



Board of Retirement Regular Meeting

Sacramento County Employees' Retirement System

Agenda Item 14

MEETING DATE: June 20, 2024

SUBJECT: Quarterly Investment Performance Report—
Alternative Assets

SUBMITTED FOR: ☐ Consent ☐ Deliberation and Action ☒ Receive and File

RECOMMENDATION

Receive and file the performance report for the quarter ended March 31, 2024 for the Absolute Return portfolio, and the quarter ended December 31, 2023 for the Private Equity, Private Credit, and Real Assets portfolios, as presented by Cliffwater, LLC.

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 December 31, 2023.

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

SCERS ALTERNATIVE ASSETS PERFORMANCE SUMMARY
Quarter Reporting Periods Ending March 31, 2024

SCERS ASSET CLASS	Quarter*	1-Year*	3-Year*	5-Year*	Since Inception *	Since Inception Date*
SCERS Absolute Return	3.8%	8.1%	4.6%	5.6%	4.3%	Sep-04
HFRI FoF Conservative	2.2%	6.8%	3.9%	5.0%	3.9%	
HFRI FoF Composite + 1%	4.1%	10.4%	3.8%	6.0%	4.5%	
SCERS Private Equity	3.3%	5.7%	12.9%	17.8%	15.9%	Feb-08
Cambridge Private Equity/Venture Capital	2.5%	5.8%	10.9%	15.5%	13.7%	
SCERS Private Credit	1.6%	10.2%	7.8%	9.0%	8.6%	Oct-11
Credit Suisse Leveraged Loan + 2%	3.4%	15.0%	7.6%	7.6%	7.1%	
SCERS Real Assets	1.8%	5.7%	14.3%	9.7%	11.0%	Jan-13
(60%) Cambridge Private Infrastructure; (30%) Cambridge Private Energy; (10%) NCREIF Farmland	2.0%	7.1%	13.6%	8.6%	7.9%	
*Note: Periods ending 12/31/23 for Private Equity, Private Credit, and Real Assets Periods ending 3/31/24 for Absolute Return All returns are net IRR except Absoulte Return which is time-weighted						

SCERS PORTFOLIO RESULTS

For the reporting quarter ended December 31, 2023:

- SCERS' Private Equity portfolio outperformed against its benchmark, 3.3% versus 2.5%, Returns were better in the fourth quarter compared to prior quarters in Private Equity, driven by double digit returns across several funds.
- SCERS' Private Credit portfolio underperformed against its benchmark return. The increase in loan spreads due to interest rate increases resulted in valuation declines but was offset by the high cash yield earned on the underlying loans.
- SCERS' Real Assets portfolio underperformed against its benchmark, 1.8% versus 2.0%. A few of SCERS' energy and power strategies suffered in Q4 from the volatility in oil and gas prices. The top-performing funds during the quarter were in infrastructure and midstream energy.

For the reporting quarter ended March 31, 2024, SCERS' Absolute Return portfolio outperformed the HFRI Fund of Funds Conservative Index return, 3.8% versus 2.2%, led by the strong performance of systematic tactical trend exposure.

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

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- Top performing funds:
 - Absolute Return:
 - Graham Global Investment Fund II (Macro-Systematic): +17.1%
 - Marshall Wace Funds (Equity Long/Short): +5.9%
 - Grosvenor SC Absolute Return Fund (Fund-of-Funds): +5.8%
 - Private Equity portfolio:
 - Khosla Ventures VI (Venture Capital): +28.4%
 - RRJ Capital Master Fund II (Buyout): +26.5%
 - Wayzata Opportunities Fund III (Distressed Debt): +21.5%
 - Linden Capital Partners IV (Buyout): +14.2%
 - Khosla Ventures IV (Venture Capital): +14.2%
 - Private Credit portfolio:
 - Athyrium Opportunities Fund II (Opportunistic Lending): +13.9%
 - MCP Private Capital Fund IV (Direct Lending): +7.3%
 - Silver Point Specialty Credit Fund III (Direct Lending): +4.0%
 - Real Assets portfolio:
 - Meridiam Infrastructure North America Fund III (Infrastructure): +11.9%
 - Tailwater Energy Fund IV (Energy and Power): +10.5%
 - Meridiam Sustainable Infrastructure Europe IV (Infrastructure): +9.7%
 - Bottom performing funds:
 - Absolute Return portfolio:
 - Grosvenor SC Absolute Return Fund (Growth): -1.5%
 - PSquared US Feeder Fund LP (Event Driven): -0.2%
 - Tudor BVI Global Fund (Macro Discretionary): +0.3%
 - Laurion Capital (Market Neutral): +0.4%
 - Private Equity portfolio:
 - WPEF VI Feeder (Buyout): -32.2%
 - Trinity Ventures XII (Venture Capital): -16.3%

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- RRJ Capital Master Fund III (Buyout): -11.6%
 - Private Credit portfolio:
 - Summit Partners Credit Fund II (Direct Lending): -28.7%
 - Summit Partners Credit Fund III (Direct Lending): -3.8%
 - OrbiMed Royalty & Credit Opportunities III (Opportunistic Lending): -0.3%
 - Real Assets portfolio:
 - Wastewater Opportunity Fund (Infrastructure): -27.0%
 - EnCap Energy Capital Fund IX (Energy and Power): -10.8%
 - Quantum Energy Partners VI (Energy and Power): -7.3%
 - ACM Fund II (Agriculture): -6.4%

NEW INVESTMENTS

During the quarter ended March 31, 2024, SCERS made the following new commitment:

- Shamrock Capital Growth Fund VI (Private Equity – Growth): \$40 million

During the second quarter, SCERS made the following new commitment:

- SKY Leasing Fund VI (Private Credit – Opportunistic): \$40 million

ATTACHMENTS

- Board Order
- Cliffwater's Quarterly Performance Review for Alternative Assets for the Quarter ended March 31, 2024

Prepared by:

/s/

Abel Pendergrass
Retirement Investment Analyst

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
June 20, 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 quarter ended March 31, 2024 for the Absolute Return portfolio, and the quarter ended December 31, 2023 for the Private Equity, Private Credit, and Real Assets portfolios, as presented by Cliffwater, LLC.

I HEREBY CERTIFY that the above order was passed and adopted on June 20, 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



I N V E S T M E N T A D V I S O R Y S E R V I C E S

Los Angeles • New York

Sacramento County Employees' Retirement System Quarterly Performance Review

June 20, 2024

Absolute Return Portfolio Performance Summary – as of March 31, 2024

Diversifying Strategies

- The Diversifying Portfolio returned 3.89% in Q1 and 7.00% for the FYTD period ending March 31, 2024
 - Outperformed the HFRI Conservative FoF Index benchmark by 172 bps in Q1 and 133 bps for the FYTD period
 - Also above the T-bills + 2% long term objective by 126 bps (annualized) over the trailing 5-year period
- Graham Tactical Trend (+17.10%), MW Global Opps (+5.94%) and the Grosvenor portfolio (+5.78%) led performance in Q1
 - Psquared (-0.19%) was the only negative performer in Q1
- The Grosvenor portfolio (+9.80%), MW Global Opps (+9.51%), Davidson Kempner (+7.07%), and Elliott (6.91%) provided the best performance over the FYTD period
 - Each of the Diversifying Portfolio funds produced positive returns over the FYTD 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 \$7.2 million at March 31, 2024
- The Growth Oriented Portfolio returned -1.50% in Q1 and 0.12% for the FYTD period ending March 31, 2024

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 3.30% compared to the ACWI standard deviation of 14.16% 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 March 31, 2024

Fund	Market Value	Actual %	Mar	QTD	YTD	Returns FYTD	1 Year	3 Year	5 Year	Incep	Std Dev	Sharpe Ratio	Incep Date
Diversifying Portfolio													
Market Neutral													
Aristeia Partners, L.P.	53,393,184	6.2%	-0.07%	1.03%	1.03%	4.51%	5.91%	4.47%	-	5.40%	4.00%	0.61	Jan-21
Laurion Capital, Ltd.	62,419,647	7.3%	0.92%	0.42%	0.42%	5.04%	4.08%	-0.37%	9.34%	7.62%	9.52%	0.64	Mar-14
Market Neutral - HF Total	115,812,831	13.6%	0.46%	0.71%	0.71%	4.12%	4.29%	4.28%	4.78%	5.33%	5.55%	0.65	Mar-14
Event Driven													
BlackRock Event Driven Equity Fund (BILPX)	57,009,492	6.7%	0.40%	0.70%	0.70%	6.00%	5.35%	2.46%	-	4.30%	5.16%	0.38	Mar-20
Davidson Kempner Institutional Partners LP	63,859,974	7.5%	1.14%	3.18%	3.18%	7.07%	8.12%	3.91%	-	5.81%	4.47%	0.76	May-19
Elliott International Limited - Class A & B	85,852,992	10.0%	1.90%	2.41%	2.41%	6.91%	7.93%	8.54%	9.32%	8.04%	3.20%	1.92	Apr-12
PSquared US Feeder Fund LP	55,534,042	6.5%	1.54%	-0.19%	-0.19%	5.72%	3.20%	3.21%	-	2.96%	5.34%	0.09	Aug-20
Event Driven - HF Total	262,256,500	30.7%	1.31%	1.66%	1.66%	6.49%	6.38%	4.84%	6.26%	6.77%	3.24%	1.54	Apr-12
Equity Long/Short													
Marshall Wace Funds LP - MW Global Opportunities (US) Fund	62,867,795	7.4%	1.36%	5.94%	5.94%	9.51%	11.13%	6.62%	7.04%	6.91%	7.74%	0.60	Jan-19
Junto Capital Partners LP	51,228,705	6.0%	1.35%	-	-	-	-	-	-	2.46%	-	-	Feb-24
Equity Long/Short - HF Total	114,096,500	13.4%	1.36%	6.03%	6.03%	9.61%	11.23%	6.66%	7.06%	6.92%	7.74%	0.61	Apr-12
Macro-Discretionary													
Tudor BVI Global Fund LP	51,851,136	6.1%	0.32%	0.34%	0.34%	3.71%	3.52%	-	-	2.95%	2.35%	-1.02	Jan-23
Macro-Discretionary - HF Total	51,851,136	6.1%	0.32%	0.34%	0.34%	3.71%	3.52%	-7.67%	-7.67%	-1.18%	4.84%	-0.52	May-12
Macro-Systematic													
Graham Global Investment Fund II SPC Ltd. - Tactical Trend	51,602,222	6.0%	4.64%	17.10%	17.10%	3.71%	10.97%	10.64%	10.30%	5.57%	13.82%	0.30	Feb-17
Macro-Systematic - HF Total	51,602,222	6.0%	4.64%	17.10%	17.10%	3.71%	10.97%	10.64%	7.29%	4.70%	12.35%	0.26	Jan-17
Multi-Strategy													
Sculptor Domestic Partners II, L.P.	1,223,787	0.1%	0.00%	0.00%	0.00%	0.00%	0.00%	-2.03%	4.39%	5.99%	6.56%	0.69	Jan-12
Multi-Strategy - HF Total	1,223,787	0.1%	0.00%	0.00%	0.00%	0.00%	0.00%	-2.03%	1.46%	3.47%	6.35%	0.34	May-13
Fund of Funds													
Grosvenor SC Absolute Return Fund LLC (Diversifying)	250,526,792	29.3%	1.90%	5.78%	5.78%	9.80%	12.04%	5.74%	6.28%	3.25%	3.57%	0.51	Dec-11
Fund of Funds - HF Total	250,526,792	29.3%	1.90%	5.78%	5.78%	9.80%	12.04%	5.73%	6.25%	3.14%	3.44%	0.50	Dec-11
Diversifying Portfolio Total	847,369,769	99.2%	1.50%	3.89%	3.89%	7.00%	8.16%	4.67%	5.28%	3.73%	3.30%	0.68	Dec-11
HFRI FOF: Conservative Index			0.75%	2.17%	2.17%	5.67%	6.78%	3.86%	4.96%	3.88%	3.25%	0.73	Dec-11
3 Month T-Bills+2%			0.61%	1.77%	1.77%	5.51%	7.24%	4.58%	4.02%	3.13%	0.45%	-	Dec-11

Growth Oriented Absolute Return Portfolio Performance – as of March 31, 2024

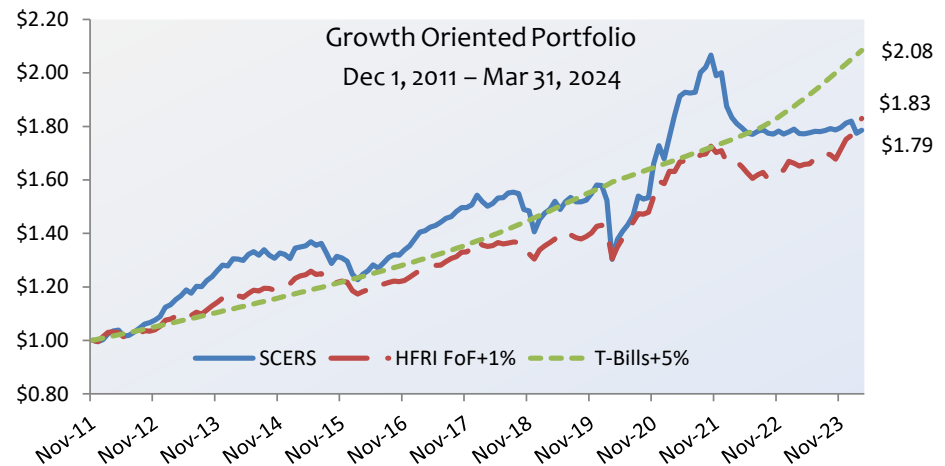
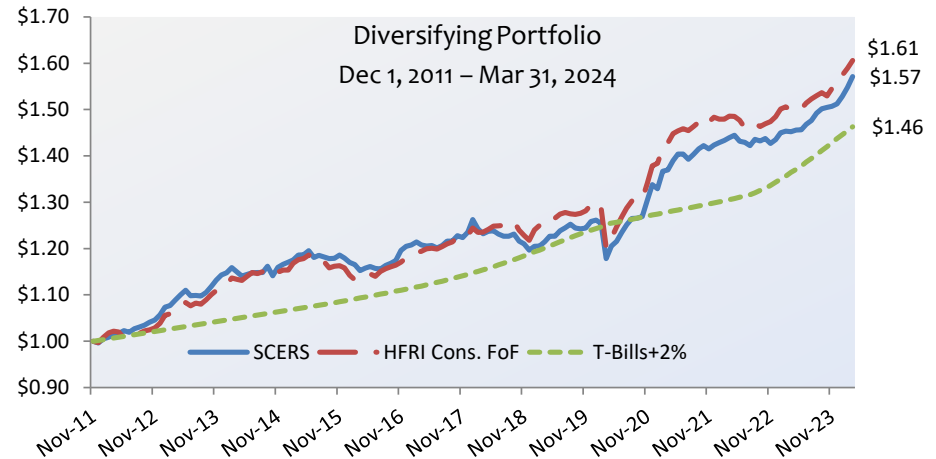
Fund	Market Value	Actual %	Returns								Std Dev	Sharpe Ratio	Incep Date
			Mar	QTD	YTD	FYTD	1 Year	3 Year	5 Year	Incep			
Growth-Oriented Portfolio													
Fund of Funds													
Grosvenor SC Absolute Return Fund LLC (Growth)	7,235,770	0.8%	0.61%	-1.50%	-1.50%	0.12%	0.56%	-0.83%	1.87%	4.13%	6.24%	0.44	Dec-11
Fund of Funds - HF Total	7,235,770	0.8%	0.61%	-1.50%	-1.50%	0.12%	0.56%	-0.83%	1.87%	3.79%	6.59%	0.31	Sep-04
Growth-Oriented Portfolio Total	7,235,770	0.8%	0.61%	-1.50%	-1.50%	0.12%	0.56%	-1.15%	3.61%	4.32%	7.66%	0.35	Sep-04
HFRI FoF Composite + 1%			1.41%	4.13%	4.13%	8.53%	10.42%	3.80%	5.96%	4.53%	5.26%	0.51	Sep-04
3 Month T-Bills+5%			0.84%	2.48%	2.48%	7.71%	10.24%	7.59%	7.02%	6.53%	0.51%	-	Sep-04
Market Indices													
SOFR 90 Day			0.44%	1.31%	1.31%	3.96%	5.19%	2.51%	1.94%	-	-	-	Sep-04
Bloomberg US Aggregate Bond Index			0.92%	-0.78%	-0.78%	2.56%	1.70%	-2.46%	0.36%	3.04%	4.12%	0.29	Sep-04
Bloomberg US High Yield Bond Index			1.18%	1.47%	1.47%	9.24%	11.15%	2.19%	4.20%	6.56%	9.20%	0.53	Sep-04
S&P 500 TR			3.22%	10.56%	10.56%	19.44%	29.88%	11.49%	15.05%	10.45%	15.04%	0.61	Sep-04
MSCI AC World Index Free - Net			3.14%	8.20%	8.20%	16.05%	23.22%	6.96%	10.92%	8.11%	15.80%	0.46	Sep-04
MSCI EAFE - Net			3.29%	5.78%	5.78%	12.01%	15.32%	4.78%	7.33%	5.93%	16.88%	0.32	Sep-04
MSCI EMF (Emerging Markets Free) - Net			2.48%	2.37%	2.37%	7.19%	8.15%	-5.05%	2.22%	7.04%	20.93%	0.34	Sep-04

Absolute Return Portfolios Cumulative Performance – March 2011 to March 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 December 31, 2023

The Private Equity portfolio's net IRR since inception is 15.90%, versus the Cambridge Associates benchmark IRR of 13.73%

- The long-term Policy objective (Russell 3000 + 3%) has a 15.70% IRR over this period

The portfolio returned 3.3% in Q4 as public equity markets rallied back sharply (ACWI +11.0%) following a Q3 downturn (-3.4%)

- Although most of the funds showed gains during the quarter, some funds continued to see markdowns in their portfolios, particularly among some of the portfolio's Non-U.S. and Venture Capital funds
 - Khosla Ventures IV & VI, Linden IV, Summit VC IV, Spectrum VIII, and TSG 7A reported the largest gains in Q4
- Distributions picked up in Q4, following a general slowdown in private equity exits seen through most of 2023
 - \$54.4 million in distributions, led by Thoma Bravo XIII & XI, Blue Owl GP Stakes III, and TOP IV

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

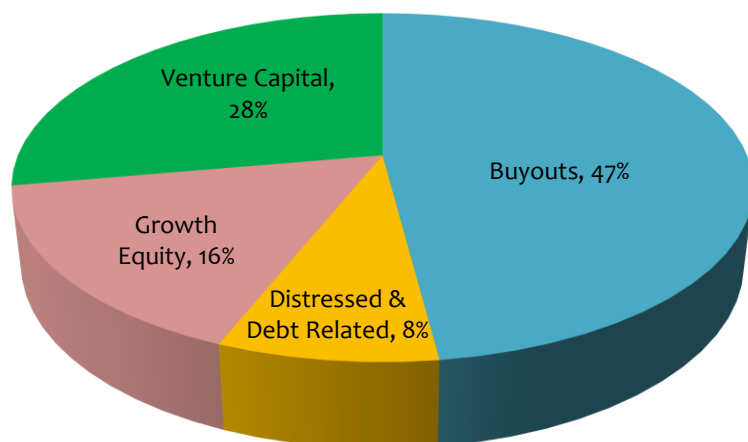
- Double-digit net IRRs for all vintage years prior to 2020, with all but one vintage year exceeding peer universes
- Summit Europe II (71.4%), AKKR IV (39.0%), Spectrum VII (37.5%), Summit VC IV (36.9%), Waterland V (35.0%), Spectrum VIII (31.8%), and AKKR Growth II (29.9%) are leading performance among SCERS' more mature funds

Changes during the quarter

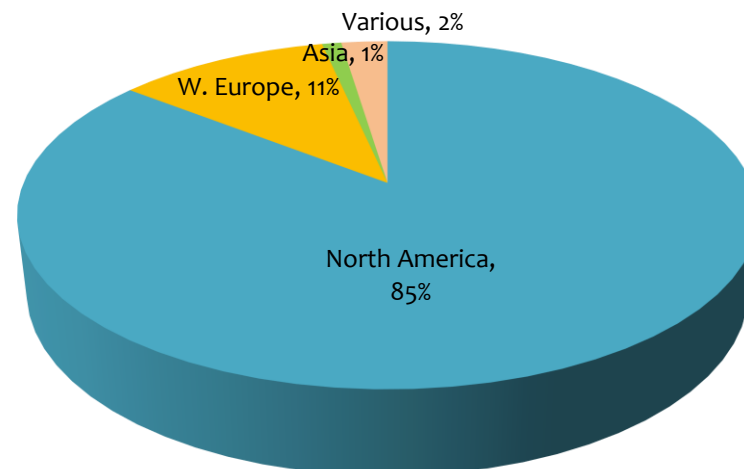
- SCERS committed \$38 MM to Wynnchurch VI (buyout, re-up) & slightly increased two existing buyout commitments in Q4
 - SCERS also committed \$40 million to a buyout fund (re-up) in Q1 2024
- \$58.2 million in new contributions, \$54.4 million in distributions
- Total portfolio gain increased by \$56.0 million while the total portfolio IRR declined by 0.03%

Private Equity Portfolio Exposures as of December 31, 2023

Private Equity Portfolio Strategy Exposure*



Private Equity Portfolio Geographic Exposure*



Portfolio Strategy Totals	(A) Commit. Amount	Unfund. Amount	(B) Cumulat. Cont.	% Drawn	(C) Cumulat. Dist.	(D) Fair Value	(C+D) Total Value	(C+D-B) Gain/Loss	Net IRR	IRR Bench.	TVPI	TVPI Bench.
Buyout	1,125,021	430,586	815,227	62%	691,773	732,053	1,423,826	608,600	20.38%		1.75x	
Distressed Debt	365,322	121,272	303,582	67%	269,194	128,584	397,779	94,197	8.74%		1.31x	
Fund of Funds	310,542	9,817	300,167	97%	388,885	128,620	517,505	217,338	11.45%		1.72x	
Growth Equity	304,860	92,539	253,306	70%	255,056	282,648	537,704	284,398	29.63%		2.12x	
Opportunistic Credit	50,000	38,048	17,061	24%	5,019	13,453	18,471	1,410	5.21%		1.08x	
Venture Capital	480,000	147,429	332,862	69%	160,063	449,291	609,354	276,492	15.07%		1.83x	
Portfolio Total :	2,635,745	839,690	2,022,204	68%	1,769,989	1,734,650	3,504,639	1,482,435	15.90%	13.73%	1.73x	

* Exposures are based on the market values of investments as of 12/31/23.

Private Equity Portfolio Performance Details – as of December 31, 2023

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%	64,035	662	64,697	28,322	10.71%	7.45%	1.78x	1.69x
* HarbourVest Partners VIII - Mezzanine and Distressed Debt Fund L.P.	Fund of Funds	5,000	0	4,800	100%	6,365	93	6,458	1,658	6.71%	7.45%	1.35x	1.69x
HarbourVest Partners VIII - Venture Fund L.P.	Fund of Funds	7,500	150	7,350	98%	14,043	2,049	16,092	8,742	11.30%	7.45%	2.19x	1.69x
Vintage Year 2006 Total		50,000	150	48,525	100%	84,442	2,804	87,247	38,722	10.53%	7.44%	1.80x	1.52x
Vintage Year 2008													
* Goldman Sachs Private Equity Partners X, L.P.	Fund of Funds	75,000	0	69,136	100%	110,473	5,413	115,886	46,750	10.50%	16.83%	1.68x	2.93x
* HarbourVest International Private Equity Partners VI-Partnership Fund L.P.	Fund of Funds	35,542	0	37,980	100%	55,859	6,382	62,241	24,261	9.23%	7.63%	1.64x	1.56x
Abbott Capital Private Equity Fund VI, L.P.	Fund of Funds	75,000	375	74,625	100%	119,378	25,206	144,584	69,959	12.71%	16.83%	1.94x	2.93x
Vintage Year 2008 Total		185,542	375	181,741	100%	285,710	37,001	322,711	140,969	11.18%	8.80%	1.78x	1.51x
Vintage Year 2011													
Waterland Private Equity Fund V C.V.	Buyout	17,661	2,851	16,278	84%	47,373	703	48,076	31,798	34.98%	9.28%	2.95x	1.53x
Khosla Ventures IV, L.P.	Venture Capital	10,000	190	9,810	98%	28,505	14,724	43,229	33,419	23.47%	15.19%	4.41x	2.46x
Vintage Year 2011 Total		27,661	3,041	26,088	89%	75,878	15,427	91,305	65,217	28.89%	12.02%	3.50x	1.84x
Vintage Year 2012													
Garrison Opportunity Fund III A LLC	Distressed Debt	20,000	0	20,000	100%	24,103	1,385	25,488	5,488	3.59%	15.36%	1.27x	1.67x
Summit Partners Venture Capital III-A, LP	Growth Equity	16,350	1,849	19,764	89%	38,234	3,435	41,669	21,905	17.42%	13.48%	2.11x	2.08x
New Enterprise Associates 14, L.P.	Venture Capital	25,000	500	24,500	98%	27,816	39,016	66,832	42,332	15.41%	15.24%	2.73x	2.26x
Vintage Year 2012 Total		61,350	2,349	64,264	96%	90,152	43,835	133,988	69,724	12.38%	12.06%	2.08x	1.82x
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%	15.48%	3.58x	1.93x
H.I.G. Capital Partners V, L.P.	Buyout	14,000	209	13,999	99%	24,322	8,466	32,788	18,789	23.08%	15.48%	2.34x	1.93x
Marlin Equity IV, L.P.	Buyout	20,000	0	20,791	100%	19,054	8,654	27,708	6,917	6.58%	15.48%	1.33x	1.93x
RRJ Capital Master Fund II, L.P.	Buyout	35,000	3,758	36,072	89%	45,415	5,310	50,725	14,653	9.16%	12.10%	1.41x	1.75x

¹ Benchmarks:

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

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

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

Private Equity Portfolio Performance Details – as of December 31, 2023 (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%	31,413	440	31,853	6,978	7.69%	8.28%	1.28x	1.35x
H.I.G. Bayside Loan Opportunity Fund III (Europe-US\$), L.P.	Distressed Debt	30,000	5,400	24,600	82%	28,963	3,481	32,443	7,844	7.17%	5.24%	1.32x	1.24x
Wayzata Opportunities Fund III, L.P.	Distressed Debt	30,000	26,593	14,718	11%	11,860	3,680	15,540	822	1.16%	8.28%	1.06x	1.35x
Trinity Ventures XI, L.P.	Venture Capital	25,000	375	24,625	99%	7,189	41,995	49,184	24,559	9.80%	14.57%	2.00x	2.43x
Vintage Year 2013 Total		194,000	37,763	175,188	81%	223,664	72,025	295,688	120,500	12.06%	12.63%	1.69x	1.80x
Vintage Year 2014													
Blue Owl GP Stakes II US Investors LP	Buyout	35,000	6,247	38,107	82%	20,499	36,438	56,936	18,829	9.38%	18.04%	1.49x	2.02x
H.I.G. Europe Capital Partners II, L.P.	Buyout	15,453	3,366	15,054	78%	11,627	10,932	22,559	7,505	10.96%	14.41%	1.50x	1.76x
Marlin Heritage Fund	Buyout	10,000	1,847	10,876	82%	20,295	3,542	23,837	12,961	29.77%	18.04%	2.19x	2.02x
Thoma Bravo XI	Buyout	30,000	3,203	32,591	89%	82,070	29,764	111,834	79,243	26.65%	18.04%	3.43x	2.02x
TPG Opportunities Partners III	Distressed Debt	40,000	11,126	50,791	72%	55,394	5,986	61,379	10,588	8.26%	8.53%	1.21x	1.42x
Spectrum Equity Investors VII, L.P.	Growth Equity	25,000	1,625	23,388	94%	62,294	35,643	97,937	74,550	37.48%	20.20%	4.19x	2.35x
Khosla Ventures V	Venture Capital	20,000	700	19,300	97%	26,668	36,991	63,659	44,359	21.71%	16.40%	3.30x	2.43x
Vintage Year 2014 Total		175,453	28,115	190,108	84%	278,846	159,296	438,143	248,035	21.99%	15.01%	2.30x	2.00x
Vintage Year 2015													
* WPEF VI Overflow Fund C.V.	Buyout	6,623	6,613	10	0%	0	0	0	-10	0.00%	15.47%	0.00x	1.83x
RRJ Capital Master Fund III, LP	Buyout	40,000	2,648	40,813	93%	36,562	7,447	44,009	3,197	3.82%	15.47%	1.08x	1.83x
WPEF VI Feeder, L.P.	Buyout	26,491	15,413	25,343	42%	30,972	16,337	47,309	21,966	19.72%	15.47%	1.87x	1.83x
Accel-KKR Growth Capital Partners II	Growth Equity	15,000	188	16,464	99%	28,263	10,365	38,629	22,165	29.93%	18.87%	2.35x	2.24x
Summit Partners Venture Capital Fund IV-A, L.P.	Growth Equity	35,000	11,255	41,245	68%	38,912	58,216	97,128	55,883	36.85%	18.87%	2.35x	2.24x
New Enterprise Associates 15, L.P.	Venture Capital	35,000	1,925	33,079	95%	33,952	27,665	61,618	28,538	11.98%	14.64%	1.86x	2.09x
Vintage Year 2015 Total		158,114	38,042	156,954	76%	168,662	120,031	288,693	131,739	18.99%	14.96%	1.84x	1.97x
Vintage Year 2016													
Accel-KKR Capital Partners V, L.P.	Buyout	25,000	0	25,788	100%	24,342	29,021	53,363	27,575	27.41%	20.71%	2.07x	2.08x
Blue Owl GP Stakes III Pension Investors L.P.	Buyout	35,000	21,596	29,463	38%	28,970	32,670	61,640	32,177	23.45%	20.71%	2.09x	2.08x
Linden Capital Partners III	Buyout	35,000	1,915	40,085	95%	64,427	30,058	94,485	54,400	27.79%	20.71%	2.36x	2.08x

¹ Benchmarks:

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

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

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

Private Equity Portfolio Performance Details – as of December 31, 2023 (continued)

Partnership Name	Strategy	(A) Commit. Amount	Unfund. Amount	(B) Cumulat. Cont.	% Drawn	(C) Cumulat. Dist.	(D) Fair Value	(C+D) Total Value	(C+D-B) Gain/Loss	Net IRR	IRR Bench.	TVPI	TVPI Bench.
Marlin Heritage Europe, L.P.	Buyout	14,349	243	14,481	98%	19,053	19,347	38,400	23,920	27.08%	13.81%	2.65x	1.75x
Thoma Bravo Fund XII, L.P.	Buyout	30,000	7,381	40,884	75%	42,132	36,649	78,780	37,896	16.80%	20.71%	1.93x	2.08x
TSG7 A L.P.	Buyout	16,000	2,755	13,245	83%	13,602	16,737	30,339	17,094	18.17%	20.71%	2.29x	2.08x
TSG7 B L.P.	Buyout	4,000	26	4,148	99%	1,749	4,023	5,772	1,624	9.55%	20.71%	1.39x	2.08x
Atalaya Special Opportunities Fund VI, L.P.	Distressed Debt	25,000	2,454	28,940	90%	40,971	1,355	42,326	13,386	13.52%	9.21%	1.46x	1.39x
Trinity Ventures XII, L.P.	Venture Capital	30,000	4,275	25,725	86%	27,145	36,352	63,497	37,772	22.17%	16.98%	2.47x	2.07x
Vintage Year 2016 Total		214,349	40,644	222,760	81%	262,391	206,212	468,603	245,843	21.58%	14.95%	2.10x	1.84x
Vintage Year 2017													
Marlin Heritage II	Buyout	10,000	0	10,581	100%	4,330	10,408	14,738	4,157	9.16%	22.06%	1.39x	2.03x
Summit Partners Europe Growth Equity Fund II, SCSP	Growth Equity	33,114	10,901	38,127	67%	58,569	51,349	109,917	71,791	71.35%	12.18%	2.88x	1.51x
New Enterprise Associates 16, L.P.	Venture Capital	35,000	3,150	31,850	91%	6,249	37,565	43,813	11,963	7.71%	19.79%	1.38x	2.06x
Vintage Year 2017 Total		78,114	14,051	80,558	82%	69,147	99,322	168,468	87,910	27.76%	17.67%	2.09x	1.82x
Vintage Year 2018													
Linden Capital Partners IV LP	Buyout	44,330	3,876	44,965	91%	19,028	60,314	79,342	34,376	24.51%	19.16%	1.76x	1.64x
Marlin Equity V	Buyout	25,000	0	25,798	100%	12,320	31,449	43,769	17,972	20.71%	19.16%	1.70x	1.64x
TSG8 L.P.	Buyout	45,000	5,412	39,702	88%	1,492	34,737	36,229	-3,473	-3.93%	19.16%	0.91x	1.64x
Davidson Kempner Long-Term Distressed Opportunities Fund IV LP	Distressed Debt	35,000	2,400	33,198	93%	43,432	18,743	62,175	28,978	17.50%	13.23%	1.87x	1.47x
TSP Opportunities Partners IV (A), L.P.	Distressed Debt	35,000	4,665	44,961	87%	28,469	26,786	55,255	10,295	11.38%	13.23%	1.23x	1.47x
RCP Fund XIII	Fund of Funds	50,000	5,598	46,902	89%	7,413	58,471	65,883	18,981	16.54%	15.28%	1.40x	1.43x
RCPDirect III	Fund of Funds	25,000	3,694	22,998	85%	11,320	30,344	41,664	18,666	21.35%	N/A	1.81x	N/A
Accel-KKR Growth Capital Partners III	Growth Equity	33,320	4,102	29,218	88%	5,394	32,480	37,874	8,656	10.25%	16.39%	1.30x	1.65x
Spectrum Equity VIII, L.P.	Growth Equity	25,000	2,500	22,500	90%	22,500	28,198	50,698	28,198	31.77%	16.39%	2.25x	1.65x
Khosla Ventures VI, L.P.	Venture Capital	35,000	1,750	33,250	95%	0	76,049	76,049	42,799	24.37%	16.48%	2.29x	1.74x
Vintage Year 2018 Total		352,650	33,997	343,491	90%	151,369	397,570	548,939	205,448	18.52%	16.10%	1.60x	1.61x
Vintage Year 2019													
Cortec Group Fund VI, L.P.	Buyout	30,000	3,770	33,685	87%	23,305	27,552	50,857	17,171	24.48%	17.68%	1.51x	1.48x

¹ Benchmarks:

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

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

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

Private Equity Portfolio Performance Details – as of December 31, 2023 (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	2,180	30,764	93%	4,044	56,369	60,413	29,649	29.89%	17.68%	1.96x	1.48x
Thoma Bravo Fund XIII, LP	Buyout	45,000	3,743	54,899	92%	37,899	66,469	104,369	49,470	27.84%	17.68%	1.90x	1.48x
New Enterprise Associates 17, L.P.	Venture Capital	25,000	4,625	20,389	82%	2,227	21,427	23,654	3,265	6.01%	11.67%	1.16x	1.36x
Threshold Ventures III, L.P.	Venture Capital	20,000	2,840	17,160	86%	0	21,288	21,288	4,128	7.93%	11.67%	1.24x	1.36x
Vintage Year 2019 Total		150,000	17,157	156,897	89%	67,475	193,105	260,581	103,684	22.94%	13.80%	1.66x	1.41x
Vintage Year 2020													
Accel-KKR Capital Partners VI, LP	Buyout	30,000	3,047	26,953	90%	0	26,953	26,953	0	0.00%	16.86%	1.00x	1.35x
Wynnchurch Capital Partners V	Buyout	20,000	6,039	14,116	70%	269	17,648	17,917	3,801	13.77%	16.86%	1.27x	1.35x
Davidson Kempner Long-Term Distressed Opportunities Fund VLP	Distressed Debt	30,000	3,083	27,670	90%	1,667	31,694	33,362	5,692	7.94%	10.33%	1.21x	1.22x
Spectrum Equity IX-A, L.P.	Growth Equity	25,000	2,688	22,313	89%	0	20,347	20,347	-1,966	-4.93%	11.74%	0.91x	1.27x
Summit Partners Europe Growth Equity Fund III, SCSp	Growth Equity	22,076	3,240	18,591	85%	0	21,490	21,490	2,899	9.63%	5.43%	1.16x	1.14x
Summit Partners Venture Capital Fund V-A, L.P.	Growth Equity	20,000	9,555	11,333	52%	888	11,199	12,087	754	3.76%	11.74%	1.07x	1.27x
Shamrock Capital Content Fund II, L.P.	Opportunistic Credit	20,000	8,845	16,264	56%	5,019	13,468	18,487	2,223	8.18%	10.74%	1.14x	1.22x
Canvas Ventures 3, L.P.	Venture Capital	20,000	7,186	12,814	64%	0	12,530	12,530	-284	-1.14%	6.74%	0.98x	1.15x
OrbiMed Private Investments VIII, LP	Venture Capital	15,000	5,935	9,338	60%	312	11,176	11,488	2,150	10.56%	6.74%	1.23x	1.15x
Vintage Year 2020 Total		202,076	49,618	159,391	75%	8,155	166,505	174,660	15,269	5.20%	9.74%	1.10x	1.22x
Vintage Year 2021													
Linden Capital Partners VLP	Buyout	30,000	13,985	16,015	53%	0	17,901	17,901	1,886	N/M	N/M	1.12x	1.17x
Shamrock Capital Growth Fund V, L.P.	Buyout	20,000	8,692	11,416	57%	107	10,759	10,867	-549	-4.03%	9.10%	0.95x	1.17x
Strategic Value Special Situations Fund V, L.P.	Distressed Debt	30,000	14,250	15,773	53%	0	19,846	19,846	4,073	14.60%	11.62%	1.26x	1.17x
CRV Select Fund I, LP	Venture Capital	20,000	2,050	17,950	90%	0	18,062	18,062	112	0.26%	-2.29%	1.01x	0.97x
CRV XMII, LP	Venture Capital	20,000	3,850	16,150	81%	0	16,677	16,677	527	1.40%	-2.29%	1.03x	0.97x
Khosla Ventures VII, L.P.	Venture Capital	20,000	5,440	14,560	73%	0	18,360	18,360	3,800	13.11%	-2.29%	1.26x	0.97x
Vintage Year 2021 Total		140,000	48,267	91,864	66%	107	101,606	101,713	9,849	5.89%	1.16%	1.11x	1.02x

¹ Benchmarks:

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

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

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

Private Equity Portfolio Performance Details – as of December 31, 2023 (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	76,880	23,120	23%	0	25,715	25,715	2,595	N/M	N/M	1.11x	1.09x
Gridiron Capital Fund V, L.P.	Buyout	35,000	20,001	14,999	43%	0	15,849	15,849	849	N/M	N/M	1.06x	1.09x
Marlin Heritage III, L.P.	Buyout	30,000	25,675	4,325	14%	0	4,085	4,085	-239	N/M	N/M	0.94x	1.09x
Oaktree Power Opportunities Fund VI	Buyout	30,000	11,566	18,854	61%	319	20,577	20,896	2,043	N/M	N/M	1.11x	1.09x
Sixth Street Opportunities Partners V (A), L.P.	Distressed Debt	30,000	14,861	18,057	50%	2,922	15,189	18,110	53	N/M	N/M	1.00x	N/A
Accel-KKR Growth Capital Partners IV	Growth Equity	30,000	19,636	10,364	35%	0	9,956	9,956	-408	N/M	N/M	0.96x	0.97x
Shamrock Capital Content Fund III, L.P.	Opportunistic Credit	30,000	29,203	797	3%	0	-16	-16	-812	N/M	N/M	-0.02x	1.09x
CRV Select Fund II, LP	Venture Capital	22,500	16,594	5,906	26%	0	5,229	5,229	-677	N/M	N/M	0.89x	0.93x
CRV XIX, LP	Venture Capital	22,500	15,919	6,581	29%	0	5,577	5,577	-1,004	N/M	N/M	0.85x	0.93x
OrbiMed Private Investments IX, LP	Venture Capital	25,000	22,000	3,000	12%	0	2,724	2,724	-276	N/M	N/M	0.91x	0.93x
Threshold Ventures IV, L.P.	Venture Capital	25,000	20,225	4,775	19%	0	4,001	4,001	-774	N/M	N/M	0.84x	0.93x
Vintage Year 2022 Total		380,000	272,560	110,777	28%	3,241	108,886	112,128	1,350	N/M	N/M	1.01x	0.96x
Vintage Year 2023													
Accel-KKR Capital Partners VII, LP	Buyout	35,000	35,000	0	0%	0	0	0	0	N/M	N/M	N/A	N/A
Cortec Group Fund VIII, L.P.	Buyout	40,000	35,122	5,601	12%	749	3,997	4,746	-855	N/M	N/M	0.85x	N/A
CVC Capital Partners IX	Buyout	33,114	33,114	0	0%	0	0	0	0	N/M	N/M	N/A	N/A
TSG9 L.P.	Buyout	30,000	24,102	5,898	20%	0	5,174	5,174	-724	N/M	N/M	0.88x	N/A
Alchemy Special Opportunities Fund V	Distressed Debt	35,322	35,322	0	0%	0	0	0	0	N/M	N/M	N/A	N/A
Spectrum Equity X-A, L.P.	Growth Equity	25,000	25,000	0	0%	0	-29	-29	-29	N/M	N/M	N/A	N/A
Khosla Ventures VIII	Venture Capital	30,000	27,900	2,100	7%	0	1,883	1,883	-217	N/M	N/M	0.90x	N/A
Vintage Year 2023 Total		228,436	215,560	13,599	6%	749	11,025	11,774	-1,825	N/M	N/M	0.87x	0.88x
Vintage Year 2024													
Wynncchurch Capital Partners VI, L.P.	Buyout	38,000	38,000	0	0%	0	0	0	0	N/M	N/M	N/A	N/A
Vintage Year 2024 Total		38,000	38,000	0	0%	0	0	0	0	N/M	N/M	N/A	N/A
Portfolio Total :		2,635,745	839,690	2,022,204	68%	1,769,989	1,734,650	3,504,639	1,482,435	15.90%	13.73%	1.73x	

¹ Benchmarks:

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

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

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

Private Credit Portfolio – as of December 31, 2023

The Private Credit portfolio's net IRR since inception is 8.63%, versus the benchmark return of 7.07%

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

The Private Credit funds reported another quarterly gain, following muted performance in the first half of 2022

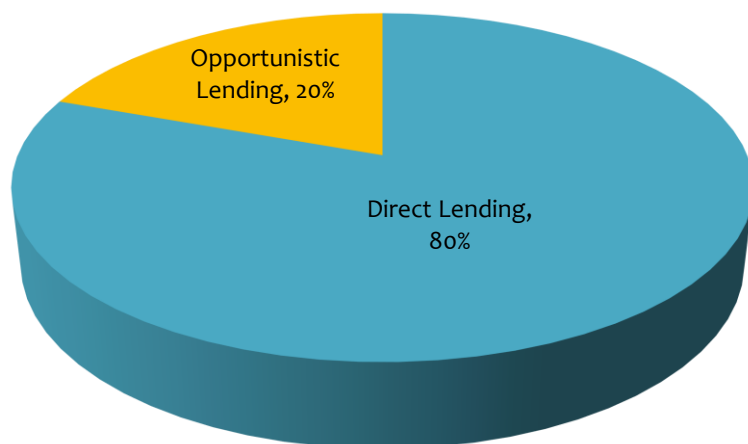
- The portfolio returned 1.6% in Q4 and 10.2% for the trailing 1-year period ending December 31, 2023
 - Most of the funds generated returns between 1% to 4% for the quarter
 - Athyrium II, MCP Private Capital IV, and Silver Point Specialty Credit III led performance in Q4
 - A significant markdown in one of the older Summit Credit funds (being wound down) limited the portfolio's overall gain in Q4
- Longer term performance remains steady despite modest sell-offs in Q1 2020 and during the first half of 2022
 - 7.8% net IRR for the 3-year period and 9.0% net IRR for the 5-year period

Changes during the quarter

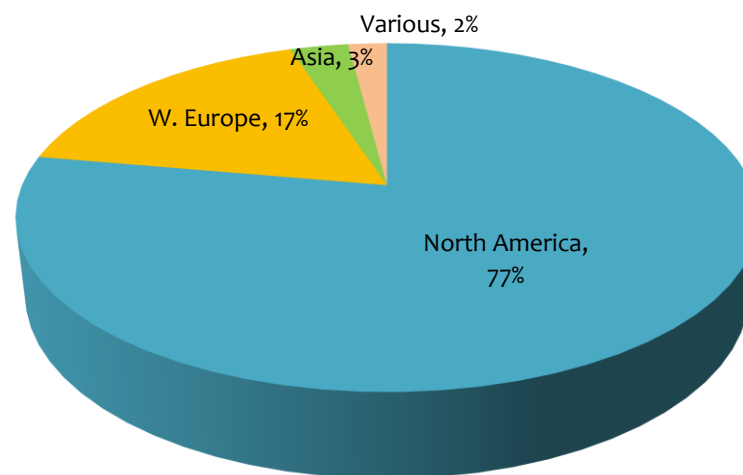
- SCERS committed \$50 million to Ares Senior Direct Lending Fund III (Direct Lending) during Q4
- \$11.7 million in new contributions, \$23.6 million in distributions
- Total portfolio gain increased by \$6.7 million while the total portfolio IRR declined by 0.12%

Private Credit Portfolio Exposures as of December 31, 2023

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	649,880	197,896	496,717	70%	262,219	342,456	604,674	107,957	8.46%		1.22x	
Opportunistic Lending	192,000	75,904	158,175	60%	106,776	82,964	189,740	31,565	9.27%		1.20x	
Portfolio Total :	841,880	273,800	654,892	67%	368,995	425,420	794,415	139,523	8.63%	7.07%	1.21x	

* Exposures are based on the market values of investments as of 12/31/23.

Private Credit Portfolio Details – as of December 31, 2023

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	82	26,871	6,174	8.86%	N/A	1.30x	N/A
Vintage Year 2011 Total		20,000	0	20,697	100%	26,789	82	26,871	6,174	8.86%	12.02%	1.30x	1.84x
Vintage Year 2014													
Summit Partners Credit Fund II, L.P.	Direct Lending	35,000	1,029	49,221	97%	47,565	7,364	54,929	5,708	3.98%	4.42%	1.12x	N/A
Vintage Year 2014 Total		35,000	1,029	49,221	97%	47,565	7,364	54,929	5,708	3.98%	15.01%	1.12x	2.00x
Vintage Year 2015													
Athyrium Opportunities Fund II	Opportunistic Lending	32,000	1,997	43,694	94%	47,445	7,966	55,411	11,718	9.43%	9.59%	1.27x	1.53x
Vintage Year 2015 Total		32,000	1,997	43,694	94%	47,445	7,966	55,411	11,718	9.43%	14.96%	1.27x	1.97x
Vintage Year 2017													
Athyrium Opportunities Fund III	Opportunistic Lending	25,000	4,944	29,902	80%	23,880	7,673	31,553	1,651	2.23%	9.69%	1.06x	1.39x
Vintage Year 2017 Total		25,000	4,944	29,902	80%	23,880	7,673	31,553	1,651	2.23%	17.67%	1.06x	1.82x
Vintage Year 2018													
Benefit Street Partners Senior Secured Opportunities Fund L.P.	Direct Lending	50,000	20,989	50,953	58%	41,977	21,950	63,927	12,974	5.95%	4.88%	1.25x	N/A
Summit Partners Credit Fund III, L.P.	Direct Lending	50,000	2,016	59,660	96%	63,084	11,241	74,325	14,665	13.53%	4.88%	1.25x	N/A
TCP Direct Lending Fund VIII-S, LLC	Direct Lending	125,000	0	125,000	100%	39,944	120,017	159,962	34,962	8.25%	4.88%	1.28x	N/A
Vintage Year 2018 Total		225,000	23,004	235,612	90%	145,006	153,208	298,214	62,602	8.31%	16.10%	1.27x	1.61x
Vintage Year 2019													
BSP Levered US SOF II (Senior Secured Opportunities) Fund L.P.	Direct Lending	50,000	13,871	38,016	72%	9,630	37,625	47,256	9,239	11.74%	5.80%	1.24x	N/A
OrbiMed Royalty & Credit Opportunities II I, LP	Opportunistic Lending	35,000	20,163	30,093	42%	21,243	16,527	37,770	7,677	18.39%	12.88%	1.26x	1.34x
Vintage Year 2019 Total		85,000	34,033	68,109	60%	30,874	54,152	85,026	16,917	14.11%	13.80%	1.25x	1.41x
Vintage Year 2020													
MCP Private Capital Fund IV (Feeder) SC	Direct Lending	34,880	10,267	24,687	71%	2,568	29,380	31,948	7,261	14.47%	5.10%	1.29x	N/A

¹ Benchmarks:

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

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

Private Credit Portfolio Details – as of December 31, 2023 (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%	10,762	34,429	45,191	8,903	11.74%	10.74%	1.25x	1.22x
Vintage Year 2020 Total		74,880	13,840	60,975	82%	13,330	63,809	77,139	16,164	12.81%	9.74%	1.27x	1.22x
Vintage Year 2021													
Ares Capital Europe V	Direct Lending	40,000	9,954	30,046	75%	4,127	32,347	36,474	6,428	12.10%	N/A	1.21x	N/A
IFM USIDF (Offshore) B Feeder	Direct Lending	75,000	35,000	53,682	53%	22,774	36,883	59,658	5,976	9.44%	5.76%	1.11x	N/A
Summit Partners Credit Fund IV, L.P.	Direct Lending	40,000	4,400	15,107	89%	2,473	15,501	17,974	2,867	13.72%	5.76%	1.19x	N/A
Shamrock Capital Debt Opportunities Fund I, L.P.	Opportunistic Lending	20,000	10,861	10,219	46%	1,080	9,743	10,823	604	7.00%	11.40%	1.06x	1.17x
Vintage Year 2021 Total		175,000	60,216	109,054	66%	30,455	94,474	124,929	15,875	10.88%	1.16%	1.15x	1.02x
Vintage Year 2022													
OrbiMed Royalty & Credit Opportunities I V, LP	Opportunistic Lending	40,000	34,366	7,979	14%	2,366	6,625	8,991	1,013	N/M	N/M	1.13x	1.09x
Vintage Year 2022 Total		40,000	34,366	7,979	14%	2,366	6,625	8,991	1,013	N/M	N/M	1.13x	0.96x
Vintage Year 2023													
Ares Senior Direct Lending Fund III	Direct Lending	50,000	50,000	0	0%	0	-3	-3	-3	N/M	N/M	N/A	N/A
Brookfield Infrastructure Debt Fund III	Direct Lending	40,000	22,341	17,740	44%	1,063	17,593	18,656	916	N/M	N/M	1.05x	N/A
Silver Point Specialty Credit Fund III, L.P.	Direct Lending	40,000	28,030	11,909	30%	223	12,475	12,698	789	N/M	N/M	1.07x	N/A
Vintage Year 2023 Total		130,000	100,371	29,649	23%	1,286	30,065	31,351	1,702	N/M	N/M	1.06x	0.88x
Portfolio Total :		841,880	273,800	654,892	67%	368,995	425,420	794,415	139,523	8.63%	7.07%	1.21x	

¹ Benchmarks:

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

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

Real Assets Portfolio – as of December 31, 2023

The Real Assets portfolio's net IRR since inception is 11.04%, versus the blended benchmark return of 7.86%

- 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 10.5% for Infrastructure and 12.6% for Energy and Power
- Performance of the Energy and Power partnerships has been somewhat 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 1.8% net return in Q4

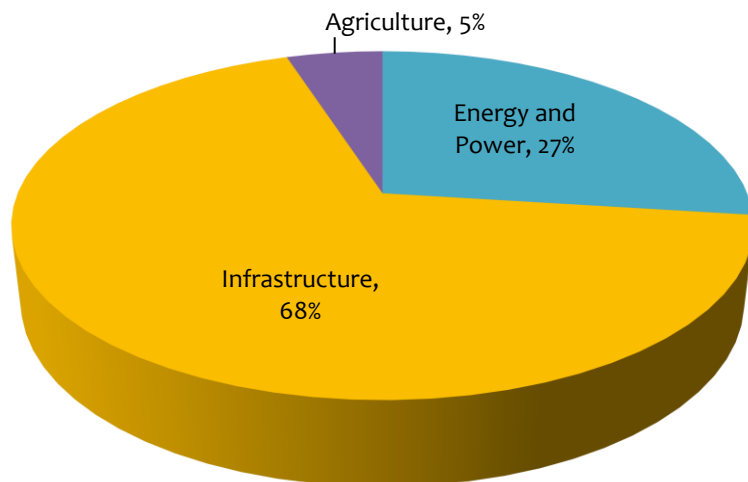
- The portfolio's Infrastructure funds generally led performance during the quarter
 - Meridiam N. America III & Sustainable Infrastructure Europe IV, Tailwater Energy III & IV, and ISQ Global Infrastructure III provided the biggest gains in Q4
- The Energy & Power funds had mixed performance in Q4, with most funds roughly flat during the quarter

Changes during the quarter

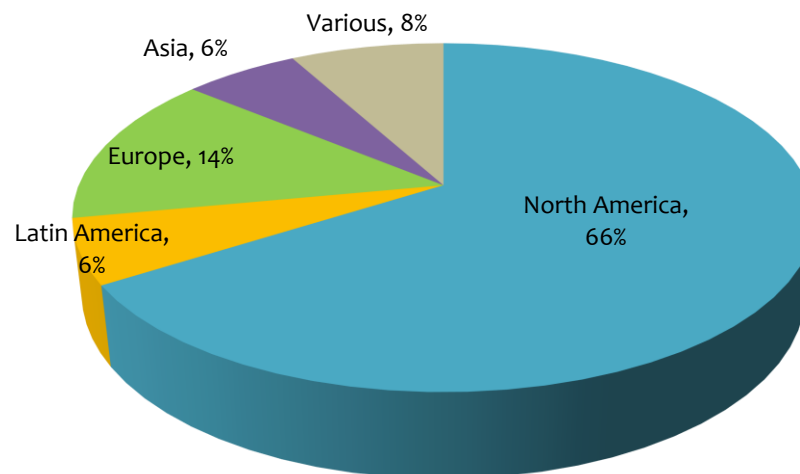
- SCERS committed \$50 million to KKR Asia Pacific Infrastructure II (non-US Infrastructure) during Q4
- \$34.6 million in new contributions, \$18.9 million in distributions
- Portfolio IRR declined by 0.16% while the total portfolio gain increased by \$18.6 million

Real Assets Portfolio Exposures as of December 31, 2023

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	9,377	63,601	86%	18,749	49,296	68,045	4,444	2.29%		1.07x
Energy and Power	527,500	130,634	458,453	75%	382,102	293,849	675,951	217,499	12.62%		1.47x
Infrastructure	944,205	260,553	723,502	72%	238,276	737,002	975,278	251,776	10.53%		1.35x
Real Asset Debt	100,000	84,789	36,169	15%	45,101	0	45,101	8,932	10.27%		1.25x
Portfolio Total :	1,636,705	485,353	1,281,725	70%	684,228	1,080,148	1,764,376	482,651	11.04%	7.86%	1.38x

* Exposures are based on the market values of investments as of 12/31/23.

Real Assets Portfolio Performance Details – as of December 31, 2023

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%	45,948	10,079	56,027	18,030	10.48%	4.01%	1.47x
Vintage Year 2013 Total		33,000	1,284	37,997	96%	45,948	10,079	56,027	18,030	10.48%		1.47x
Vintage Year 2014												
Carlyle Power Partners II, L.P.	Energy and Power	40,000	5,473	47,783	86%	31,538	38,885	70,423	22,640	10.01%	9.02%	1.47x
EnCap Flatrock Midstream III	Energy and Power	20,000	651	23,801	97%	22,343	10,822	33,165	9,364	10.00%	9.02%	1.39x
Global Energy & Power Infrastructure Fund II	Energy and Power	35,000	1,044	39,058	97%	38,851	8,767	47,618	8,560	10.46%	9.02%	1.22x
Quantum Energy Partners VI, LP	Energy and Power	35,000	7,455	33,709	79%	49,209	23,433	72,642	38,933	21.72%	9.02%	2.16x
Pantheon SCERS SIRF MM, LLC	Infrastructure	100,000	25,118	79,182	75%	87,000	37,261	124,261	45,080	10.55%	9.90%	1.57x
Wastewater Opportunity Fund	Infrastructure	25,000	522	26,423	98%	21,967	6,111	28,078	1,655	1.66%	9.90%	1.06x
Vintage Year 2014 Total		255,000	40,262	249,955	84%	250,908	125,280	376,188	126,232	11.37%		1.51x
Vintage Year 2015												
ArcLight Energy Partners Fund VI	Energy and Power	40,000	5,604	42,665	86%	35,932	13,270	49,202	6,537	3.34%	8.41%	1.15x
EnCap Energy Capital Fund X, L.P.	Energy and Power	40,000	1,579	41,659	96%	56,346	23,276	79,621	37,962	15.50%	8.41%	1.91x
* 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	91,971	120,493	49%	137,378	36,546	173,924	53,431	9.96%		1.44x
Vintage Year 2016												
ACM Fund II, LLC	Agriculture	25,000	130	29,016	99%	4,581	13,922	18,504	-10,513	-11.10%	6.26%	0.64x
Brookfield Infrastructure Fund III, L.P.	Infrastructure	40,000	4,345	42,054	89%	22,323	43,823	66,146	24,092	12.05%	10.98%	1.57x
IFM Global Infrastructure Fund	Infrastructure	125,053	0	125,053	100%	47,193	167,660	214,853	89,800	11.69%	10.98%	1.72x
Vintage Year 2016 Total		190,053	4,475	196,124	98%	74,097	225,405	299,502	103,379	9.70%		1.53x
Vintage Year 2017												
Quantum Energy Partners VII, LP	Energy and Power	40,000	5,319	41,149	87%	28,457	38,998	67,454	26,306	17.12%	15.41%	1.64x
Meridiam Infrastructure North America Fund III	Infrastructure	50,000	17,691	32,309	65%	1	42,594	42,594	10,286	15.17%	7.50%	1.32x
Vintage Year 2017 Total		90,000	23,010	73,458	74%	28,457	81,592	110,049	36,591	16.60%		1.50x

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 December 31, 2023 (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	9,247	34,585	77%	14,168	35,374	49,542	14,957	19.46%	6.13%	1.43x
EnCap Flatrock Midstream IV, L.P.	Energy and Power	22,500	4,490	18,687	80%	9,357	13,150	22,506	3,819	7.63%	11.20%	1.20x
Tailwater Energy Fund III, LP	Energy and Power	32,000	1,250	32,805	96%	16,013	22,680	38,693	5,888	4.28%	11.20%	1.18x
ISQ Global Infrastructure Fund II	Infrastructure	50,000	5,331	60,122	89%	26,628	56,644	83,272	23,149	12.84%	11.24%	1.39x
Vintage Year 2018 Total		144,500	20,318	146,199	86%	66,165	127,847	194,013	47,814	10.52%		1.33x
Vintage Year 2019												
Tailwater Energy Fund IV, LP	Energy and Power	35,000	13,155	27,519	62%	13,875	28,106	41,981	14,462	20.32%	19.29%	1.53x
Brookfield Infrastructure Fund IV	Infrastructure	40,000	3,055	39,810	92%	12,998	40,852	53,851	14,040	12.87%	10.09%	1.35x
EQT Infrastructure IV (No.2) USD SCSp	Infrastructure	35,000	5,223	34,623	85%	6,224	40,170	46,394	11,771	10.68%	10.09%	1.34x
Vintage Year 2019 Total		110,000	21,433	101,953	81%	33,098	109,128	142,226	40,273	13.84%		1.40x
Vintage Year 2020												
NGPRoyalty Partners, L.P.	Energy and Power	40,000	983	38,968	98%	33,509	29,946	63,455	24,487	48.38%	13.11%	1.63x
Vintage Year 2020 Total		40,000	983	38,968	98%	33,509	29,946	63,455	24,487	48.38%		1.63x
Vintage Year 2021												
DigitalBridge Partners II, LP	Infrastructure	35,000	3,804	35,136	89%	4,045	35,900	39,945	4,808	7.93%	14.34%	1.14x
Harrison Street Social Infrastructure Fund, L.P.	Infrastructure	100,000	0	100,000	100%	5,314	110,578	115,891	15,891	8.09%	14.34%	1.16x
ISQ Global Infrastructure Fund III (UST), L.P.	Infrastructure	50,000	30,498	19,614	39%	119	22,044	22,163	2,549	13.91%	14.34%	1.13x
Meridiam Sustainable Infrastructure Europe IV	Infrastructure	44,152	32,600	11,541	26%	609	10,616	11,225	-316	-2.38%	14.34%	0.97x
Vintage Year 2021 Total		229,152	66,902	166,292	71%	10,087	179,138	189,225	22,932	7.94%		1.14x
Vintage Year 2022												
NGPRoyalty Partners II	Energy and Power	75,000	42,348	32,652	44%	726	32,437	33,163	511	N/M	N/M	1.02x
Brookfield Super-Core Infrastructure Partners	Infrastructure	100,000	0	100,000	100%	3,855	106,211	110,065	10,065	N/M	N/M	1.10x
Ridgewood Water & Strategic Infrastructure Fund II	Infrastructure	50,000	32,366	17,634	35%	0	16,540	16,540	-1,094	N/M	N/M	0.94x
Vintage Year 2022 Total		225,000	74,714	150,286	67%	4,580	155,188	159,768	9,482	N/M		1.06x

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 December 31, 2023 (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 :		1,636,705	485,353	1,281,725	70%	684,228	1,080,148	1,764,376	482,651	11.04%	7.86%	1.38x

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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