



Board of Retirement Regular Meeting

Sacramento County Employees' Retirement System

Agenda Item 19

MEETING DATE: December 11, 2024

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 performance report for the periods ending September 30, 2024 for the Absolute Return portfolio, and the periods ending June 30, 2024 for the Private Equity, Private Credit, and Real Assets portfolios, as presented by Cliffwater.

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 by a quarter and reflect valuations as of June 30, 2024.

SCERS' alternative asset class returns, net of fees, are as follows:

SCERS ALTERNATIVE ASSETS PERFORMANCE SUMMARY
Quarter Reporting Periods Ending September 30, 2024

SCERS ASSET CLASS	Quarter*	1-Year*	3-Year*	5-Year*	Since Inception*	Since Inception Date*
SCERS Absolute Return	1.2%	6.2%	3.5%	5.4%	4.3%	Sep-04
HFRI FoF Conservative	1.0%	6.4%	3.5%	5.1%	3.9%	
HFRI FoF Composite + 1%	1.3%	10.3%	3.3%	6.3%	4.5%	
SCERS Private Equity	1.5%	6.6%	4.2%	15.8%	15.5%	Feb-08
Cambridge Private Equity/Venture Capital	1.1%	4.7%	3.9%	14.0%	13.4%	
SCERS Private Credit	2.9%	9.5%	8.2%	9.0%	8.8%	Oct-11
Credit Suisse Leveraged Loan + 2%	2.4%	13.0%	8.0%	7.4%	7.2%	
SCERS Real Assets	2.4%	6.6%	11.9%	9.6%	10.8%	Jan-13
(60%) Cambridge Private Infrastructure; (30%) Cambridge Private Energy; (10%) NCREIF Farmland	1.9%	8.4%	11.1%	9.0%	7.9%	
<p>*Note: Periods ending 6/30/24 for Private Equity, Private Credit, and Real Assets Periods ending 9/30/24 for Absolute Return All returns are net IRR except Absolute Return which is time-weighted</p>						

SCERS PORTFOLIO RESULTS

For the reporting quarter ended June 30, 2024:

- SCERS' Private Equity portfolio outperformed its benchmark, 1.5% versus 1.1% due to SCERS' buyout strategies benefiting from lower financing costs and improving transaction market.
- SCERS' Private Credit portfolio outperformed its benchmark, 2.9% versus 2.4%, due to higher spreads achieved in several specialized lending sectors including healthcare and software.
- SCERS' Real Assets portfolio outperformed its benchmark, 2.4% versus 1.9% due to SCERS' energy and power strategies, which have benefited from an increase in acquisition transactions driving higher valuations.

For the reporting quarter ended September 30, 2024, SCERS' Absolute Return portfolio underperformed against the composite benchmark, but outperformed the HFRI Fund of Funds

Conservative Index return, 1.2% versus 1.0%, due to the performance of the Grosvenor Diversifying Fund-of-Funds strategy (+1.2%).

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

- Top performing funds:
 - Absolute Return:
 - Tudor BVI Global Fund (Macro Discretionary): +5.2%
 - PSquared US Feeder Fund (Event Driven): +3.9%
 - Elliott International (Event Driven): +3.9%
 - Private Equity portfolio:
 - Linden Capital Partners IV (Buyout): +27.0%
 - Cortec Group Fund VIII (Buyout): +16.4%
 - Summit Partners Venture Capital III-A (Growth Equity): +16.1%
 - Private Credit portfolio:
 - Summit Partners Credit Fund (Direct Lending): +5.0%
 - MCP Private Capital Fund IV Feeder (Direct Lending): +4.3%
 - Summit Partners Credit Fund IV (Direct Lending): +4.2%
 - Real Assets portfolio:
 - EnCap Energy Capital Fund X (Energy and Power): +15.2%
 - NGP Royalty Partners (Energy and Power): +9.9%
 - NGP Royalty Partners II (Energy and Power): +7.7%
- Bottom performing funds:
 - Absolute Return portfolio:
 - Graham Global Investment Fund II (Macro Systematic): -8.9%
 - Laurion Capital (Market Neutral): -5.6%
 - Marshall Wace Funds (Equity Long/Short): 0.9%
 - Private Equity portfolio:
 - Garrison Opportunity Fund III-A (Distressed Debt): -62.8%

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- Khosla Ventures V (Venture Capital): -16.7%
 - Khosla Ventures VII (Venture Capital): -15.7%

 - Private Credit portfolio:
 - Summit Partners Credit Fund II (Direct Lending): -8.3%
 - Athyrium Opportunities Fund II (Opportunistic Lending): -4.4%
 - Athyrium Opportunities Fund III (Opportunistic Lending): -1.8%

 - Real Assets portfolio:
 - Wastewater Opportunity Fund (Infrastructure): -15.7%
 - ACM Fund II (Agriculture): -7.2%
 - Quantum Energy Partners VII (Energy and Power): -0.4%

NEW INVESTMENTS

During the quarter ended September 30, 2024, SCERS made the following new commitments:

- Resurgens Technology Partners III (Private Equity – Buyout): \$20 million
- Stonepeak Opportunities Fund (Real Assets – Infrastructure): \$36 million
- Quantum Energy Partners VIII (Real Assets – Energy and Power): \$40 million
- JFL Equity Investors VI (Private Equity – Buyout): \$30 million

ATTACHMENTS

- Board Order
- Cliffwater's Quarterly Performance Review for Alternative Assets for the Quarter ended September 30, 2024

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 11, 2024

AGENDA ITEM:

Quarterly Investment Performance Report—Alternative Assets

THE BOARD OF RETIREMENT hereby accepts the recommendation of staff to receive and file the performance report for the periods ending September 30, 2024 for the Absolute Return portfolio, and the periods ending June 30, 2024 for the Private Equity, Private Credit, and Real Assets portfolios, as presented by Cliffwater.

I HEREBY CERTIFY that the above order was passed and adopted on December 11, 2024 by the following vote of the Board of Retirement, to wit:

AYES:

NOES:

ABSENT:

ABSTAIN:

ALTERNATES:

(Present but not voting)

James Diepenbrock
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 11, 2024

Absolute Return Portfolio Performance Summary – as of September 30, 2024

Diversifying Strategies

- The Diversifying Portfolio returned 1.17% in Q3 and 6.25% for the 1-year period ending September 30, 2024
 - Outperformed the HFRI Conservative FoF Index benchmark by 19 bps in Q3 though trailed by 19 bps for the 1-year period
 - Also above the T-bills + 2% long term objective by 78 bps (annualized) over the trailing 5-year period
- While most funds were solidly positive in Q3, performance was hurt by Graham Tactical Trend (-8.88%) & Laurion (-5.57%)
 - Positive performance was led by Tudor (+5.24%), Psquared (+3.91%), and Elliott (+3.85%) in Q3
- The Grosvenor portfolio (+11.80%), Elliott (+11.15%), and MW Global Opps (+10.23%) provided the best performance over the trailing 1-year period
 - Graham Tactical Trend (-9.93%) and Laurion (-7.16%) were also the largest detractors over the 1-year period

Growth Oriented Strategies

- 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
 - The portfolio market value totaled \$6.4 million at September 30, 2024
- The Growth Oriented Portfolio returned 0.53% in Q3 and 1.14% for the trailing 1-year

Portfolio risk and market sensitivity are at 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 3.25% compared to the ACWI standard deviation of 13.98% since December 2011 (23% ratio)
 - Portfolio equity beta of 0.11 with an equity correlation of 0.46
- The Growth Oriented portfolio has essentially been eliminated

Diversifying Absolute Return Portfolio Performance – as of September 30, 2024

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.	54,810,132	6.5%	1.74%	2.06%	3.71%	2.06%	5.11%	4.61%	-	5.40%	3.81%	0.55	Jan-21
Laurion Capital, Ltd.	56,492,764	6.7%	-2.78%	-5.57%	-9.11%	-5.57%	-7.16%	-4.52%	6.92%	6.24%	9.48%	0.48	Mar-14
Market Neutral - HF Total	111,302,896	13.2%	-0.61%	-1.96%	-3.21%	-1.96%	-2.37%	1.29%	3.79%	4.68%	5.48%	0.51	Mar-14
Event Driven													
BlackRock Event Driven Equity Fund (BILPX)	58,199,551	6.9%	0.20%	2.60%	2.80%	2.60%	6.56%	2.97%	-	4.29%	4.96%	0.33	Mar-20
Davidson Kempner Institutional Partners LP	45,948,674	5.4%	1.23%	3.06%	7.54%	3.06%	10.00%	4.33%	6.32%	6.06%	4.28%	0.78	May-19
Elliott International Limited - Class A & B	90,982,514	10.8%	1.60%	3.85%	8.53%	3.85%	11.15%	8.47%	9.74%	8.21%	3.15%	1.95	Apr-12
PSquared US Feeder Fund LP	54,745,697	6.5%	1.22%	3.91%	-1.61%	3.91%	-0.52%	1.98%	-	2.25%	5.41%	-0.10	Aug-20
Event Driven - HF Total	249,876,436	29.5%	1.12%	3.42%	4.88%	3.42%	7.36%	4.84%	6.26%	6.76%	3.21%	1.51	Apr-12
Equity Long/Short													
Marshall Wace Funds LP - MW Global Opportunities (US) Fund	64,750,135	7.7%	0.27%	0.92%	9.11%	0.92%	10.23%	6.32%	7.29%	6.83%	7.47%	0.58	Jan-19
Junto Capital Partners LP	52,648,483	6.2%	0.09%	1.01%	-	1.01%	-	-	-	5.30%	1.59%	-	Feb-24
Equity Long/Short - HF Total	117,398,618	13.9%	0.19%	0.96%	9.10%	0.96%	10.22%	6.32%	7.28%	6.83%	7.42%	0.58	Apr-12
Macro-Discretionary													
Tudor BVI Global Fund LP	54,173,833	6.4%	2.01%	5.24%	4.83%	5.24%	6.42%	-	-	4.69%	2.93%	-0.23	Jan-23
Macro-Discretionary - HF Total	54,173,833	6.4%	2.01%	5.24%	4.83%	5.24%	6.42%	-4.65%	-5.26%	-0.78%	4.84%	-0.47	May-12
Macro-Systematic													
Graham Global Investment Fund II SPC Ltd. - Tactical Trend	46,518,597	5.5%	1.74%	-8.88%	5.57%	-8.88%	-9.93%	7.15%	5.23%	3.78%	13.79%	0.16	Feb-17
Macro-Systematic - HF Total	46,518,597	5.5%	1.74%	-8.88%	5.57%	-8.88%	-9.93%	7.15%	3.23%	3.00%	12.41%	0.11	Jan-17
Fund of Funds													
Grosvenor SC Absolute Return Fund LLC (Diversifying)	260,020,187	30.7%	1.19%	1.71%	9.79%	1.71%	11.80%	6.05%	6.37%	3.42%	3.52%	0.52	Dec-11
Fund of Funds - HF Total	260,020,187	30.7%	1.19%	1.71%	9.79%	1.71%	11.80%	6.05%	6.40%	3.32%	3.39%	0.51	Dec-11
Diversifying Portfolio Total	839,290,567	99.2%	0.87%	1.17%	5.54%	1.17%	6.25%	4.09%	5.10%	3.71%	3.25%	0.64	Dec-11
HFRI FOF: Conservative Index			0.38%	0.98%	4.43%	0.98%	6.44%	3.54%	5.12%	3.91%	3.19%	0.71	Dec-11
3 Month T-Bills+2%			0.59%	1.84%	5.50%	1.84%	7.46%	5.49%	4.32%	3.30%	0.50%	-	Dec-11

Growth Oriented Absolute Return Portfolio Performance – as of September 30, 2024

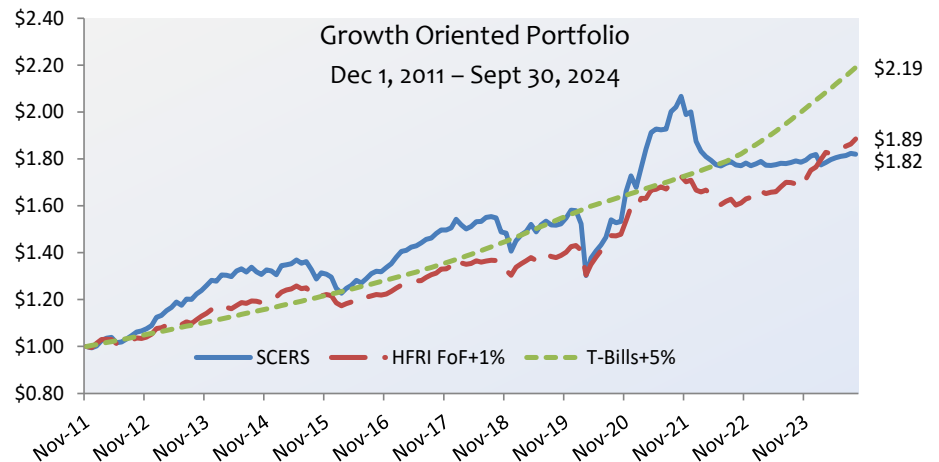
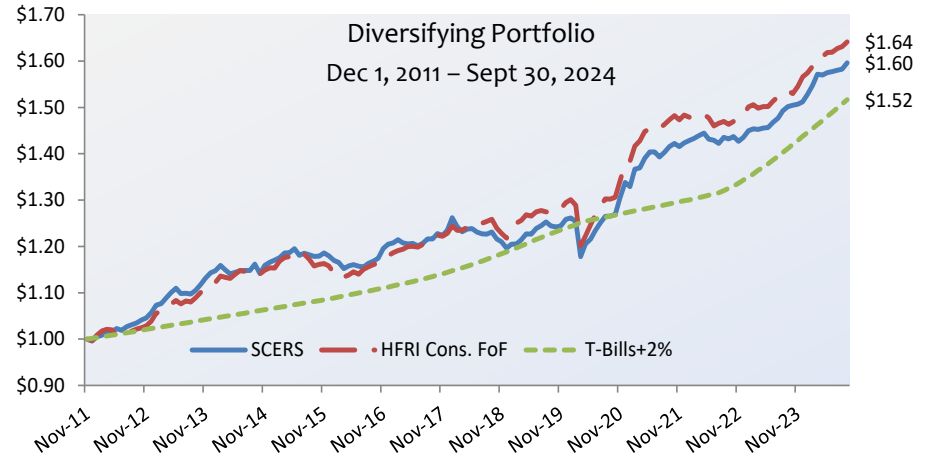
Fund	Market Value	Actual %	Returns								Std Dev	Sharpe Ratio	Incep Date
			Sep	QTD	YTD	FYTD	1 Year	3 Year	5 Year	Incep			
Growth-Oriented Portfolio													
Fund of Funds													
Grosvenor SC Absolute Return Fund LLC (Growth)	6,375,669	0.8%	-0.15%	0.53%	0.07%	0.53%	1.14%	-1.61%	2.08%	4.10%	6.12%	0.42	Dec-11
Fund of Funds - HF Total	6,375,669	0.8%	-0.15%	0.53%	0.07%	0.53%	1.14%	-1.61%	2.08%	3.77%	6.51%	0.30	Sep-04
Growth-Oriented Portfolio Total	6,375,669	0.8%	-0.15%	0.53%	0.07%	0.53%	1.14%	-3.65%	3.56%	4.29%	7.56%	0.33	Sep-04
HFRI FoF Composite + 1%			0.32%	1.30%	6.66%	1.30%	10.32%	3.25%	6.26%	4.54%	5.20%	0.50	Sep-04
3 Month T-Bills+5%			0.83%	2.54%	7.70%	2.54%	10.46%	8.50%	7.33%	6.63%	0.53%	-	Sep-04
Market Indices													
SOFR 90 Day			0.42%	1.32%	3.98%	1.32%	5.35%	3.40%	2.23%	-	-	-	Sep-04
Bloomberg US Aggregate Bond Index			1.34%	5.20%	4.45%	5.20%	11.57%	-1.39%	0.33%	3.23%	4.17%	0.32	Sep-04
Bloomberg US High Yield Bond Index			1.62%	5.28%	8.00%	5.28%	15.74%	3.10%	4.72%	6.72%	9.10%	0.55	Sep-04
S&P 500 TR			2.14%	5.89%	22.08%	5.89%	36.35%	11.91%	15.98%	10.72%	14.93%	0.63	Sep-04
MSCI AC World Index Free - Net			2.32%	6.61%	18.66%	6.61%	31.76%	8.09%	12.19%	8.40%	15.66%	0.47	Sep-04
MSCI EAFE - Net			0.92%	7.26%	12.99%	7.26%	24.77%	5.48%	8.20%	6.12%	16.72%	0.32	Sep-04
MSCI EMF (Emerging Markets Free) - Net			6.68%	8.72%	16.86%	8.72%	26.05%	0.40%	5.75%	7.57%	20.72%	0.36	Sep-04

Absolute Return Portfolios Cumulative Performance – March 2011 to September 2024

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

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 into the portfolio's wind-down

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



Private Equity Portfolio – as of June 30, 2024

The Private Equity portfolio's net IRR since inception is 15.53%, versus the Cambridge Associates benchmark IRR of 13.41%

- The long-term Policy objective (Russell 3000 + 3%) has a 16.31% IRR over this period

The portfolio returned 1.5% in Q2 as public equity markets continued their strong rally from Q4 '23 (ACWI +2.9% in Q2)

- Although a significant number of the funds showed gains during the quarter, roughly one-third of the portfolio's funds saw markdowns over the quarter, particularly among some of the portfolio's Venture Capital funds
 - Linden IV, Summit Europe II and VC IV, AKKR VI, and Spectrum VIII reported the largest gains in Q2
- Saw a slowdown in distributions in Q2 following the resurgence seen in Q1 and Q4 '23
 - \$35.2 million in distributions, led by TSG 7A, GS PEP X and AKKR V
 - The distribution from GS PEP X (\$5.4 million) represented the final payment from the secondary sale of that fund

Despite a recent performance slowdown, longer-term performance remains quite strong across most of the funds

- Double-digit net IRRs for all vintage years prior to 2020, with all but one of those vintage years exceeding peer universes
- Summit Europe II (71.1%), AKKR IV (39.0%), Summit VC IV (36.9%), Spectrum VII (36.6%), Waterland V (35.0%), Spectrum VIII (31.3%), AKKR Growth II (29.4%), and Marlin Heritage (29.3%) are leading performance among SCERS' more mature funds

Changes during the quarter

- SCERS made no new commitments to Private Equity funds in Q2
 - SCERS committed \$20 million to a software-focused small buyout fund in Q3 2024
- \$45.3 million in new contributions, \$35.2 million in distributions
- Total portfolio gain increased by \$26.4 million while the total portfolio IRR declined by 0.18%

Private Equity Portfolio Performance Details – as of June 30, 2024

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	0	36,375	100%	64,697	0	64,697	28,322	10.71%	7.70%	1.78x	1.70x
* HarbourVest Partners VIII - Mezzanine and Distressed Debt Fund L.P.	Fund of Funds	5,000	0	4,800	100%	6,458	0	6,458	1,658	6.70%	7.70%	1.35x	1.70x
HarbourVest Partners VIII - Venture Fund L.P.	Fund of Funds	7,500	150	7,350	98%	14,043	2,049	16,092	8,742	11.24%	7.70%	2.19x	1.70x
Vintage Year 2006 Total		50,000	150	48,525	100%	85,198	2,049	87,247	38,722	10.52%	7.46%	1.80x	1.53x
Vintage Year 2008													
* Goldman Sachs Private Equity Partners X, L.P.	Fund of Funds	75,000	0	69,136	100%	115,886	0	115,886	46,750	10.47%	13.85%	1.68x	2.45x
* HarbourVest International Private Equity Partners VI-Partnership Fund L.P.	Fund of Funds	34,500	0	37,980	100%	62,101	0	62,101	24,121	9.17%	8.05%	1.64x	1.65x
Abbott Capital Private Equity Fund VI, L.P.	Fund of Funds	75,000	375	74,625	100%	123,128	21,233	144,360	69,735	12.58%	13.85%	1.93x	2.45x
Vintage Year 2008 Total		184,500	375	181,741	100%	301,115	21,233	322,348	140,606	11.10%	8.79%	1.77x	1.51x
Vintage Year 2011													
Waterland Private Equity Fund V.C.V.	Buyout	17,143	2,768	16,278	84%	47,373	559	47,932	31,654	34.95%	9.55%	2.94x	1.53x
Khosla Ventures IV, L.P.	Venture Capital	10,000	190	9,810	98%	29,991	13,560	43,551	33,741	23.23%	15.02%	4.44x	2.46x
Vintage Year 2011 Total		27,143	2,958	26,088	89%	77,364	14,119	91,483	65,395	28.75%	11.92%	3.51x	1.82x
Vintage Year 2012													
Garrison Opportunity Fund III A LLC	Distressed Debt	20,000	0	20,000	100%	24,103	531	24,634	4,634	3.12%	15.29%	1.23x	1.67x
Summit Partners Venture Capital III-A, LP	Growth Equity	16,350	1,849	19,764	89%	38,234	3,990	42,224	22,460	17.50%	14.02%	2.14x	2.10x
New Enterprise Associates 14, L.P.	Venture Capital	25,000	500	24,500	98%	27,816	37,829	65,645	41,145	14.72%	14.77%	2.68x	2.22x
Vintage Year 2012 Total		61,350	2,349	64,264	96%	90,152	42,350	132,503	68,239	12.01%	11.67%	2.06x	1.81x
Vintage Year 2013													
* Accel-KKR Capital Partners IV, L.P.	Buyout	15,000	311	15,509	98%	55,448	0	55,448	39,939	38.96%	15.82%	3.58x	1.90x
H.I.G. Capital Partners V, L.P.	Buyout	14,000	209	14,033	99%	25,641	7,654	33,295	19,261	22.90%	15.82%	2.37x	1.90x
Marlin Equity IV, L.P.	Buyout	20,000	0	20,791	100%	19,054	8,153	27,207	6,416	6.04%	15.82%	1.31x	1.90x
RRJ Capital Master Fund II, L.P.	Buyout	35,000	3,750	36,080	89%	46,468	3,970	50,438	14,358	8.97%	11.44%	1.40x	1.76x

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, 2024 (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%	31,730	79	31,809	6,934	7.65%	8.18%	1.28x	1.39x
H.I.G. Bayside Loan Opportunity Fund III (Europe-US\$), L.P.	Distressed Debt	30,000	5,400	24,600	82%	28,963	3,344	32,307	7,707	7.02%	5.07%	1.31x	1.24x
Wayzata Opportunities Fund III, L.P.	Distressed Debt	30,000	26,593	14,718	11%	14,468	1,446	15,914	1,196	1.61%	8.18%	1.08x	1.39x
Trinity Ventures XI, L.P.	Venture Capital	25,000	375	24,625	99%	7,189	40,113	47,302	22,677	8.77%	14.05%	1.92x	2.49x
Vintage Year 2013 Total		194,000	37,755	175,231	81%	228,960	64,759	293,719	118,488	11.73%	12.56%	1.68x	1.80x
Vintage Year 2014													
Blue Owl GP Stakes II US Investors LP	Buyout	35,000	6,230	38,125	82%	21,421	36,824	58,245	20,120	9.25%	17.37%	1.53x	2.03x
H.I.G. Europe Capital Partners II, L.P.	Buyout	15,000	3,267	15,054	78%	11,693	10,496	22,189	7,135	10.00%	13.06%	1.47x	1.74x
Marlin Heritage Fund	Buyout	10,000	1,438	11,286	86%	20,295	3,546	23,841	12,556	29.27%	17.37%	2.11x	2.03x
Thoma Bravo XI	Buyout	30,000	3,203	32,591	89%	88,720	24,868	113,588	80,997	26.50%	17.37%	3.49x	2.03x
TPG Opportunities Partners III	Distressed Debt	40,000	11,099	50,817	72%	55,565	5,941	61,505	10,688	8.19%	8.49%	1.21x	1.46x
Spectrum Equity Investors VII, L.P.	Growth Equity	25,000	1,625	23,388	94%	64,096	32,576	96,672	73,284	36.63%	20.08%	4.13x	2.39x
Khosla Ventures V	Venture Capital	20,000	700	19,300	97%	27,445	28,690	56,134	36,834	18.99%	16.04%	2.91x	2.35x
Vintage Year 2014 Total		175,000	27,563	190,561	84%	289,234	142,941	432,175	241,614	21.16%	14.07%	2.27x	1.99x
Vintage Year 2015													
* WPEF VI Overflow Fund C.V.	Buyout	6,428	6,419	10	0%	0	0	0	-10	0.00%	13.87%	0.00x	1.76x
RRJ Capital Master Fund III, LP	Buyout	40,000	2,538	40,923	94%	36,562	8,171	44,733	3,810	4.27%	13.87%	1.09x	1.76x
WPEF VI Feeder, L.P.	Buyout	25,714	17,939	25,444	30%	34,120	14,551	48,671	23,227	19.68%	13.87%	1.91x	1.76x
Accel-KKR Growth Capital Partners II	Growth Equity	15,000	188	16,590	99%	30,186	8,591	38,778	22,187	29.36%	18.27%	2.34x	2.27x
Summit Partners Venture Capital Fund IV-A, L.P.	Growth Equity	35,000	10,856	41,644	69%	38,912	68,807	107,719	66,075	36.92%	18.27%	2.59x	2.27x
New Enterprise Associates 15, L.P.	Venture Capital	35,000	1,925	33,079	95%	33,952	23,931	57,884	24,804	10.53%	13.80%	1.75x	2.04x
Vintage Year 2015 Total		157,142	39,865	157,691	75%	173,733	124,051	297,785	140,094	18.83%	13.96%	1.89x	1.92x
Vintage Year 2016													
Accel-KKR Capital Partners V, L.P.	Buyout	25,000	0	26,982	100%	29,191	32,007	61,198	34,216	28.76%	19.54%	2.27x	2.03x
Blue Owl GP Stakes III Pension Investors LP	Buyout	35,000	21,596	29,463	38%	28,970	34,462	63,433	33,970	22.82%	19.54%	2.15x	2.03x
Linden Capital Partners III	Buyout	35,000	1,915	40,085	95%	74,289	19,659	93,948	53,863	27.11%	19.54%	2.34x	2.03x

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, 2024 (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	13,928	151	14,566	99%	21,583	15,789	37,372	22,806	25.05%	12.56%	2.57x	1.70x
Thoma Bravo Fund XII, L.P.	Buyout	30,000	7,381	40,884	75%	42,132	38,248	80,380	39,496	16.45%	19.54%	1.97x	2.03x
TSG7 A L.P.	Buyout	16,000	2,358	13,642	85%	19,299	11,834	31,134	17,491	17.61%	19.54%	2.28x	2.03x
TSG7 B L.P.	Buyout	4,000	11	4,162	100%	2,348	3,476	5,824	1,661	8.99%	19.54%	1.40x	2.03x
Atalaya Special Opportunities Fund VI, L.P.	Distressed Debt	25,000	2,454	28,940	90%	41,169	936	42,105	13,164	13.35%	8.76%	1.45x	1.40x
Trinity Ventures XII, L.P.	Venture Capital	30,000	4,275	25,725	86%	27,145	32,855	60,000	34,275	19.92%	16.36%	2.33x	2.11x
Vintage Year 2016 Total		213,928	40,141	224,451	81%	286,127	189,267	475,393	250,943	20.94%	14.18%	2.12x	1.84x
Vintage Year 2017													
Marlin Heritage II	Buyout	10,000	0	10,604	100%	4,854	9,670	14,524	3,920	7.99%	21.11%	1.37x	2.02x
Summit Partners Europe Growth Equity Fund II, SCSF	Growth Equity	32,142	10,446	38,263	68%	59,986	64,661	124,647	86,384	71.07%	10.44%	3.26x	1.49x
New Enterprise Associates 16, L.P.	Venture Capital	35,000	3,150	31,850	91%	8,390	38,213	46,603	14,753	8.40%	18.05%	1.46x	2.06x
Vintage Year 2017 Total		77,142	13,596	80,717	82%	73,230	112,544	185,774	105,057	28.45%	16.75%	2.30x	1.80x
Vintage Year 2018													
Linden Capital Partners IVLP	Buyout	44,330	3,876	45,250	91%	37,470	56,817	94,287	49,037	28.14%	17.65%	2.08x	1.69x
Marlin Equity V	Buyout	25,000	0	25,808	100%	12,442	32,335	44,777	18,969	19.24%	17.65%	1.74x	1.69x
TSG8 L.P.	Buyout	45,000	3,713	42,779	92%	1,492	35,731	37,223	-5,555	-5.30%	17.65%	0.87x	1.69x
Davidson Kempner Long-Term Distressed Opportunities Fund IVLP	Distressed Debt	35,000	2,400	33,198	93%	43,726	19,211	62,937	29,740	17.20%	11.11%	1.90x	1.35x
TSOP Opportunities Partners IV (A), L.P.	Distressed Debt	35,000	3,461	46,165	90%	30,884	26,539	57,423	11,258	10.98%	11.11%	1.24x	1.35x
RCP Fund XIII	Fund of Funds	50,000	3,348	49,152	93%	13,008	56,052	69,060	19,908	14.41%	15.05%	1.41x	1.69x
RCPDirect III	Fund of Funds	25,000	3,506	23,186	86%	14,049	27,423	41,472	18,286	18.95%	N/A	1.79x	N/A
Accel-KKR Growth Capital Partners III	Growth Equity	33,320	2,954	30,366	91%	5,394	34,762	40,156	9,790	9.82%	14.48%	1.32x	1.64x
Spectrum Equity VIII, L.P.	Growth Equity	25,000	2,500	22,500	90%	24,549	29,184	53,733	31,233	31.30%	14.48%	2.39x	1.64x
Khosla Ventures VI, L.P.	Venture Capital	35,000	1,750	33,250	95%	1,750	72,442	74,192	40,942	20.68%	14.51%	2.23x	1.78x
Vintage Year 2018 Total		352,650	27,508	351,653	92%	184,764	390,496	575,260	223,607	17.60%	14.08%	1.64x	1.59x
Vintage Year 2019													
Cortec Group Fund VI, L.P.	Buyout	30,000	3,681	33,774	88%	23,305	27,226	50,531	16,756	21.17%	15.95%	1.50x	1.52x

¹Benchmarks:

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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, 2024 (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	1,456	31,487	95%	6,513	53,236	59,749	28,262	24.23%	15.95%	1.90x	1.52x
Thoma Bravo Fund XIII, LP	Buyout	45,000	3,743	54,899	92%	37,899	67,350	105,249	50,350	25.33%	15.95%	1.92x	1.52x
New Enterprise Associates 17, L.P.	Venture Capital	25,000	4,000	21,014	84%	2,462	21,366	23,828	2,815	4.42%	11.50%	1.13x	1.38x
Threshold Ventures III, L.P.	Venture Capital	20,000	2,460	17,540	88%	0	22,995	22,995	5,455	8.64%	11.50%	1.31x	1.38x
Vintage Year 2019 Total		150,000	15,340	158,714	90%	70,179	192,174	262,353	103,639	19.99%	13.05%	1.65x	1.43x
Vintage Year 2020													
Accel-KKR Capital Partners VI, LP	Buyout	30,000	2,061	27,939	93%	0	30,792	30,792	2,853	6.00%	16.12%	1.10x	1.45x
Wynnchurch Capital Partners V	Buyout	20,000	3,342	16,813	83%	703	20,653	21,356	4,543	12.58%	16.12%	1.27x	1.45x
Davidson Kempner Long-Term Distressed Opportunities Fund VLP	Distressed Debt	30,000	3,083	27,670	90%	1,667	34,505	36,172	8,503	9.59%	10.54%	1.31x	1.25x
Spectrum Equity IX-A, L.P.	Growth Equity	25,000	1,625	23,375	94%	0	21,281	21,281	-2,094	-4.11%	10.78%	0.91x	1.25x
Summit Partners Europe Growth Equity Fund III, SCSp	Growth Equity	21,428	5,392	19,089	75%	2,777	22,060	24,837	5,748	13.94%	5.43%	1.30x	1.15x
Summit Partners Venture Capital Fund V-A, L.P.	Growth Equity	20,000	6,685	14,204	67%	888	14,073	14,961	758	2.92%	10.78%	1.05x	1.25x
Shamrock Capital Content Fund II, L.P.	Opportunistic Credit	20,000	9,415	16,605	53%	6,014	14,486	20,500	3,895	11.25%	10.55%	1.23x	1.24x
Canvas Ventures 3, L.P.	Venture Capital	20,000	5,286	14,714	74%	0	14,360	14,360	-354	-1.13%	6.18%	0.98x	1.18x
OrbiMed Private Investments VIII, LP	Venture Capital	15,000	5,635	10,088	62%	1,463	11,191	12,654	2,566	10.08%	6.18%	1.25x	1.18x
Vintage Year 2020 Total		201,428	42,524	170,495	79%	13,513	183,400	196,913	26,418	6.93%	8.68%	1.15x	1.23x
Vintage Year 2021													
Linden Capital Partners VLP	Buyout	30,000	13,628	16,372	55%	0	18,686	18,686	2,314	N/M	N/M	1.14x	1.22x
Shamrock Capital Growth Fund V, L.P.	Buyout	20,000	6,789	13,329	66%	118	14,762	14,880	1,552	7.49%	9.51%	1.12x	1.22x
Strategic Value Special Situations Fund V, L.P.	Distressed Debt	30,000	12,000	18,023	60%	0	24,572	24,572	6,549	16.86%	12.54%	1.36x	1.21x
CRV Select Fund I, LP	Venture Capital	20,000	1,850	18,150	91%	0	18,462	18,462	312	0.59%	-1.16%	1.02x	0.98x
CRV XVIII, LP	Venture Capital	20,000	3,100	16,900	85%	0	17,110	17,110	210	0.46%	-1.16%	1.01x	0.98x
Khosla Ventures VII, L.P.	Venture Capital	20,000	4,240	15,760	79%	0	18,527	18,527	2,767	7.59%	-1.16%	1.18x	0.98x
Vintage Year 2021 Total		140,000	41,607	98,534	70%	118	112,119	112,237	13,703	6.24%	2.12%	1.14x	1.04x

¹Benchmarks:

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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, 2024 (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 2022													
Golden Capital Co-Investments, L.P.	Buyout	100,000	61,760	38,240	38%	0	42,106	42,106	3,866	N/M	N/M	1.10x	1.14x
Gridiron Capital Fund V, L.P.	Buyout	35,000	20,001	14,999	43%	0	15,975	15,975	976	N/M	N/M	1.07x	1.14x
Marlin Heritage III, L.P.	Buyout	30,000	22,680	7,320	24%	0	7,124	7,124	-196	N/M	N/M	0.97x	1.14x
Oaktree Power Opportunities Fund VI	Buyout	30,000	5,482	25,063	82%	445	28,179	28,624	3,562	12.95%	11.35%	1.14x	1.14x
Sixth Street Opportunities Partners V (A), L.P.	Distressed Debt	30,000	11,301	21,941	62%	3,246	20,105	23,351	1,410	6.33%	N/A	1.06x	N/A
Accel-KKR Growth Capital Partners IV	Growth Equity	30,000	15,858	14,142	47%	0	14,092	14,092	-50	-0.29%	-1.90%	1.00x	0.98x
Shamrock Capital Content Fund III, L.P.	Opportunistic Credit	30,000	28,859	1,141	4%	0	7	7	-1,134	N/M	N/M	0.01x	1.13x
CRV Select Fund II, LP	Venture Capital	22,500	14,906	7,594	34%	0	6,989	6,989	-605	-5.26%	-2.86%	0.92x	0.97x
CRVXIX, LP	Venture Capital	22,500	14,063	8,438	38%	0	7,283	7,283	-1,154	-12.78%	-2.86%	0.86x	0.97x
OrbiMed Private Investments IX, LP	Venture Capital	25,000	18,375	6,623	27%	0	6,985	6,985	362	N/M	N/M	1.05x	0.97x
Threshold Ventures IV, L.P.	Venture Capital	25,000	16,825	8,175	33%	0	7,079	7,079	-1,096	N/M	N/M	0.87x	0.97x
Vintage Year 2022 Total		380,000	230,109	153,676	39%	3,691	155,925	159,615	5,940	4.11%	-0.17%	1.04x	1.00x
Vintage Year 2023													
Accel-KKR Capital Partners VII, LP	Buyout	35,000	35,000	0	0%	0	-573	-573	-573	N/M	N/M	N/A	N/A
Cortec Group Fund VIII, L.P.	Buyout	40,000	35,704	5,988	11%	1,718	3,534	5,252	-736	N/M	N/M	0.88x	N/A
CVC Capital Partners IX	Buyout	32,142	32,142	0	0%	0	-110	-110	-110	N/M	N/M	N/A	N/A
TSG9 L.P.	Buyout	30,000	22,416	7,584	25%	0	6,620	6,620	-964	N/M	N/M	0.87x	N/A
Alchemy Special Opportunities Fund V	Distressed Debt	34,285	34,285	0	0%	0	0	0	0	N/M	N/M	N/A	N/A
Spectrum Equity X-A, L.P.	Growth Equity	25,000	20,938	4,063	16%	0	3,936	3,936	-126	N/M	N/M	0.97x	N/A
Khosla Ventures VIII	Venture Capital	30,000	21,600	8,400	28%	0	8,442	8,442	42	N/M	N/M	1.01x	N/A
Vintage Year 2023 Total		226,428	202,086	26,034	11%	1,718	21,849	23,567	-2,468	N/M	N/M	0.91x	0.93x
Vintage Year 2024													
Wynnchurch Capital Partners VI, L.P.	Buyout	38,000	38,000	0	0%	0	-208	-208	-208	N/M	N/M	N/A	N/A
Shamrock Capital Growth Fund VI, L.P.	Growth Equity	40,000	40,000	0	0%	0	0	0	0	N/M	N/M	N/A	N/A
Vintage Year 2024 Total		78,000	78,000	0	0%	0	-208	-208	-208	N/M	N/M	N/A	N/A

¹Benchmarks:

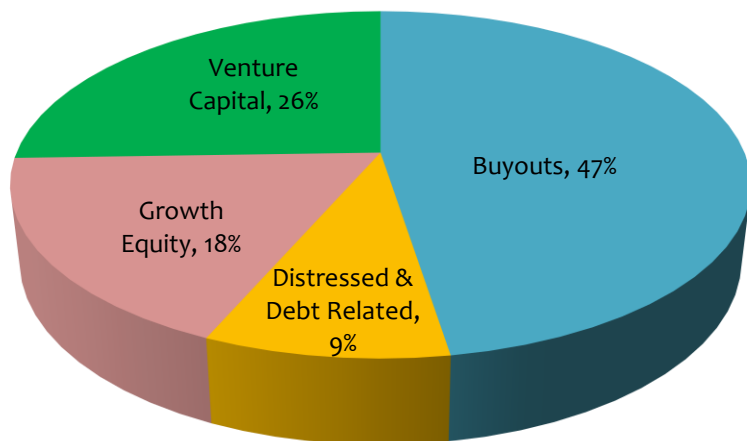
Private Equity Investments: Cambridge Associates median return for the respective strategies and vintage years

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

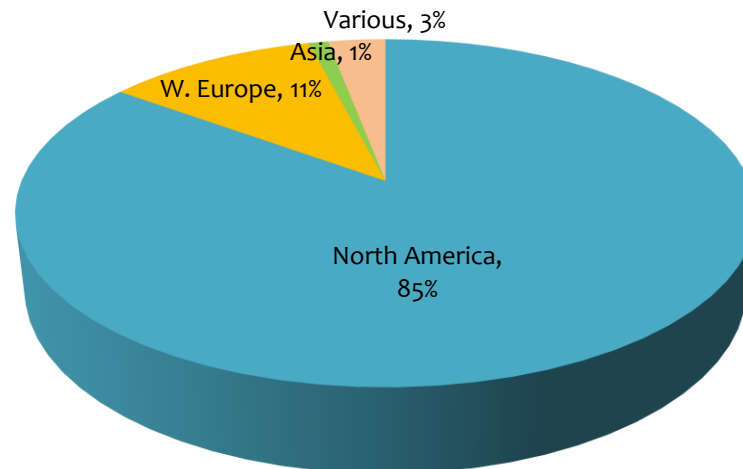
Private Equity Portfolio: Cambridge Associates Global Private Equity & Venture Capital pooled internal rate of return

Private Equity Portfolio Exposures as of June 30, 2024

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 Bench.
Buyout	1,121,686	396,957	854,157	65%	751,565	744,174	1,495,739	641,582	19.80%		1.75x
Distressed Debt	364,285	113,195	310,947	69%	275,520	137,209	412,729	101,782	8.86%		1.33x
Fund of Funds	309,500	7,379	302,604	98%	413,370	106,756	520,126	217,522	11.30%		1.72x
Growth Equity	343,241	120,915	267,387	65%	265,023	318,012	583,036	315,649	29.34%		2.18x
Opportunistic Credit	50,000	38,274	17,745	23%	6,014	14,493	20,507	2,761	8.00%		1.16x
Venture Capital	480,000	125,205	355,534	74%	167,604	448,422	616,026	260,492	13.51%		1.73x
Portfolio Total :	2,668,711	801,925	2,108,374	70%	1,879,097	1,769,066	3,648,162	1,539,788	15.53%	13.41%	1.73x

* Exposures are based on the market values of investments as of 6/30/24.

Private Credit Portfolio – as of June 30, 2024

The Private Credit portfolio's net IRR since inception is 8.77%, versus the benchmark return of 7.22%

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

The Private Credit funds reported another solid quarterly gain, continuing their steady performance since the muted returns seen in the first half of 2022

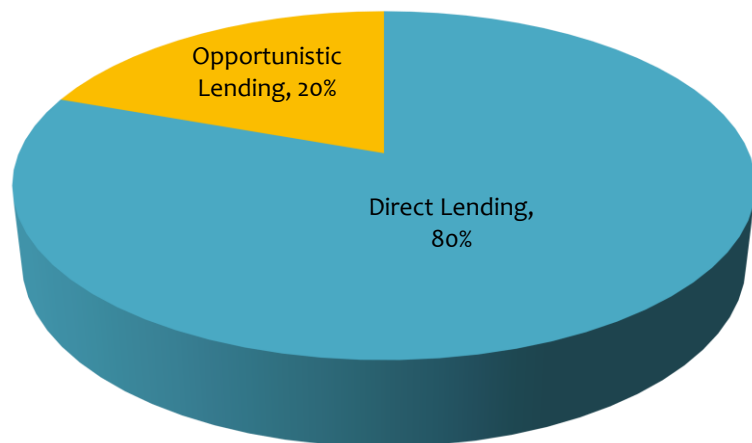
- The portfolio returned 2.9% in Q2 and 9.5% for the trailing 1-year period ending June 30, 2024
 - Most of the funds generated returns between 1% to 4% for the quarter
 - MCP IV (Metric), Summit Credit IV, OrbiMed Royalty & Credit IV, and Silver Point Specialty Credit II led performance in Q2
 - Performance in Q2 and the trailing 1-year period has been held back by markdowns in the older Summit Credit funds
 - These funds are being wound down as their existing loan portfolios mature
 - Athyrium III was also a drag on performance during these periods
- Longer term performance remains steady despite modest sell-offs in Q1 2020 and during the first half of 2022
 - 8.2% net IRR for the 3-year period and 9.0% net IRR for the 5-year period

Changes during the quarter

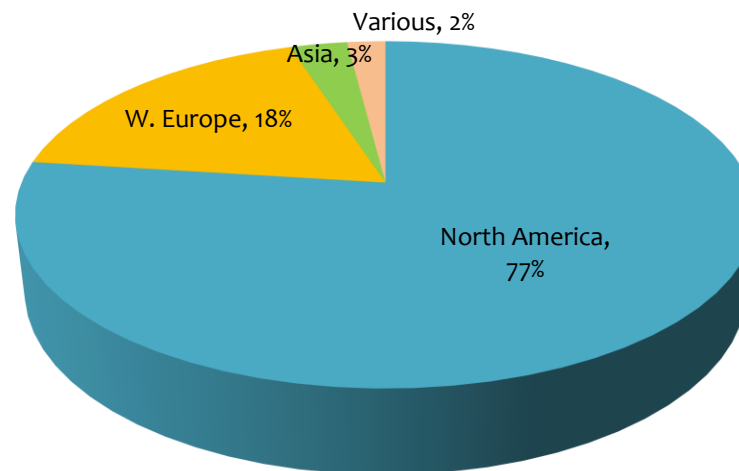
- SCERS committed \$40 million to Sky Fund VI (aircraft leasing strategy, in Opportunistic Lending) in Q2
- \$11.2 million in new contributions, \$27.9 million in distributions
- Total portfolio gain increased by \$12.5 million while the total portfolio IRR increased by 0.17%

Private Credit Portfolio Exposures as of June 30, 2024

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	648,857	179,110	519,174	72%	296,061	344,492	640,553	121,379	8.43%		1.23x	
Opportunistic Lending	232,000	107,270	169,071	54%	119,365	88,663	208,029	38,958	10.00%		1.23x	
Portfolio Total :	880,857	286,381	688,245	67%	415,426	433,155	848,581	160,337	8.77%	7.22%	1.23x	

* Exposures are based on the market values of investments as of 6/30/24.

Private Credit Portfolio Details – as of June 30, 2024

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	0	20,697	100%	26,789	88	26,877	6,180	8.86%	N/A	1.30x	N/A
Vintage Year 2011 Total		20,000	0	20,697	100%	26,789	88	26,877	6,180	8.86%	11.92%	1.30x	1.82x
Vintage Year 2014													
Summit Partners Credit Fund II, L.P.	Direct Lending	35,000	504	49,596	99%	47,940	6,629	54,570	4,973	3.47%	4.63%	1.10x	N/A
Vintage Year 2014 Total		35,000	504	49,596	99%	47,940	6,629	54,570	4,973	3.47%	14.07%	1.10x	1.99x
Vintage Year 2015													
Athyrium Opportunities Fund II	Opportunistic Lending	32,000	1,943	43,788	94%	53,055	3,993	57,048	13,260	10.07%	9.53%	1.30x	1.55x
Vintage Year 2015 Total		32,000	1,943	43,788	94%	53,055	3,993	57,048	13,260	10.07%	13.96%	1.30x	1.92x
Vintage Year 2017													
Athyrium Opportunities Fund III	Opportunistic Lending	25,000	4,238	30,636	83%	24,568	7,587	32,154	1,518	1.97%	9.24%	1.05x	1.36x
Vintage Year 2017 Total		25,000	4,238	30,636	83%	24,568	7,587	32,154	1,518	1.97%	16.75%	1.05x	1.80x
Vintage Year 2018													
Benefit Street Partners Senior Secured Opportunities Fund L.P.	Direct Lending	50,000	20,989	50,953	58%	46,696	17,836	64,532	13,580	5.95%	5.19%	1.27x	N/A
Summit Partners Credit Fund III, L.P.	Direct Lending	50,000	2,016	59,660	96%	63,084	11,239	74,323	14,664	13.05%	5.19%	1.25x	N/A
TCP Direct Lending Fund VIII-S, LLC	Direct Lending	125,000	0	125,000	100%	47,944	117,034	164,978	39,978	8.31%	5.19%	1.32x	N/A
Vintage Year 2018 Total		225,000	23,004	235,612	90%	157,724	146,109	303,833	68,221	8.27%	14.08%	1.29x	1.59x
Vintage Year 2019													
BSP Levered US SOF II (Senior Secured Opportunities) Fund L.P.	Direct Lending	50,000	9,353	42,944	81%	12,541	41,663	54,204	11,259	11.48%	6.08%	1.26x	N/A
OrbiMed Royalty & Credit Opportunities II I, LP	Opportunistic Lending	35,000	18,763	31,493	46%	23,059	16,678	39,737	8,244	17.04%	11.94%	1.26x	1.36x
Vintage Year 2019 Total		85,000	28,116	74,437	67%	35,600	58,341	93,941	19,504	13.38%	13.05%	1.26x	1.43x
Vintage Year 2020													
MCP Private Capital Fund IV (Feeder) SC	Direct Lending	33,857	3,161	31,597	91%	9,317	30,756	40,073	8,476	13.10%	5.52%	1.27x	N/A

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, 2024 (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	3,573	36,288	91%	13,044	34,283	47,327	11,039	11.98%	10.55%	1.30x	1.24x
Vintage Year 2020 Total		73,857	6,734	67,885	91%	22,361	65,039	87,400	19,515	12.43%	8.68%	1.29x	1.23x
Vintage Year 2021													
Ares Capital Europe V	Direct Lending	40,000	9,579	31,649	76%	7,241	32,493	39,734	8,085	11.87%	N/A	1.26x	N/A
IFM USIDF (Offshore) B Feeder	Direct Lending	75,000	33,686	55,270	55%	26,213	35,888	62,101	6,831	8.53%	6.22%	1.12x	N/A
Summit Partners Credit Fund IV, L.P.	Direct Lending	40,000	4,400	15,107	89%	3,369	15,669	19,038	3,931	13.92%	6.22%	1.26x	N/A
Shamrock Capital Debt Opportunities Fund I, L.P.	Opportunistic Lending	20,000	11,068	10,887	45%	1,955	9,996	11,951	1,065	7.91%	11.79%	1.10x	1.22x
Vintage Year 2021 Total		175,000	58,734	112,913	66%	38,778	94,047	132,825	19,912	10.49%	2.12%	1.18x	1.04x
Vintage Year 2022													
OrbiMed Royalty & Credit Opportunities I V, LP	Opportunistic Lending	40,000	27,685	15,979	31%	3,685	14,187	17,872	1,893	N/M	N/M	1.12x	1.13x
Vintage Year 2022 Total		40,000	27,685	15,979	31%	3,685	14,187	17,872	1,893	N/M	N/M	1.12x	1.00x
Vintage Year 2023													
Ares Senior Direct Lending Fund III	Direct Lending	50,000	50,000	0	0%	0	278	278	278	N/M	N/M	N/A	N/A
Brookfield Infrastructure Debt Fund III	Direct Lending	40,000	18,093	24,008	55%	3,899	21,651	25,551	1,543	N/M	N/M	1.06x	N/A
Silver Point Specialty Credit Fund III, L.P.	Direct Lending	40,000	27,330	12,693	32%	1,027	13,268	14,295	1,602	N/M	N/M	1.13x	N/A
Vintage Year 2023 Total		130,000	95,422	36,701	27%	4,927	35,196	40,123	3,422	N/M	N/M	1.09x	0.93x
Vintage Year 2024													
Sky Fund VI Onshore, LP	Opportunistic Lending	40,000	40,000	0	0%	0	1,939	1,939	1,939	N/M	N/M	N/A	N/A
Vintage Year 2024 Total		40,000	40,000	0	0%	0	1,939	1,939	1,939	N/M	N/M	N/A	N/A
Portfolio Total :		880,857	286,381	688,245	67%	415,426	433,155	848,581	160,337	8.77%	7.22%	1.23x	

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, 2024

The Real Assets portfolio's net IRR since inception is 10.77%, versus the blended benchmark return of 7.90%

- The Real Assets portfolio includes private Infrastructure, Energy and Power, and Agriculture, Timber and Other

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

- Since inception net IRRs of 10.0% for Infrastructure and 12.8% for Energy and Power
- Performance of the Energy and Power partnerships has been volatile, most recently being 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

The Real Assets portfolio generated a 2.4% net return in Q2

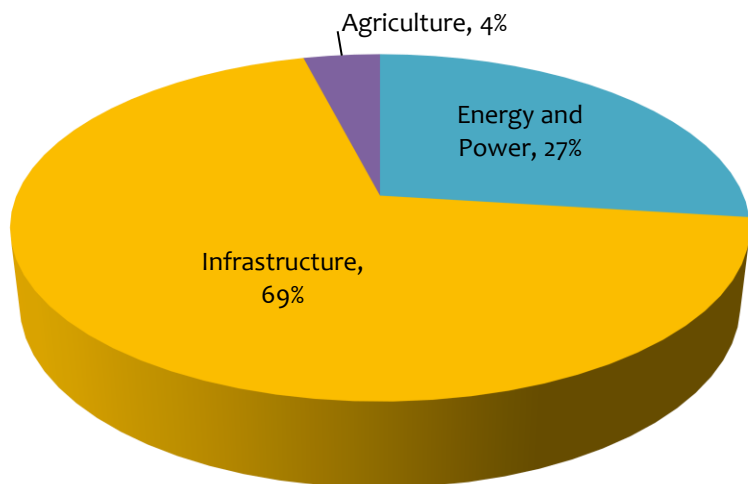
- The portfolio saw good contribution to returns from most Energy and Power and Infrastructure funds during Q2
 - EnCap X, NGP Royalty I & II, Tailwater IV, Carlyle Power II, EnCap Flatrock IV, ArcLight Energy VI, and Digital Bridge II (infrastructure) provided the biggest gains in Q2
- The biggest detractors to Q2 performance were Wastewater (infrastructure) and ACM II (agriculture)

Changes during the quarter

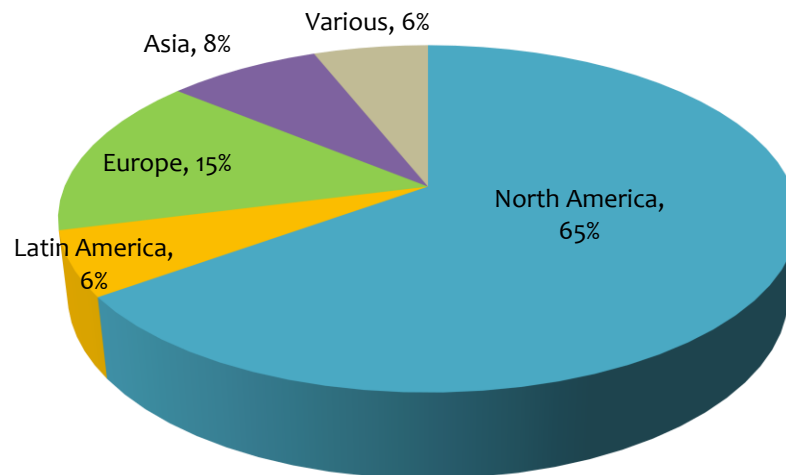
- SCERS made no new commitments to Real Assets funds in Q2
 - SCERS committed \$36 million to an infrastructure fund and \$40 million to a diversified energy fund in Q3 2024
- \$21.1 million in new contributions, \$33.6 million in distributions
- Total portfolio gain increased by \$26.3 million while the total portfolio IRR declined by 0.02%

Real Assets Portfolio Exposures as of June 30, 2024

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	9,174	63,804	86%	18,749	49,594	68,343	4,539	2.08%		1.07x
Energy and Power	527,500	108,649	484,772	79%	423,146	300,689	723,836	239,063	12.78%		1.49x
Infrastructure	942,909	252,066	743,675	73%	260,003	753,524	1,013,527	269,852	9.96%		1.36x
Real Asset Debt	100,000	84,789	36,169	15%	45,101	0	45,101	8,932	10.27%		1.25x
Portfolio Total :	1,635,409	454,679	1,328,420	72%	746,999	1,103,807	1,850,806	522,387	10.77%	7.90%	1.39x

* Exposures are based on the market values of investments as of 6/30/24.

Real Assets Portfolio Performance Details – as of June 30, 2024

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 and Power	33,000	1,284	37,997	96%	50,158	7,611	57,769	19,772	10.95%	3.94%	1.52x
Vintage Year 2013 Total		33,000	1,284	37,997	96%	50,158	7,611	57,769	19,772	10.95%		1.52x
Vintage Year 2014												
Carlyle Power Partners II, L.P.	Energy and Power	40,000	4,248	49,748	89%	36,937	37,474	74,411	24,663	10.06%	8.51%	1.50x
EnCap Flatrock Midstream III	Energy and Power	20,000	589	23,863	97%	23,001	10,613	33,614	9,751	9.90%	8.51%	1.41x
Global Energy & Power Infrastructure Fund II	Energy and Power	35,000	1,044	39,140	97%	38,851	8,650	47,501	8,362	9.94%	8.51%	1.21x
Quantum Energy Partners VI, LP	Energy and Power	35,000	7,322	33,841	79%	58,778	14,681	73,459	39,617	21.39%	8.51%	2.17x
Pantheon SCERS SIRF MM, LLC	Infrastructure	100,000	25,118	79,182	75%	87,000	33,952	120,952	41,770	9.76%	11.01%	1.53x
Wastewater Opportunity Fund	Infrastructure	25,000	522	26,423	98%	26,304	1,077	27,381	958	0.96%	11.01%	1.04x
Vintage Year 2014 Total		255,000	38,843	252,196	85%	270,871	106,446	377,318	125,122	10.92%		1.50x
Vintage Year 2015												
ArcLight Energy Partners Fund VI	Energy and Power	40,000	5,604	42,665	86%	36,691	12,773	49,464	6,799	3.36%	8.34%	1.16x
EnCap Energy Capital Fund X, L.P.	Energy and Power	40,000	1,457	41,780	96%	57,262	28,049	85,312	43,532	16.38%	8.34%	2.04x
* 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	91,850	120,614	49%	139,054	40,823	179,877	59,263	10.46%		1.49x
Vintage Year 2016												
ACM Fund II, LLC	Agriculture	25,000	130	29,016	99%	4,581	12,633	17,215	-11,802	-11.78%	5.95%	0.59x
Brookfield Infrastructure Fund III, L.P.	Infrastructure	40,000	4,062	42,492	90%	25,199	43,402	68,601	26,109	11.89%	13.42%	1.61x
IFM Global Infrastructure Fund	Infrastructure	125,053	0	125,053	100%	47,193	167,449	214,642	89,589	10.84%	13.42%	1.72x
Vintage Year 2016 Total		190,053	4,192	196,562	98%	76,973	223,485	300,458	103,896	9.03%		1.53x
Vintage Year 2017												
Quantum Energy Partners VII, LP	Energy and Power	40,000	7,097	42,885	82%	37,584	32,922	70,506	27,622	16.43%	15.63%	1.64x
Meridiam Infrastructure North America Fund III	Infrastructure	50,000	10,696	39,304	79%	1,241	50,036	51,278	11,973	13.72%	11.12%	1.30x
Vintage Year 2017 Total		90,000	17,793	82,189	80%	38,826	82,958	121,784	39,595	15.62%		1.48x

¹ 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 June 30, 2024 (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	9,044	34,787	77%	14,168	36,961	51,128	16,341	17.77%	5.73%	1.47x
EnCap Flatrock Midstream IV, L.P.	Energy and Power	22,500	4,297	18,880	81%	9,683	13,822	23,505	4,626	8.11%	13.11%	1.25x
Tailwater Energy Fund III, LP	Energy and Power	32,000	1,074	32,981	97%	16,372	22,158	38,529	5,549	3.78%	13.11%	1.17x
ISQ Global Infrastructure Fund II	Infrastructure	50,000	5,729	62,192	89%	29,615	58,632	88,247	26,055	12.60%	14.11%	1.42x
Vintage Year 2018 Total		144,500	20,145	148,840	86%	69,838	131,572	201,410	52,570	10.24%		1.35x
Vintage Year 2019												
Tailwater Energy Fund IV, LP	Energy and Power	35,000	10,378	30,296	70%	13,875	33,262	47,137	16,841	19.81%	17.14%	1.56x
Brookfield Infrastructure Fund IV	Infrastructure	40,000	7,763	40,663	81%	14,486	41,721	56,207	15,544	12.19%	14.93%	1.38x
EQT Infrastructure IV (No.2) USD SCSp	Infrastructure	35,000	4,389	35,752	87%	6,519	42,848	49,367	13,615	10.50%	14.93%	1.38x
Vintage Year 2019 Total		110,000	22,530	106,711	80%	34,880	117,831	152,711	46,000	13.42%		1.43x
Vintage Year 2020												
NGP Royalty Partners, L.P.	Energy and Power	40,000	899	39,053	98%	41,845	24,344	66,189	27,136	46.00%	16.28%	1.69x
Vintage Year 2020 Total		40,000	899	39,053	98%	41,845	24,344	66,189	27,136	46.00%		1.69x
Vintage Year 2021												
DigitalBridge Partners II, LP	Infrastructure	35,000	6,843	32,815	80%	4,764	34,494	39,257	6,442	8.28%	13.66%	1.20x
Harrison Street Social Infrastructure Fund, L.P.	Infrastructure	100,000	0	100,000	100%	5,916	111,059	116,974	16,974	6.85%	13.66%	1.17x
ISQ Global Infrastructure Fund III (UST), L.P.	Infrastructure	50,000	26,406	23,814	47%	226	27,247	27,473	3,659	12.33%	13.66%	1.15x
Meridiam Sustainable Infrastructure Europe IV	Infrastructure	42,857	31,643	11,541	26%	769	10,646	11,415	-126	-0.67%	13.66%	0.99x
Vintage Year 2021 Total		227,857	64,892	168,170	72%	11,674	183,445	195,120	26,950	7.20%		1.16x
Vintage Year 2022												
NGP Royalty Partners II	Energy and Power	75,000	23,355	51,645	69%	2,108	54,331	56,438	4,794	N/M	N/M	1.09x
Brookfield Super-Core Infrastructure Partners	Infrastructure	100,000	0	100,000	100%	7,350	110,435	117,785	17,785	N/M	N/M	1.18x
Ridgewood Water & Strategic Infrastructure Fund II	Infrastructure	50,000	28,896	24,443	42%	3,421	20,526	23,947	-496	N/M	N/M	0.98x
Vintage Year 2022 Total		225,000	52,252	176,088	77%	12,879	185,292	198,171	22,083	N/M		1.13x

¹ 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 June 30, 2024 (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
Vintage Year 2023												
Ara Fund III Feeder, LP	Energy and Power	40,000	40,000	0	0%	0	0	0	0	N/M	N/M	N/A
Meridiam Infrastructure North America Fund IV (Domestic), LP	Infrastructure	50,000	50,000	0	0%	0	0	0	0	N/M	N/M	N/A
Vintage Year 2023 Total		90,000	90,000	0	0%	0	0	0	0	N/M		N/A
Vintage Year 2024												
KKR Asia Pacific Infrastructure Fund II	Infrastructure	50,000	50,000	0	0%	0	0	0	0	N/M	N/M	N/A
Vintage Year 2024 Total		50,000	50,000	0	0%	0	0	0	0	N/M		N/A
Portfolio Total :		1,635,409	454,679	1,328,420	72%	746,999	1,103,807	1,850,806	522,387	10.77%	7.90%	1.39x

¹ 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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