



School Employees Retirement System of Ohio

QUARTERLY INVESTMENTS PERFORMANCE REPORT

For Quarter End Date: 3/31/2023

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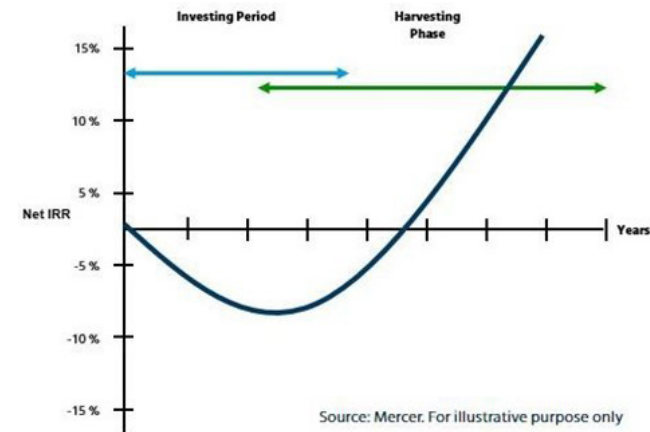
SERS investment strategic goals continue to focus on value added performance, risk management, cost effectiveness and maintenance of an investment program that meets or exceeds investment objectives over the long-term. In addition, SERS strives to provide clear and transparent reporting to stakeholders and interested parties. On a quarterly basis, SERS will post reporting to our website that provides total fund and asset class net of fee time-weighted returns along with details of the alternative investments within the SERS investment portfolio. It is important to note these reports are net of all fees.

Time-Weighted Returns (TWR) versus Money-Weighted Returns (IRR)

- Traditional asset classes like Public Equities and Public Fixed Income have traditionally utilized TWRs, while alternative asset classes like Private Equity and Real Assets have traditionally utilized IRRs.
 - Traditional asset classes utilize TWRs because the calculation attempts to reduce, or outright remove, the impact of cash flows on investment returns. The logic behind this is that traditional asset class investment managers don't typically control the timing or size of the cash flows coming into, or out of, their accounts. Therefore, in order to compare all investment managers within a given asset class on the same footing, the TWR reduces or removes the impact of any cash flows on investment performance and produces a figure more indicative of the investment manager's skill. For plans like SERS, TWRs are calculated on a monthly basis and geometrically linked together to produce longer period returns. TWRs are typically stated in annualized terms for periods equal to, or greater than, one year.
 - Alternative asset classes utilize IRRs because the calculation specifically was designed to take into account both the size and the timing of cash flows. The logic behind this is that alternative investment managers are very much in control of not only when they call (distribute) capital from (to) investors, but how much capital they will call (distribute). IRRs can be calculated over shorter time periods, such as quarterly or over a one year time period, but are generally calculated and stated on a "since inception" basis.
- Based on the differences in calculation methodologies between TWR and IRR, the two return types cannot be combined together to produce investment returns at a total plan level. One methodology, therefore, must be chosen to calculate investment returns across each asset class, and eventually at the total plan level. SERS, and most other pension funds, utilize TWRs in investment performance reports at the asset class and total plan level. While TWRs are utilized at the asset class and total plan level for reporting, SERS staff also utilize IRRs in their analysis of alternative investment managers.

Finer points of Money-Weighted Returns (IRR) and the J-Curve

- IRRs are inherently annualized
- IRRs, unlike TWRs, place greater weight on periods when the portfolio of a given investment is largest
- IRRs for alternative investment managers experience something known as the "J-Curve." At a high level, the J-Curve will cause most alternative investment managers to produce IRRs in early years that are negative. This is caused by a couple of factors:
 - Early calls of capital in alternative assets typically are weighted towards fee collection by the general partner, which creates a natural drag on performance
 - Valuation of assets in alternative asset accounts early in the life of the fund may be more difficult to ascertain, which can create a drag on performance
 - Early in the life of alternative assets (aka the "Investment Period"), the vast majority of cash flows are outflows. Not until later (aka the "Harvesting Period") in the life of the fund are investments liquidated and cash flows returned to the limited partners.





TOTAL FUND *(continued)*



FUND SUMMARY BY ASSET CLASS

Report ID: IPM0005

Reporting Currency: USD

TOTAL NET OF FEES

3/31/2023

Account Name Benchmark Name	Market Value	Month	YTD	3 Months	Fiscal YTD	Annualized					ITD
						1 Year	3 Years	5 Years	10 Years	20 Years	
Total Fund	17,490,120,923.83	1.41	2.80	2.80	4.41	-1.34	12.88	7.81	8.22	8.01	7.78
OSERS Policy BM		1.45	3.52	3.52	4.40	-2.97	10.84	6.85	7.45	7.81	7.75
Excess Return		-0.04	-0.72	-0.72	0.01	1.63	2.03	0.96	0.76	0.20	0.03
Global Equities	7,296,094,859.34	2.03	6.29	6.29	9.17	-6.63	15.72	6.88	8.36	8.76	7.48
Custom Gbl Equities BM		3.08	7.31	7.31	9.75	-7.05	15.29	6.54	7.99	8.37	7.17
Excess Return		-1.05	-1.01	-1.01	-0.58	0.42	0.43	0.35	0.36	0.38	0.31
Global Fixed Income	2,319,737,920.31	2.24	3.31	3.31	1.13	-4.10	-0.40	1.76	2.08	4.08	5.31
Bloomberg U.S. Aggregate Bond Index		2.54	2.96	2.96	-0.09	-4.78	-2.77	0.91	1.36	3.18	4.68
Excess Return		-0.30	0.34	0.34	1.23	0.68	2.37	0.85	0.72	0.90	0.63
Global Private Credit	1,013,958,086.64	0.88	1.54	1.54	2.69	4.76					10.62
Custom Private Credit Inv BM		0.75	2.19	2.19	5.79	7.11					5.56
Excess Return		0.12	-0.65	-0.65	-3.10	-2.35					5.05
Global Private Equity	2,199,429,183.93	1.70	1.16	1.16	-0.61	1.70	21.64	18.66	18.28	12.85	13.37
Custom Gbl Private Equity BM		1.04	1.04	1.04	-5.02	-5.76	17.69	15.52	15.30	12.70	13.00
Excess Return		0.66	0.12	0.12	4.41	7.46	3.96	3.14	2.99	0.15	0.37
Global Real Assets	3,657,313,135.81	-0.01	-2.42	-2.42	2.21	7.70	10.79	10.02	10.52	7.67	7.83
Custom Gbl Real Assets BM		-3.50	-3.50	-3.50	0.19	5.53	8.06	7.46	8.82	9.03	9.34
Excess Return		3.49	1.08	1.08	2.02	2.17	2.73	2.56	1.70	-1.35	-1.51
Opportunistic & Tactical	596,680,819.91	1.11	2.55	2.55	1.45	-0.99	8.37	6.66			6.88
Opportunistic & Tactical BM		2.65	3.37	3.37	1.38	-2.78	0.98	1.04			4.33
Excess Return		-1.53	-0.82	-0.82	0.07	1.80	7.39	5.62			2.54
Cash Equivalents	406,906,917.89	-0.95	0.73	0.73	1.20	9.92	17.67	4.60	2.51	2.33	2.29
FTSE 30 Day Treasury Bill		0.39	1.09	1.09	2.47	2.57	0.89	1.35	0.81	1.19	1.20
Excess Return		-1.35	-0.37	-0.37	-1.26	7.35	16.77	3.25	1.70	1.13	1.09
Short-Term Cash	378,635,053.87	0.37	1.07	1.07	2.53	2.67	0.91	1.42	0.92	1.53	3.79
FTSE 30 Day Treasury Bill		0.39	1.09	1.09	2.47	2.57	0.89	1.35	0.81	1.19	3.08
Excess Return		-0.03	-0.02	-0.02	0.06	0.09	0.01	0.07	0.11	0.34	0.71



OPPORTUNISTIC & TACTICAL INVESTMENTS

IRR and Performance Multiples

(Inception to Date | Roll Forward | Base)

End Date: 3/31/2023

All Portfolio Investments

Base Currency: USD

Investment			Transactions		Valuation	Performance				
Investment	Closing Date	Commitment	Paid-In Capital	Distributions	Valuation	IRR	TVPI	DPI	RVPI	
Ohio SERS Opportunistic & Tactical Investments										
1	Barings Asset-Based Income Fund	3/31/2018	50,000,000	46,134,641	5,368,605	36,410,357	-3.33	0.91	0.12	0.79
2	Barings Global Special Situations Credit 2	6/1/2015	32,593,500	30,154,793	35,974,251	11,191,841	12.23	1.56	1.19	0.37
3	Barings Global Special Situations Credit 3	10/1/2017	49,893,344	49,100,361	30,435,198	33,668,131	8.11	1.31	0.62	0.69
4	GoldenTree Distressed Fund 2014	8/27/2014	50,000,000	48,621,811	62,610,536	17,992,858	12.48	1.66	1.29	0.37
5	GoldenTree Distressed Fund III	11/30/2018	50,000,000	48,990,296	51,069,856	27,659,935	24.19	1.61	1.04	0.56
6	GoldenTree Distressed Fund III - Co-Investment	8/1/2020	40,000,000	16,000,000	6,600,000	18,796,364	28.74	1.59	0.41	1.17
7	GoldenTree Distressed Fund IV	5/1/2021	50,000,000	11,000,000	3,806,867	9,841,072	37.24	1.24	0.35	0.89
8	GoldenTree Structured Products Fund VII	8/25/2020	50,000,000	24,025,000	11,076	25,379,689	6.23	1.06	0.00	1.06
9	ICG Europe Fund VIII	8/24/2021	43,602,504	9,377,892	1,072,721	8,877,335	6.51	1.06	0.11	0.95
10	Marathon Healthcare Finance Fund	8/24/2021	50,000,000	13,900,000	1,842,439	13,045,575	7.10	1.07	0.13	0.94
11	Oceanwood European Financial	6/2/2015	25,000,000	25,000,000	24,301,168	2,252,084	1.41	1.06	0.97	0.09
12	PIMCO BRAVO Fund II	5/3/2013	40,000,000	49,513,610	59,647,295	1,623,862	6.44	1.24	1.20	0.03
13	PIMCO BRAVO Fund III	10/3/2016	40,000,000	42,244,662	20,679,551	37,057,197	9.32	1.37	0.49	0.88
14	PIMCO DISCO Fund III	5/31/2020	50,000,000	25,055,767	27,034,142	1,585,062	12.63	1.14	1.08	0.06
15	Strategic Value Capital Solutions Fund II	8/24/2022	50,000,000	5,000,000	0	5,000,000	0.00	1.00	0.00	1.00
16	Strategic Value Special Situations Fund V	3/1/2021	75,000,000	37,471,875	171,606	39,744,061	6.34	1.07	0.00	1.06
Total: Ohio SERS Opportunistic & Tactical Investments			746,089,348	481,590,710	330,625,310	290,125,423	9.38	1.29	0.69	0.60
Total Investments:	16		746,089,348	481,590,710	330,625,310	290,125,423	9.38	1.29	0.69	0.60

¹ Investment is Liquidated as of the Report End Date

indicates that the valuation has been rolled forward.

Missing performance values indicate insufficient cash flows or incalculable results.

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GLOBAL PRIVATE EQUITY

IRR and Performance Multiples

(Inception to Date | Roll Forward | Base)

End Date: 3/31/2023

All Portfolio Investments

Base Currency: USD

Investment			Transactions		Valuation	Performance				
Investment	Closing Date	Commitment	Paid-In Capital	Distributions	Valuation	IRR	TVPI	DPI	RVPI	
Ohio SERS Private Equity										
1	Altas Partners Holdings II	9/1/2019	50,000,000	42,965,134	2,696,508	47,117,549	7.35	1.16	0.06	1.10
2	Bridgepoint Development Capital II	12/6/2011	32,593,500	42,660,092	77,815,101	200,416	23.06	1.83	1.82	0.00
3	Bridgepoint Development Capital III	5/13/2016	30,911,250	31,076,163	43,076,901	27,884,887	34.12	2.28	1.39	0.90
4	Bridgepoint Development Capital IV	3/1/2020	49,458,000	15,832,659	0	14,645,962	-16.90	0.93	0.00	0.93
5	Bridgepoint Europe IV	6/30/2008	32,593,500	39,936,142	55,269,726	6,631,894	9.66	1.55	1.38	0.17
6	Bridgepoint Europe V	10/31/2014	32,593,500	33,051,802	45,295,390	19,677,655	18.63	1.97	1.37	0.60
7	Bridgepoint Europe VI	6/22/2018	54,322,500	47,179,290	5,114,820	67,103,481	22.49	1.53	0.11	1.42
8	Bridgepoint Europe VII	12/1/2021	81,483,750	0	0	0				
9	Bridgepoint Europe VII Side-Car Co-investment	12/1/2021	20,370,938	0	0	0				
10	Bridgepoint Growth Fund II	11/17/2022	30,911,250	0	0	0				
11	Bridgepoint Growth Fund II Side-car Co-investment	11/17/2022	7,789,635	0	0	0				
12	Carlyle Asia Partners Growth II	9/15/2021	75,000,000	16,666,014	-37,351	12,082,480	-44.20	0.72	0.00	0.72
13	Charterhouse Capital Partners IX	10/27/2008	31,222,763	37,481,708	49,219,378	1,122,441	9.44	1.34	1.31	0.03
14	Charterhouse Capital Partners X	10/1/2015	43,458,000	39,171,139	40,979,207	26,600,982	19.45	1.73	1.05	0.68
15	Cinven V	5/23/2012	32,593,500	41,234,045	59,538,029	8,035,823	17.46	1.64	1.44	0.19
16	Cinven VI	4/22/2016	30,151,256	36,113,745	27,748,629	36,273,426	19.81	1.77	0.77	1.00
17	Cinven VII	3/1/2019	32,593,500	24,357,190	1,171,305	27,169,605	11.50	1.16	0.05	1.12
18	Cinven VIII	8/24/2022	54,322,500	0	0	0				
19	Coller International Partners V	12/1/2006	31,680,000	33,650,934	46,380,865	138,996	7.45	1.38	1.38	0.00
20	Coller International Partners VI	4/14/2011	37,638,367	39,496,386	59,247,968	6,473,754	15.19	1.66	1.50	0.16
21	Coller International Partners VII	6/17/2015	60,000,000	46,791,657	47,728,554	25,680,566	13.46	1.57	1.02	0.55
22	Coller International Partners VIII	7/31/2019	60,000,000	30,438,751	4,131,661	40,324,616	29.49	1.46	0.14	1.32
23	FdG Capital Partners II, L.P.	6/30/2004	21,037,725	27,483,423	32,328,802	550,124	3.42	1.20	1.18	0.02
24	Ford Financial Fund II	5/17/2013	30,000,000	30,023,337	7,758,207	42,280,324	7.93	1.67	0.26	1.41
25	Francisco Partners Agility	9/1/2016	25,000,000	22,251,233	85,486,690	23,990,386	84.92	4.92	3.84	1.08
26	Francisco Partners Agility II	3/31/2020	40,000,000	25,460,000	0	28,695,673	10.36	1.13	0.00	1.13
27	Francisco Partners Agility III	1/1/2022	45,000,000	0	0	0				
28	Francisco Partners III	2/19/2010	40,000,000	38,958,586	114,408,836	17,290,104	23.40	3.38	2.94	0.44
29	Francisco Partners IV	12/1/2014	50,000,000	49,209,385	96,894,382	47,472,294	27.58	2.93	1.97	0.96
30	Francisco Partners IV – Dell Co-Invest	9/1/2016	10,020,036	10,020,036	47,665,038	10,942,133	44.69	5.85	4.76	1.09
31	Francisco Partners V	8/1/2017	50,000,000	48,525,000	14,350,000	68,188,515	18.08	1.70	0.30	1.41
32	Francisco Partners V – Renaissance Co-Invest	2/1/2022	10,176,140	10,176,140	0	10,098,549	-0.85	0.99	0.00	0.99
33	Francisco Partners V – LogMeIn Co-Invest	8/1/2020	10,000,000	10,014,241	734,608	7,337,872	-8.30	0.81	0.07	0.73
34	Francisco Partners V – Perforce Co-Invest	9/30/2019	8,117,165	8,233,636	0	11,889,237	11.68	1.44	0.00	1.44
35	Francisco Partners VI	4/17/2020	50,000,000	36,775,000	0	40,378,630	8.72	1.10	0.00	1.10
36	Francisco Partners VII	1/1/2022	100,000,000	0	0	0				
37	FS Equity Partners V, L.P.	1/1/2004	25,000,000	21,834,995	42,590,879	1,586,917	15.32	2.02	1.95	0.07
38	FS Equity Partners VI	7/27/2009	40,000,000	51,725,970	125,563,227	19,168,440	23.40	2.80	2.43	0.37
39	FS Equity Partners VII	4/30/2014	50,000,000	55,962,435	36,938,316	51,020,181	10.33	1.57	0.66	0.91
40	FS Equity Partners VII – CRH Co-Invest	3/1/2019	7,000,000	7,000,000	7,000,000	17,510,052	47.22	3.50	1.00	2.50
41	FS Equity Partners VIII	4/25/2019	50,000,000	41,208,790	2,121,972	63,661,627	25.74	1.60	0.05	1.54

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indicates that the valuation has been rolled forward.

Missing performance values indicate insufficient cash flows or incalculable results.

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GLOBAL PRIVATE EQUITY *(continued)*

IRR and Performance Multiples

(Inception to Date | Roll Forward | Base)

End Date: 3/31/2023

All Portfolio Investments

Base Currency: USD

Investment			Transactions		Valuation	Performance				
Investment	Closing Date	Commitment	Paid-In Capital	Distributions	Valuation	IRR	TVPI	DPI	RVPI	
Ohio SERS Private Equity										
42	FS Equity Partners VIII - NearU Co-Invest	8/24/2022	10,000,000	10,030,907	0	10,000,000	-0.31	1.00	0.00	1.00
43	FS Equity Partners VIII - USME Co-Invest	11/1/2020	8,000,000	8,006,753	2,453,988	12,658,845	36.16	1.89	0.31	1.58
44	FS Equity Partners VIII - White Water Express Co-Invest	1/1/2022	10,000,000	10,021,125	0	10,000,002	-0.18	1.00	0.00	1.00
45	Graham Partners III	6/30/2008	40,000,000	42,931,011	85,269,608	6,385,856	22.77	2.13	1.99	0.15
46	Graham Partners IV	4/1/2016	15,000,000	14,889,101	35,659,784	1,001,377	32.78	2.46	2.40	0.07
47	Graham Partners V	6/1/2019	50,000,000	42,335,611	3,658,906	47,717,725	19.50	1.21	0.09	1.13
48	Green Equity Investors CF	3/1/2021	23,329,933	21,478,995	10,572,413	18,053,304	21.82	1.33	0.49	0.84
49	Green Equity Investors IX	12/1/2021	50,000,000	0	0	0				
50	Green Equity Investors V	1/30/2007	50,000,000	55,367,838	127,809,901	865,839	18.45	2.32	2.31	0.02
51	Green Equity Investors VI	9/28/2011	50,000,000	62,891,816	65,862,157	52,664,913	13.99	1.88	1.05	0.84
52	Green Equity Investors VI - ASM Co-Invest	10/1/2014	10,000,000	10,115,000	0	2,098,347	-17.20	0.21	0.00	0.21
53	Green Equity Investors VII	2/1/2016	50,000,000	49,115,088	40,670,210	60,957,948	22.20	2.07	0.83	1.24
54	Green Equity Investors VIII	10/1/2019	50,000,000	43,574,837	405,098	47,448,278	6.10	1.10	0.01	1.09
55	GS Distressed Opportunities III, L.P.	8/31/2006	75,000,000	73,574,491	83,431,382	1,115,180	2.82	1.15	1.13	0.02
56	J.P. Morgan European Corp. Finance II	6/30/2002	25,000,000	27,540,924	40,441,784	10,649	8.09	1.47	1.47	0.00
57	J.P. Morgan European Corp. Finance III	1/31/2006	40,000,000	42,412,192	59,106,767	1,416,083	6.16	1.43	1.39	0.03
58	J.P. Morgan European Corp. Finance IV	6/30/2008	25,000,000	24,507,843	34,725,295	5,747,711	11.05	1.65	1.42	0.23
59	J.P. Morgan Venture Capital III	12/31/2005	30,000,000	34,169,957	46,369,358	10,322,818	7.43	1.66	1.36	0.30
60	J.P. Morgan Venture Capital IV	6/30/2008	50,000,000	62,289,074	106,933,561	51,888,719	16.67	2.55	1.72	0.83
61	Jade Equity Investors	8/1/2019	30,000,000	22,561,093	5,061,265	24,265,400	24.95	1.30	0.22	1.08
62	Jade Equity Investors II	12/1/2021	50,000,000	0	0	0				
63	KKR Ascendant	3/1/2023	50,000,000	0	0	0				
64	Kohlberg Investors IX	12/1/2019	50,000,000	39,416,259	1,627,727	48,887,200	25.04	1.28	0.04	1.24
65	Kohlberg Investors VI, L.P.	6/29/2007	40,000,000	36,488,546	63,814,504	64,126	16.41	1.75	1.75	0.00
66	Kohlberg Investors VII CV	9/30/2021	16,876,522	16,852,525	0	27,590,405	41.64	1.64	0.00	1.64
67	Kohlberg Investors VIII	7/1/2016	40,000,000	42,262,329	29,308,349	46,855,123	20.99	1.80	0.69	1.11
68	Kohlberg Investors X	11/17/2022	50,000,000	0	0	0				
69	Kohlberg Investors X Side Car	11/17/2022	25,000,000	0	0	0				
70	Levine Leichtman Capital Partners V	4/30/2013	50,000,000	75,918,178	124,141,272	15,346,379	17.07	1.84	1.64	0.20
71	Levine Leichtman Capital Partners VI	4/1/2017	40,000,000	46,495,485	17,278,994	45,789,000	13.99	1.36	0.37	0.98
72	Levine Leichtman Lower Middle Market Fund III	2/1/2021	50,000,000	16,906,188	2,349,254	12,375,871	-21.29	0.87	0.14	0.73
73	Levine Leichtman Lower Middle Market Fund III - IPM Co-Invest	9/15/2021	8,000,000	8,000,000	259,121	8,248,591	4.74	1.06	0.03	1.03
74	Lightspeed Opportunity Fund II	4/28/2022	50,000,000	11,000,000	0	10,855,280	-2.35	0.99	0.00	0.99
75	Mason Wells Buyout Fund IV	10/1/2015	40,000,000	38,778,537	3,074,535	68,374,368	14.32	1.84	0.08	1.76
76	Mason Wells III	3/24/2010	40,000,000	38,071,440	114,665,898	39,248	20.55	3.01	3.01	0.00
77	Monomoy Capital Partners II	12/30/2010	40,000,000	58,362,193	90,225,268	5,836,841	44.39	1.65	1.55	0.10
78	Monomoy Capital Partners IV	1/1/2021	75,000,000	25,149,790	5,340,369	25,492,610	46.32	1.23	0.21	1.01
79	NGP Natural Resources XI	11/5/2014	50,000,000	51,020,183	42,676,677	37,796,094	10.65	1.58	0.84	0.74
80	NGP Natural Resources XII	8/1/2017	40,000,000	31,432,584	17,462,663	30,368,745	14.39	1.52	0.56	0.97
81	Oak Hill Capital Partners III, L.P.	12/31/2007	40,000,000	51,074,739	81,197,368	0	9.87	1.59	1.59	0.00
82	Oaktree Principal Fund V	4/28/2009	40,000,000	40,000,000	42,494,419	7,149,841	3.82	1.24	1.06	0.18

¹ Investment is Liquidated as of the Report End Date

indicates that the valuation has been rolled forward.

Missing performance values indicate insufficient cash flows or incalculable results.

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GLOBAL PRIVATE EQUITY *(continued)*

IRR and Performance Multiples

(Inception to Date | Roll Forward | Base)

End Date: 3/31/2023

All Portfolio Investments

Base Currency: USD

Investment			Transactions		Valuation	Performance				
Investment	Closing Date	Commitment	Paid-In Capital	Distributions	Valuation	IRR	TVPI	DPI	RVPI	
Ohio SERS Private Equity										
83	Oaktree Special Situations Fund II	8/25/2019	50,000,000	45,025,848	21,289,620	49,938,582	50.26	1.58	0.47	1.11
84	Odyssey Investment Partners IV	6/30/2008	40,000,000	34,567,752	104,118,718	569,188	32.79	3.03	3.01	0.02
85	Odyssey Investment Partners V	4/15/2014	45,000,000	45,902,909	24,737,066	36,045,075	5.86	1.32	0.54	0.79
86	Odyssey Investment Partners VI	11/1/2019	60,000,000	40,133,693	22,719	52,611,128	16.59	1.31	0.00	1.31
87	Primus Capital Fund IX	2/1/2021	65,000,000	24,302,798	0	21,975,906	-14.70	0.90	0.00	0.90
88	Primus Capital Fund VII	11/1/2012	25,000,000	27,103,837	61,784,633	9,378,942	25.49	2.63	2.28	0.35
89	Primus Capital Fund VIII	8/1/2017	25,000,000	26,319,191	9,932,817	30,072,527	14.63	1.52	0.38	1.14
90	Primus Venture Partners Fund V	7/1/2000	25,000,000	25,725,000	41,262,487	1,914,493	10.30	1.68	1.60	0.07
91	Primus Venture Partners Fund VI	12/31/2007	25,000,000	29,200,991	52,053,602	2,440,884	15.26	1.87	1.78	0.08
92	Quantum Energy Partners V	6/30/2008	50,000,000	51,819,626	76,119,124	2,204,232	8.89	1.51	1.47	0.04
93	Silver Lake Partners III	3/23/2007	50,000,000	55,081,412	97,821,658	25,954,572	18.33	2.25	1.78	0.47
94	Silver Lake Partners IV	4/11/2013	50,000,000	61,327,971	64,296,466	76,846,834	21.53	2.30	1.05	1.25
95	Silver Lake Partners V	3/1/2017	50,000,000	50,677,493	21,107,312	53,519,754	14.17	1.47	0.42	1.06
96	Silver Lake Partners VII	12/1/2021	100,000,000	0	0	0				
97	Sole Source Capital II	11/1/2020	50,000,000	13,962,636	12,065,184	40,648,423	160.95	3.78	0.86	2.91
98	SPC Partners IV	3/31/2008	30,000,000	32,602,108	65,391,023	5,204,708	16.77	2.17	2.01	0.16
99	SPC Partners V	5/11/2012	40,000,000	43,591,488	46,193,943	17,254,608	7.68	1.46	1.06	0.40
100	SPC Partners VI	9/1/2016	25,000,000	26,745,550	11,241,702	24,080,736	9.77	1.32	0.42	0.90
101	StepStone VC Secondaries Fund V	5/1/2021	75,000,000	35,205,029	0	39,351,764	11.45	1.12	0.00	1.12
102	TPG Rise Climate	6/1/2021	100,000,000	26,947,783	513,882	24,037,805	-15.90	0.91	0.02	0.89
103	Transportation Resource Partners III	6/30/2008	25,000,000	18,882,653	31,424,950	-24,996	14.21	1.66	1.66	0.00
104	Warburg Pincus Energy	5/30/2014	30,000,000	28,464,658	19,200,961	14,023,980	3.59	1.17	0.67	0.49
105	Warburg Pincus Private Equity XI	5/16/2012	50,000,000	53,375,000	68,930,203	18,957,648	11.37	1.65	1.29	0.36
106	Warburg Pincus Private Equity XII	11/19/2015	65,000,000	64,122,500	67,713,620	65,375,127	18.51	2.08	1.06	1.02
107	Warburg, Pincus Private Equity X, L.P.	11/4/2007	75,000,000	75,000,000	133,396,497	1,372,145	9.50	1.80	1.78	0.02
Total: Ohio SERS Private Equity			4,374,245,229	3,314,095,614	3,594,183,730	2,198,668,370	14.50	1.75	1.08	0.66
Total Investments: 107			4,374,245,229	3,314,095,614	3,594,183,730	2,198,668,370	14.50	1.75	1.08	0.66

¹ Investment is Liquidated as of the Report End Date

indicates that the valuation has been rolled forward.

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GLOBAL REAL ASSETS

IRR and Performance Multiples

(Inception to Date | Roll Forward | Base)

End Date: 3/31/2023

All Portfolio Investments

Base Currency: USD

Investment			Transactions		Valuation	Performance				
Investment	Closing Date	Commitment	Paid-In Capital	Distributions	Valuation	IRR	TVPI	DPI	RVPI	
Ohio SERS Real Estate										
1	Almanac Realty Securities VII	11/25/2014	75,000,000	82,235,292	67,665,216	44,961,911	11.70	1.37	0.82	0.55
2	Almanac Realty Securities VIII	1/1/2018	50,000,000	30,124,098	6,690,519	28,846,164	10.15	1.18	0.22	0.96
3	Almanac Realty V	4/30/2008	49,073,993	55,908,408	81,653,116	76,738	11.41	1.46	1.46	0.00
4	AMP GIF	8/25/2016	50,000,000	66,223,798	45,044,234	38,328,849	6.35	1.26	0.68	0.58
5	Beacon Capital VI	3/1/2009	37,500,000	38,000,857	58,957,988	189,149	16.50	1.56	1.55	0.00
6	Brookfield Global Transition Fund	6/1/2021	75,000,000	19,250,736	1,085,703	17,958,588	-1.37	0.99	0.06	0.93
7	Brookfield Super-Core Infrastructure Partners	6/30/2022	50,000,000	38,500,000	0	38,500,000	0.00	1.00	0.00	1.00
8	Carlyle Property Investors	12/31/2020	100,000,000	100,000,000	2,543,184	100,300,167	3.29	1.03	0.03	1.00
9	Carlyle Realty Partners IV	7/1/2005	25,000,000	37,748,862	50,743,409	102,263	4.28	1.35	1.34	0.00
10	Carlyle Realty Partners V, L.P.	11/30/2006	35,132,569	64,457,311	95,612,112	97,179	8.67	1.48	1.48	0.00
11	Carlyle Realty Partners VI	12/28/2010	20,132,055	33,403,867	45,195,372	2,484,111	16.11	1.43	1.35	0.07
12	Carlyle Realty Partners VIII	3/1/2017	50,000,000	42,239,553	33,978,597	27,847,240	26.06	1.46	0.80	0.66
13	CB Ellis Strategic Europe III	3/31/2007	27,161,250	33,594,668	8,913,130	12,348	-16.91	0.27	0.27	0.00
14	CB Richard Ellis Strategic Partners US V - Opportunity	6/23/2008	22,721,359	23,485,851	33,582,742	152,184	5.65	1.44	1.43	0.01
15	CBRE Core Storage Partners Co-Investment	12/21/2022	15,000,000	0	0	0				
16	CBRE U.S. Core Partners	1/30/2015	350,000,000	348,871,438	107,485,297	486,707,239	11.11	1.70	0.31	1.40
17	Clarion Lion Industrial Trust	4/1/2005	181,000,000	198,102,256	66,538,362	494,272,588	12.15	2.83	0.34	2.50
18	Clarion Lion Properties Fund	10/1/2003	144,792,823	216,003,287	128,900,630	278,624,095	7.81	1.89	0.60	1.29
19	DigitalBridge Partners II	8/24/2021	50,000,000	50,487,393	5,413,854	47,158,348	5.52	1.04	0.11	0.93
20	DigitalBridge Partners II - GD Towers Co-Invest	8/24/2022	10,000,000	9,208,683	0	9,208,683	0.00	1.00	0.00	1.00
21	DigitalBridge Partners II - Vertical Bridge Co-Invest	11/1/2021	10,000,000	10,086,315	517,917	10,585,232	8.26	1.10	0.05	1.05
22	Eaglecrest Infrastructure Fund	12/31/2018	70,000,000	70,175,000	1,798,009	66,922,228	-1.17	0.98	0.03	0.95
23	Global Infrastructure Partners Capital Solutions Fund II	3/31/2020	100,000,000	29,427,720	1,599,733	28,321,620	2.63	1.02	0.05	0.96
24	Global Transport Income Fund Feeder LLC	6/18/2018	150,000,000	149,829,865	21,221,303	148,491,274	6.17	1.13	0.14	0.99
25	Harrison Street Social Infrastructure Fund	5/1/2019	65,000,000	66,070,206	2,561,449	75,178,817	7.23	1.18	0.04	1.14
26	IFC Core Farmland Fund LP	12/21/2022	25,000,000	0	0	0				
27	IFM Global Infrastructure	10/21/2013	364,994,118	379,406,048	87,409,212	600,971,513	11.66	1.81	0.23	1.58
28	JP Morgan Strategic Property Fund	1/1/1998	119,621,424	117,761,837	229,927,325	92,135,169	8.78	2.73	1.95	0.78
29	Lubert-Adler Laramar Urban Neighborhood Fund	3/23/2016	55,000,000	53,851,518	12,348,708	47,252,184	2.40	1.11	0.23	0.88
30	Lubert-Adler Real Estate Fund VI	4/29/2011	61,869,563	67,245,644	117,075,000	16,973,897	20.83	1.99	1.74	0.25
31	Lubert-Adler Real Estate Fund VII	3/27/2015	75,000,000	74,374,313	41,028,322	41,079,757	1.93	1.10	0.55	0.55
32	Lubert-Adler Recovery & Enhancement Capital Fund	7/31/2020	100,000,000	54,614,810	3,702,087	57,200,397	11.24	1.12	0.07	1.05
33	Mesa West Core Lending Fund	12/12/2014	75,000,000	75,000,000	55,652,787	47,984,469	5.73	1.38	0.74	0.64
34	Patrizia TransEuropean IV	3/30/2007	27,161,250	33,774,988	38,191,058	238,634	2.00	1.14	1.13	0.01
35	Patrizia TransEuropean V	12/6/2011	27,161,250	32,820,773	43,379,606	279,841	8.09	1.33	1.32	0.01
36	Patrizia TransEuropean VI	7/1/2015	43,321,450	43,016,556	26,469,100	29,500,235	5.07	1.30	0.62	0.69
37	Pretium Single-Family Rental Fund III	11/1/2021	50,000,000	50,000,000	2,157,486	53,819,465	12.14	1.12	0.04	1.08
38	PRISA	7/1/2004	49,627,184	54,390,225	48,125,514	89,772,940	7.01	2.54	0.88	1.65
39	PRISA II	7/1/2004	75,144,022	146,956,696	86,656,492	215,308,912	6.60	2.05	0.59	1.47
40	RREEF America REIT II	10/1/2004	73,812,238	223,068,293	153,150,171	334,686,480	8.28	2.19	0.69	1.50
41	UBS Trumbull Property Fund	9/27/1996	82,693,884	147,534,927	287,209,865	48,072,555	10.93	2.27	1.95	0.33

¹ Investment is Liquidated as of the Report End Date

indicates that the valuation has been rolled forward.

Missing performance values indicate insufficient cash flows or incalculable results.

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GLOBAL REAL ASSETS *(continued)*

IRR and Performance Multiples

(Inception to Date | Roll Forward | Base)

End Date: 3/31/2023

All Portfolio Investments

Base Currency: USD

Investment			Transactions		Valuation	Performance				
Investment	Closing Date	Commitment	Paid-In Capital	Distributions	Valuation	IRR	TVPI	DPI	RVPI	
Ohio SERS Real Estate										
42 UBS Trumbull Property Income Fund	3/18/2015	75,000,000	78,537,309	104,779,682	10,137,779	6.77	1.46	1.33	0.13	
Total: Ohio SERS Real Estate			3,192,920,432	3,445,789,399	2,204,964,289	3,630,741,242	8.94	1.69	0.64	1.05
Total Investments:	42		3,192,920,432	3,445,789,399	2,204,964,289	3,630,741,242	8.94	1.69	0.64	1.05

¹ Investment is Liquidated as of the Report End Date

indicates that the valuation has been rolled forward.

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GLOBAL PRIVATE CREDIT

IRR and Performance Multiples

(Inception to Date | Roll Forward | Base)

End Date: 3/31/2023

All Portfolio Investments

Base Currency: USD

Investment			Transactions		Valuation	Performance				
Investment	Closing Date	Commitment	Paid-In Capital	Distributions	Valuation	IRR	TVPI	DPI	RVPI	
Ohio SERS Global Private Credit										
1	Apollo Origination Partnership	8/19/2020	100,000,000	88,877,594	10,857,584	80,664,458	3.19	1.03	0.12	0.91
2	Arcmont Direct Lending II	6/1/2015	54,487,500	58,389,126	64,984,875	1,868,658	6.20	1.14	1.11	0.03
3	Arcmont Direct Lending III	2/8/2018	61,245,000	63,591,903	24,395,479	47,048,378	6.73	1.12	0.38	0.74
4	Arcmont Direct Lending SMA	3/1/2021	150,000,000	114,670,021	13,808,139	103,949,586	3.66	1.03	0.12	0.91
5	Ares Private Credit Solutions Fund II	10/1/2020	50,000,000	31,049,761	886,843	29,355,206	-2.93	0.97	0.03	0.95
6	Barings European Private Loan Fund III	4/1/2021	150,000,000	99,339,376	9,229,953	96,338,811	5.91	1.06	0.09	0.97
7	Carlyle Credit Opportunities Fund II	4/1/2021	100,000,000	99,238,822	14,355,971	90,824,128	6.74	1.06	0.14	0.92
8	Carlyle Credit Opportunities Fund III	1/24/2023	100,000,000	0	0	0				
9	Carlyle Direct Lending Fund IV	5/20/2022	30,000,000	25,199,279	402,025	24,761,599	-0.27	1.00	0.02	0.98
10	CIFC-LBC SMA Credit Fund	10/24/2022	100,000,000	0	0	0				
11	Francisco Partners Credit - ZocDoc Co-Invest	3/1/2021	7,008,018	7,107,185	0	8,871,209	12.09	1.25	0.00	1.25
12	Francisco Partners Credit Partners Aggregator	3/1/2020	75,000,000	46,200,000	18,620,494	45,578,792	19.59	1.39	0.40	0.99
13	Francisco Partners Credit Partners II	4/1/2021	150,000,000	54,450,000	0	57,592,770	11.10	1.06	0.00	1.06
14	GoldenTree Structures Products Opportunities Fund 2013	2/6/2014	43,248,750	51,849,258	66,732,787	1,459,539	10.68	1.32	1.29	0.03
15	Highbridge Principal Strategies Special Loan Fund 2016	11/15/2016	60,000,000	53,856,327	42,469,173	24,011,927	7.26	1.23	0.79	0.45
16	Highbridge Principal Strategies Special Loan Fund V	3/1/2020	150,000,000	107,508,547	24,647,162	97,265,719	8.58	1.13	0.23	0.90
17	Highbridge Principal Strategies Special Loan Fund VI	12/21/2022	75,000,000	0	0	0				
18	Invesco Credit Partners Fund II	6/2/2020	50,000,000	35,469,017	4,568,464	38,467,227	20.28	1.21	0.13	1.08
19	KKR Dislocation Opportunities Fund	5/1/2020	50,000,000	45,208,295	18,191,504	32,761,922	8.69	1.13	0.40	0.72
20	KKR Opportunities Fund II	9/15/2021	75,000,000	0	0	0				
21	LBC Credit Partners IV	8/1/2016	50,000,000	45,285,143	43,970,511	10,510,663	7.63	1.20	0.97	0.23
22	LBC Credit Partners V	3/1/2020	150,000,000	133,497,296	59,971,005	91,726,971	12.78	1.14	0.45	0.69
23	West Street Strategic Solutions Fund I	7/1/2020	125,000,000	69,070,407	6,915,833	67,582,213	5.10	1.08	0.10	0.98
Total: Ohio SERS Global Private Credit			1,955,989,268	1,229,857,358	425,007,801	950,639,777	8.36	1.12	0.35	0.77
Total Investments:	23		1,955,989,268	1,229,857,358	425,007,801	950,639,777	8.36	1.12	0.35	0.77

¹ Investment is Liquidated as of the Report End Date

indicates that the valuation has been rolled forward.

Missing performance values indicate insufficient cash flows or incalculable results.



APPENDIX

FOOTNOTES:

This reporting comes directly from Burgiss Private I, which is the investment system SERS uses for all alternative investments to track transactions and investment performance results. This reporting relies upon the accuracy and completeness of information (which may or may not be audited by the fund manager) provided to SERS by each fund manager. SERS has

not conducted an independent verification of the information provided nor have we conducted an audit of such information.

Performance of investments with less than three years may not be meaningful due to upfront costs.

DEFINITIONS:

Closing Date:

The date the Fund begins accepting Commitments from Investors.

Commitment:

The amount of capital that SERS has pledged to contribute to the Fund.

Distributions:

The amount of capital that SERS has received back from the Fund for the Inception-to-Date.

DPI – Distributed to Paid In:

The ratio of money distributed to Limited Partners by the Fund, relative to contributions.

(as defined by ILPA <https://ilpa.org/glossary/distributed-to-paid-in-dpi/>)

IRR – Internal Rate of Return:

The discount rate at which the present value of future cash flows of an investment equals to the cost of the investment. It is determined when the net present value of the cash outflows (the cost of the investment) and the cash inflows (returns on the investment) equal zero, with the discount rate equal to the IRR.

(as defined by ILPA <https://ilpa.org/glossary/internal-rate-of-return-irr/>)

Paid-In Capital:

The amount of capital that SERS has contributed to the Fund for the Inception-to-Date.

Rolled-Forward Valuations:

This means that the valuation represented on the report is the most recent Capital Account Statement balance +/- cash flows up through the report end date. All valuations are net of fees.

In this example, a Rolled-Forward Valuation date as of 3/31/23 would include a 12/31/22 Capital Account Statement Valuation +/- cash flows from 1/1/23 through 3/31/23.

RVPI – Residual Value to Paid In:

The ratio of the current value of all remaining investments within a fund to the total contributions of Limited Partners to date.

(as defined by ILPA <https://ilpa.org/glossary/residual-value-to-paid-in-rvpi/>)

TVPI – Total Value to Paid In:

The ratio of the current value of remaining investments within a fund, plus the total value of all distributions to date, relative to the total amount of capital paid into the fund to date.

(as defined by ILPA <https://ilpa.org/glossary/total-value-to-paid-in-tvpi/>)