.4%	Oct-11
Credit Suisse Leveraged Loan + 2%	3.4%	13.7%	6.4%	7.1%	7.0%	
SCERS Real Assets	8.1%	20.5%	7.2%	9.5%	9.8%	Jan-13
(45%) Cambridge Private Infrastructure; (35%) Cambridge Private Energy; (20%) NCREIF Agriculture/Timber	5.4%	20.3%	5.0%	7.5%	6.7%	
SCERS Opportunities	0.3%	21.5%	8.2%	6.7%	18.3%	Jan-08
SCERS Portfolio Actuarial Rate of Return	1.8%	6.8%	6.8%	6.8%	6.8%	
*Note: Periods ending 6/30/21 for Private Equity, Private Credit, Real Assets, and Opportunities Periods ending 9/30/21 for Absolute Return All returns are net IRR, except Absolute Return which is time-weighted						

SCERS PORTFOLIO RESULTS

For the reporting quarter ended June 30, 2021, SCERS' Private Equity portfolio registered an outsized 10.8% absolute return, but on a relative basis, underperformed against its benchmark return of 12.1%. The strong absolute performance was driven by SCERS' buyout and venture capital strategies, with the top 10 funds delivering returns for the quarter ranging from 13.7%-57.2%. SCERS' Private Equity portfolio benefited from the robust demand in the public markets for initial public offerings (IPO), special purpose acquisition corporation (SPAC) vehicles, and corporate mergers, particularly in high growth software and technology companies, which is leading to robust valuations.

The performance of SCERS' Private Credit portfolio for the quarter ended June 30, 2021 underperformed against its benchmark return, 2.0% versus 3.4%, with outperformance among the direct lending strategies offset by underperformance of the opportunistic credit strategies, mostly due to the J-curve effect of recently committed funds.

For the quarter ended June 30, 2021, SCERS' Real Assets portfolio earned an outsized absolute return of 8.1%, significantly outperforming its benchmark return of 5.4%. As oil and gas prices continued to rise as global demand outpaced supply, SCERS' energy strategies generated robust returns ranging from 9.8%-37.6% among the top 5 performers.

For the reporting quarter ended September 30, 2021, SCERS' Absolute Return portfolio outperformed against the HFRI Fund of Funds Conservative Index return, 1.6% versus 0.7%, due to the outperformance of the Growth-Oriented portfolio (4.1%), in particular the Event Driven strategy (12.6%). SCERS' Diversifying-Oriented Absolute Return portfolio performed in-line with its benchmark return, 0.7% versus 0.7%.

Below are notable top and bottom performing funds among SCERS' alternative assets managers for the quarterly reporting period:

- Top performing funds:
 - Absolute Return:
 - Third Point Partners Qualified (event driven): +12.6%
 - Marshall Wace Global Opportunities Fund (equity long/short): +4.0%
 - Lakewood Capital Partners (equity long/short): +3.5%
 - Private Equity portfolio:
 - Threshold Ventures III (buyout): +57.2%
 - Accel-KKR Capital Partners IV (mezzanine debt): +57.0%
 - TSG7 B (buyout): +50.4%
 - Summit Partners Europe Growth Equity Fund II (buyout): +32.5%
 - Private Credit portfolio:
 - Benefit Street Partners SSOF II (direct lending): +25.8%
 - Ares Capital Europe V (direct lending): +8.5%
 - Summit Partners Credit Fund III (direct lending): +4.4%
 - Real Assets portfolio:
 - Quantum Energy Partners VII (energy - upstream): +37.6%
 - Quantum Energy Partners VI (energy - upstream): +34.0%
 - EnCap Energy Capital Fund IX (energy - upstream): +33.8%
 - EnCap Energy Capital Fund X (energy - upstream): +18.8%
- Bottom performing funds:
 - Absolute Return portfolio:
 - Laurion Capital (market neutral): -5.1%
 - Grosvenor SCARF (diversifying fund-of-funds): -3.3%
 - Eisler Capital (macro-discretionary): -3.3%

- Private Equity portfolio:
 - Spectrum Equity IX-A (venture capital): -6.1%
 - Canvas Ventures 3 (venture capital): -6.0%
 - RRJ Capital Master Fund II (buyout): -5.6%

- Private Credit portfolio:
 - OrbiMed Royalty & Credit Opportunities III (opportunistic): -12.9%
 - Summit Partners Credit Fund II (direct lending): -2.8%
 - MCP Private Capital Fund IV (direct lending): -1.8%

- Real Assets portfolio:
 - BlackRock Global Energy & Power Infrastructure II (energy - diversified): -6.9%
 - ArcLight Energy Partners Fund VI (energy - diversified): -4.5%
 - ACM Fund II (agriculture): -2.2%

NEW INVESTMENTS

During the quarter ended September 30, 2021, SCERS made the following new investments:

- Summit Partners Credit Fund IV (private credit – direct lending): \$40 million
- LaSalle China Logistics (real estate – non-core): \$30 million
- Marlin Heritage III (private equity - buyout): \$30 million
- Marlin Equity Partners VI (private equity - buyout): \$30 million
- Sixth Street Opportunities Partners V (private equity - distressed): \$25 million

After the quarter, SCERS made the following new investments:

- Asana Partners Fund III (real estate-non-core): \$40 million
- Brookfield Super-Core Infrastructure Partners (real assets-infrastructure): \$100 million

ATTACHMENT

- Board Order
- Cliffwater's Quarterly Performance Review for Alternative Assets

Prepared by:

/S/

JR Pearce
Senior Investment Officer

Reviewed by:

/S/

Steve Davis
Chief Investment Officer

/S/

Eric Stern
Chief Executive Officer



Retirement Board Order

Sacramento County Employees' Retirement System

**Before the Board of Retirement
December 8, 2021**

MOTION:

Quarterly Investment Performance Report Alternative Assets

THE BOARD OF RETIREMENT hereby accepts the recommendation of staff to receive and file the Cliffwater Quarterly Investment Performance Report Alternative Assets.

I HEREBY CERTIFY that the above order was passed and adopted on December 8, 2021 by the following vote of the Board of Retirement, to wit:

AYES:

NOES:

ABSENT:

ABSTAIN:

ALTERNATES (Present but not voting):

Richard B. Fowler II
Board President

Eric Stern
Chief Executive Officer and
Board Secretary



INVESTMENT ADVISORY SERVICES

Los Angeles • New York

Sacramento County Employees' Retirement System Quarterly Performance Review

December 8, 2021

Absolute Return Portfolio Performance Summary – as of September 30, 2021

Growth Oriented Strategies

- The Growth Oriented Portfolio returned 4.14% in Q3 and 27.57% for the one-year period ending September 30, 2021
 - Outperformed the HFRI FoF Index + 1% benchmark by 2.55% in Q3 and 11.57% for the one-year period
 - Outperformed the T-bills + 5% long term objective by 2.86% (annualized) over the 5-year period ending September 30, 2021
 - Outperformed the HFRI FoF Index + 1% benchmark by 2.09% (annualized) over the 5-year period
- Third Point led performance in Q3 (+12.64%), followed by Lakewood (+3.55%)
- All funds generated double-digit returns for the one-year period, led by Third Point (+51.60%) and Lakewood (+49.46%)

Diversifying Strategies

- The Diversifying Portfolio returned 0.72% in Q3 and 11.67% for the one-year period ending September 30, 2021
 - Outperformed the HFRI Conservative FoF Index benchmark by 1 bp in Q3 but trailed by 115 bps for the one-year period
 - Outperformed the T-bills + 2% long term objective by 15 bps (annualized) over the trailing 5-year period
- MW Global Opps led performance in Q3 (+4.05%), followed by LMR (+3.86%) and Elliott (+3.22%)
 - Laurion (-5.08%) and Eisler (-3.28%) were the biggest detractors
- All funds generated positive returns for the 1-year period, with returns ranging from 3.50% (PSquared) to 33.28% (Laurion)

Elevated volatility over the past several quarters has moved some portfolio characteristics above their targeted values

- Growth Oriented Portfolio
 - Target standard deviation < 50% of global equities, with an equity beta < 0.5 and equity correlation < 0.8
 - Standard deviation of 7.72% compared to the ACWI standard deviation of 13.16% since December 2011 (59% ratio)
 - Portfolio equity beta of 0.50 with an equity correlation of 0.84
- Diversifying Portfolio
 - Target standard deviation < 25% of global equities, with an equity beta < 0.1 and equity correlation < 0.1
 - Standard deviation of 3.47% compared to the ACWI standard deviation of 13.16% since December 2011 (26% ratio)
 - Portfolio equity beta of 0.13 with an equity correlation of 0.48

Growth Oriented Absolute Return Portfolio Performance – as of September 30, 2021

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													
Third Point Partners Qualified L.P.	82,347,605	7.5%	3.60%	12.64%	30.24%	12.64%	51.60%	18.29%	14.28%	12.79%	10.40%	1.12	May-12
Event Driven - HF Total	82,347,605	7.5%	3.60%	12.64%	30.24%	12.64%	51.60%	16.51%	13.53%	11.38%	10.47%	0.99	May-12
Equity Long/Short													
Lakewood Capital Partners, LP	56,978,590	5.2%	0.56%	3.55%	27.22%	3.55%	49.46%	9.59%	7.59%	7.11%	15.09%	0.47	Jul-13
Equity Long/Short - HF Total	56,978,590	5.2%	0.56%	3.55%	27.22%	3.55%	49.46%	9.59%	7.59%	7.11%	15.09%	0.47	Jul-13
Multi-Strategy													
Sculptor Domestic Partners II, L.P.	67,408,158	6.1%	0.74%	1.32%	7.23%	1.32%	13.75%	11.81%	10.63%	8.66%	6.51%	1.17	Jan-12
Multi-Strategy - HF Total	67,408,158	6.1%	0.74%	1.32%	7.23%	1.32%	13.75%	11.81%	10.63%	8.66%	6.51%	1.17	Jan-12
Fund of Funds													
Grosvenor SC Absolute Return Fund LLC (Growth)	93,458,191	8.5%	-1.17%	-0.15%	2.57%	-0.15%	11.78%	4.51%	6.30%	5.89%	6.73%	0.75	Dec-11
Fund of Funds - HF Total	93,458,191	8.5%	-1.17%	-0.15%	2.57%	-0.15%	11.78%	4.51%	6.19%	4.75%	6.92%	0.47	Sep-04
Growth-Oriented Portfolio Total	300,192,544	27.3%	0.86%	4.14%	14.58%	4.14%	27.57%	9.48%	9.02%	5.80%	7.54%	0.57	Sep-04
HFRI FoF Composite + 1%			0.86%	1.59%	7.05%	1.59%	16.00%	7.72%	6.93%	4.80%	5.40%	0.60	Sep-04
3 Month T-Bills+5%			0.42%	1.23%	3.75%	1.23%	5.07%	6.18%	6.16%	6.30%	0.46%	-	Sep-04
Market Indices													
Libor3Month			0.01%	0.03%	0.12%	0.03%	0.17%	1.23%	1.38%	1.61%	0.48%	-	Sep-04
Bloomberg Barclays US Aggregate Bond Index			-0.87%	0.05%	-1.55%	0.05%	-0.90%	5.36%	2.95%	4.06%	3.19%	0.76	Sep-04
Bloomberg Barclays US High Yield Bond Index			-0.01%	0.89%	4.53%	0.89%	11.28%	6.91%	6.52%	7.37%	9.21%	0.64	Sep-04
S&P 500 TR			-4.65%	0.58%	15.92%	0.58%	30.01%	16.00%	16.90%	10.51%	14.48%	0.65	Sep-04
MSCI AC World Index Free - Net			-4.13%	-1.05%	11.12%	-1.05%	27.44%	12.58%	13.20%	8.45%	15.54%	0.50	Sep-04
MSCI EAFE - Net			-2.90%	-0.45%	8.35%	-0.45%	25.73%	7.62%	8.81%	6.24%	16.72%	0.35	Sep-04
MSCI EMF (Emerging Markets Free) - Net			-3.97%	-8.09%	-1.25%	-8.09%	18.20%	8.58%	9.23%	8.88%	21.23%	0.43	Sep-04

Diversifying Absolute Return Portfolio Performance – as of September 30, 2021

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													
Aristeia Partners, L.P.	47,881,137	4.4%	1.28%	0.61%	6.40%	0.61%	-	-	-	6.40%	7.26%	-	Jan-21
Laurion Capital, Ltd.	64,933,434	5.9%	4.19%	-5.08%	21.34%	-5.08%	33.28%	18.49%	13.36%	10.83%	9.82%	0.99	Mar-14
LMR Fund Limited	48,755,479	4.4%	1.79%	3.86%	12.76%	3.86%	19.34%	-	-	4.27%	19.84%	0.29	Nov-19
KLS Diversified Fund LP	5,345,473	0.5%	-0.89%	-0.95%	1.79%	-0.95%	6.27%	-	-	-2.01%	12.11%	-0.19	Jan-19
Two Sigma Risk Premia Enhanced Fund, LP	44,918,637	4.1%	-4.37%	1.28%	11.92%	1.28%	18.08%	-	-	-0.09%	11.32%	-0.01	Sep-19
Market Neutral - HF Total	211,834,160	19.3%	0.94%	-0.37%	12.50%	-0.37%	20.15%	6.00%	6.04%	6.05%	6.22%	0.80	Mar-14
Event Driven													
BlackRock Event Driven Equity Fund (BILPX)	53,345,195	4.8%	0.00%	-1.34%	1.27%	-1.34%	8.32%	-	-	6.84%	6.79%	0.96	Mar-20
Davidson Kempner Institutional Partners LP	58,546,814	5.3%	0.27%	-0.30%	6.75%	-0.30%	12.07%	-	-	8.21%	5.78%	1.23	May-19
Elliott International Limited - Class A & B	71,287,545	6.5%	2.10%	3.22%	9.59%	3.22%	13.23%	9.56%	8.79%	8.13%	3.25%	2.12	Apr-12
PSquared US Feeder Fund LP	51,612,558	4.7%	-0.36%	1.46%	1.38%	1.46%	3.50%	-	-	2.94%	4.67%	0.60	Aug-20
Event Driven - HF Total	234,792,112	21.3%	0.61%	0.88%	5.11%	0.88%	9.58%	7.15%	7.35%	7.37%	3.42%	1.82	Apr-12
Equity Long/Short													
Marshall Wace Funds LP - MW Global Opportunities (US) Fund	53,879,885	4.9%	1.50%	4.05%	-3.75%	4.05%	5.11%	-	-	7.40%	8.29%	0.77	Jan-19
Equity Long/Short - HF Total	53,879,885	4.9%	1.50%	4.05%	-3.75%	4.05%	5.11%	7.40%	7.40%	7.40%	8.29%	0.77	Apr-12
Macro-Discretionary													
Eisler Capital Fund LP - Class A	43,524,466	4.0%	-0.46%	-3.28%	-	-3.28%	-	-	-	-3.28%	-	-	Jul-21
Macro-Discretionary - HF Total	43,524,466	4.0%	-0.46%	-3.28%	-3.28%	-3.28%	-12.48%	-0.58%	1.77%	0.48%	4.37%	-0.07	May-12
Macro-Systematic													
Graham Global Investment Fund II SPC Ltd. - Tactical Trend Segregated Por	37,813,259	3.4%	-1.18%	-2.35%	3.94%	-2.35%	12.67%	3.18%	-	1.67%	12.07%	0.08	Feb-17
Macro-Systematic - HF Total	37,813,259	3.4%	-1.18%	-2.35%	3.94%	-2.35%	10.90%	-0.20%	-	0.46%	9.29%	-0.05	Jan-17
Fund of Funds													
Grosvenor SC Absolute Return Fund LLC (Diversifying)	217,952,022	19.8%	1.39%	2.22%	1.98%	2.22%	7.90%	5.07%	3.19%	2.63%	3.78%	0.47	Dec-11
Grosvenor SC Absolute Return Fund LLC Series B	228,052	0.0%	-2.03%	-3.35%	-5.67%	-3.35%	-3.28%	1.49%	0.13%	0.76%	3.60%	-0.03	Feb-13
Fund of Funds - HF Total	218,180,074	19.8%	1.38%	2.22%	1.97%	2.22%	7.86%	5.18%	2.86%	2.50%	3.62%	0.45	Dec-11
Diversifying Portfolio Total	800,023,956	72.7%	0.82%	0.72%	5.62%	0.72%	11.67%	4.19%	3.31%	2.81%	3.47%	0.55	Dec-11
HFRI FOF: Conservative Index			0.40%	0.71%	6.60%	0.71%	12.82%	5.29%	4.82%	3.99%	3.50%	0.87	Dec-11
3 Month T-Bills+2%			0.17%	0.51%	1.53%	0.51%	2.07%	3.18%	3.16%	2.64%	0.25%	-	Dec-11

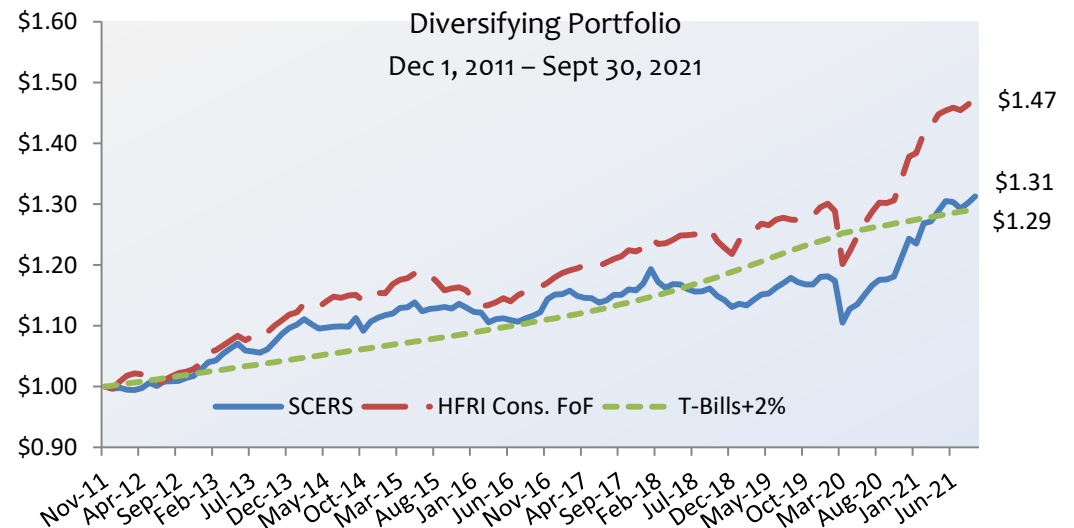
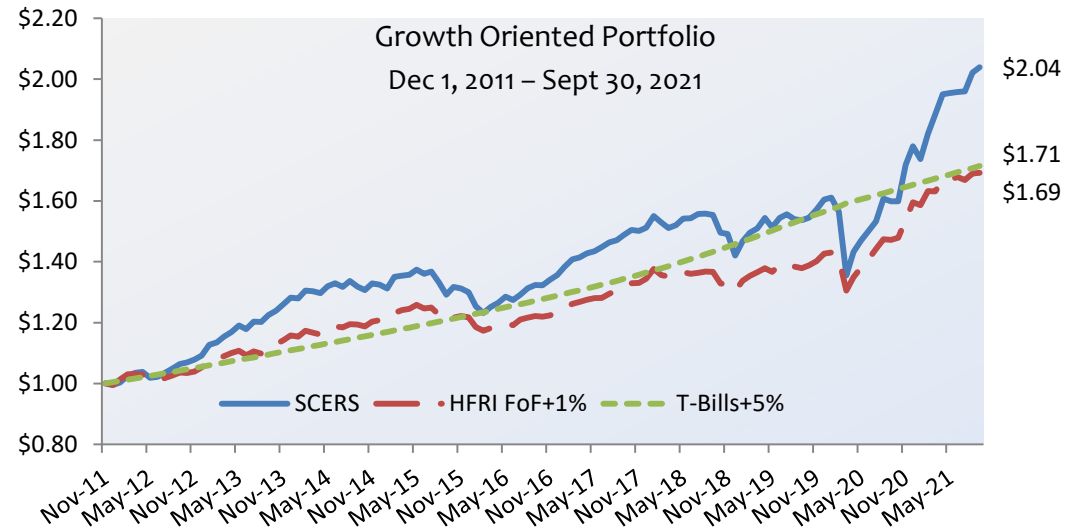
Absolute Return Portfolios Cumulative Performance – December 2011 to September 2021

Despite the sharp downturn in Q1 2020, the Growth Oriented portfolio is again exceeding the T-bills + 5% long term objective; the portfolio remains ahead of the Fund of Funds Index + 1% benchmark

The Diversifying portfolio is above its T-bills + 2% long term objective though continues to trail 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, 2021

The Private Equity portfolio's net IRR since inception is 19.54%, versus the Cambridge Associates benchmark IRR of 15.78%

- The long-term Policy objective (Russell 3000 + 3%) has a 18.13% IRR over this period

The private equity portfolio gained 10.8% in Q2 as financial markets extended their rally further into 2021

- Gains were once again broad-based and many funds generated returns of more than 20% for the quarter
 - The Buyout funds generally led performance (AKKR IV, TSG 7B, Summit Europe Growth II, Cortec VII, and Linden III)
 - Threshold Ventures III and Trinity Ventures XI and XII were also among the best performing funds in Q2
- Distributions accelerated again during the quarter, continuing their strong pace
 - \$115.3 million in distributions, led by Waterland VI, Trinity Ventures XII, Linden III, Spectrum VII, and AKKR V

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 but one vintage year exceeding peer universes
- Trinity Ventures XII (50.0%), Summit VC IV (49.1%), Spectrum VII (47.0%), Accel-KKR IV (39.2%), Linden III (38.7%), Waterland V (35.4%), Accel-KKR V (35.1%), and Marlin Heritage (34.7%) are leading performance among SCERS' more mature funds

The legacy fund of funds also reported material gains during the quarter

- Goldman Sachs X and Abbott Capital VI each generated double-digit gains in Q2
 - The HarbourVest funds were mostly up 7 – 9% in Q2
 - The legacy fund of funds distributed \$6.9 million during the quarter
- The legacy fund of funds comprise 7.9% of the current fair value of the Private Equity portfolio

Changes during the quarter

- SCERS committed \$70 million across three funds (two buyout, one venture capital) during Q2
 - All three commitments were made with existing SCERS managers, through re-ups and broadening of strategy relationships
 - SCERS also committed \$30 million to a distressed debt fund in Q3 2021
- \$64.6 million in new contributions, \$115.3 million in distributions
- Total portfolio gain increased by \$164.8 million while the total portfolio IRR increased by 0.80%

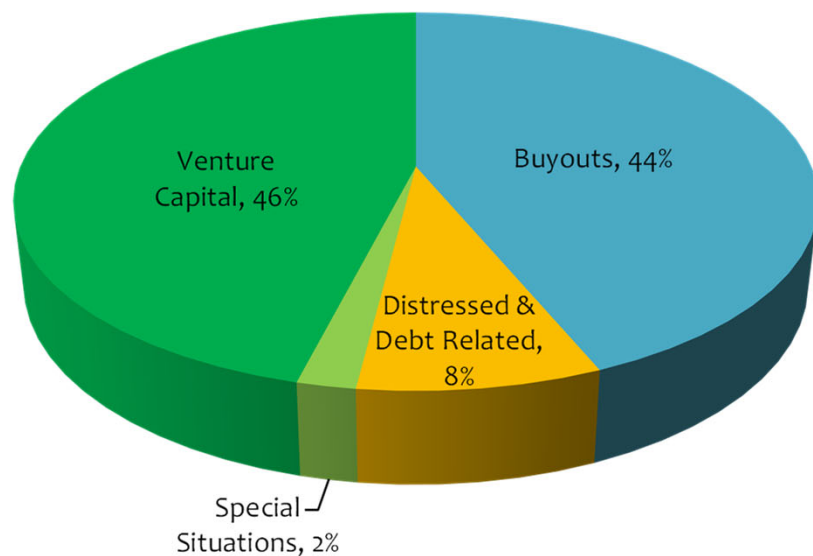
Private Equity Portfolio Characteristics as of June 30, 2021

The SCERS Private Equity portfolio is diversified by strategy and geography

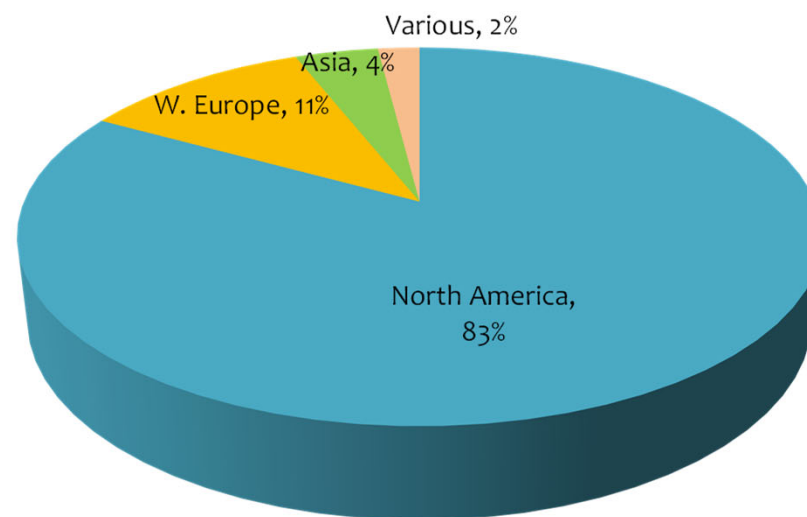
- Investments remain focused in North America, with meaningful exposure to Europe

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

Market Value Strategy Exposure*



Market Value Geographic Exposure*



* Exposures are based on the market values of investments as of 6/30/21.

Private Equity Portfolio Performance Details – as of June 30, 2021

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 2006													
HarbourVest Partners VIII - Buyout Fund L.P.	Fund of Funds	37,500	1,125	36,375	97%	59,014	6,731	65,745	29,370	11.01%	7.67%	1.81x	1.72x
HarbourVest Partners VIII - Mezzanine and Distressed Debt Fund L.P.	Fund of Funds	5,000	200	4,800	96%	6,095	419	6,514	1,714	6.91%	7.67%	1.36x	1.72x
HarbourVest Partners VIII - Venture Fund L.P.	Fund of Funds	7,500	150	7,350	98%	12,233	4,625	16,858	9,508	12.24%	7.67%	2.29x	1.72x
Vintage Year 2006 Total		50,000	1,475	48,525	97%	77,342	11,774	89,117	40,592	10.95%	7.29%	1.84x	1.50x
Vintage Year 2008													
Abbott Capital Private Equity Fund VI, L.P.	Fund of Funds	75,000	375	74,625	100%	99,285	48,171	147,456	72,831	13.97%	15.92%	1.98x	2.54x
Goldman Sachs Private Equity Partners X, L.P.	Fund of Funds	75,000	13,234	68,958	82%	93,427	29,506	122,933	53,975	11.74%	15.92%	1.78x	2.54x
HarbourVest International Private Equity Partners VI-Partnership Fund L.P.	Fund of Funds	38,187	1,909	37,980	95%	34,430	42,172	76,603	38,623	13.70%	1.39%	2.02x	1.08x
Vintage Year 2008 Total		188,187	15,518	181,563	92%	227,142	119,849	346,991	165,428	13.01%	8.72%	1.91x	1.52x
Vintage Year 2011													
Waterland Private Equity Fund V C.V.	Buyout	18,975	3,282	16,071	83%	30,070	16,611	46,681	30,611	35.38%	11.36%	2.90x	1.60x
Khosla Ventures IV, L.P.	Venture Capital	10,000	190	9,810	98%	23,073	22,363	45,436	35,626	26.72%	19.09%	4.63x	2.88x
Vintage Year 2011 Total		28,975	3,472	25,881	88%	53,142	38,975	92,117	66,237	30.75%	13.59%	3.56x	1.88x
Vintage Year 2012													
Garrison Opportunity Fund III A LLC	Distressed Debt	20,000	0	20,000	100%	12,094	8,847	20,941	941	0.78%	15.96%	1.05x	1.60x
New Enterprise Associates 14, L.P.	Venture Capital	25,000	875	24,125	97%	25,210	65,613	90,822	66,697	23.87%	18.75%	3.76x	2.47x
Summit Partners Venture Capital III-A, LP	Venture Capital	16,350	1,913	19,692	88%	37,702	3,162	40,864	21,172	17.63%	18.75%	2.08x	2.47x
Vintage Year 2012 Total		61,350	2,788	63,817	95%	75,005	77,622	152,627	88,810	16.30%	14.27%	2.39x	1.78x
Vintage Year 2013													
Accel-KKR Capital Partners IV, L.P.	Buyout	15,000	318	15,501	98%	26,913	24,482	51,395	35,894	39.21%	17.26%	3.32x	1.92x
H.I.G. Capital Partners V, L.P.	Buyout	14,000	936	13,064	93%	7,654	18,670	26,324	13,260	23.87%	17.26%	2.02x	1.92x
Marlin Equity IV, L.P.	Buyout	20,000	93	19,907	100%	16,662	11,838	28,500	8,593	9.44%	17.26%	1.43x	1.92x
RRJ Capital Master Fund II, L.P.	Buyout	35,000	3,875	35,938	89%	36,104	14,221	50,325	14,387	9.82%	15.20%	1.40x	1.70x
H.I.G. Bayside Loan Opportunity Fund III (Europe-US\$), L.P.	Distressed Debt	30,000	5,769	24,231	81%	26,443	6,383	32,827	8,596	8.15%	3.04%	1.35x	1.12x
Wayzata Opportunities Fund III, L.P.	Distressed Debt	30,000	24,103	14,718	20%	8,849	4,791	13,640	-1,078	-2.09%	8.65%	0.93x	1.34x

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, 2021 (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.
Trinity Ventures XI, L.P.	Venture Capital	25,000	875	24,125	97%	4,835	56,066	60,902	36,777	18.15%	18.19%	2.52x	2.37x
Vintage Year 2013 Total		169,000	35,971	147,483	79%	127,460	136,451	263,911	116,428	15.00%	14.97%	1.79x	1.73x
Vintage Year 2014													
Dyal Capital Partners II	Buyout	35,000	8,683	32,400	75%	8,363	29,509	37,872	5,472	5.17%	19.41%	1.17x	1.90x
H.I.G. Europe Capital Partners II, L.P.	Buyout	16,603	1,377	15,054	92%	5,591	16,378	21,969	6,915	15.08%	17.82%	1.46x	1.81x
Marlin Heritage Fund	Buyout	10,000	2,215	10,508	78%	17,311	8,549	25,860	15,352	34.71%	19.41%	2.46x	1.90x
Thoma Bravo XI	Buyout	30,000	3,203	32,531	89%	61,926	54,853	116,779	84,248	31.73%	19.41%	3.59x	1.90x
TPG Opportunities Partners III	Distressed Debt	40,000	12,851	49,719	68%	43,629	18,621	62,250	12,531	10.81%	9.39%	1.25x	1.29x
Khosla Ventures V	Venture Capital	20,000	700	19,300	97%	6,409	55,891	62,300	43,000	28.58%	25.98%	3.23x	2.80x
Spectrum Equity Investors VII, L.P.	Venture Capital	25,000	1,625	23,375	94%	45,274	63,589	108,864	85,489	47.00%	25.98%	4.66x	2.80x
Vintage Year 2014 Total		176,603	30,655	182,888	83%	188,504	247,389	435,893	253,006	27.67%	20.53%	2.38x	2.11x
Vintage Year 2015													
* WPEF VI Overflow Fund C.V.	Buyout	7,116	7,105	10	0%	0	0	0	-10	0.00%	18.78%	0.00x	1.70x
RRJ Capital Master Fund III, LP	Buyout	40,000	6,358	37,011	84%	33,857	13,042	46,899	9,888	12.17%	18.78%	1.27x	1.70x
WPEF VI Feeder, L.P.	Buyout	28,462	15,583	21,495	45%	20,404	24,125	44,529	23,034	26.06%	18.78%	2.07x	1.70x
Accel-KKR Growth Capital Partners II	Mezzanine	15,000	617	14,383	96%	15,129	17,324	32,453	18,070	32.84%	9.70%	2.26x	1.33x
New Enterprise Associates 15, L.P.	Venture Capital	35,000	1,925	33,079	95%	13,664	84,540	98,204	65,125	28.29%	22.52%	2.97x	2.29x
Summit Partners Venture Capital Fund IV-A, L.P.	Venture Capital	35,000	28,027	34,459	20%	27,486	49,436	76,922	42,463	49.08%	22.52%	2.23x	2.29x
Vintage Year 2015 Total		160,578	59,615	140,438	63%	110,539	188,468	299,007	158,570	28.91%	19.32%	2.13x	1.85x
Vintage Year 2016													
Accel-KKR Capital Partners V, L.P.	Buyout	25,000	2,162	22,838	91%	15,097	25,369	40,466	17,628	35.08%	21.15%	1.77x	1.75x
Dyal III Pension Investors LP	Buyout	35,000	21,404	22,721	39%	16,041	26,309	42,350	19,630	25.31%	21.15%	1.86x	1.75x
Linden Capital Partners III	Buyout	35,000	4,490	37,510	87%	56,284	50,483	106,768	69,258	38.66%	21.15%	2.85x	1.75x
Marlin Heritage Europe, L.P.	Buyout	15,417	1,902	13,035	88%	0	26,892	26,892	13,858	33.16%	15.10%	2.06x	1.50x
Thoma Bravo Fund XII, L.P.	Buyout	30,000	5,287	40,766	82%	16,054	50,457	66,511	25,745	18.79%	21.15%	1.63x	1.75x
TSG7 A L.P.	Buyout	16,000	3,521	12,479	78%	1,754	22,793	24,547	12,068	21.21%	21.15%	1.97x	1.75x
TSG7 B L.P.	Buyout	4,000	242	3,931	94%	866	6,015	6,880	2,949	29.01%	21.15%	1.75x	1.75x

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, 2021 (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 VI, L.P.	Distressed Debt	25,000	2,454	28,940	90%	32,622	9,987	42,609	13,669	14.62%	8.43%	1.47x	1.22x
Trinity Ventures XII, L.P.	Venture Capital	30,000	4,275	25,725	86%	13,803	86,386	100,189	74,464	50.07%	29.80%	3.89x	2.04x
Vintage Year 2016 Total		215,417	45,738	207,943	79%	152,521	304,692	457,213	249,270	30.63%	21.14%	2.20x	1.70x
Vintage Year 2017													
Marlin Heritage II	Buyout	10,000	1,582	8,418	84%	2,110	9,449	11,558	3,140	14.81%	28.07%	1.37x	1.78x
Summit Partners Europe Growth Equity Fund II, SCSP	Buyout	35,578	14,648	34,770	59%	23,120	39,724	62,844	28,074	78.29%	21.99%	1.81x	1.58x
New Enterprise Associates 16, L.P.	Venture Capital	35,000	5,425	29,575	85%	1,062	49,464	50,525	20,950	25.75%	33.26%	1.71x	1.88x
Vintage Year 2017 Total		80,578	21,655	72,763	73%	26,291	98,636	124,927	52,165	36.85%	25.25%	1.72x	1.64x
Vintage Year 2018													
Linden Capital Partners IV LP	Buyout	44,330	19,130	28,124	57%	4,246	29,584	33,830	5,706	17.32%	23.41%	1.20x	1.36x
Marlin Equity V	Buyout	25,000	9,769	15,377	61%	7,748	16,587	24,335	8,957	28.67%	23.41%	1.58x	1.36x
TSG8 L.P.	Buyout	45,000	30,610	14,390	32%	79	14,104	14,183	-207	-1.33%	23.41%	0.99x	1.36x
Davidson Kempner Long-Term Distressed Opportunities Fund IV LP	Distressed Debt	35,000	2,400	33,198	93%	597	39,784	40,382	7,184	9.67%	N/A	1.22x	N/A
TSSP Opportunities Partners IV (A), L.P.	Distressed Debt	35,000	16,644	27,092	52%	9,714	22,511	32,225	5,133	22.55%	N/A	1.19x	N/A
RCP Fund XIII	Fund of Funds	50,000	32,000	18,872	36%	872	21,049	21,922	3,049	15.39%	33.40%	1.16x	1.48x
RCPDirect III	Fund of Funds	25,000	6,739	18,261	73%	386	23,970	24,356	6,095	24.89%	10.36%	1.33x	1.17x
Accel-KKR Growth Capital Partners III	Mezzanine	33,320	19,583	13,737	41%	0	18,339	18,339	4,602	N/M	N/M	1.34x	N/A
Khosla Ventures VI, L.P.	Venture Capital	35,000	7,805	27,195	78%	0	32,921	32,921	5,726	13.19%	39.96%	1.21x	1.72x
Spectrum Equity VIII, L.P.	Venture Capital	25,000	2,500	22,500	90%	17,040	29,810	46,850	24,350	52.92%	39.96%	2.08x	1.72x
Vintage Year 2018 Total		352,650	147,180	218,746	58%	40,682	248,660	289,342	70,596	21.60%	27.30%	1.32x	1.50x
Vintage Year 2019													
Cortec Group Fund VII, L.P.	Buyout	30,000	21,770	11,081	27%	2,856	15,354	18,210	7,128	N/M	N/M	1.64x	1.33x
Gridiron Capital Fund IV, L.P.	Buyout	30,000	15,091	14,852	50%	0	20,074	20,074	5,222	N/M	N/M	1.35x	1.33x
Thoma Bravo Fund XIII, LP	Buyout	45,000	14,101	44,466	69%	23,173	56,407	79,581	35,115	57.54%	23.34%	1.79x	1.33x
New Enterprise Associates 17, L.P.	Venture Capital	25,000	12,875	12,139	49%	712	18,875	19,587	7,448	N/M	N/M	1.61x	1.41x
Threshold Ventures III, L.P.	Venture Capital	20,000	9,300	10,700	54%	0	15,647	15,647	4,947	N/M	N/M	1.46x	1.41x
Vintage Year 2019 Total		150,000	73,138	93,238	51%	26,741	126,357	153,098	59,860	54.61%	31.97%	1.64x	1.33x

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, 2021 (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 2020													
Accel-KKR Capital Partners VI, LP	Buyout	30,000	28,494	1,506	5%	0	839	839	-667	N/M	N/M	0.56x	1.16x
Summit Partners Europe Growth Equity Fund III, SCSp	Buyout	23,718	19,901	3,740	16%	0	3,613	3,613	-128	N/M	N/M	0.97x	N/A
Wynnchurch Capital Partners V	Buyout	20,000	15,941	4,059	20%	0	5,191	5,191	1,133	N/M	N/M	1.28x	1.16x
Davidson Kempner Long-Term Distressed Opportunities Fund V LP	Distressed Debt	30,000	17,227	13,050	43%	277	15,144	15,421	2,371	N/M	N/M	1.18x	N/A
Shamrock Capital Content Fund II, L.P.	Opportunistic Credit	20,000	14,081	6,098	30%	173	5,729	5,902	-196	N/M	N/M	0.97x	1.13x
Canvas Ventures 3, L.P.	Venture Capital	20,000	16,470	3,530	18%	0	3,212	3,212	-317	N/M	N/M	0.91x	1.14x
OrbiMed Private Investments VIII, LP	Venture Capital	15,000	11,325	3,675	25%	0	3,901	3,901	226	N/M	N/M	1.06x	1.14x
Spectrum Equity IX-A, L.P.	Venture Capital	25,000	21,250	3,750	15%	0	3,408	3,408	-342	N/M	N/M	0.91x	1.14x
Summit Partners Venture Capital Fund V-A, L.P.	Venture Capital	20,000	18,936	1,064	5%	0	954	954	-110	N/M	N/M	0.90x	1.14x
Vintage Year 2020 Total		203,718	163,625	40,472	20%	450	41,992	42,442	1,971	N/M	N/M	1.05x	1.14x
Vintage Year 2021													
Linden Capital Partners V LP	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	20,000	0	0%	0	-172	-172	-172	N/M	N/M	N/A	N/A
CRV Select Fund I, LP	Venture Capital	20,000	8,050	11,950	60%	0	11,847	11,847	-103	N/M	N/M	0.99x	0.98x
CRV XVIII, LP	Venture Capital	20,000	13,100	6,900	35%	0	6,863	6,863	-37	N/M	N/M	0.99x	0.98x
Khosla Ventures VII, L.P.	Venture Capital	20,000	17,880	2,120	11%	0	2,182	2,182	62	N/M	N/M	1.03x	0.98x
Vintage Year 2021 Total		110,000	89,030	20,970	19%	0	20,720	20,720	-250	N/M	N/M	0.99x	0.98x
Portfolio Strategy Totals													
Buyout		819,199	333,078	583,551	59%	434,282	651,351	1,085,633	502,082	25.83%		1.86x	
Distressed Debt		245,000	81,449	210,948	67%	134,226	126,068	260,294	49,346	7.88%		1.23x	
Fund of Funds		313,187	55,731	267,221	82%	305,743	176,642	482,385	215,164	12.56%		1.81x	
Mezzanine		48,320	20,200	28,120	58%	15,129	35,663	50,792	22,672	32.32%		1.81x	
Opportunistic Credit		20,000	14,081	6,098	30%	173	5,729	5,902	-196	N/M		0.97x	
Venture Capital		501,350	185,322	348,787	63%	216,268	666,132	882,401	533,613	29.03%		2.53x	
Portfolio Total :		1,947,055	689,861	1,444,725	65%	1,105,821	1,661,586	2,767,407	1,322,682	19.54%	15.78%	1.92x	

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, 2021

The Private Credit portfolio's net IRR since inception is 9.37%, versus the benchmark return of 7.00%

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

The Private Credit funds reported another quarter of solid gains, following the recovery from the Q1 2020 downturn

- The portfolio returned 2.0% in Q2 and 18.3% for the trailing 1-year period ending June 30, 2021
 - Most of the funds gained between 1% and 4% during Q2, though OrbiMed Royalty III declined after posting an outsized Q4 gain
 - Summit Partners Credit Fund II also reported a modest decline (-2.8%) in Q2
- Longer term performance has also recovered from the Q1 2020 sell-off
 - 9.7% net IRR for the 3-year period and 9.6% net IRR for the 5-year period
 - The portfolio is now generating annualized returns of 9% - 10% over multi-year periods

Changes during the quarter

- SCERS committed \$85 million across three funds, including upsizing an existing fund of one commitment, in Q2 2021
 - The new commitments included a European Direct Lending fund and an Opportunistic Credit fund focused on entertainment IP
 - The upsizing was an additional \$25 million committed to TCP Direct Lending Fund VIII-S
 - SCERS made no new commitments to Private Credit funds in Q3 2021
- \$31.9 million in new contributions, \$19.9 million in distributions
- Total portfolio gain increased by \$5.0 million while the total portfolio IRR declined by 0.07%

Private Credit Portfolio Details – as of June 30, 2021

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 2011													
Summit Partners Credit Fund, LP	Direct Lending	20,000	2,125	20,697	89%	26,391	404	26,795	6,098	8.87%	N/A	1.29x	N/A
Vintage Year 2011 Total		20,000	2,125	20,697	89%	26,391	404	26,795	6,098	8.87%	13.59%	1.29x	1.88x
Vintage Year 2014													
Summit Partners Credit Fund II, L.P.	Direct Lending	35,000	3,546	48,551	90%	37,088	18,855	55,943	7,392	5.89%	4.04%	1.15x	N/A
Vintage Year 2014 Total		35,000	3,546	48,551	90%	37,088	18,855	55,943	7,392	5.89%	20.53%	1.15x	2.11x
Vintage Year 2015													
Athyrium Opportunities Fund II	Opportunistic Credit	32,000	3,007	42,141	91%	37,819	14,289	52,108	9,968	9.95%	9.70%	1.24x	1.33x
Vintage Year 2015 Total		32,000	3,007	42,141	91%	37,819	14,289	52,108	9,968	9.95%	19.32%	1.24x	1.85x
Vintage Year 2017													
Athyrium Opportunities Fund III	Opportunistic Credit	25,000	4,198	27,062	83%	10,816	20,149	30,966	3,904	7.84%	11.05%	1.14x	1.23x
Vintage Year 2017 Total		25,000	4,198	27,062	83%	10,816	20,149	30,966	3,904	7.84%	25.25%	1.14x	1.64x
Vintage Year 2018													
Benefit Street Partners Senior Secured Opportunities Fund L.P.	Direct Lending	50,000	10,580	50,953	79%	21,161	38,547	59,708	8,755	6.02%	4.39%	1.17x	N/A
Summit Partners Credit Fund III, L.P.	Direct Lending	50,000	28,637	45,219	43%	23,856	30,652	54,508	9,289	16.49%	4.39%	1.21x	N/A
TCP Direct Lending Fund VIII-S, LLC	Direct Lending	125,000	53,567	71,433	57%	14,998	72,593	87,591	16,158	9.33%	4.39%	1.23x	N/A
Vintage Year 2018 Total		225,000	92,784	167,605	59%	60,014	141,792	201,806	34,201	9.07%	27.30%	1.20x	1.50x
Vintage Year 2019													
BSP Levered US SOF II (Senior Secured Opportunities) Fund L.P.	Direct Lending	50,000	31,644	18,303	37%	5	19,854	19,859	1,556	N/M	N/M	1.09x	N/A
OrbiMed Royalty & Credit Opportunities III, LP	Opportunistic Credit	35,000	26,335	13,818	25%	5,160	14,114	19,274	5,456	N/M	N/M	1.39x	1.19x
Vintage Year 2019 Total		85,000	57,979	32,121	32%	5,165	33,968	39,133	7,012	N/M	N/M	1.22x	1.33x
Vintage Year 2020													
MCP Private Capital Fund IV (Feeder) SCSp	Direct Lending	37,475	31,989	5,346	15%	0	5,129	5,129	-218	N/M	N/M	0.96x	N/A
Silver Point Specialty Credit Fund II, L.P.	Opportunistic Credit	40,000	22,352	17,737	44%	1,318	19,396	20,714	2,978	N/M	N/M	1.17x	1.13x
Vintage Year 2020 Total		77,475	54,341	23,083	30%	1,318	24,525	25,843	2,760	N/M	N/M	1.12x	1.14x

¹Benchmarks:

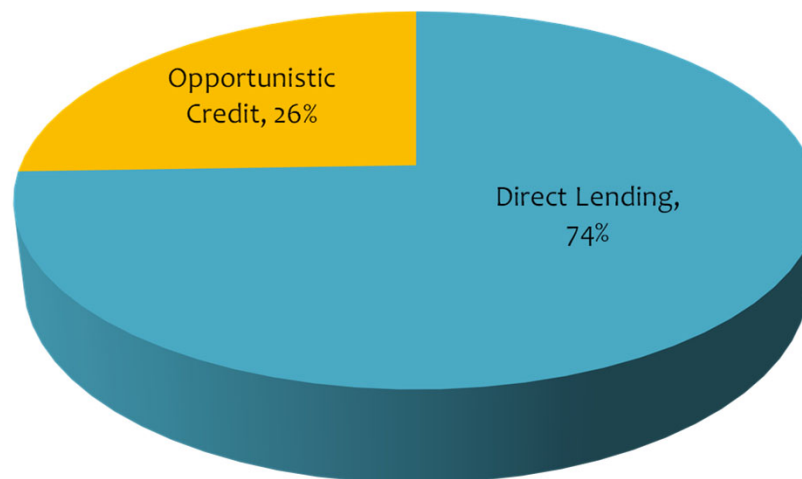
Private Credit Investments: Cambridge Associates median return for the respective debt strategies and vintage years

Private Credit Portfolio: Credit Suisse Leveraged Loan Index + 2%

Private Credit Portfolio Details – as of June 30, 2021 (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													
Ares Capital Europe V	Direct Lending	40,000	35,304	4,696	12%	0	5,096	5,096	400	N/M	N/M	1.09x	N/A
IFM USIDF (Offshore) B Feeder	Direct Lending	40,000	38,403	1,597	4%	0	1,663	1,663	66	N/M	N/M	1.04x	N/A
Shamrock Capital Debt Opportunities Fund I, L.P.	Opportunistic Credit	20,000	20,000	0	0%	0	0	0	0	N/M	N/M	N/A	N/A
Vintage Year 2021 Total		100,000	93,707	6,293	6%	0	6,759	6,759	466	N/M	N/M	1.07x	0.98x
Portfolio Total :		599,475	311,686	367,552	48%	178,612	260,741	439,353	71,800	9.37%	7.00%	1.20x	
Portfolio Strategy Totals													
Direct Lending		447,475	235,794	266,795	47%	123,499	192,792	316,291	49,496	8.42%		1.19x	
Opportunistic Credit		152,000	75,892	100,757	50%	55,113	67,948	123,062	22,304	12.48%		1.22x	
Portfolio Total :		599,475	311,686	367,552	48%	178,612	260,741	439,353	71,800	9.37%	7.00%	1.20x	

Market Value Strategy Exposure*



* Exposures are based on the market values of investments as of 6/30/21.

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, 2021

The Real Assets portfolio's net IRR since inception is 9.80%, versus the blended benchmark return of 6.71%

- 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 Infrastructure and Energy partnerships

- Performance of the Energy partnerships was materially impacted by significant markdowns in Q1 2020
 - However, several of the upstream (exploration and production) Energy partnerships have rebounded sharply since Q3 2021
- Infrastructure partnerships saw smaller declines in Q1 2020 and have maintained good performance since inception
- Since inception net IRRs of 10.9% for Infrastructure and 9.6% for Energy

The Real Assets portfolio generated an 8.1% net return in Q2

- The portfolio's Energy funds led performance during the quarter, with a wide dispersion across funds
 - Most of the upstream funds reported returns of more than 30% in Q2 as oil prices continued to strengthen
 - The remaining Energy funds generally reported returns of 4% to 10% in Q2
- The Infrastructure funds also reported good performance during the quarter, generally returning 3% to 7% in Q2

Changes during the quarter

- SCERS committed €42 million to a European infrastructure fund and \$25 million to a U.S. social infrastructure fund in Q2
 - SCERS made no new commitments to Real Assets funds in Q3 2021
- \$40.7 million in new contributions, \$17.9 million in distributions
- Portfolio IRR increased by 1.57% while the total portfolio gain increased by \$50.6 million

Real Assets Portfolio Performance Details – as of June 30, 2021

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	1,518	37,762	95%	29,562	17,030	46,592	8,830	7.35%	2.62%	1.23x
Vintage Year 2013 Total		33,000	1,518	37,762	95%	29,562	17,030	46,592	8,830	7.35%		1.23x
Vintage Year 2014												
Carlyle Power Partners II, L.P.	Energy	40,000	10,630	37,856	73%	8,328	35,266	43,595	5,739	5.18%	5.31%	1.15x
EnCap Flatrock Midstream III	Energy	20,000	1,134	23,357	94%	10,365	16,968	27,333	3,976	7.21%	5.31%	1.17x
Global Energy & Power Infrastructure Fund II	Energy	35,000	1,645	37,461	95%	30,575	18,962	49,536	12,075	17.63%	5.31%	1.32x
Quantum Energy Partners VI, LP	Energy	35,000	8,283	32,647	76%	21,236	45,021	66,257	33,610	28.21%	5.31%	2.03x
Pantheon SCERS SIRF MM, LLC	Infrastructure	100,000	32,668	71,632	67%	43,400	62,806	106,206	34,574	10.87%	9.84%	1.48x
Wastewater Opportunity Fund	Infrastructure	25,000	1,754	25,190	93%	8,717	16,495	25,212	22	0.03%	9.84%	1.00x
Vintage Year 2014 Total		255,000	56,115	228,143	78%	122,621	195,519	318,139	89,997	12.21%		1.39x
Vintage Year 2015												
ArcLight Energy Partners Fund VI	Energy	40,000	5,604	42,665	86%	17,220	25,436	42,656	-9	-0.01%	7.32%	1.00x
EnCap Energy Capital Fund X, L.P.	Energy	40,000	3,089	39,589	92%	13,809	34,901	48,710	9,122	6.87%	7.32%	1.23x
* 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
Vintage Year 2015 Total		180,000	93,482	118,423	48%	76,130	60,338	136,467	18,045	5.13%		1.15x
Vintage Year 2016												
ACM Fund II, LLC	Agriculture	25,000	2,875	26,271	88%	4,581	16,800	21,382	-4,890	-8.47%	5.50%	0.81x
Brookfield Infrastructure Fund III, L.P.	Infrastructure	40,000	7,926	33,803	80%	11,207	33,647	44,854	11,051	10.67%	8.11%	1.33x
IFM Global Infrastructure Fund	Infrastructure	125,053	0	125,053	100%	36,210	141,893	178,103	53,050	12.61%	8.11%	1.42x
Vintage Year 2016 Total		190,053	10,801	185,127	94%	51,998	192,341	244,339	59,211	10.18%		1.32x
Vintage Year 2017												
Quantum Energy Partners VII, LP	Energy	40,000	17,065	27,181	57%	7,545	33,919	41,464	14,283	19.76%	7.46%	1.53x
Meridiam Infrastructure North America Fund III	Infrastructure	50,000	43,863	6,137	12%	1	4,477	4,478	-1,659	-23.60%	9.28%	0.73x
Vintage Year 2017 Total		90,000	60,928	33,318	32%	7,545	38,397	45,942	12,624	15.99%		1.38x
Vintage Year 2018												
Paine Schwartz Food Chain Fund V, LP	Agriculture	40,000	28,163	12,302	30%	465	12,548	13,013	711	N/M	N/M	1.06x

¹Benchmarks:

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, 2021 (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	13,676	9,409	39%	588	10,174	10,761	1,353	6.10%	4.73%	1.14x
Tailwater Energy Fund III, LP	Energy	32,000	3,123	30,932	90%	2,133	26,531	28,664	-2,268	-3.56%	4.73%	0.93x
ISQ Global Infrastructure Fund II	Infrastructure	50,000	18,213	38,091	64%	6,304	41,577	47,881	9,790	15.44%	12.74%	1.26x
Vintage Year 2018 Total		144,500	63,175	90,733	56%	9,490	90,830	100,320	9,586	6.00%		1.11x
Vintage Year 2019												
Tailwater Energy Fund IV, LP	Energy	35,000	18,686	16,305	47%	0	16,515	16,515	211	N/M	N/M	1.01x
Brookfield Infrastructure Fund IV	Infrastructure	40,000	17,826	23,189	55%	2,839	23,529	26,368	3,179	N/M	N/M	1.14x
EQT Infrastructure IV (No.2) USD SCSp	Infrastructure	35,000	13,310	23,090	62%	1,448	25,664	27,112	4,022	12.80%	9.12%	1.17x
Vintage Year 2019 Total		110,000	49,823	62,583	55%	4,287	65,708	69,995	7,412	10.05%		1.12x
Vintage Year 2020												
NGP Royalty Partners, L.P.	Energy	40,000	26,050	13,902	35%	191	15,920	16,111	2,209	N/M	N/M	1.16x
Vintage Year 2020 Total		40,000	26,050	13,902	35%	191	15,920	16,111	2,209	N/M		1.16x
Vintage Year 2021												
Digital Colony Partners II, LP	Infrastructure	35,000	23,888	11,112	32%	0	11,123	11,123	11	N/M	N/M	1.00x
Harrison Street Social Infrastructure Fund, L.P.	Infrastructure	75,000	63,292	11,708	16%	0	11,840	11,840	131	N/M	N/M	1.01x
ISQ Global Infrastructure Fund III (UST), L.P.	Infrastructure	50,000	50,000	0	0%	0	-663	-663	-663	N/M	N/M	N/A
Meridiam Sustainable Infrastructure Europe IV	Infrastructure	49,809	49,809	0	0%	0	0	0	0	N/M	N/M	N/A
Vintage Year 2021 Total		209,809	186,988	22,820	11%	0	22,300	22,300	-520	N/M		0.98x
Portfolio Total :		1,252,362	548,879	792,812	56%	301,823	698,382	1,000,205	207,393	9.80%	6.71%	1.26x
Portfolio Strategy Totals												
Agriculture		65,000	31,038	38,573	52%	5,046	29,349	34,395	-4,178	-6.14%		0.89x
Energy		412,500	110,502	349,065	73%	141,551	296,644	438,195	89,130	9.63%		1.26x
Infrastructure		674,862	322,550	369,004	52%	110,125	372,389	482,514	113,510	10.92%		1.31x
Real Asset Debt		100,000	84,789	36,169	15%	45,101	0	45,101	8,932	10.27%		1.25x
Portfolio Total :		1,252,362	548,879	792,812	56%	301,823	698,382	1,000,205	207,393	9.80%	6.71%	1.26x

¹Benchmarks:

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 Characteristics as of June 30, 2021

The SCERS Real Assets portfolio is primarily Infrastructure and Energy

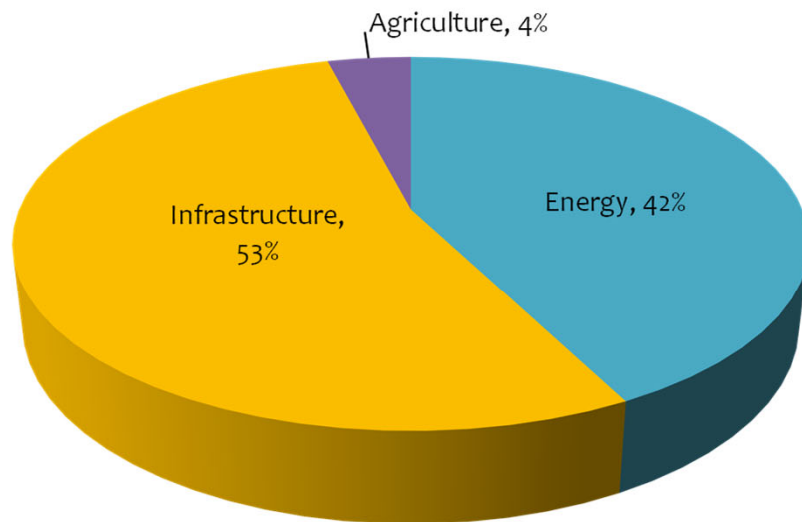
- Other strategies such as Agriculture represent much smaller allocations in the portfolio

The portfolio is focused on North America, though is diversified globally

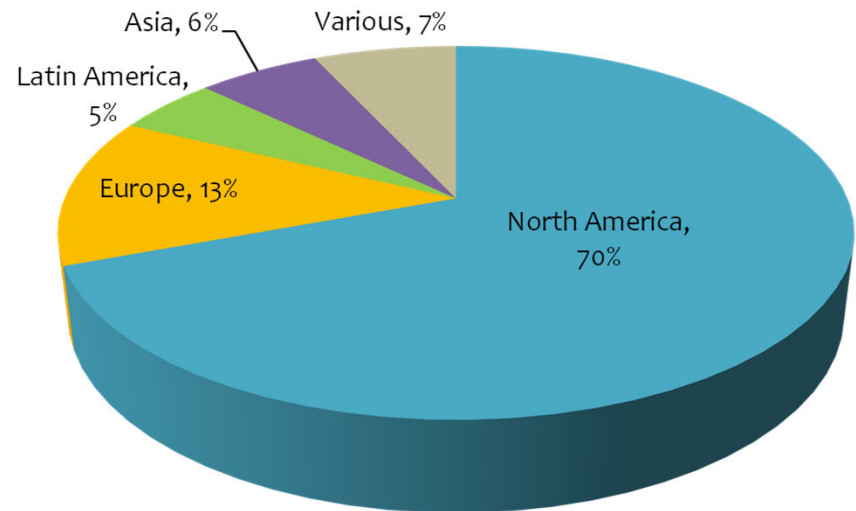
- The portfolio has exposure to Europe, Latin America, and Asia

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

*Market Value Strategy Exposure**



*Market Value Geographic Exposure**



* Exposures are based on the market values of investments as of 6/30/21.

Opportunities Portfolio – as of June 30, 2021

The Opportunities portfolio's net IRR since inception is 18.30%

- The long-term benchmark is SCERS' 6.75% total portfolio actuarial return objective
- Also tracking the portfolio's 3-year IRR versus an intermediate-term benchmark
 - 8.16% portfolio IRR v 8.43% 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 an 8.02% net IRR since inception

Changes during the quarter

- SCERS made no new commitments categorized as Opportunities funds during Q2 2021
- No new contributions, \$0.4 million in distributions
- Portfolio IRR decreased by 0.01%, total portfolio gain was nearly unchanged

Opportunities Portfolio Performance Details – as of June 30, 2021

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%	9.73%	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%	11.94%	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%	14.29%	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%	14.29%	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%	26,720	5,233	31,953	7,078	8.02%	8.65%	1.28x
Vintage Year 2013 Total		25,000	1,117	24,875	96%	26,720	5,233	31,953	7,078	8.02%		1.28x
Portfolio Total :		100,000	1,117	100,123	99%	156,068	5,233	161,301	61,179	18.30%	6.75%	1.61x

* 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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