

QUARTERLY PRIVATE EQUITY BOARD UPDATE

For the period ended June 30, 2023

Prepared at the Specific Request of:

Client:

Pennsylvania State Employees' Retirement System



TABLE OF CONTENTS

PA SERS PE Portfolio - Number of Funds and Managers/GPs.....	1
Performance Summary.....	2
Portfolio Performance vs Russell 3000	3
Portfolio Performance vs. Benchmarks.....	4
Quarterly Valuation Movement	5
Vintage Year Performance.....	6
IRR Performance by Vintage Year	6
TVM Performance by Vintage Year	6
Diversification.....	7
Fund Geographic Diversification	7
Core Portfolio Returns.....	8
Performance by Sector	8
Cash Flow Activity.....	9
Quarterly Cash Flow Activity	9
Annual Cash Flow Activity	10
Cash Flow by Sector	11
Unfunded by Vintage Year.....	12
Schedule of Investments	13
Schedule of Investments by Vintage Year	13
Schedule of Investments by Sector	23
Schedule of Legacy Private Credit Investments.....	32
Schedule of Diverse Investments.....	33
End Notes	35
Definitions.....	37

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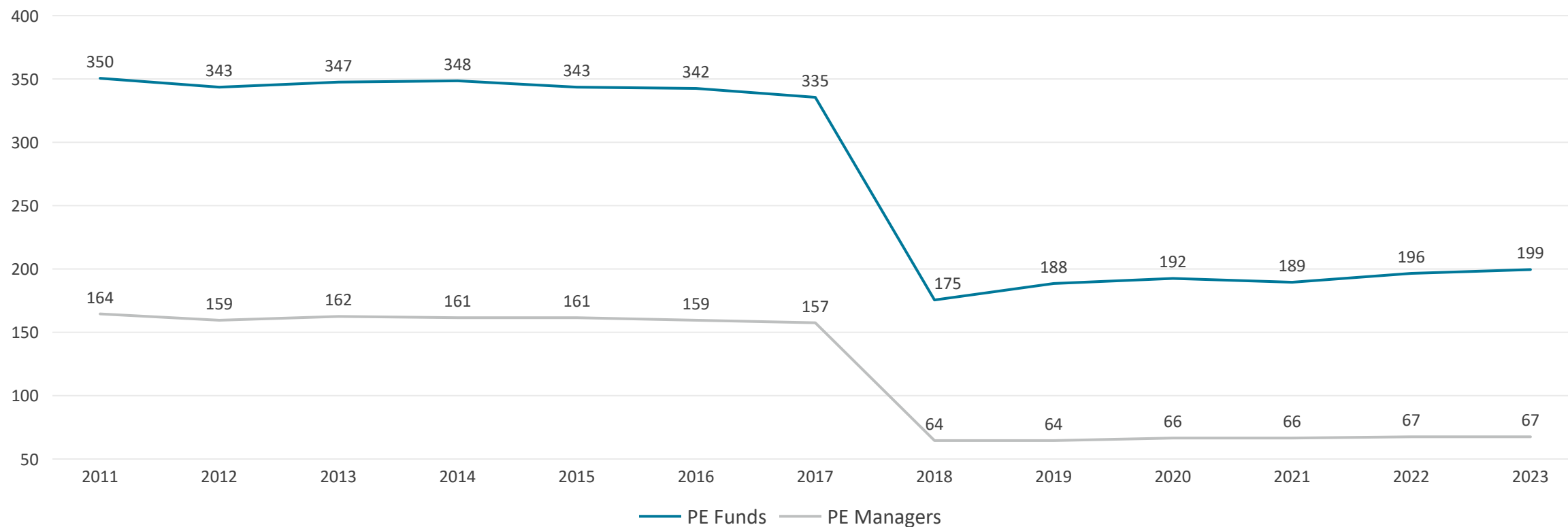
PA SERS PE PORTFOLIO - Number of Funds and Managers/GPs

StepStone Group LP (“StepStone”) was engaged by Pennsylvania State Employees’ Retirement System (“PA SERS”) to provide Private Equity services for prospective investment opportunities, as well as portfolio management.

StepStone monitors investments under the entity Pennsylvania State Employees’ Retirement System (“the Portfolio”).

PA SERS is invested in 67 active managers as of June 30, 2023.

Total Number of PA SERS’ Private Equity Funds & Managers/GPs



At the June 14, 2017 board meeting, PA SERS’ Board hired Fairview Capital to take over monitoring responsibilities for 163 funds and 93 managers/GP relationships. This active legacy management portfolio, known as Keystone Legacy Fund, became effective July 1, 2018, and is the reason for the large drop in number of private equity funds and managers/GPs in 2018 on the chart above. All 163 funds and 93 managers/GPs were collapsed into a single line item for reporting purposes.

As of June 30, 2023, the Keystone Legacy Fund has 43 funds and 29 managers/GPs.

PERFORMANCE SUMMARY

The following table illustrates the Portfolio's since inception investment performance as of June 30, 2023, as well as the quarter-over-quarter and year-over-year change.

The Portfolio is generating a since inception net IRR of 12.5% at June 30, 2023.

As of June 30, 2023. In USD millions.

PA SERS PORTFOLIO PERFORMANCE SUMMARY					
	June 30, 2023	March 31, 2023	June 30, 2022	QUARTERLY Δ	ANNUAL Δ
Committed Capital	\$21,912.7	\$21,836.9	\$21,307.5	\$75.8	\$605.1
Total Contributed (TC)	20,214.7	20,099.0	19,423.6	115.7	791.1
Unfunded Commitment	2,636.2	2,662.9	2,792.5	(26.7)	(156.3)
Total Distributed (TD)	26,481.8	26,361.6	25,869.7	120.3	612.1
Remaining Market Value (RMV)	6,904.8	6,741.3	6,388.9	163.4	515.9
Total Value (TV = TD + RMV)	\$33,386.6	\$33,102.9	\$32,258.6	\$283.7	\$1,128.0
Since Inception Gain/Loss (TV - TC)	13,171.9	13,003.9	12,834.9	168.0	337.0
Net DPI (DPI = TD / TC)	1.3x	1.3x	1.3x		
Net TVM (TVM = TV / TC)	1.7x	1.6x	1.7x		
Net IRR	12.5%	12.5%	12.6%	0.0%	(0.1%)

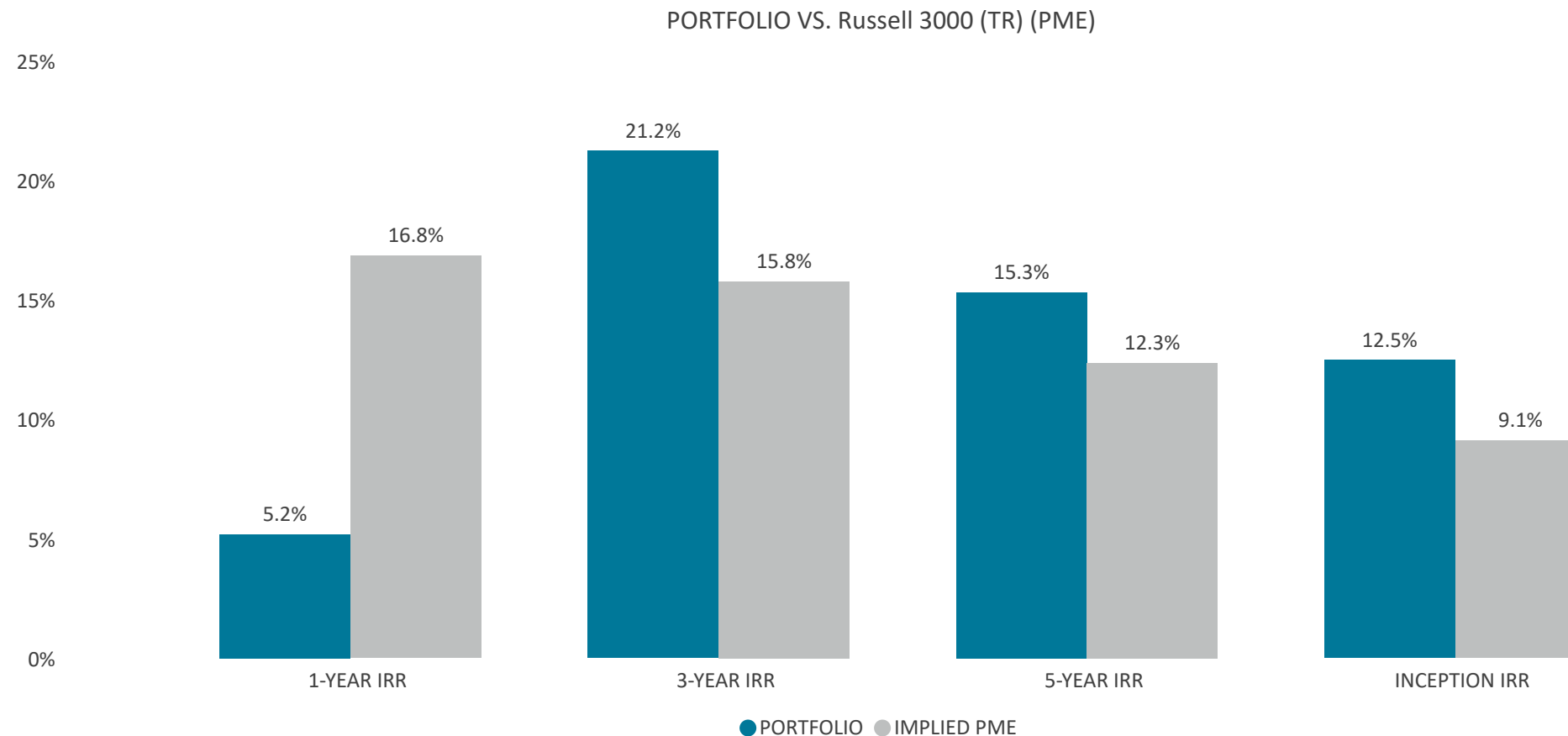
Past performance is not necessarily indicative of future results and there can be no assurance that the investment will achieve comparable results or avoid substantial losses.

IRR and TVM for certain vehicles may have been impacted by StepStone's or the underlying GPs' use of subscription-backed credit facilities by such vehicles.

Reinvested/recycled amounts increase contributed capital.

PERFORMANCE SUMMARY CONTINUED

The following table illustrates the Portfolio's point-to-point investment performance as of June 30, 2023, as well as the public market equivalent (PME) based on the Russell 3000 (TR) index.

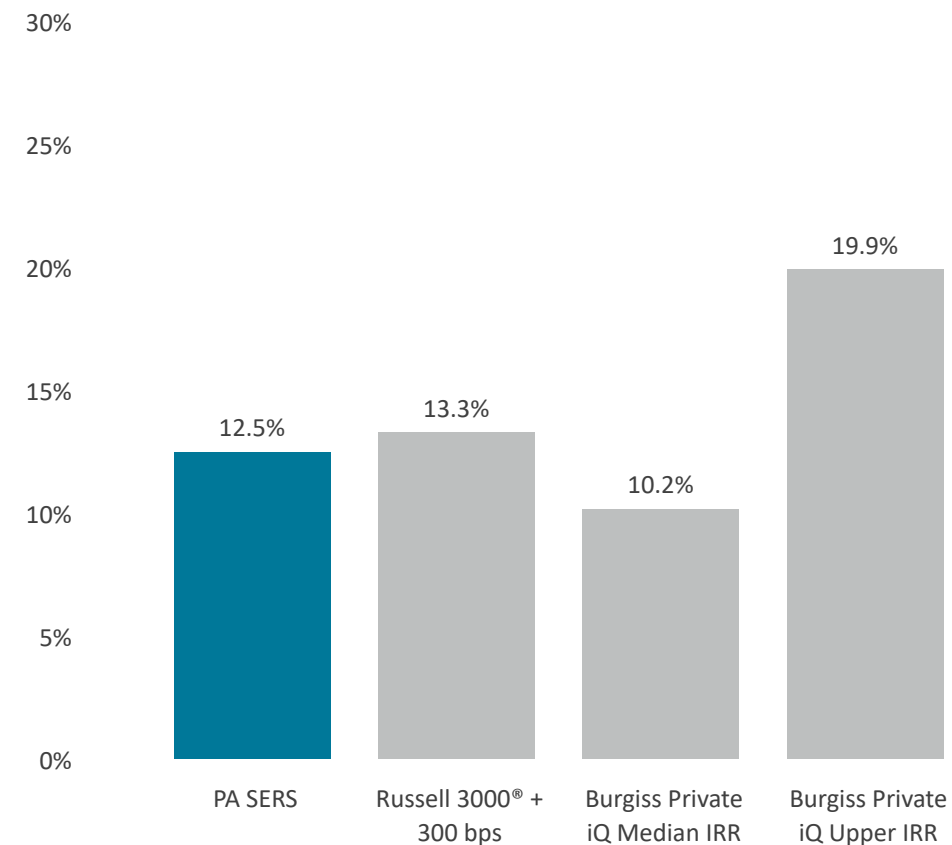


The referenced indices/benchmarks are shown for general market comparisons and are not meant to represent any particular fund. An investor cannot directly invest in an index. Moreover, indices do not reflect commissions or fees that may be charged to an investment product based on the index, which may materially affect the performance data presented.

PORTFOLIO PERFORMANCE VS. BENCHMARKS

The Portfolio's performance is measured against two benchmarks, the Russell 3000® and Burgiss Private iQ. The following graph illustrates Portfolio IRR performance versus benchmarks as of June 30, 2023.

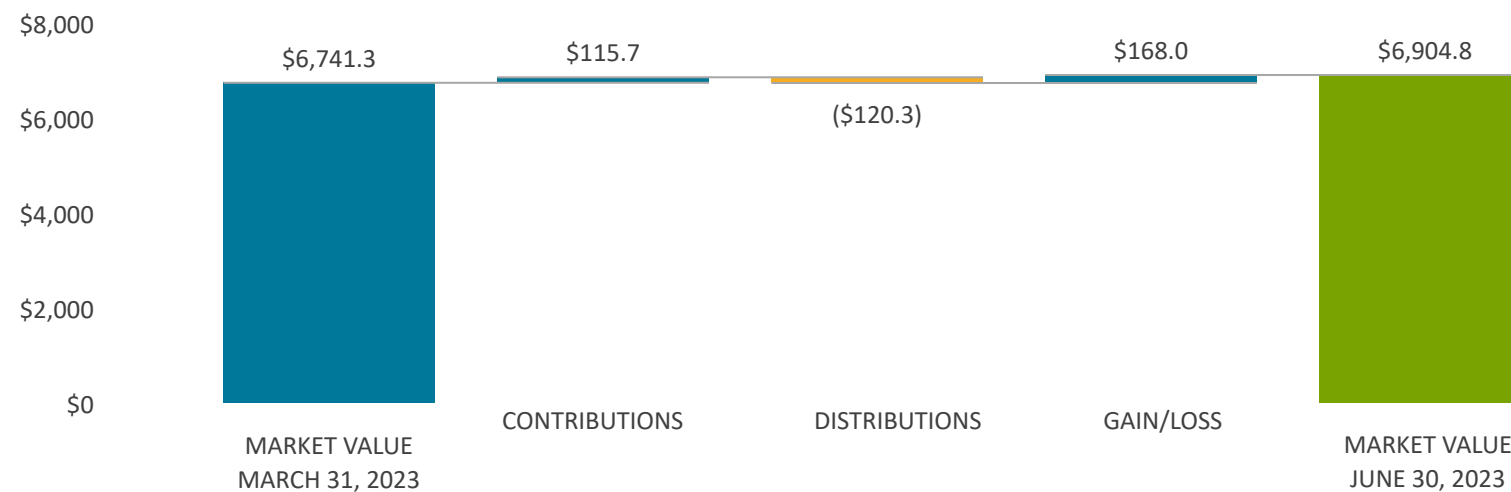
RETURNS	1 YEAR RETURN	3 YEAR RETURN	5 YEAR RETURN	10 YEAR RETURN
PA SERS Combined Portfolio (IRR)	5.2%	21.2%	15.3%	12.8%
Burgiss Private iQ Pooled PE Benchmark	2.0%	19.1%	15.2%	14.6%
Burgiss Private iQ All PE Top-Quartile	9.1%	27.2%	21.0%	20.9%
Russell 3000®	19.0%	13.9%	11.4%	12.3%
Russell 3000® + 300 bps	22.0%	16.9%	14.4%	15.3%
PA SERS Core Buyout (IRR)	6.7%	20.1%	16.1%	15.8%
Burgiss Private iQ Pooled Buyout Benchmark	6.6%	21.7%	15.7%	14.9%
Burgiss Private iQ Buyout Top-Quartile	16.3%	34.0%	24.0%	23.5%
PA SERS Core Growth Equity (IRR)	(0.8%)	31.1%	26.4%	21.5%
Burgiss Private iQ Pooled VC Benchmark	(10.0%)	18.5%	18.4%	18.5%
Burgiss Private iQ VC Top-Quartile	0.6%	27.5%	23.3%	22.7%
PA SERS Core Special Situations (IRR)	8.0%	19.1%	16.1%	11.9%
Burgiss Private iQ Pooled SS Benchmark	7.3%	11.1%	7.9%	8.3%
Burgiss Private iQ SS Top-Quartile	11.7%	15.9%	12.6%	13.0%
PA SERS Keystone Legacy Fund (IRR)	(6.6%)	14.5%	0.1%	6.5%
Burgiss Private iQ Pooled PE Benchmark	2.0%	19.1%	15.2%	14.6%
Burgiss Private iQ All PE Top-Quartile	9.1%	27.2%	21.0%	20.9%



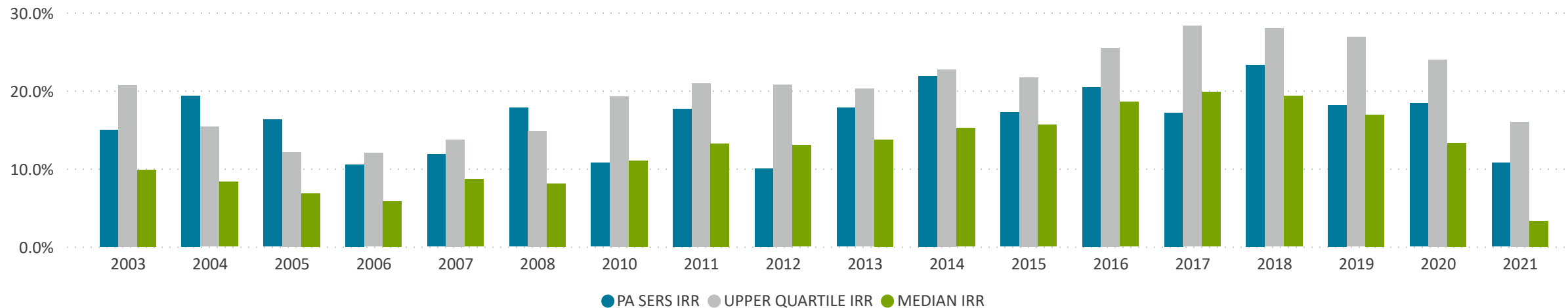
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QUARTERLY VALUATION MOVEMENT

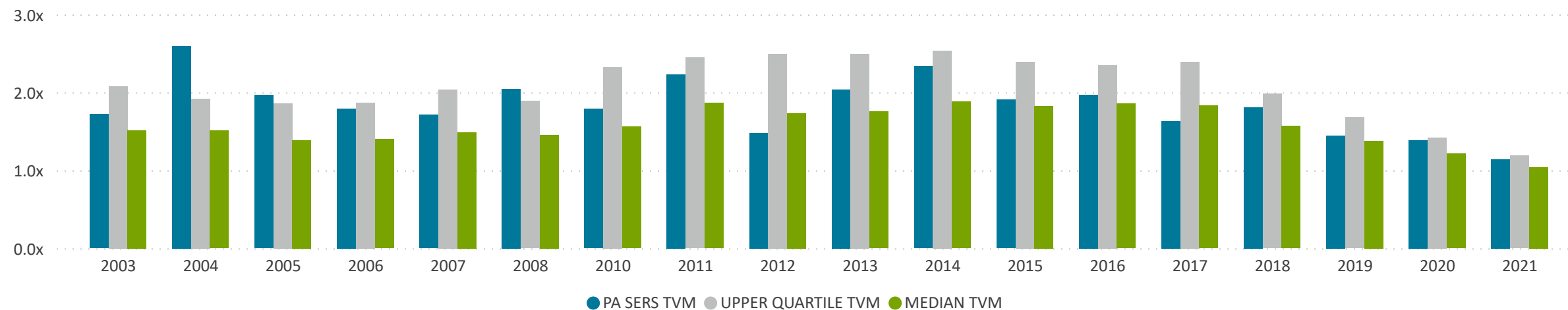
During the second quarter of 2023, the value of the Portfolio increased by \$168.0 million, or 2.5%.



IRR PERFORMANCE BY VINTAGE YEAR



TVM PERFORMANCE BY VINTAGE YEAR



FUND GEOGRAPHIC DIVERSIFICATION

As of June 30, 2023. In USD millions.

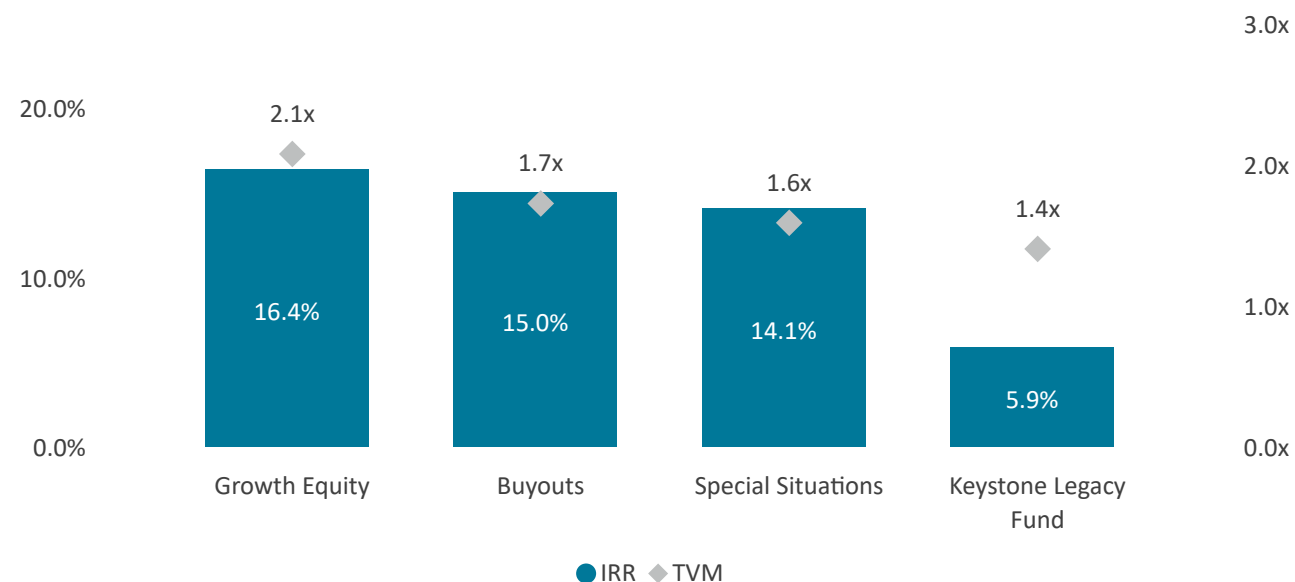
GEOGRAPHY	NAV	% OF TOTAL	UNFUNDED	% OF TOTAL	TOTAL EXPOSURE	% OF TOTAL
North America	\$4,456.4	64.5%	\$1,856.9	70.4%	\$6,313.3	66.2%
Global	\$768.8	11.1%	\$430.7	16.3%	\$1,199.5	12.6%
Europe	\$771.2	11.2%	\$227.7	8.6%	\$998.9	10.5%
Asia	\$554.8	8.0%	\$75.4	2.9%	\$630.2	6.6%
Keystone Legacy Fund	\$206.6	3.0%	\$33.9	1.3%	\$240.5	2.5%
Emerging Markets	\$146.9	2.1%	\$11.7	0.4%	\$158.6	1.7%
Total	\$6,904.8	100.0%	\$2,636.2	100.0%	\$9,540.9	100.0%

CORE PORTFOLIO PERIODIC RETURNS VS. RUSSELL 3000 INDEX

BENCHMARK	1 YEAR RETURN	3 YEAR RETURN	5 YEAR RETURN	10 YEAR RETURN	SINCE INCEPTION
PA SERS Core Portfolio (IRR)	5.6%	21.8%	18.0%	16.1%	15.3%
Russell 3000®	19.0%	13.9%	11.4%	12.3%	10.3%
Russell 3000® + 300 bps	22.0%	16.9%	14.4%	15.3%	13.3%
PA SERS Outperformance/(Underperformance)					
Russell 3000® Net	(13.3%)	7.9%	6.6%	3.7%	5.1%
Russell 3000® + 300 bps Net	(16.3%)	4.9%	3.6%	0.7%	2.1%

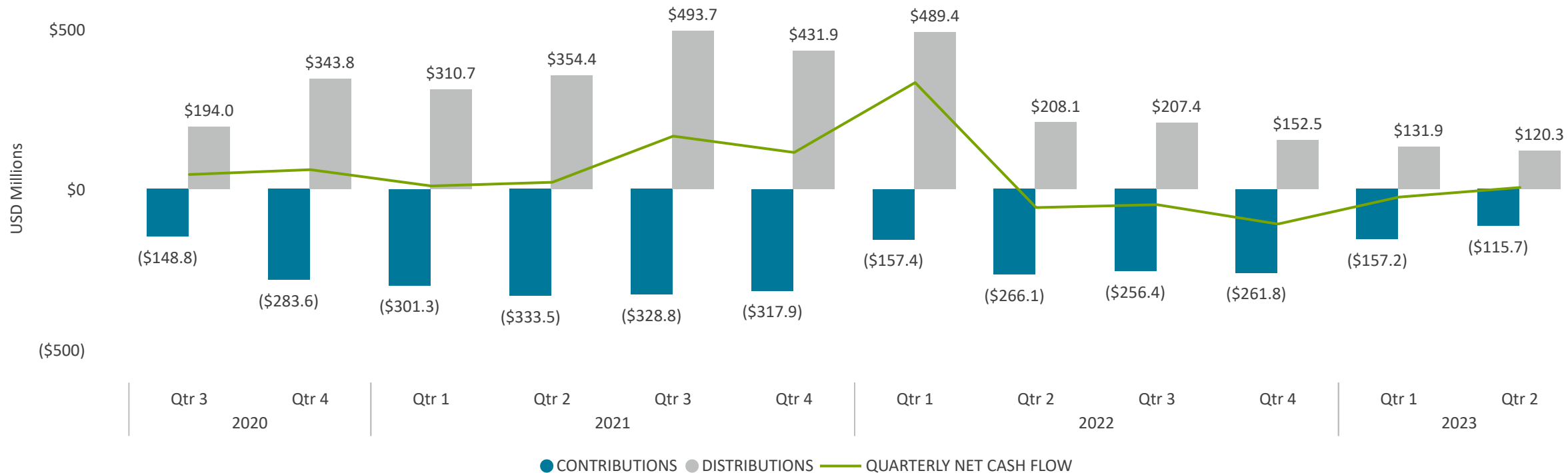
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PERFORMANCE BY SECTOR



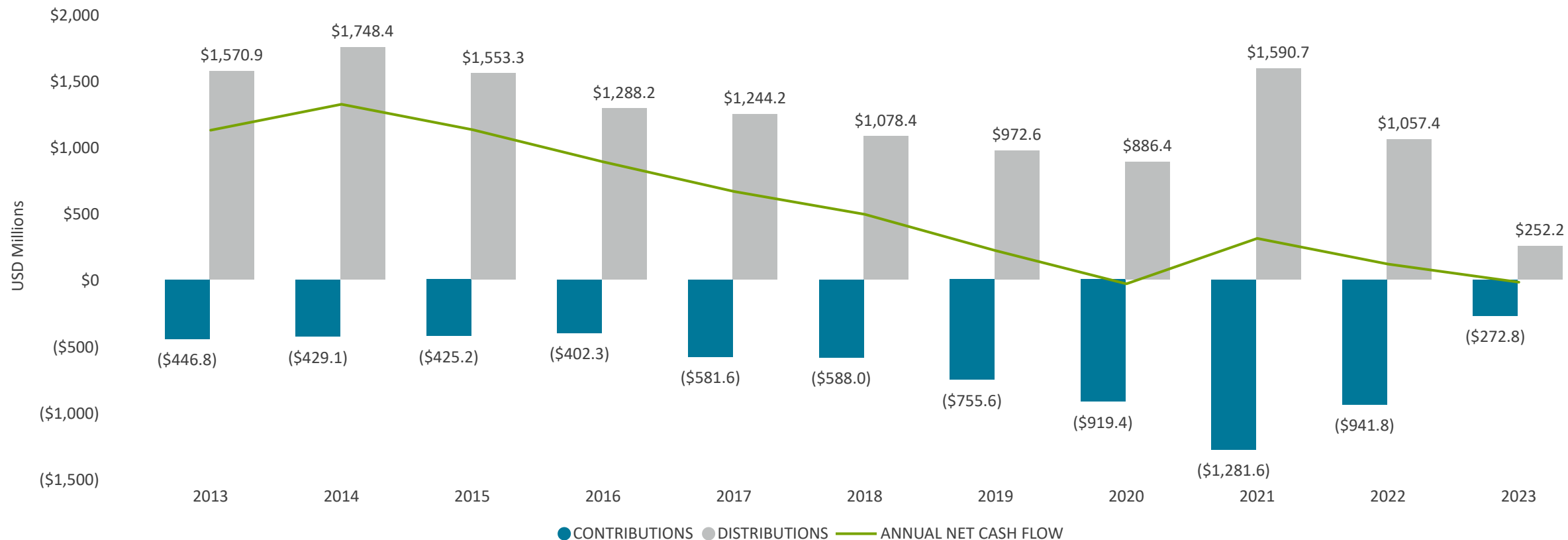
QUARTERLY CASH FLOW ACTIVITY

During the second quarter of 2023, the Portfolio contributed \$115.7 million and received \$120.3 million of distributions, for a net cash inflow of \$4.6 million.

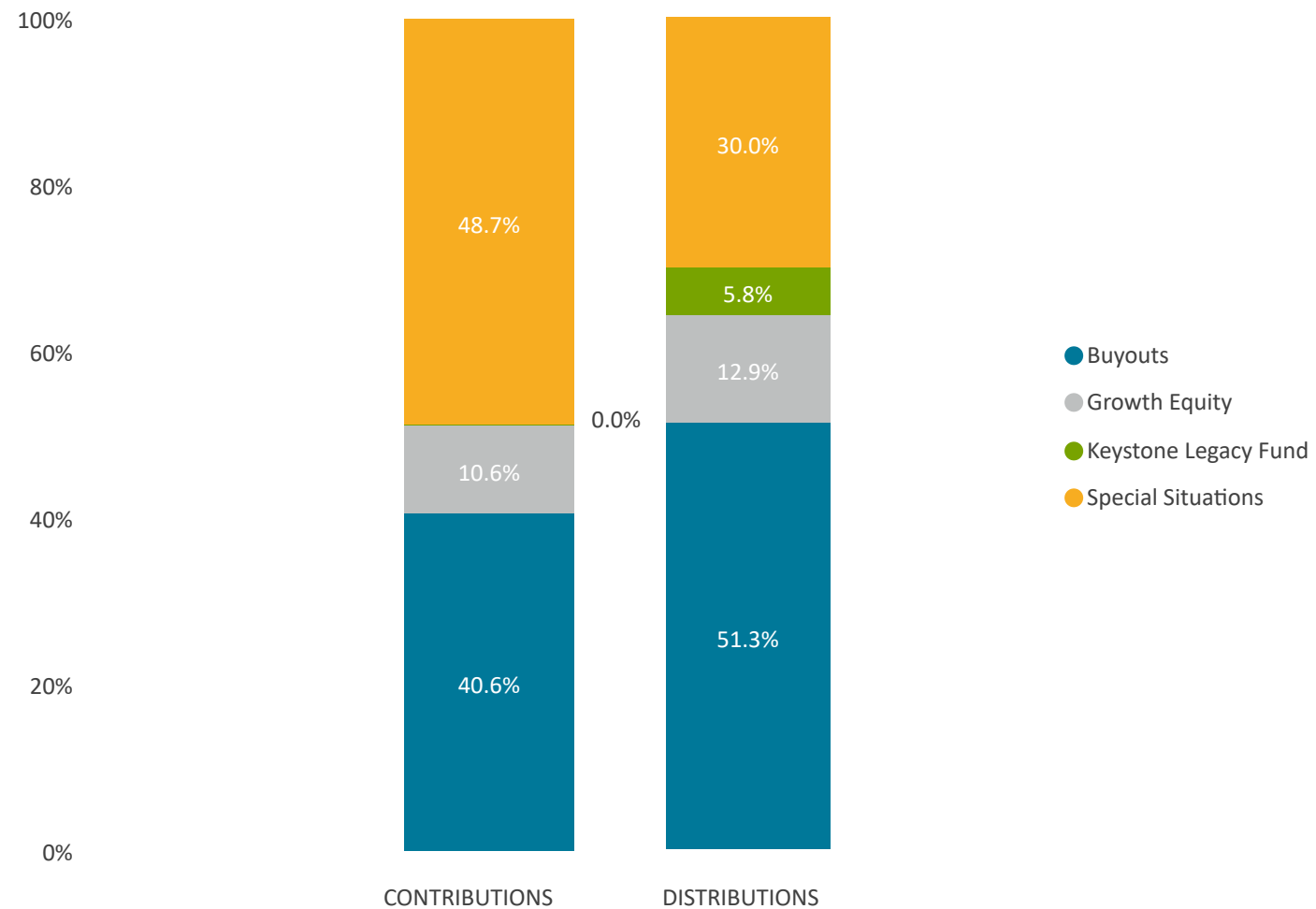


ANNUAL CASH FLOW ACTIVITY

During the six months ended June 30, 2023, the Portfolio contributed \$272.8 million and received \$252.2 million of distributions, for a net cash outflow of \$20.7 million.

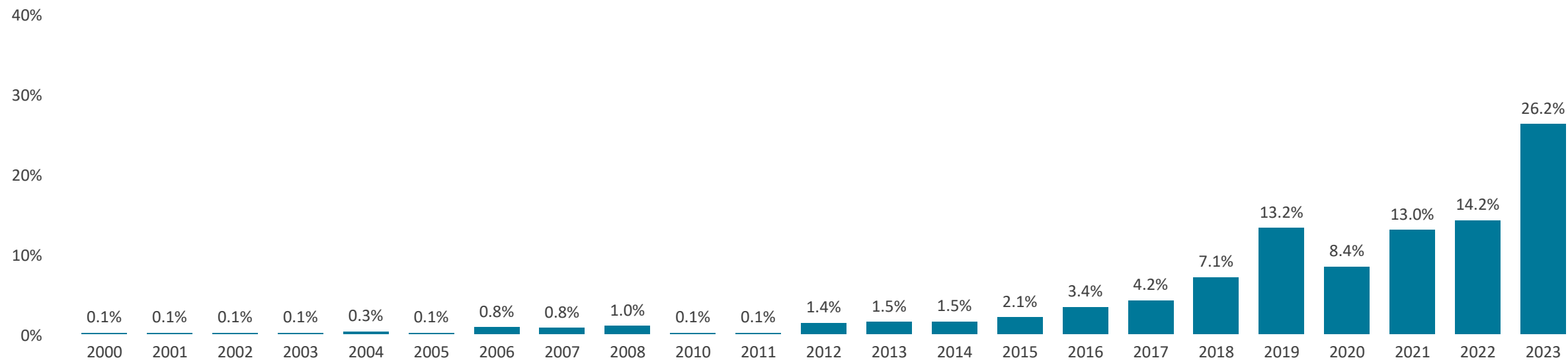


QUARTERLY CASH FLOW BY SECTOR



UNFUNDED % by VINTAGE YEAR

The following chart provides unfunded commitments by vintage year as a percentage of the Portfolio's total unfunded commitments.



SCHEDULE OF INVESTMENTS BY VINTAGE YEAR

As of June 30, 2023

VINTAGE	FUND	SECTOR	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
1997	Apollo Investment Fund IV	Buyouts	\$75,000,000	\$74,838,620	\$124,814,033	\$39,767	\$50,015,180	1.7x	8.5%	Second	Second
1997 Total			\$75,000,000	\$74,838,620	\$124,814,033	\$39,767	\$50,015,180	1.7x	8.5%	Second	Second
1998	HarbourVest IPEP III	Buyouts	40,000,000	39,400,000	61,092,165	69,242	21,761,407	1.6x	8.6%	Third	Second
1998 Total			\$40,000,000	\$39,400,000	\$61,092,165	\$69,242	\$21,761,407	1.6x	8.6%	Third	Second
1999	HarbourVest Partners VI	Growth Equity	200,000,000	196,586,055	251,227,115	378,244	55,019,304	1.3x	3.6%	First	First
1999	Lexington Capital Partners III	Special Situations	35,000,000	34,516,449	43,576,611						
1999	New Enterprise Associates IX	Growth Equity	20,000,000	19,600,000	8,739,870	434,097	(10,426,033)	0.5x	(6.0%)	Second	Third
1999 Total			\$255,000,000	\$250,702,504	\$303,543,596						
2000	Apollo Investment Fund V	Buyouts	50,000,000	44,972,146	122,673,016	424,584	78,125,454	2.7x	38.8%	First	First
2000	Audax Private Equity Fund	Buyouts	35,000,000	36,839,098	56,057,910	115,037	19,333,849	1.5x	13.1%	Second	Third
2000	Blackstone Communications Partners I	Buyouts	25,000,000	25,114,042	30,998,189	194,372	6,078,519	1.2x	6.2%	Fourth	Fourth
2000	New Enterprise Associates X	Growth Equity	35,000,000	35,028,000	39,412,034	1,384,365	5,768,399	1.2x	2.3%	Second	Second
2000	Permira European Fund II	Buyouts	45,672,612	45,672,612	91,560,959	301,284	46,189,631	2.0x	21.6%	First	First
2000	Providence Equity Partners IV	Buyouts	25,000,000	23,420,840	56,065,270						
2000 Total			\$215,672,612	\$211,046,738	\$396,767,378						
2001	Blackstone Capital IV	Buyouts	69,379,875	69,119,097	193,976,664	266,771	125,124,338	2.8x	36.2%	First	First
2001	Lexington Capital Partners V	Special Situations	75,000,000	74,623,418	125,170,164						
2001 Total			\$144,379,875	\$143,742,515	\$319,146,828						
2002	Berkshire Fund VI	Buyouts	20,000,000	18,819,615	55,273,814						
2002 Total			\$20,000,000	\$18,819,615	\$55,273,814						
2003	HarbourVest Partners VII	Growth Equity	75,000,000	73,687,500	117,260,978	1,246,908	44,820,386	1.6x	6.7%	First	First
2003	Kelso VII	Buyouts	40,000,000	41,169,937	65,821,118	72,308	24,723,489	1.6x	11.4%	Third	Third
2003	New Enterprise Associates 11	Growth Equity	25,000,000	25,000,000	63,385,828	1,208,824	39,594,652	2.6x	15.3%	First	First
2003	Permira European Fund III	Buyouts	127,062,518	127,340,454	218,157,969	345,610	91,163,125	1.7x	26.1%	Second	Third

SCHEDULE OF INVESTMENTS BY VINTAGE YEAR

As of June 30, 2023

VINTAGE	FUND	SECTOR	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
2003	TPG Partners IV	Buyouts	\$27,907,484	\$27,981,463	\$58,314,713						
2003 Total			\$294,970,002	\$295,179,353	\$522,940,606						
2004	ABRY Partners V	Buyouts	45,000,000	41,752,543	84,778,199						
2004	AXA Secondary Fund III	Special Situations	26,000,000	21,737,894	37,244,706	59,815	15,566,627	1.7x	44.0%	First	Second
2004	AXA Secondary Fund III-2	Special Situations	14,000,000	11,677,210	19,062,764	41,659	7,427,212	1.6x	40.5%	First	Second
2004	Providence Equity Partners V	Buyouts	45,000,000	42,692,347	52,204,745						
2004 Total			\$130,000,000	\$117,859,994	\$193,290,413	\$458,225	\$75,888,644	1.6x	12.6%	Second	Second
2005	Apollo Investment Fund VI	Buyouts	40,000,000	38,911,805	64,467,407	720,273	26,275,874	1.7x	8.6%	Second	Second
2005	HIPEP V-Asia Pacific & Rest of World	Buyouts	30,000,000	28,245,316	38,861,957	438,955	11,055,596	1.4x	5.6%	Third	Third
2005	Lexington Capital Partners VI	Special Situations	50,000,000	53,066,325	73,905,823						
2005	Lightspeed Venture Partners VII	Growth Equity	18,000,000	18,000,000	53,968,729						
2005 Total			\$138,000,000	\$138,223,446	\$231,203,916	\$3,722,686	\$96,703,156	1.7x	8.8%	Second	Second
2006	ABRY Senior Equity II	Special Situations	30,000,000	28,400,326	45,262,542						
2006	Asia Alternatives Capital Partners	Buyouts	25,000,000	25,218,098	44,268,821	1,876,359	20,927,082	1.8x	10.9%	Second	Second
2006	AXA Secondary Fund IV	Special Situations	80,000,000	70,134,752	99,618,118	105,028	29,588,394	1.4x	8.5%	Second	Second
2006	Berkshire Fund VII	Buyouts	32,000,000	32,613,937	68,596,870						
2006	Blackstone Capital Partners V	Buyouts	150,000,000	150,114,666	250,441,731	149,760	100,476,825	1.7x	7.6%	Third	Second
2006	Centerbridge Capital Partners I	Special Situations	50,000,000	57,337,396	117,317,806	1,988,595	61,969,005	2.1x	19.2%	First	First
2006	Eureka II	Buyouts	20,000,000	21,906,935	23,437,755	5,993,674	7,524,494	1.3x	5.1%	Third	Fourth
2006	Francisco Partners II	Buyouts	30,000,000	29,383,916	48,734,237	61,084	19,411,405	1.7x	10.4%	Second	Second
2006	HarbourVest Partners VIII	Growth Equity	100,000,000	98,000,000	181,982,175	29,285,751	113,267,926	2.2x	11.1%	First	First
2006	Madison Dearborn Capital Partners V	Buyouts	63,817,077	71,571,265	116,191,907	3,033,244	47,653,886	1.7x	7.4%	Third	Second
2006	New Enterprise Associates 12	Growth Equity	35,000,000	35,631,130	48,025,951	2,703,938	15,098,759	1.4x	6.6%	Second	Second
2006	NewSpring Growth Capital II	Growth Equity	10,000,000	9,850,000	19,617,977						
2006	Permira IV	Buyouts	136,391,969	138,422,695	208,443,061	31,704,477	101,724,843	1.7x	9.1%	Second	Second

SCHEDULE OF INVESTMENTS BY VINTAGE YEAR

As of June 30, 2023

VINTAGE	FUND	SECTOR	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
2006	TPG Partners V	Buyouts	\$88,831,038	\$92,531,812	\$130,273,217	\$101,568	\$37,842,973	1.4x	4.8%	Third	Third
2006 Total			\$851,040,084	\$861,116,929	\$1,402,212,167	\$78,486,252	\$619,581,490	1.7x	9.1%	Second	Second
2007	ABRY Advanced Securities Fund	Special Situations	7,262,950	23,529,104	38,786,236						
2007	Advent Latin American Private Equity Fund IV	Buyouts	30,000,000	30,797,073	43,955,921	2,594,411	15,753,259	1.5x	8.9%	Third	Third
2007	Asia Alternatives Capital Partners II	Buyouts	29,949,500	29,099,445	66,266,629	8,101,997	45,269,181	2.6x	16.7%	First	First
2007	Audax Private Equity Fund III	Buyouts	37,000,000	42,498,691	82,716,671	606,136	40,824,117	2.0x	15.0%	Second	Second
2007	Battery Ventures VIII	Growth Equity	25,000,000	25,050,751	61,036,312						
2007	Dover Street VII	Special Situations	30,000,000	28,696,128	41,026,994	143,823	12,474,689	1.4x	9.1%	Third	Third
2007	JMI Equity Fund VI	Growth Equity	40,000,000	40,000,246	71,984,424	67,573	32,051,751	1.8x	11.6%	Second	Second
2007	Kelso VIII	Buyouts	150,000,000	146,686,760	208,554,873	6,161,016	68,029,129	1.5x	7.4%	Third	Third
2007	OCM Opportunities Fund VII	Special Situations	40,000,000	40,000,000	54,917,803						
2007	OCM Opportunities Fund VII b	Special Situations	40,000,000	36,000,000	62,330,206						
2007	Providence Equity Partners VI	Buyouts	49,976,748	54,530,937	78,145,686						
2007	TPG Asia V	Buyouts	22,500,000	21,964,311	30,075,459	1,326,485	9,437,633	1.4x	6.3%	Third	Third
2007	Weathergage Venture Capital	Growth Equity	25,000,000	22,875,000	46,144,239	11,534,615	34,803,854	2.5x	13.1%	Second	Second
2007 Total			\$526,689,198	\$541,728,446	\$885,941,452	\$37,135,996	\$381,349,002	1.7x	10.7%	Second	Second
2008	ABRY Partners VI	Buyouts	50,000,000	60,107,028	107,944,545						
2008	Advent International GPE VI-A	Buyouts	35,000,000	35,146,325	70,431,146	2,795,445	38,080,266	2.1x	16.4%	Second	First
2008	Battery Ventures VIII Side Car Fund	Growth Equity	6,768,000	6,803,790	18,828,496						
2008	Great Hill Equity Partners IV	Buyouts	25,000,000	25,125,662	61,653,900						
2008	H.I.G. Bayside Debt & LBO Fund II	Special Situations	30,000,000	31,448,253	51,691,289						
2008	Lightspeed Venture Partners VIII	Growth Equity	15,000,000	15,000,000	37,035,502						
2008	LLR Equity Partners III	Buyouts	30,000,000	29,108,722	65,280,571	625,295	36,797,144	2.3x	16.5%	Second	First
2008	Madison Dearborn Capital Partners VI	Buyouts	50,000,000	53,296,374	119,770,626	842,874	67,317,126	2.3x	23.2%	First	First
2008	TPG Partners VI	Buyouts	44,294,641	50,576,261	74,076,065	641,651	24,141,455	1.5x	9.5%	Second	Third
2008 Total			\$286,062,641	\$306,612,416	\$606,712,140	\$35,146,174	\$335,245,898	2.1x	18.4%	First	First

SCHEDULE OF INVESTMENTS BY VINTAGE YEAR

As of June 30, 2023

VINTAGE	FUND	SECTOR	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
2010	Advent Latin American Private Equity Fund V	Buyouts	\$15,000,000	\$14,430,000	\$12,224,997	\$3,489,639	\$1,284,636	1.1x	1.3%	Fourth	Fourth
2010	Avenue Special Situations Fund VI	Special Situations	20,000,000	20,068,464	21,075,410						
2010	Oaktree Power Opportunities Fund III	Buyouts	25,000,000	19,267,532	29,128,397						
2010	OCM Opportunities Fund VIII	Special Situations	12,500,000	12,583,425	18,205,746						
2010	OCM Opportunities Fund VIIIb	Special Situations	12,500,000	12,500,000	16,273,384						
2010	Weathergape Venture Capital II	Growth Equity	25,000,000	23,250,000	58,567,205	29,490,139	64,807,344	3.8x	18.6%	Second	First
2010 Total			\$110,000,000	\$102,099,421	\$155,475,138	\$39,606,922	\$92,982,639	1.9x	11.0%	Third	Second
2011	ABRY Partners VII	Buyouts	30,000,000	38,355,700	51,558,373						
2011	Asia Alternatives Korea Buyout Investors (Hahn & Co)	Buyouts	7,000,000	8,891,037	12,677,843	1,574,023	5,360,829	1.6x	10.7%	Third	Third
2011	Francisco Partners III	Buyouts	20,000,000	20,514,684	58,501,352	8,568,451	46,555,119	3.3x	23.4%	First	First
2011	H.I.G. Growth Buyouts & Equity Fund II	Buyouts	15,000,000	17,065,868	19,989,527						
2011	Insight Venture Partners VII	Growth Equity	20,000,000	22,129,992	53,377,064	17,243,823	48,490,895	3.2x	21.7%	Second	Second
2011	JMI Equity Fund VII	Growth Equity	10,000,000	9,780,000	23,216,560	1,432,430	14,868,990	2.5x	17.9%	Second	Second
2011	Meritech Capital Partners IV	Growth Equity	20,000,000	20,000,000	46,785,180						
2011 Total			\$122,000,000	\$136,737,281	\$266,105,900	\$50,075,236	\$179,443,856	2.3x	18.1%	Second	Second
2012	Advent International GPE VII-B	Buyouts	40,000,000	38,400,000	62,325,466	7,358,555	31,284,021	1.8x	13.4%	Third	Second
2012	Asia Alternatives Capital Partners III	Buyouts	50,000,000	55,595,317	74,752,558	25,211,064	44,368,305	1.8x	12.6%	Third	Second
2012	AXA Secondary Fund V B	Special Situations	75,000,000	61,682,742	97,816,150	206,785	36,340,193	1.6x	16.0%	Second	Third
2012	Carlyle Energy Mezzanine Opportunities Fund	Buyouts	50,000,000	65,670,223	40,417,028	121,471	(25,131,724)	0.6x			Fourth
2012	Penn Asia Investors	Buyouts	133,000,000	124,866,391	107,665,958	96,176,354	78,975,921	1.6x	13.1%	Third	Third
2012 Total			\$348,000,000	\$346,214,673	\$382,977,160	\$129,074,229	\$165,836,716	1.5x			Third
2013	Eureka Growth Capital III	Buyouts	20,000,000	17,210,666	40,332,770	4,855,252	27,977,356	2.6x	44.2%	First	Second
2013	FSN Capital IV	Buyouts	38,043,240	38,520,666	82,280,821						
2013	H.I.G. Bayside Loan Opp. Fund III	Special Situations	50,000,000	42,696,553	49,904,323						
2013	Incline Equity Partners III	Buyouts	15,000,000	16,006,245	41,866,592	153,708	26,014,054	2.6x	33.9%	First	Second

SCHEDULE OF INVESTMENTS BY VINTAGE YEAR

As of June 30, 2023

VINTAGE	FUND	SECTOR	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
2013	Insight Venture Partners VIII	Growth Equity	\$50,000,000	\$54,916,419	\$117,089,197	\$50,600,815	\$112,773,593	3.1x	21.1%	Second	Second
2013	LBC Credit Partners III	Special Situations	50,000,000	46,696,243	54,218,929				8.1%	Third	
2013	Oaktree Opportunities Fund IX	Special Situations	50,000,000	50,000,000	45,033,854						
2013	Platinum Equity Capital Partners III	Special Situations	50,000,000	47,126,944	89,261,319	10,117,736	52,252,111	2.1x	37.8%	First	Second
2013 Total			\$323,043,240	\$313,173,735	\$519,987,804	\$118,819,403	\$325,633,471	2.0x	17.8%	Second	Second
2014	Capvis Equity IV	Buyouts	43,076,109	46,342,729	33,984,236	31,100,329	18,741,836				
2014	GTCR Fund XI	Buyouts	25,000,000	24,775,445	54,589,100				33.5%	First	
2014	H.I.G. Europe Capital Partners II	Buyouts	24,470,048	22,568,576	17,832,358						
2014	Hahn & Company II	Buyouts	50,000,000	56,736,387	58,117,303						
2014	Horizon Impact Fund	Buyouts	50,000,000	42,649,604	61,866,043	31,650,479	50,866,918	2.2x	18.9%	Second	Second
2014	Horizon Strategic Fund - Carlyle Group	Buyouts	100,000,000	107,213,566	141,752,104	48,896,699	83,435,237	1.8x			Third
2014	KPS Special Situations Fund IV	Special Situations	25,000,000	23,891,443	36,905,051	10,976,806	23,990,414	2.0x	24.2%	First	Second
2014	LLR Equity Partners IV	Buyouts	50,000,000	45,485,764	95,308,249	22,764,764	72,587,249	2.6x	27.0%	First	First
2014	Meritech Capital Partners V	Growth Equity	23,000,000	22,540,000	153,116,461						
2014	Sentinel Capital Partners V	Buyouts	10,000,000	10,044,690	19,094,176	2,221,917	11,271,403	2.1x	20.9%	Second	Second
2014 Total			\$400,546,157	\$402,248,203	\$672,565,082	\$267,753,564	\$538,070,443	2.3x	21.8%	Second	Second
2015	ABRY Partners VIII	Buyouts	25,000,000	29,830,701	37,164,641						
2015	ADV Opportunities Fund I	Special Situations	50,000,000	62,172,519	34,985,579	44,269,926	17,082,987	1.3x	4.9%	Fourth	Fourth
2015	Advent Latin American Private Equity Fund VI	Buyouts	25,000,000	23,250,000	14,292,073	26,298,773	17,340,846	1.7x	14.9%	Third	Third
2015	Centerbridge Capital Partners III	Special Situations	30,000,000	39,554,787	37,531,996	29,134,380	27,111,589	1.7x	18.0%	Second	Third
2015	Clearlake Capital Partners IV	Special Situations	15,000,000	23,462,912	37,383,246	10,836,463	24,756,797	2.1x	29.6%	First	Second
2015	Francisco Partners IV	Buyouts	25,000,000	24,656,280	48,419,069	24,327,117	48,089,906	3.0x	27.4%	First	First
2015	H.I.G. Bayside Loan Opp. Fund IV	Special Situations	25,000,000	22,626,299	20,452,258						
2015	H.I.G. Brazil and Latin America Partners	Buyouts	50,000,000	54,008,902	16,959,822						
2015	Insight Venture Partners IX	Growth Equity	50,000,000	52,784,788	65,757,284	127,657,170	140,629,665	3.7x	25.7%	First	First

SCHEDULE OF INVESTMENTS BY VINTAGE YEAR

As of June 30, 2023

VINTAGE	FUND	SECTOR	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
2015	JMI Equity Fund VIII	Growth Equity	\$25,000,000	\$27,550,000	\$49,664,235	\$16,226,851	\$38,341,086	2.4x	28.1%	First	Second
2015	Lightspeed India Partners I	Growth Equity	15,000,000	14,137,500	2,125,958						
2015	Primavera Capital Fund II	Buyouts	50,000,000	57,656,595	24,182,607	67,050,195	33,576,207	1.6x	9.4%	Fourth	Third
2015	Ridgmont Equity Partners II	Buyouts	50,000,000	52,315,462	52,610,915	52,221,568	52,517,021	2.0x	20.8%	Second	Second
2015	RRJ Capital Master Fund III	Special Situations	50,000,000	51,015,720	45,702,378	10,326,354	5,013,012	1.1x	4.8%	Fourth	Fourth
2015 Total			\$485,000,000	\$535,022,463	\$487,232,061	\$532,911,720	\$485,121,317	1.9x	17.2%	Second	Second
2016	Advent International GPE VIII-B	Buyouts	50,000,000	50,000,000	39,372,081	64,356,814	53,728,895	2.1x	18.6%	Third	Second
2016	ASF VII B	Special Situations	100,000,000	69,005,920	53,543,609	57,138,667	41,676,356	1.6x	15.4%	Third	Third
2016	ASF VII PA Co-Invest	Special Situations	50,000,000	36,129,752	29,266,467	30,404,283	23,540,998	1.7x	16.9%	Third	Third
2016	Audax Private Equity Fund V	Buyouts	50,000,000	44,939,958	66,745,788	29,407,813	51,213,644	2.1x	24.7%	Second	Second
2016	Blackstone Capital Partners VII	Buyouts	50,000,000	53,825,281	34,359,692	49,724,461	30,258,872	1.6x	13.4%	Fourth	Fourth
2016	Hellman & Friedman Capital Partners VIII	Buyouts	50,000,000	51,472,562	27,218,400	63,025,254	38,771,092	1.8x	14.0%	Fourth	Third
2016	Providence Strategic Growth II	Growth Equity	60,000,000	79,111,569	126,221,309	59,080,649	106,190,389	2.3x	38.1%	First	Second
2016	Sterling Group Partners IV	Buyouts	20,000,000	20,452,388	16,765,338	30,304,001	26,616,951	2.3x	22.4%	Second	Second
2016	Vista Equity Partners Fund VI	Buyouts	150,000,000	189,159,528	177,979,722						
2016 Total			\$580,000,000	\$594,096,958	\$571,472,406						
2017	Asia Alternatives Capital Partners V	Buyouts	50,000,000	50,542,834	8,524,832	55,520,079	13,502,077	1.3x	9.7%	Fourth	Fourth
2017	FSN Capital V	Buyouts	80,656,920	84,506,285	23,602,863						
2017	Horizon Impact Fund B	Buyouts	100,000,000	90,500,000	26,235,000	108,557,049	44,292,049	1.5x	13.2%	Fourth	Fourth
2017	Permira VI	Buyouts	56,536,261	51,942,740	29,924,475	70,197,632	48,179,367	1.9x	17.7%	Third	Second
2017	Sixth Street TAO 4.0 (B)	Special Situations	100,000,000	98,929,730	46,561,937	85,514,180	33,146,387	1.3x	10.6%	Fourth	Fourth
2017	Wind Point Partners VIII	Buyouts	100,000,000	101,650,485	105,528,718						
2017 Total			\$487,193,181	\$478,072,075	\$240,377,825	\$538,923,593	\$301,229,343	1.6x	17.2%	Third	Third
2018	Clearlake Capital Partners V	Special Situations	55,000,000	78,562,199	99,499,341	68,826,794	89,763,936	2.1x	41.5%	First	First
2018	CVC Capital Partners VII	Buyouts	91,580,238	89,496,998	31,444,733	129,911,847	71,859,582	1.8x	23.0%	Second	First

SCHEDULE OF INVESTMENTS BY VINTAGE YEAR

As of June 30, 2023

VINTAGE	FUND	SECTOR	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
2018	GTCR Fund XII	Buyouts	\$32,500,000	\$32,302,193	\$19,642,335				24.0%	Second	
2018	Hahn & Company III	Buyouts	56,250,000	43,851,912	3,726,004						
2018	Hahn & Company III - Supplemental Fund	Buyouts	18,750,000	17,074,155	57,377						
2018	ICG Europe Fund VII	Special Situations	90,182,203	87,061,845	42,097,360	86,013,872	41,049,386	1.5x	16.6%	Third	Third
2018	Insight Venture Partners X	Growth Equity	100,000,000	104,723,487	47,440,351	213,783,019	156,499,883	2.5x	27.4%	Second	First
2018	Keystone Legacy Fund	Keystone Legacy Fund	5,516,049,176	5,592,584,757	7,617,468,687	206,647,017	2,231,530,947	1.4x	5.9%	NM	NM
2018	LLR Equity Partners V	Buyouts	75,000,000	72,090,002	24,964,251	106,499,953	59,374,201	1.8x	20.1%	Third	Second
2018	NGP XII	Buyouts	75,000,000	56,347,821	29,854,421	61,954,185	35,460,785	1.6x	16.6%	Third	Second
2018	Providence Strategic Growth III	Growth Equity	75,000,000	69,990,730	72,832,572	64,924,178	67,766,020	2.0x	28.2%	Second	Second
2018	Silver Lake Partners V	Buyouts	78,000,000	78,064,823	28,558,819	89,788,475	40,282,471	1.5x	14.0%	Fourth	Third
2018	TDR Capital IV	Buyouts	87,245,308	72,540,172	23,812,536	79,268,604	30,540,969	1.4x	17.4%	Fourth	Fourth
2018 Total			\$6,350,556,925	\$6,394,691,095	\$8,041,398,787	\$1,233,724,683	\$2,880,432,375	1.5x	6.5%	NM	NM
2019	Apollo Investment Fund IX	Buyouts	85,400,000	75,106,051	28,677,979	81,637,799	35,209,728	1.5x	22.5%	Second	Second
2019	Ares PA Opportunities Fund, L.P. - Distressed Debt	Special Situations	200,000,000	129,209,020	26,354,599	148,960,115	46,105,693	1.4x	18.9%	Second	Third
2019	ASF VIII B	Special Situations	100,000,000	53,530,868	14,448,400	66,087,319	27,004,851	1.5x	23.0%	Second	Second
2019	Audax Private Equity Fund VI	Buyouts	75,000,000	72,942,248	34,866,104	99,776,647	61,700,503	1.8x	44.7%	First	First
2019	Clearlake Opportunities Partners II	Special Situations	75,000,000	50,356,203	14,949,084	43,969,037	8,561,918	1.2x	10.1%	Third	Fourth
2019	Glendon Opportunities Fund II	Special Situations	150,000,000	127,500,000	-						
2019	KPS Special Situations Mid-Cap Fund	Special Situations	25,000,000	15,555,493	2,280,029	21,284,259	8,008,795	1.5x	22.9%	Second	Second
2019	Primavera Capital Fund III	Buyouts	75,000,000	79,789,191	9,786,901	94,043,320	24,041,030	1.3x	8.3%	Fourth	Third
2019	Sixth Street Opportunities Partners IV	Special Situations	50,000,000	40,355,923	6,798,865	46,404,769	12,847,711	1.3x	11.8%	Third	Third
2019	Sixth Street TAO Contingent (D)	Special Situations	150,000,000	90,229,514	23,713,940	94,042,261	27,526,687	1.3x	15.6%	Third	Third
2019	TCV X	Growth Equity	75,000,000	56,289,972	6,878,500	108,534,649	59,123,178	2.1x	24.9%	Second	First
2019	Thoma Bravo Fund XIII	Buyouts	75,000,000	91,498,386	45,140,596				29.4%	Second	
2019	TSG8	Buyouts	100,000,000	77,493,019	708,467	78,437,542	1,652,990	1.0x	1.0%	Fourth	Fourth

SCHEDULE OF INVESTMENTS BY VINTAGE YEAR

As of June 30, 2023

VINTAGE	FUND	SECTOR	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
2019	Vista Equity Partners Fund VII	Buyouts	\$75,000,000	\$67,395,397	\$7,157,217						
2019	Wind Point Partners IX-A	Buyouts	75,000,000	69,859,967	1,722,413						
2019 Total			\$1,385,400,000	\$1,097,111,251	\$223,483,093	\$1,364,692,267	\$491,064,110	1.4x	18.1%	Second	Second
2020	Ares PA Opportunities Fund, L.P. - Diversified Credit	Special Situations	70,000,000	47,626,360	3,118,888	NM	NM	NM	NM	NM	NM
2020	ASF VIII PA Co-Invest	Special Situations	50,000,000	24,940,129	2,644,711	28,524,477	6,229,059	1.2x	22.6%	Second	Second
2020	Clearlake Capital Partners VI	Special Situations	60,000,000	60,712,437	5,025,825	91,794,667	36,108,055	1.6x	26.2%	First	First
2020	HarbourVest PA Co-investment Fund	Buyouts	200,000,000	158,625,000	8,844,000	202,310,661	52,529,661	1.3x	15.7%	Third	Third
2020	Hellman & Friedman Capital Partners IX	Buyouts	90,000,000	90,089,378	3,017,970	122,883,762	35,812,354	1.4x	14.8%	Third	Second
2020	HPS Mezzanine Partners 2019	Special Situations	75,000,000	71,491,399	22,238,686	NM	NM	NM	NM	NM	NM
2020	ICG Europe Mid-Market Fund	Special Situations	73,880,807	49,458,294	10,290,278	55,310,215	16,142,199	1.3x	19.8%	First	Second
2020	Insight Venture Partners XI	Growth Equity	75,000,000	72,975,000	277,922	107,259,547	34,562,469	1.5x	17.1%	Second	Second
2020	KPS Special Situations Fund V	Special Situations	75,000,000	42,287,779	6,761,337	NM	NM	NM	NM	NM	NM
2020	Permira VII	Buyouts	75,909,713	72,958,617	5,589,425	71,994,356	4,625,164	1.1x	3.2%	Fourth	Fourth
2020	Providence Strategic Growth IV	Growth Equity	75,000,000	61,076,426	37,113,486	78,020,048	54,057,108	1.9x	47.0%	First	First
2020 Total			\$919,790,520	\$752,240,818	\$104,922,528	\$938,400,490	\$291,082,200	1.4x	18.4%	Second	Second
2021	Altaris Health Partners V	Buyouts	50,000,000	24,787,179	49,960	NM	NM	NM	NM	NM	NM
2021	Ares PA Opportunities Fund, L.P. - Special Situations	Special Situations	130,000,000	114,762,017	13,723,265	NM	NM	NM	NM	NM	NM
2021	Blackstone Capital Partners VIII	Buyouts	70,000,000	46,421,939	2,882,440	NM	NM	NM	NM	NM	NM
2021	CVC Capital Partners VIII	Buyouts	54,269,312	31,206,537	178,335	NM	NM	NM	NM	NM	NM
2021	Hellman & Friedman X	Buyouts	100,000,000	71,962,964	-	NM	NM	NM	NM	NM	NM
2021	Insight Partners Fund XII	Growth Equity	50,000,000	37,489,234	13,065	NM	NM	NM	NM	NM	NM
2021	LLR Equity Partners VI	Buyouts	50,000,000	38,654,212	-	NM	NM	NM	NM	NM	NM
2021	Neuberger Berman PA Co-Investment Fund	Buyouts	200,000,000	114,563,763	16,655,882	NM	NM	NM	NM	NM	NM
2021	NGP Keystone	Buyouts	25,000,000	10,150,000	-	NM	NM	NM	NM	NM	NM
2021	Permira Susquehanna Opportunities - Buyout	Buyouts	40,000,000	20,875,338	99,900	NM	NM	NM	NM	NM	NM

SCHEDULE OF INVESTMENTS BY VINTAGE YEAR

As of June 30, 2023

VINTAGE	FUND	SECTOR	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
2021	Providence Strategic Growth Europe	Growth Equity	\$71,814,818	\$55,054,878	\$9,131,958	NM	NM	NM	NM	NM	NM
2021	Providence Strategic Growth V	Growth Equity	50,000,000	29,414,848	2,826,356	NM	NM	NM	NM	NM	NM
2021	Thoma Bravo Discover Fund III	Buyouts	20,000,000	19,679,588	-	NM	NM	NM	NM	NM	NM
2021	Thoma Bravo Fund XIV	Buyouts	50,000,000	49,253,111	12	NM	NM	NM	NM	NM	NM
2021 Total			\$961,084,130	\$664,275,608	\$45,561,174	\$713,873,082	\$95,158,648	1.1x	10.7%	Second	Second
2022	ASF IX B	Special Situations	100,000,000	12,592	2,675	NM	NM	NM	NM	NM	NM
2022	Clearlake Capital Partners VII	Special Situations	100,000,000	51,373,445	2,434	NM	NM	NM	NM	NM	NM
2022	Clearlake Opportunities Partners III	Special Situations	75,000,000	8,283,377	35,959	NM	NM	NM	NM	NM	NM
2022	Sixth Street Opportunities Partners V	Special Situations	50,000,000	14,418,795	474,914	NM	NM	NM	NM	NM	NM
2022	Thoma Bravo Discover Fund IV, L.P.	Buyouts	50,000,000	16,625,874	-	NM	NM	NM	NM	NM	NM
2022	Thoma Bravo Fund XV, L.P.	Buyouts	100,000,000	67,901,182	21,669	NM	NM	NM	NM	NM	NM
2022	Veritas Capital Partners VIII, L.P.	Buyouts	100,000,000	43,159,104	20,267	NM	NM	NM	NM	NM	NM
2022 Total			\$575,000,000	\$201,774,369	\$557,918	\$204,152,978	\$2,936,527	NM	NM	NM	NM
2023	ASF IX PA Co-Invest B L.P.	Special Situations	50,000,000	5,000	-	NM	NM	NM	NM	NM	NM
2023	Francisco Partners Agility III	Buyouts	30,000,000	-	-	NM	NM	NM	NM	NM	NM
2023	Francisco Partners VII	Buyouts	100,000,000	-	-	NM	NM	NM	NM	NM	NM
2023	Francisco Partners VII PA Co-Invest	Buyouts	50,000,000	-	-	NM	NM	NM	NM	NM	NM
2023	Hellman & Friedman Capital Partners XI, L.P.	Buyouts	100,000,000	-	-	NM	NM	NM	NM	NM	NM
2023	Keystone Co-Investors Veritas VIII, L.P.	Buyouts	25,000,000	-	-	NM	NM	NM	NM	NM	NM
2023	Providence Strategic Growth Europe II, L.P.	Growth Equity	70,956,826	-	-	NM	NM	NM	NM	NM	NM
2023	Sentinel Capital Partners VII	Buyouts	100,000,000	-	-	NM	NM	NM	NM	NM	NM
2023	Sentinel Junior Capital II, L.P.	Special Situations	25,000,000	-	-	NM	NM	NM	NM	NM	NM
2023	Thoma Bravo Co-Invest Opportunities Fund XV-5, L.P.	Buyouts	50,000,000	5,274,451	-	NM	NM	NM	NM	NM	NM
2023	TSG 9	Buyouts	100,000,000	5,024,224	-	NM	NM	NM	NM	NM	NM
2023 Total			\$700,956,826	\$10,303,675	-	\$7,314,512	(\$2,989,163)	NM	NM	NM	NM

SCHEDULE OF INVESTMENTS BY VINTAGE YEAR

As of June 30, 2023

VINTAGE	FUND	SECTOR	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
Total: Active Investments			\$16,725,385,391	\$15,027,332,201	\$16,815,055,383	\$6,904,760,420	\$8,692,483,602	1.6x	9.2%	Third	Second
Total: Liquidated Investments			\$5,187,294,777	\$5,187,368,138	\$9,666,784,491	\$0	\$4,479,416,353	1.9x	16.2%	First	Second
Total: Commonwealth of Pennsylvania State Employees' Retirement System			\$21,912,680,168	\$20,214,700,338	\$26,481,839,874	\$6,904,760,420	\$13,171,899,955	1.7x	12.5%	Second	Second

SCHEDULE OF INVESTMENTS BY SECTOR

As of June 30, 2023

SECTOR	FUND	VINTAGE	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
Buyouts	ABRY Partners V	2004	\$45,000,000	\$41,752,543	\$84,778,199						
Buyouts	ABRY Partners VI	2008	50,000,000	60,107,028	107,944,545						
Buyouts	ABRY Partners VII	2011	30,000,000	38,355,700	51,558,373						
Buyouts	ABRY Partners VIII	2015	25,000,000	29,830,701	37,164,641						
Buyouts	Advent International GPE VI-A	2008	35,000,000	35,146,325	70,431,146	2,795,445	38,080,266	2.1x	16.4%	Second	First
Buyouts	Advent International GPE VII-B	2012	40,000,000	38,400,000	62,325,466	7,358,555	31,284,021	1.8x	13.4%	Third	Second
Buyouts	Advent International GPE VIII-B	2016	50,000,000	50,000,000	39,372,081	64,356,814	53,728,895	2.1x	18.6%	Third	Second
Buyouts	Advent Latin American Private Equity Fund IV	2007	30,000,000	30,797,073	43,955,921	2,594,411	15,753,259	1.5x	8.9%	Third	Third
Buyouts	Advent Latin American Private Equity Fund V	2010	15,000,000	14,430,000	12,224,997	3,489,639	1,284,636	1.1x	1.3%	Fourth	Fourth
Buyouts	Advent Latin American Private Equity Fund VI	2015	25,000,000	23,250,000	14,292,073	26,298,773	17,340,846	1.7x	14.9%	Third	Third
Buyouts	Altaris Health Partners V	2021	50,000,000	24,787,179	49,960	NM	NM	NM	NM	NM	NM
Buyouts	Apollo Investment Fund IV	1997	75,000,000	74,838,620	124,814,033	39,767	50,015,180	1.7x	8.5%	Second	Second
Buyouts	Apollo Investment Fund IX	2019	85,400,000	75,106,051	28,677,979	81,637,799	35,209,728	1.5x	22.5%	Second	Second
Buyouts	Apollo Investment Fund V	2000	50,000,000	44,972,146	122,673,016	424,584	78,125,454	2.7x	38.8%	First	First
Buyouts	Apollo Investment Fund VI	2005	40,000,000	38,911,805	64,467,407	720,273	26,275,874	1.7x	8.6%	Second	Second
Buyouts	Asia Alternatives Capital Partners	2006	25,000,000	25,218,098	44,268,821	1,876,359	20,927,082	1.8x	10.9%	Second	Second
Buyouts	Asia Alternatives Capital Partners II	2007	29,949,500	29,099,445	66,266,629	8,101,997	45,269,181	2.6x	16.7%	First	First
Buyouts	Asia Alternatives Capital Partners III	2012	50,000,000	55,595,317	74,752,558	25,211,064	44,368,305	1.8x	12.6%	Third	Second
Buyouts	Asia Alternatives Capital Partners V	2017	50,000,000	50,542,834	8,524,832	55,520,079	13,502,077	1.3x	9.7%	Fourth	Fourth
Buyouts	Asia Alternatives Korea Buyout Investors (Hahn & Co)	2011	7,000,000	8,891,037	12,677,843	1,574,023	5,360,829	1.6x	10.7%	Third	Third
Buyouts	Audax Private Equity Fund	2000	35,000,000	36,839,098	56,057,910	115,037	19,333,849	1.5x	13.1%	Second	Third
Buyouts	Audax Private Equity Fund III	2007	37,000,000	42,498,691	82,716,671	606,136	40,824,117	2.0x	15.0%	Second	Second
Buyouts	Audax Private Equity Fund V	2016	50,000,000	44,939,958	66,745,788	29,407,813	51,213,644	2.1x	24.7%	Second	Second
Buyouts	Audax Private Equity Fund VI	2019	75,000,000	72,942,248	34,866,104	99,776,647	61,700,503	1.8x	44.7%	First	First
Buyouts	Berkshire Fund VI	2002	20,000,000	18,819,615	55,273,814						

SCHEDULE OF INVESTMENTS BY SECTOR

As of June 30, 2023

SECTOR	FUND	VINTAGE	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
Buyouts	Berkshire Fund VII	2006	\$32,000,000	\$32,613,937	\$68,596,870						
Buyouts	Blackstone Capital IV	2001	69,379,875	69,119,097	193,976,664	266,771	125,124,338	2.8x	36.2%	First	First
Buyouts	Blackstone Capital Partners V	2006	150,000,000	150,114,666	250,441,731	149,760	100,476,825	1.7x	7.6%	Third	Second
Buyouts	Blackstone Capital Partners VII	2016	50,000,000	53,825,281	34,359,692	49,724,461	30,258,872	1.6x	13.4%	Fourth	Fourth
Buyouts	Blackstone Capital Partners VIII	2021	70,000,000	46,421,939	2,882,440	NM	NM	NM	NM	NM	NM
Buyouts	Blackstone Communications Partners I	2000	25,000,000	25,114,042	30,998,189	194,372	6,078,519	1.2x	6.2%	Fourth	Fourth
Buyouts	Capvis Equity IV	2014	43,076,109	46,342,729	33,984,236	31,100,329	18,741,836				
Buyouts	Carlyle Energy Mezzanine Opportunities Fund	2012	50,000,000	65,670,223	40,417,028	121,471	(25,131,724)	0.6x			Fourth
Buyouts	CVC Capital Partners VII	2018	91,580,238	89,496,998	31,444,733	129,911,847	71,859,582	1.8x	23.0%	Second	First
Buyouts	CVC Capital Partners VIII	2021	54,269,312	31,206,537	178,335	NM	NM	NM	NM	NM	NM
Buyouts	Eureka Growth Capital III	2013	20,000,000	17,210,666	40,332,770	4,855,252	27,977,356	2.6x	44.2%	First	Second
Buyouts	Eureka II	2006	20,000,000	21,906,935	23,437,755	5,993,674	7,524,494	1.3x	5.1%	Third	Fourth
Buyouts	Francisco Partners Agility III	2023	30,000,000	-	-	NM	NM	NM	NM	NM	NM
Buyouts	Francisco Partners II	2006	30,000,000	29,383,916	48,734,237	61,084	19,411,405	1.7x	10.4%	Second	Second
Buyouts	Francisco Partners III	2011	20,000,000	20,514,684	58,501,352	8,568,451	46,555,119	3.3x	23.4%	First	First
Buyouts	Francisco Partners IV	2015	25,000,000	24,656,280	48,419,069	24,327,117	48,089,906	3.0x	27.4%	First	First
Buyouts	Francisco Partners VII	2023	100,000,000	-	-	NM	NM	NM	NM	NM	NM
Buyouts	Francisco Partners VII PA Co-Invest	2023	50,000,000	-	-	NM	NM	NM	NM	NM	NM
Buyouts	FSN Capital IV	2013	38,043,240	38,520,666	82,280,821						
Buyouts	FSN Capital V	2017	80,656,920	84,506,285	23,602,863						
Buyouts	Great Hill Equity Partners IV	2008	25,000,000	25,125,662	61,653,900						
Buyouts	GTCR Fund XI	2014	25,000,000	24,775,445	54,589,100				33.5%	First	
Buyouts	GTCR Fund XII	2018	32,500,000	32,302,193	19,642,335				24.0%	Second	
Buyouts	H.I.G. Brazil and Latin America Partners	2015	50,000,000	54,008,902	16,959,822						
Buyouts	H.I.G. Europe Capital Partners II	2014	24,470,048	22,568,576	17,832,358						

SCHEDULE OF INVESTMENTS BY SECTOR

As of June 30, 2023

SECTOR	FUND	VINTAGE	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
Buyouts	H.I.G. Growth Buyouts & Equity Fund II	2011	\$15,000,000	\$17,065,868	\$19,989,527						
Buyouts	Hahn & Company II	2014	50,000,000	56,736,387	58,117,303						
Buyouts	Hahn & Company III	2018	56,250,000	43,851,912	3,726,004						
Buyouts	Hahn & Company III - Supplemental Fund	2018	18,750,000	17,074,155	57,377						
Buyouts	HarbourVest IPEP III	1998	40,000,000	39,400,000	61,092,165	69,242	21,761,407	1.6x	8.6%	Third	Second
Buyouts	HarbourVest PA Co-investment Fund	2020	200,000,000	158,625,000	8,844,000	202,310,661	52,529,661	1.3x	15.7%	Third	Third
Buyouts	Hellman & Friedman Capital Partners IX	2020	90,000,000	90,089,378	3,017,970	122,883,762	35,812,354	1.4x	14.8%	Third	Second
Buyouts	Hellman & Friedman Capital Partners VIII	2016	50,000,000	51,472,562	27,218,400	63,025,254	38,771,092	1.8x	14.0%	Fourth	Third
Buyouts	Hellman & Friedman Capital Partners XI, L.P.	2023	100,000,000	-	-	NM	NM	NM	NM	NM	NM
Buyouts	Hellman & Friedman X	2021	100,000,000	71,962,964	-	NM	NM	NM	NM	NM	NM
Buyouts	HIPEP V-Asia Pacific & Rest of World	2005	30,000,000	28,245,316	38,861,957	438,955	11,055,596	1.4x	5.6%	Third	Third
Buyouts	Horizon Impact Fund	2014	50,000,000	42,649,604	61,866,043	31,650,479	50,866,918	2.2x	18.9%	Second	Second
Buyouts	Horizon Impact Fund B	2017	100,000,000	90,500,000	26,235,000	108,557,049	44,292,049	1.5x	13.2%	Fourth	Fourth
Buyouts	Horizon Strategic Fund - Carlyle Group	2014	100,000,000	107,213,566	141,752,104	48,896,699	83,435,237	1.8x			Third
Buyouts	Incline Equity Partners III	2013	15,000,000	16,006,245	41,866,592	153,708	26,014,054	2.6x	33.9%	First	Second
Buyouts	Kelso VII	2003	40,000,000	41,169,937	65,821,118	72,308	24,723,489	1.6x	11.4%	Third	Third
Buyouts	Kelso VIII	2007	150,000,000	146,686,760	208,554,873	6,161,016	68,029,129	1.5x	7.4%	Third	Third
Buyouts	Keystone Co-Investors Veritas VIII, L.P.	2023	25,000,000	-	-	NM	NM	NM	NM	NM	NM
Buyouts	LLR Equity Partners III	2008	30,000,000	29,108,722	65,280,571	625,295	36,797,144	2.3x	16.5%	Second	First
Buyouts	LLR Equity Partners IV	2014	50,000,000	45,485,764	95,308,249	22,764,764	72,587,249	2.6x	27.0%	First	First
Buyouts	LLR Equity Partners V	2018	75,000,000	72,090,002	24,964,251	106,499,953	59,374,201	1.8x	20.1%	Third	Second
Buyouts	LLR Equity Partners VI	2021	50,000,000	38,654,212	-	NM	NM	NM	NM	NM	NM
Buyouts	Madison Dearborn Capital Partners V	2006	63,817,077	71,571,265	116,191,907	3,033,244	47,653,886	1.7x	7.4%	Third	Second
Buyouts	Madison Dearborn Capital Partners VI	2008	50,000,000	53,296,374	119,770,626	842,874	67,317,126	2.3x	23.2%	First	First
Buyouts	Neuberger Berman PA Co-Investment Fund	2021	200,000,000	114,563,763	16,655,882	NM	NM	NM	NM	NM	NM

SCHEDULE OF INVESTMENTS BY SECTOR

As of June 30, 2023

SECTOR	FUND	VINTAGE	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
Buyouts	NGP Keystone	2021	\$25,000,000	\$10,150,000	-	NM	NM	NM	NM	NM	NM
Buyouts	NGP XII	2018	75,000,000	56,347,821	29,854,421	61,954,185	35,460,785	1.6x	16.6%	Third	Second
Buyouts	Oaktree Power Opportunities Fund III	2010	25,000,000	19,267,532	29,128,397						
Buyouts	Penn Asia Investors	2012	133,000,000	124,866,391	107,665,958	96,176,354	78,975,921	1.6x	13.1%	Third	Third
Buyouts	Permira European Fund II	2000	45,672,612	45,672,612	91,560,959	301,284	46,189,631	2.0x	21.6%	First	First
Buyouts	Permira European Fund III	2003	127,062,518	127,340,454	218,157,969	345,610	91,163,125	1.7x	26.1%	Second	Third
Buyouts	Permira IV	2006	136,391,969	138,422,695	208,443,061	31,704,477	101,724,843	1.7x	9.1%	Second	Second
Buyouts	Permira Susquehanna Opportunities - Buyout	2021	40,000,000	20,875,338	99,900	NM	NM	NM	NM	NM	NM
Buyouts	Permira VI	2017	56,536,261	51,942,740	29,924,475	70,197,632	48,179,367	1.9x	17.7%	Third	Second
Buyouts	Permira VII	2020	75,909,713	72,958,617	5,589,425	71,994,356	4,625,164	1.1x	3.2%	Fourth	Fourth
Buyouts	Primavera Capital Fund II	2015	50,000,000	57,656,595	24,182,607	67,050,195	33,576,207	1.6x	9.4%	Fourth	Third
Buyouts	Primavera Capital Fund III	2019	75,000,000	79,789,191	9,786,901	94,043,320	24,041,030	1.3x	8.3%	Fourth	Third
Buyouts	Providence Equity Partners IV	2000	25,000,000	23,420,840	56,065,270						
Buyouts	Providence Equity Partners V	2004	45,000,000	42,692,347	52,204,745						
Buyouts	Providence Equity Partners VI	2007	49,976,748	54,530,937	78,145,686						
Buyouts	Ridgemont Equity Partners II	2015	50,000,000	52,315,462	52,610,915	52,221,568	52,517,021	2.0x	20.8%	Second	Second
Buyouts	Sentinel Capital Partners V	2014	10,000,000	10,044,690	19,094,176	2,221,917	11,271,403	2.1x	20.9%	Second	Second
Buyouts	Sentinel Capital Partners VII	2023	100,000,000	-	-	NM	NM	NM	NM	NM	NM
Buyouts	Silver Lake Partners V	2018	78,000,000	78,064,823	28,558,819	89,788,475	40,282,471	1.5x	14.0%	Fourth	Third
Buyouts	Sterling Group Partners IV	2016	20,000,000	20,452,388	16,765,338	30,304,001	26,616,951	2.3x	22.4%	Second	Second
Buyouts	TDR Capital IV	2018	87,245,308	72,540,172	23,812,536	79,268,604	30,540,969	1.4x	17.4%	Fourth	Fourth
Buyouts	Thoma Bravo Co-Invest Opportunities Fund XV-5, L.P.	2023	50,000,000	5,274,451	-	NM	NM	NM	NM	NM	NM
Buyouts	Thoma Bravo Discover Fund III	2021	20,000,000	19,679,588	-	NM	NM	NM	NM	NM	NM
Buyouts	Thoma Bravo Discover Fund IV, L.P.	2022	50,000,000	16,625,874	-	NM	NM	NM	NM	NM	NM
Buyouts	Thoma Bravo Fund XIII	2019	75,000,000	91,498,386	45,140,596				29.4%	Second	

SCHEDULE OF INVESTMENTS BY SECTOR

As of June 30, 2023

SECTOR	FUND	VINTAGE	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
Buyouts	Thoma Bravo Fund XIV	2021	\$50,000,000	\$49,253,111	\$12	NM	NM	NM	NM	NM	NM
Buyouts	Thoma Bravo Fund XV, L.P.	2022	100,000,000	67,901,182	21,669	NM	NM	NM	NM	NM	NM
Buyouts	TPG Asia V	2007	22,500,000	21,964,311	30,075,459	1,326,485	9,437,633	1.4x	6.3%	Third	Third
Buyouts	TPG Partners IV	2003	27,907,484	27,981,463	58,314,713						
Buyouts	TPG Partners V	2006	88,831,038	92,531,812	130,273,217	101,568	37,842,973	1.4x	4.8%	Third	Third
Buyouts	TPG Partners VI	2008	44,294,641	50,576,261	74,076,065	641,651	24,141,455	1.5x	9.5%	Second	Third
Buyouts	TSG 9	2023	100,000,000	5,024,224	-	NM	NM	NM	NM	NM	NM
Buyouts	TSG8	2019	100,000,000	77,493,019	708,467	78,437,542	1,652,990	1.0x	1.0%	Fourth	Fourth
Buyouts	Veritas Capital Partners VIII, L.P.	2022	100,000,000	43,159,104	20,267	NM	NM	NM	NM	NM	NM
Buyouts	Vista Equity Partners Fund VI	2016	150,000,000	189,159,528	177,979,722						
Buyouts	Vista Equity Partners Fund VII	2019	75,000,000	67,395,397	7,157,217						
Buyouts	Wind Point Partners IX-A	2019	75,000,000	69,859,967	1,722,413						
Buyouts	Wind Point Partners VIII	2017	100,000,000	101,650,485	105,528,718						
Buyouts Total			\$6,537,470,611	\$5,611,376,733	\$5,468,009,118	\$3,890,785,254	\$3,747,417,640	1.7x	13.7%	Second	Second
Growth Equity	Battery Ventures VIII	2007	25,000,000	25,050,751	61,036,312						
Growth Equity	Battery Ventures VIII Side Car Fund	2008	6,768,000	6,803,790	18,828,496						
Growth Equity	HarbourVest Partners VI	1999	200,000,000	196,586,055	251,227,115	378,244	55,019,304	1.3x	3.6%	First	First
Growth Equity	HarbourVest Partners VII	2003	75,000,000	73,687,500	117,260,978	1,246,908	44,820,386	1.6x	6.7%	First	First
Growth Equity	HarbourVest Partners VIII	2006	100,000,000	98,000,000	181,982,175	29,285,751	113,267,926	2.2x	11.1%	First	First
Growth Equity	Insight Partners Fund XII	2021	50,000,000	37,489,234	13,065	NM	NM	NM	NM	NM	NM
Growth Equity	Insight Venture Partners IX	2015	50,000,000	52,784,788	65,757,284	127,657,170	140,629,665	3.7x	25.7%	First	First
Growth Equity	Insight Venture Partners VII	2011	20,000,000	22,129,992	53,377,064	17,243,823	48,490,895	3.2x	21.7%	Second	Second
Growth Equity	Insight Venture Partners VIII	2013	50,000,000	54,916,419	117,089,197	50,600,815	112,773,593	3.1x	21.1%	Second	Second
Growth Equity	Insight Venture Partners X	2018	100,000,000	104,723,487	47,440,351	213,783,019	156,499,883	2.5x	27.4%	Second	First
Growth Equity	Insight Venture Partners XI	2020	75,000,000	72,975,000	277,922	107,259,547	34,562,469	1.5x	17.1%	Second	Second

SCHEDULE OF INVESTMENTS BY SECTOR

As of June 30, 2023

SECTOR	FUND	VINTAGE	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
Growth Equity	JMI Equity Fund VI	2007	\$40,000,000	\$40,000,246	\$71,984,424	\$67,573	\$32,051,751	1.8x	11.6%	Second	Second
Growth Equity	JMI Equity Fund VII	2011	10,000,000	9,780,000	23,216,560	1,432,430	14,868,990	2.5x	17.9%	Second	Second
Growth Equity	JMI Equity Fund VIII	2015	25,000,000	27,550,000	49,664,235	16,226,851	38,341,086	2.4x	28.1%	First	Second
Growth Equity	Lightspeed India Partners I	2015	15,000,000	14,137,500	2,125,958						
Growth Equity	Lightspeed Venture Partners VII	2005	18,000,000	18,000,000	53,968,729						
Growth Equity	Lightspeed Venture Partners VIII	2008	15,000,000	15,000,000	37,035,502						
Growth Equity	Meritech Capital Partners IV	2011	20,000,000	20,000,000	46,785,180						
Growth Equity	Meritech Capital Partners V	2014	23,000,000	22,540,000	153,116,461						
Growth Equity	New Enterprise Associates 11	2003	25,000,000	25,000,000	63,385,828	1,208,824	39,594,652	2.6x	15.3%	First	First
Growth Equity	New Enterprise Associates 12	2006	35,000,000	35,631,130	48,025,951	2,703,938	15,098,759	1.4x	6.6%	Second	Second
Growth Equity	New Enterprise Associates IX	1999	20,000,000	19,600,000	8,739,870	434,097	(10,426,033)	0.5x	(6.0%)	Second	Third
Growth Equity	New Enterprise Associates X	2000	35,000,000	35,028,000	39,412,034	1,384,365	5,768,399	1.2x	2.3%	Second	Second
Growth Equity	NewSpring Growth Capital II	2006	10,000,000	9,850,000	19,617,977						
Growth Equity	Providence Strategic Growth Europe	2021	71,814,818	55,054,878	9,131,958	NM	NM	NM	NM	NM	NM
Growth Equity	Providence Strategic Growth Europe II, L.P.	2023	70,956,826	-	-	NM	NM	NM	NM	NM	NM
Growth Equity	Providence Strategic Growth II	2016	60,000,000	79,111,569	126,221,309	59,080,649	106,190,389	2.3x	38.1%	First	Second
Growth Equity	Providence Strategic Growth III	2018	75,000,000	69,990,730	72,832,572	64,924,178	67,766,020	2.0x	28.2%	Second	Second
Growth Equity	Providence Strategic Growth IV	2020	75,000,000	61,076,426	37,113,486	78,020,048	54,057,108	1.9x	47.0%	First	First
Growth Equity	Providence Strategic Growth V	2021	50,000,000	29,414,848	2,826,356	NM	NM	NM	NM	NM	NM
Growth Equity	TCV X	2019	75,000,000	56,289,972	6,878,500	108,534,649	59,123,178	2.1x	24.9%	Second	First
Growth Equity	Weathergage Venture Capital	2007	25,000,000	22,875,000	46,144,239	11,534,615	34,803,854	2.5x	13.1%	Second	Second
Growth Equity	Weathergage Venture Capital II	2010	25,000,000	23,250,000	58,567,205	29,490,139	64,807,344	3.8x	18.6%	Second	First
Growth Equity Total			\$1,570,539,643	\$1,434,327,314	\$1,891,084,292	\$1,132,262,070	\$1,589,019,048	2.1x	11.2%	Second	First
Keystone Legacy Fund	Keystone Legacy Fund	2018	5,516,049,176	5,592,584,757	7,617,468,687	206,647,017	2,231,530,947	1.4x	5.9%	NM	NM
Keystone Legacy Fund Total			\$5,516,049,176	\$5,592,584,757	\$7,617,468,687	\$206,647,017	\$2,231,530,947	1.4x	5.9%	NM	NM

SCHEDULE OF INVESTMENTS BY SECTOR

As of June 30, 2023

SECTOR	FUND	VINTAGE	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
Special Situations	ABRY Advanced Securities Fund	2007	\$7,262,950	\$23,529,104	\$38,786,236						
Special Situations	ABRY Senior Equity II	2006	30,000,000	28,400,326	45,262,542						
Special Situations	ADV Opportunities Fund I	2015	50,000,000	62,172,519	34,985,579	44,269,926	17,082,987	1.3x	4.9%	Fourth	Fourth
Special Situations	Ares PA Opportunities Fund, L.P. - Distressed Debt	2019	200,000,000	129,209,020	26,354,599	148,960,115	46,105,693	1.4x	18.9%	Second	Third
Special Situations	Ares PA Opportunities Fund, L.P. - Diversified Credit	2020	70,000,000	47,626,360	3,118,888	NM	NM	NM	NM	NM	NM
Special Situations	Ares PA Opportunities Fund, L.P. - Special Situations	2021	130,000,000	114,762,017	13,723,265	NM	NM	NM	NM	NM	NM
Special Situations	ASF IX B	2022	100,000,000	12,592	2,675	NM	NM	NM	NM	NM	NM
Special Situations	ASF IX PA Co-Invest B L.P.	2023	50,000,000	5,000	-	NM	NM	NM	NM	NM	NM
Special Situations	ASF VII B	2016	100,000,000	69,005,920	53,543,609	57,138,667	41,676,356	1.6x	15.4%	Third	Third
Special Situations	ASF VII PA Co-Invest	2016	50,000,000	36,129,752	29,266,467	30,404,283	23,540,998	1.7x	16.9%	Third	Third
Special Situations	ASF VIII B	2019	100,000,000	53,530,868	14,448,400	66,087,319	27,004,851	1.5x	23.0%	Second	Second
Special Situations	ASF VIII PA Co-Invest	2020	50,000,000	24,940,129	2,644,711	28,524,477	6,229,059	1.2x	22.6%	Second	Second
Special Situations	Avenue Special Situations Fund VI	2010	20,000,000	20,068,464	21,075,410						
Special Situations	AXA Secondary Fund III	2004	26,000,000	21,737,894	37,244,706	59,815	15,566,627	1.7x	44.0%	First	Second
Special Situations	AXA Secondary Fund III-2	2004	14,000,000	11,677,210	19,062,764	41,659	7,427,212	1.6x	40.5%	First	Second
Special Situations	AXA Secondary Fund IV	2006	80,000,000	70,134,752	99,618,118	105,028	29,588,394	1.4x	8.5%	Second	Second
Special Situations	AXA Secondary Fund V B	2012	75,000,000	61,682,742	97,816,150	206,785	36,340,193	1.6x	16.0%	Second	Third
Special Situations	Centerbridge Capital Partners I	2006	50,000,000	57,337,396	117,317,806	1,988,595	61,969,005	2.1x	19.2%	First	First
Special Situations	Centerbridge Capital Partners III	2015	30,000,000	39,554,787	37,531,996	29,134,380	27,111,589	1.7x	18.0%	Second	Third
Special Situations	Clearlake Capital Partners IV	2015	15,000,000	23,462,912	37,383,246	10,836,463	24,756,797	2.1x	29.6%	First	Second
Special Situations	Clearlake Capital Partners V	2018	55,000,000	78,562,199	99,499,341	68,826,794	89,763,936	2.1x	41.5%	First	First
Special Situations	Clearlake Capital Partners VI	2020	60,000,000	60,712,437	5,025,825	91,794,667	36,108,055	1.6x	26.2%	First	First
Special Situations	Clearlake Capital Partners VII	2022	100,000,000	51,373,445	2,434	NM	NM	NM	NM	NM	NM
Special Situations	Clearlake Opportunities Partners II	2019	75,000,000	50,356,203	14,949,084	43,969,037	8,561,918	1.2x	10.1%	Third	Fourth
Special Situations	Clearlake Opportunities Partners III	2022	75,000,000	8,283,377	35,959	NM	NM	NM	NM	NM	NM

SCHEDULE OF INVESTMENTS BY SECTOR

As of June 30, 2023

SECTOR	FUND	VINTAGE	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
Special Situations	Dover Street VII	2007	\$30,000,000	\$28,696,128	\$41,026,994	\$143,823	\$12,474,689	1.4x	9.1%	Third	Third
Special Situations	Glendon Opportunities Fund II	2019	150,000,000	127,500,000	-						
Special Situations	H.I.G. Bayside Debt & LBO Fund II	2008	30,000,000	31,448,253	51,691,289						
Special Situations	H.I.G. Bayside Loan Opp. Fund III	2013	50,000,000	42,696,553	49,904,323						
Special Situations	H.I.G. Bayside Loan Opp. Fund IV	2015	25,000,000	22,626,299	20,452,258						
Special Situations	HPS Mezzanine Partners 2019	2020	75,000,000	71,491,399	22,238,686	NM	NM	NM	NM	NM	NM
Special Situations	ICG Europe Fund VII	2018	90,182,203	87,061,845	42,097,360	86,013,872	41,049,386	1.5x	16.6%	Third	Third
Special Situations	ICG Europe Mid-Market Fund	2020	73,880,807	49,458,294	10,290,278	55,310,215	16,142,199	1.3x	19.8%	First	Second
Special Situations	KPS Special Situations Fund IV	2014	25,000,000	23,891,443	36,905,051	10,976,806	23,990,414	2.0x	24.2%	First	Second
Special Situations	KPS Special Situations Fund V	2020	75,000,000	42,287,779	6,761,337	NM	NM	NM	NM	NM	NM
Special Situations	KPS Special Situations Mid-Cap Fund	2019	25,000,000	15,555,493	2,280,029	21,284,259	8,008,795	1.5x	22.9%	Second	Second
Special Situations	LBC Credit Partners III	2013	50,000,000	46,696,243	54,218,929				8.1%	Third	
Special Situations	Lexington Capital Partners III	1999	35,000,000	34,516,449	43,576,611						
Special Situations	Lexington Capital Partners V	2001	75,000,000	74,623,418	125,170,164						
Special Situations	Lexington Capital Partners VI	2005	50,000,000	53,066,325	73,905,823						
Special Situations	Oaktree Opportunities Fund IX	2013	50,000,000	50,000,000	45,033,854						
Special Situations	OCM Opportunities Fund VII	2007	40,000,000	40,000,000	54,917,803						
Special Situations	OCM Opportunities Fund VII b	2007	40,000,000	36,000,000	62,330,206						
Special Situations	OCM Opportunities Fund VIII	2010	12,500,000	12,583,425	18,205,746						
Special Situations	OCM Opportunities Fund VIIIb	2010	12,500,000	12,500,000	16,273,384						
Special Situations	Platinum Equity Capital Partners III	2013	50,000,000	47,126,944	89,261,319	10,117,736	52,252,111	2.1x	37.8%	First	Second
Special Situations	RRJ Capital Master Fund III	2015	50,000,000	51,015,720	45,702,378	10,326,354	5,013,012	1.1x	4.8%	Fourth	Fourth
Special Situations	Sentinel Junior Capital II, L.P.	2023	25,000,000	-	-	NM	NM	NM	NM	NM	NM
Special Situations	Sixth Street Opportunities Partners IV	2019	50,000,000	40,355,923	6,798,865	46,404,769	12,847,711	1.3x	11.8%	Third	Third
Special Situations	Sixth Street Opportunities Partners V	2022	50,000,000	14,418,795	474,914	NM	NM	NM	NM	NM	NM

SCHEDULE OF INVESTMENTS BY SECTOR

As of June 30, 2023

SECTOR	FUND	VINTAGE	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
Special Situations	Sixth Street TAO 4.0 (B)	2017	\$100,000,000	\$98,929,730	\$46,561,937	\$85,514,180	\$33,146,387	1.3x	10.6%	Fourth	Fourth
Special Situations	Sixth Street TAO Contingent (D)	2019	150,000,000	90,229,514	23,713,940	94,042,261	27,526,687	1.3x	15.6%	Third	Third
Special Situations Total			\$3,101,325,961	\$2,389,043,396	\$1,838,493,285	\$1,675,066,079	\$1,124,515,967	1.5x	14.0%	Second	Second
Total: Active Investments			\$16,725,385,391	\$15,027,332,201	\$16,815,055,383	\$6,904,760,420	\$8,692,483,602	1.6x	9.2%	Third	Second
Total: Liquidated Investments			\$5,187,294,777	\$5,187,368,138	\$9,666,784,491	\$0	\$4,479,416,353	1.9x	16.2%	First	Second
Total: Commonwealth of Pennsylvania State Employees' Retirement System			\$21,912,680,168	\$20,214,700,338	\$26,481,839,874	\$6,904,760,420	\$13,171,899,955	1.7x	12.5%	Second	Second

LEGACY PRIVATE CREDIT SCHEDULE OF INVESTMENTS

As of June 30, 2023

VINTAGE	FUND	SECTOR	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR	IRR RANK	TVM RANK
2018	Apollo Hybrid Value Fund	Diversified Credit	\$100,000,000	\$131,255,699	\$113,150,377	\$57,538,157	\$39,432,836	1.3x	15.9%	First	Second
2018	Audax Direct Lending Solutions Fund-A	Direct Lending	100,000,000	110,933,186	64,761,450	76,797,402	30,625,666	1.3x	15.4%	First	Second
2018	Brightwood Capital Fund IV	Direct Lending	100,000,000	100,000,000	39,025,540	92,847,609	31,873,149	1.3x	8.0%	Third	Second
2018 Total			\$300,000,000	\$342,188,885	\$216,937,367	\$227,183,168	\$101,931,650	1.3x	11.9%	Second	Second
2019	ICG North American Private Debt Fund II	Direct Lending	50,000,000	43,073,206	15,682,173	35,766,270	8,375,237	1.2x	12.0%	Second	Third
2019	Permira Credit Solutions IV Master (Feeder) !	Direct Lending	75,000,000	62,364,583	14,414,260	62,169,429	14,219,106	1.2x	10.6%	Second	Second
2019 Total			\$125,000,000	\$105,437,790	\$30,096,433	\$97,935,699	\$22,594,342	1.2x	11.1%	Second	Second
2021	Ares PA Opportunities Fund, L.P. - Direct Len	Direct Lending	100,000,000	73,410,125	1,299,497	NM	NM	NM	NM	NM	NM
2021	Permira Susquehanna Opportunities - Credit	Direct Lending	60,000,000	12,287,712	924,980	NM	NM	NM	NM	NM	NM
2021 Total			\$160,000,000	\$85,697,838	\$2,224,477			NM	NM	NM	NM
Total: Active Investments			\$585,000,000	\$533,324,512	\$249,258,278						

DIVERSE FUNDS SCHEDULE OF INVESTMENTS

As of June 30, 2023

VINTAGE	FUND	SECTOR	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR
2006	Asia Alternatives Capital Partners	Buyouts	\$25,000,000	\$25,218,098	\$44,268,821	\$1,876,359	\$20,927,082	1.8x	10.9%
2007	Asia Alternatives Capital Partners II	Buyouts	29,949,500	29,099,445	66,266,629	8,101,997	45,269,181	2.6x	16.7%
2011	Asia Alternatives Korea Buyout Investors (Hahn & Co)	Buyouts	7,000,000	8,891,037	12,677,843	1,574,023	5,360,829	1.6x	10.7%
2012	Asia Alternatives Capital Partners III	Buyouts	50,000,000	55,595,317	74,752,558	25,211,064	44,368,305	1.8x	12.6%
2012	Penn Asia Investors	Buyouts	133,000,000	124,866,391	107,665,958	96,176,354	78,975,921	1.6x	13.1%
2015	Clearlake Capital Partners IV	Special Situation:	15,000,000	23,462,912	37,383,246	10,836,463	24,756,797	2.1x	29.6%
2016	Vista Equity Partners Fund VI	Buyouts	150,000,000	189,159,528	177,979,722				
2017	Asia Alternatives Capital Partners V	Buyouts	50,000,000	50,542,834	8,524,832	55,520,079	13,502,077	1.3x	9.7%
2018	Clearlake Capital Partners V	Special Situation:	55,000,000	78,562,199	99,499,341	68,826,794	89,763,936	2.1x	41.5%
2019	Clearlake Opportunities Partners II	Special Situation:	75,000,000	50,356,203	14,949,084	43,969,037	8,561,918	1.2x	10.1%
2019	Thoma Bravo Fund XIII	Buyouts	75,000,000	91,498,386	45,140,596				29.4%
2019	TSG8	Buyouts	100,000,000	77,493,019	708,467	78,437,542	1,652,990	1.0x	1.0%
2019	Vista Equity Partners Fund VII	Buyouts	75,000,000	67,395,397	7,157,217				
2020	Clearlake Capital Partners VI	Special Situation:	60,000,000	60,712,437	5,025,825	91,794,667	36,108,055	1.6x	26.2%
2021	Thoma Bravo Discover Fund III	Buyouts	20,000,000	19,679,588	-	NM	NM	NM	NM
2021	Thoma Bravo Fund XIV	Buyouts	50,000,000	49,253,111	12	NM	NM	NM	NM
2022	Clearlake Capital Partners VII	Special Situation:	100,000,000	51,373,445	2,434	NM	NM	NM	NM
2022	Clearlake Opportunities Partners III	Special Situation:	75,000,000	8,283,377	35,959	NM	NM	NM	NM
2022	Thoma Bravo Discover Fund IV, L.P.	Buyouts	50,000,000	16,625,874	-	NM	NM	NM	NM
2022	Thoma Bravo Fund XV, L.P.	Buyouts	100,000,000	67,901,182	21,669	NM	NM	NM	NM
2022	Veritas Capital Partners VIII, L.P.	Buyouts	100,000,000	43,159,104	20,267	NM	NM	NM	NM
2023	Keystone Co-Investors Veritas VIII, L.P.	Buyouts	25,000,000	-	-	NM	NM	NM	NM
2023	Thoma Bravo Co-Invest Opportunities Fund XV-5, L.P.	Buyouts	50,000,000	5,274,451	-	NM	NM	NM	NM
2023	TSG 9	Buyouts	100,000,000	5,024,224	-	NM	NM	NM	NM
Total: Private Equity Diverse Funds			\$1,569,949,500	\$1,199,427,560	\$702,080,480	\$1,167,724,060	\$670,376,981	1.6x	16.1%

DIVERSE FUNDS SCHEDULE OF INVESTMENTS

As of June 30, 2023

VINTAGE	FUND	SECTOR	COMMITMENT	CONTRIBUTIONS	DISTRIBUTIONS	MARKET VALUE	GAIN/LOSS	TVM	IRR
2018	Brightwood Capital Fund IV	Direct Lending	\$100,000,000	\$100,000,000	\$39,025,540	\$92,847,609	\$31,873,149	1.3x	8.0%
Total: Legacy Private Credit Diverse Funds			\$100,000,000	\$100,000,000	\$39,025,540	\$92,847,609	\$31,873,149	1.3x	8.0%
Total: Diverse Funds			\$1,669,949,500	\$1,299,427,560	\$741,106,020	\$1,260,571,669	\$702,250,130	1.5x	15.5%

END NOTES

Performance Summary

Commitment reflects current commitment including FX fluctuations for non-USD funds.

Contributed Capital includes contributions for investments, management fees and expenses to underlying partnership investments.

Distributions include stock distributions.

Net DPI, or Distributed to Paid-In-Multiple, is calculated as Distributed Capital divided by Contributed Capital, inclusive of StepStone fees.

Net TVM, or Total Value Multiple, is calculated as Total Value, which is comprised of Market Value plus Distributed Capital, divided by Contributed Capital, inclusive of StepStone fees.

Net IRR is net of managers' fees, expenses, and carried interest, inclusive of StepStone fees.

Portfolio Performance vs Benchmarks

Benchmark is a dollar-weighted calculation of quarterly changes in the Russell 3000® Index. Russell Investment Group is the source and owner of the trademark, service marks and copyrights related to the Russell Indexes.

Russell® is a trademark of Russell Investment Group. Returns shown are time-weighted (TWR).

Benchmark is provided by Burgiss Private iQ and reflects Global Private Equity Funds (excluding Real Assets and Real Estate) Median IRR as of June 30, 2023, for funds with vintage years 1980 to 2023.

Returns shown are dollar-weighted (IRR).

Benchmark is provided by Burgiss Private iQ and reflects Global pooled returns for Buyout (including Natural Resources), Venture Capital, Special Situations (including Distressed and Mezzanine), and all Private Equity (excluding Real Assets and Real Estate), respectively, as of June 30, 2023, for funds with vintage years 1980 to 2023. Returns shown are dollar-weighted (IRR).

Benchmark is provided by Burgiss Private iQ and reflects Global Upper Quartile IRR for Buyout (including Natural Resources), Venture Capital, Special Situations (including Distressed and Mezzanine), and all Private Equity (excluding Real Assets and Real Estate), respectively, as of June 30, 2023, for funds with vintage years 1980 to 2023. Returns shown are dollar-weighted (IRR).

Unless otherwise indicated, all underlying investment attribution and performance information presented is net of fees and expenses charged by the underlying investment, but gross of StepStone vehicle/account fees and expenses. Where indicated, net return figures presented for StepStone vehicle/account performance include fees and expenses paid to StepStone.

Vintage Year Performance

IRR and TVM performance excludes Keystone Legacy Fund.

Core Portfolio vs Russell 3000 Index

Benchmark is a dollar-weighted calculation of quarterly changes in the Russell 3000® Index. Russell Investment Group is the source and owner of the trademark, service marks and copyrights related to the Russell Indexes.

Russell® is a trademark of Russell Investment Group. Buyout, Growth Equity, and Special Situations sectors represent PASERS core portfolio of investment returns within each sector.

Keystone Legacy Fund contains Buyout, Venture Capital, and Special Situation funds defined as non-core by PASERS.

Unless otherwise indicated, all underlying investment attribution and performance information presented is net of fees and expenses charged by the underlying investment, but gross of StepStone vehicle/account fees and expenses. Where indicated, net return figures presented for StepStone vehicle/account performance include fees and expenses paid to StepStone.

END NOTES CONTINUED

Schedule of Investments by Vintage Year, Sector, Legacy Private Credit, Diverse Funds

Commitment reflects current commitment including FX fluctuations for non-USD funds.

Contributions include management fees and expenses.

Gain/Loss represents since inception total value change of active investments unless otherwise noted.

NM - Not Meaningful

IRR and TVM for certain vehicles may have been impacted by StepStone's or the underlying GPs' use of subscription-backed credit facilities by such vehicles. Reinvested/recycled amounts increase contributed capital.

Fund quartile rankings provided by Burgiss Private iQ as of June 30, 2023 and represent sector-comparable funds aggregated by vintage year, asset class and geography in which SERS made investments.

Keystone Legacy Fund performance represents since inception returns for all non-core funds.

These figures have been prepared by StepStone on behalf of SERS and have not been provided by any General Partner.

Legacy Private Credit investments are not included in the Private Equity portfolio and are excluded from any performance figures shown throughout this report other than the Legacy Private Credit Schedule of Investments.

StepStone Diverse Manager Definition:

(i) 33%+ of the General Partner/Management company is owned by diverse individuals; and/or

(ii) 33%+ of carried interest for the Fund will be allocated to diverse individuals; and/or

(iii) 33% of key persons are diverse individuals

Diverse individuals include women and racial/ethnic minority employees, specifically in the US: Asian, Black, Hispanic/Latinx, Indigenous People, Middle Eastern/North African, and Two or More Races.

In addition, LGTBQIA+, disability, and US Military Veteran status will be considered.

StepStone has not completed due diligence on all Funds in SERS Private Equity portfolio and therefore the diverse manager list excludes these Funds.

Unless otherwise indicated, all underlying investment attribution and performance information presented is net of fees and expenses charged by the underlying investment, but gross of StepStone vehicle/account fees and expenses. Where indicated, net return figures presented for StepStone vehicle/account performance include fees and expenses paid to StepStone.

Past performance is not necessarily indicative of future results and there can be no assurance that the fund will achieve comparable results or avoid substantial losses.

Definitions on Pages 37-38 - Redacted