



# Private Markets CY 2023 Fee Review

October 2024

# Executive Summary – Key Takeaways

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- Q1: What has PSERS achieved by investing in the Private Markets?
  - Last 5 Years: 12.2% net return, \$11.1B of realized net profit
  - 2023: 5.9% net return, \$1.7B of realized net profit, managers reflecting lower valuations with \$0.3B in unrealized net losses
  
- Q2: Is PSERS Private Markets generating alpha, net of fees, compared to public market alternatives?
  - Last 5 Years: \$4.8B of alpha compared to public market equivalents
  - Last 10 Years: \$10.5B of alpha compared to public market equivalents
  
- Q3: What has PSERS paid to access the Private Markets, and how much of the realized total profit was retained by PSERS?
  - Last 5 Years:
    - Base mgmt. fees decreasing from 1.25% in 2019 to 1.07% of beginning NAV in 2023, expenses up in 2023 driven by financing costs
    - 88% of profits retained by PSERS over 5 years (\$11.1B), ranging from 84% in strong-performing periods to 92% in weaker-performing periods
  - 2023:
    - \$264M in base management fees, \$164M in fund-level expenses
    - \$191M in paid carry, \$233M increase in accrued carry; 90% of profits retained by PSERS (\$1.7B), higher in less mature portfolios, lower in more mature portfolios

# Private Markets – 5 Year Summary

## Question 1: What has PSERS achieved by investing in Private Markets?

Profit & Loss Statement	2023	2022	2021	2020	2019	5 Years
Beginning NAV (a)	\$24,634	\$25,419	\$21,564	\$19,477	\$18,305	\$18,305
Contributions (b)	3,016	3,669	4,523	3,241	3,291	17,740
Distributions (c)	3,130	4,906	7,574	3,572	3,897	23,079
Return of Principal	1,410	2,277	4,148	1,932	2,190	11,957
Earned Income (f)	767	1,120	932	672	555	4,046
Realized Gain (Loss) (g)	953	1,509	2,494	969	1,152	7,077
Net Profit (Loss) (d)	1,450	452	6,906	2,419	1,778	13,005
Realized	1,720	2,629	3,426	1,641	1,707	11,123
Unrealized	-270	-2,178	3,480	778	70	1,880
Ending NAV (a+b-c+d)	\$25,967	\$24,634	\$25,419	\$21,564	\$19,477	\$25,971
<b>Time-Weighted Return</b>	<b>5.9%</b>	<b>1.8%</b>	<b>33.7%</b>	<b>12.2%</b>	<b>9.8%</b>	<b>12.2%</b>

### Terms:

Net Asset Value (NAV) – Value of PSERS' investments net of all fees, expenses, and carried interest

Contributions – \$ invested by PSERS

Distributions – \$ returned to PSERS

Net Profit (Loss) – Difference between beginning NAV and ending NAV adjusted for net cash flows in a given period

# Private Markets – 5 Year Summary

## Question 2: Is PSERS Private Markets generating alpha, net of fees, compared to public market alternatives?

5-Year Performance	Total Private Markets	Private Equity	Real Estate	Private Credit	Infrastructure
<b>Benchmark</b>	<b>60/40</b>	<b>MSCI ACWI IMI</b>	<b>FTSE EPRA NAREIT</b>	<b>Morningstar/LSTA LLI</b>	<b>FTSE Developed Core Infra 50/50</b>
NAV (\$B)	\$26.0 <sup>1</sup>	\$12.3	\$5.7	\$5.5	\$2.1
Direct Alpha (%)	3.7%	2.6%	3.7%	2.2%	9.3%
KS PME	1.10x	1.07x	1.11x	1.05x	1.21x
EVM (\$M)	\$4,803	\$1,796	\$1,083	\$641	\$452
<b>NAV Sensitivities</b>	<b>Resulting EVM</b>	<b>Resulting EVM</b>	<b>Resulting EVM</b>	<b>Resulting EVM</b>	<b>Resulting EVM</b>
1.25x	\$6,004	\$2,245	\$1,353	\$801	\$565
1.10x	\$5,284	\$1,976	\$1,191	\$705	\$497
1.00x	\$4,803	\$1,796	\$1,083	\$641	\$452
0.90x	\$4,323	\$1,617	\$974	\$577	\$407
0.75x	\$3,602	\$1,347	\$812	\$480	\$339

### Terms:

Direct Alpha (% rate) – Annualized excess return / loss achieved by an investor compared to an investment in the equivalent public index (>0.0% = Good)

KS PME (multiple) – Ratio which represents how many dollars an investor has earned compared to an investment in the equivalent public index (>1.0x = Good)

Excess Value Method “EVM” (\$ value) – How many more / less dollars will an investor have compared to an investment in the equivalent public index, expressed in dollars (Positive \$ = Good)

# Private Markets – 5 Year Summary

## Question 3: What has PSERS paid to access the Private Markets, and how much of the realized total profit was retained by PSERS?

Paid or Accrued to Manager	2023	2022	2021	2020	2019	5 Years
Management Fees	\$264	\$249	\$238	\$238	\$229	\$1,218
Expenses <sup>1</sup>	164	128	95	77	74	620
Total Carried Interest	424	187	1,358	380	380	2,757
Accrued Carried Interest	233	-44	776	128	55	1,176
Paid Carried Interest (h)	191	231	582	252	325	1,581

  

Distribution of Profits	2023	2022	2021	2020	2019	5 Years
Total Profits Paid Out (f+g+h)	\$1,911	\$2,861	\$4,008	\$1,892	\$2,033	\$12,705
Retained By GP (h)	\$191	\$231	\$582	\$252	\$325	\$1,581
	10%	8%	15%	13%	16%	12%
Retained by PSERS (f+g)	<b>\$1,720</b>	<b>\$2,629</b>	<b>\$3,426</b>	<b>\$1,641</b>	<b>\$1,707</b>	<b>\$11,123</b>
	<b>90%</b>	<b>92%</b>	<b>85%</b>	<b>87%</b>	<b>84%</b>	<b>88%</b>

**Over the last 5 years, PSERS earned ~7.0x for every profit dollar earned by a GP.**

Notes: 2022-2023 data collected and provided by Aksia. Fees, expenses, and carried interest are based on those disclosed to Aksia by PSERS' external managers via capital account statements, financials, or fee templates. Prior years' fees, expenses, and carried interest were collected by PSERS and prior consultants. All data excludes the impact of FX hedges.

<sup>1</sup>Expenses exclude Private Credit interest expense (\$255M and 115M in 2023 and 2022, respectively), a strategic investment expense rather than a fund operation expense for this asset class. Interest expense is included for the other Private Markets asset classes.

# Private Markets – CY 2023 by Portfolio

## Question 1: What has PSERS achieved by investing in the Private Markets?

CY 2023 Profit & Loss Statement (\$M)	Private Markets	Private Equity	Private Credit	Real Estate	Infrastructure <sup>1</sup>
Beginning NAV (a)	\$24,634	\$12,062	\$5,077	\$5,672	\$1,823
Contributions (b)	3,016	866	1,078	539	534
Distributions (c)	3,130	1,476	1,127	348	179
Return of Principal	1,410	577	598	156	79
Earned Income (f)	767	153	466	106	41
Realized Gain (Loss) (g)	953	745	63	86	59
Net Profit (Loss) (d)	1,450	843	510	-185	282
Realized	1,720	899	530	192	100
Unrealized	-270	-55	-20	-377	182
Ending NAV (a+b-c+d)	\$25,967	\$12,296	\$5,538	\$5,675	\$2,459
<b>Time-Weighted Return</b>	<b>5.9%</b>	<b>7.2%</b>	<b>10.3%</b>	<b>-3.2%</b>	<b>13.8%</b>

Notes: 2022-2023 data collected and provided by Aksia and excludes the impact of FX hedges.

<sup>1</sup>Infrastructure includes both Private Infrastructure (\$2.1B NAV) and Private Commodities (\$0.4B NAV).

# Private Markets – CY 2023 by Portfolio

## Question 2: What has PSERS paid to access the Private Markets, and how much of the realized total profit was retained by PSERS?

Private Markets Costs (\$M)	Private Markets	Private Equity	Private Credit	Real Estate	Infrastructure <sup>1</sup>
Management Fees	\$264	\$119	\$65	\$54	\$27
Expenses <sup>2</sup>	\$164	\$66	\$40	\$36	\$22
Total Carried Interest	\$424	\$294	\$106	-\$18	\$42
Accrued Carried Interest	\$233	\$164	\$76	-\$29	\$23
Paid Carried Interest (h)	\$191	\$131	\$30	\$11	\$19

  

Distribution of Profits (\$M)	Private Markets	Private Equity	Private Credit	Real Estate	Infrastructure <sup>1</sup>
Total Profits Paid Out (f+g+h)	\$1,911	\$1,029	\$560	\$203	\$119
Retained By GP (h)	\$191	\$131	\$30	\$11	\$19
	10%	13%	5%	6%	16%
Retained by PSERS (f+g)	\$1,720	\$899	\$530	\$192	\$100
	90%	87%	95%	94%	84%

Notes: 2022-2023 data collected and provided by Aksia and excludes the impact of FX hedges. Fees, expenses, and carried interest are based on those disclosed to Aksia by PSERS' external managers via capital account statements, financials, or fee templates.

<sup>1</sup>Infrastructure includes both Private Infrastructure (\$2.1B NAV) and Private Commodities (\$0.4B NAV).

<sup>2</sup>Expenses exclude Private Credit interest expense (\$255M and 115M in 2023 and 2022, respectively), a strategic investment expense rather than a fund operation expense for this asset class. Interest expense is included for the other Private Markets asset classes.

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# Appendix

# Private Markets – Detail by Manager (CY 2023)

CY 2023		Paid or Accrued to Manager					Distribution of Profits		
Manager (\$M)	Asset Class (# Funds)	Management Fees	Expenses	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
Actis GP LP	Private Equity (2)	\$0.8	\$0.3	\$0.0	\$0.0	\$0.0	\$1.6	\$0.0	\$1.6
Adams Capital Management Inc	Private Equity (1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Aisling Capital Management LP	Private Equity (3)	\$0.9	\$0.3	\$5.3	\$5.3	\$0.0	\$0.6	\$0.0	\$0.6
Aksia LLC	Private Equity (1)	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Apax Partners	Private Equity (8)	\$5.7	\$5.2	\$7.3	\$7.3	\$0.0	\$4.3	\$0.0	\$4.3
Apogem Capital LLC	Private Equity (5)	\$0.1	\$0.2	-\$0.1	-\$0.2	\$0.1	\$13.4	\$0.1	\$13.3
Apollo Global Management Inc.	Private Equity (5)	\$1.3	\$1.5	\$5.8	\$0.4	\$5.4	\$31.6	\$5.4	\$26.2
Ares Management LLC	Private Equity (5)	\$0.1	\$0.0	\$0.1	-\$0.2	\$0.3	\$2.7	\$0.3	\$2.5
Arrowhead Investment Management LLC	Private Equity (1)	\$0.0	\$0.0	\$0.3	\$0.0	\$0.3	\$0.3	\$0.3	\$0.0
Avenue Capital Group	Private Equity (1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bain Capital LLC	Private Equity (6)	\$3.6	\$0.6	\$47.2	\$33.3	\$13.8	\$124.5	\$13.8	\$110.7
Black Diamond Capital Management LLC	Private Equity (1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Blackstone Group LP	Private Equity (8)	\$1.5	\$2.1	\$4.0	\$0.2	\$3.9	\$25.4	\$3.9	\$21.5
Blue Point Capital Partners LLC	Private Equity (3)	\$1.0	\$0.4	\$13.7	\$13.7	\$0.0	\$0.0	\$0.0	\$0.0
BPEA EQT Asia	Private Equity (2)	\$0.0	\$0.0	-\$0.7	-\$0.7	\$0.0	-\$15.5	\$0.0	-\$15.5
Bridgepoint Advisers Ltd	Private Equity (11)	\$5.3	\$4.5	\$51.3	\$49.1	\$2.2	\$27.1	\$2.2	\$24.9
Bryn Mawr Capital Management Inc	Private Equity (1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Capital International	Private Equity (2)	\$0.2	\$0.1	\$0.0	\$0.0	\$0.0	\$6.5	\$0.0	\$6.5
Cerberus Capital Management LP	Private Equity (4)	\$2.1	\$1.6	\$5.8	-\$3.4	\$9.2	\$104.4	\$9.2	\$95.2
Cinven	Private Equity (2)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Clayton Dubilier & Rice	Private Equity (1)	\$1.0	\$0.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Clearlake Capital Group LP	Private Equity (11)	\$3.1	\$2.5	\$11.9	\$7.1	\$4.8	\$27.3	\$4.8	\$22.5
Coller Capital Limited	Private Equity (2)	\$1.1	\$1.4	\$0.4	-\$0.2	\$0.5	\$12.4	\$0.5	\$11.9
Crestview Partners	Private Equity (4)	\$2.3	\$2.9	-\$5.0	-\$10.5	\$5.5	\$41.3	\$5.5	\$35.7
Cross Atlantic Capital Partners	Private Equity (4)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
CVC Capital Partners	Private Equity (2)	\$0.0	\$0.1	\$1.6	\$1.4	\$0.2	\$1.8	\$0.2	\$1.5
Denham Capital Management LP	Private Equity (2)	\$0.5	\$0.1	\$0.2	\$0.2	\$0.0	-\$0.1	\$0.0	-\$0.1
Energy & Minerals Group	Private Equity (1)	\$0.8	\$0.0	\$0.0	\$0.0	\$0.0	\$2.7	\$0.0	\$2.7
Equistone Partners Europe Limited	Private Equity (2)	\$1.8	\$1.6	-\$1.2	-\$1.2	\$0.0	\$30.3	\$0.0	\$30.3
First Reserve	Private Equity (1)	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Gold Hill Capital Management LLC	Private Equity (1)	\$0.0	\$0.0	-\$0.1	-\$0.1	\$0.0	\$0.4	\$0.0	\$0.4
Greenoaks Capital Partners	Private Equity (2)	\$4.9	\$0.4	-\$7.1	-\$7.1	\$0.0	\$0.0	\$0.0	\$0.0
Hahn & Company	Private Equity (4)	\$2.5	\$1.6	\$7.3	\$7.3	\$0.0	\$1.0	\$0.0	\$1.0

# Private Markets – Detail by Manager (CY 2023)

CY 2023		Paid or Accrued to Manager					Distribution of Profits		
Manager (\$M)	Asset Class (# Funds)	Management Fees	Expenses	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
HgCapital	Private Equity (10)	\$4.5	\$11.9	\$24.1	\$13.6	\$10.5	\$44.3	\$10.5	\$33.8
HGGC	Private Equity (2)	\$1.3	\$0.3	\$17.1	\$14.8	\$2.3	\$18.3	\$2.3	\$16.0
Incline Equity Partners	Private Equity (6)	\$5.1	\$1.9	\$2.1	-\$6.4	\$8.5	\$40.8	\$8.5	\$32.3
Insight Venture Management LLC	Private Equity (10)	\$6.5	\$2.3	\$20.0	\$17.5	\$2.6	\$14.0	\$2.6	\$11.5
Irving Place Capital Management LP	Private Equity (1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2.1	\$0.0	\$2.1
K1 Investment Management	Private Equity (1)	\$1.7	\$0.2	\$2.3	\$2.3	\$0.0	\$0.0	\$0.0	\$0.0
L Catterton	Private Equity (10)	\$4.6	\$1.1	\$19.9	\$6.8	\$13.1	\$66.7	\$13.1	\$53.6
Lindsay Goldberg	Private Equity (2)	\$2.6	\$2.9	\$5.0	\$4.9	\$0.1	\$0.2	\$0.1	\$0.1
LLR Partners	Private Equity (5)	\$7.2	\$2.6	\$12.7	\$11.9	\$0.7	\$6.4	\$0.7	\$5.6
Mid Atlantic Venture Funds	Private Equity (1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	\$0.1
Milestone Partners	Private Equity (5)	-\$2.1	\$0.2	-\$9.6	-\$9.6	\$0.0	\$4.5	\$0.0	\$4.5
Morgan Stanley	Private Equity (1)	\$0.8	\$0.2	\$0.0	\$0.0	\$0.0	\$9.6	\$0.0	\$9.6
New Mountain Capital LLC	Private Equity (7)	\$5.3	\$2.9	\$10.6	-\$14.6	\$25.2	\$126.8	\$25.2	\$101.6
NGP Energy Capital Management LLC	Private Equity (4)	\$1.1	\$0.2	\$0.3	\$0.3	\$0.0	\$18.3	\$0.0	\$18.3
Oak HC/FT	Private Equity (2)	\$4.1	\$0.3	\$4.2	\$4.2	\$0.0	\$0.0	\$0.0	\$0.0
Oaktree Capital Management LP	Private Equity (2)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Odyssey Investment Partners LLC	Private Equity (1)	\$0.6	\$0.1	\$0.0	\$0.0	\$0.0	\$2.2	\$0.0	\$2.2
Orchid Asia Group Management Limited	Private Equity (3)	\$1.8	\$0.3	-\$3.6	-\$3.6	\$0.0	\$0.0	\$0.0	\$0.0
PAI Partners	Private Equity (5)	\$2.3	\$0.2	\$1.7	\$0.2	\$1.5	\$16.3	\$1.5	\$14.8
Palladium Equity Partners LLC	Private Equity (1)	\$0.3	\$0.1	\$8.8	\$8.8	\$0.0	\$1.6	\$0.0	\$1.6
Partners Group	Private Equity (6)	\$1.4	\$0.2	\$0.4	\$0.0	\$0.4	\$6.9	\$0.4	\$6.5
Platinum Equity Advisors LLC	Private Equity (8)	\$2.3	\$1.5	-\$5.7	-\$13.1	\$7.4	\$85.4	\$7.4	\$78.0
Polaris Capital Group Co Ltd	Private Equity (2)	\$1.2	\$0.3	\$4.7	\$4.7	\$0.0	\$0.0	\$0.0	\$0.0
Portfolio Advisors LLC	Private Equity (3)	\$3.6	\$0.5	\$0.1	\$0.1	\$0.0	\$4.4	\$0.0	\$4.4
Sante Ventures	Private Equity (2)	\$3.5	\$0.5	\$21.8	\$21.8	\$0.0	\$22.7	\$0.0	\$22.7
SCP Private Equity Management Company LLC	Private Equity (2)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Searchlight Capital Partners	Private Equity (4)	\$3.3	\$0.5	\$4.4	\$2.8	\$1.6	\$13.0	\$1.6	\$11.4
Soros Fund Management LLC	Private Equity (1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.9	\$0.0	\$0.9
StarVest Partners	Private Equity (2)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$4.4	\$0.0	\$4.4
StepStone Group LP	Private Equity (1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Sterling Partners	Private Equity (2)	\$0.0	\$0.0	-\$0.1	\$0.0	-\$0.1	-\$0.1	-\$0.1	\$0.0
Summit Partners	Private Equity (7)	\$6.6	\$2.0	\$5.2	\$3.5	\$1.7	\$7.3	\$1.7	\$5.6
TDR Capital	Private Equity (1)	\$1.8	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

# Private Markets – Detail by Manager (CY 2023)

CY 2023		Paid or Accrued to Manager					Distribution of Profits		
Manager (\$M)	Asset Class (# Funds)	Management Fees	Expenses	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
Tenaya Capital	Private Equity (3)	\$1.7	\$0.5	-\$3.0	-\$8.2	\$5.2	\$8.0	\$5.2	\$2.9
Trilantic Capital Partners	Private Equity (4)	\$2.5	\$1.6	-\$0.6	-\$4.0	\$3.4	\$58.7	\$3.4	\$55.3
Tulco LLC	Private Equity (1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.1	\$0.0	\$1.1
Valar Ventures	Private Equity (1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Venor Capital Management LP	Private Equity (1)	\$0.3	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Versa Capital Management LP	Private Equity (2)	\$2.2	\$0.9	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	\$0.1
Webster Equity Partners LLC	Private Equity (2)	-\$0.3	\$0.0	\$3.2	\$3.2	\$0.0	\$0.0	\$0.0	\$0.0
Apollo Global Management Inc.	Private Credit (3)	\$1.7	\$1.9	-\$2.7	-\$5.0	\$2.2	\$5.1	\$2.2	\$2.8
Ares Management LLC	Private Credit (2)	\$2.2	\$10.0	\$4.4	\$4.4	\$0.0	\$12.5	\$0.0	\$12.5
Avenue Capital Group	Private Credit (3)	\$0.4	\$1.3	\$13.8	\$11.2	\$2.7	\$4.7	\$2.7	\$2.1
Bain Capital LLC	Private Credit (7)	\$4.9	\$10.5	\$5.4	\$5.4	\$0.0	\$11.7	\$0.0	\$11.7
Carlyle	Private Credit (2)	\$0.4	\$0.6	\$0.0	\$0.0	\$0.0	\$27.8	\$0.0	\$27.8
Cerberus Capital Management LP	Private Credit (2)	\$10.6	\$66.6	\$5.0	-\$1.5	\$6.5	\$6.5	\$6.5	\$0.0
Clearlake Capital Group LP	Private Credit (3)	\$1.9	\$2.5	\$1.4	\$1.4	\$0.0	\$3.5	\$0.0	\$3.5
Dawson Partners	Private Credit (3)	\$8.4	\$6.0	\$7.0	\$7.0	\$0.0	\$187.8	\$0.0	\$187.8
Hayfin Management Limited (Cayman)	Private Credit (3)	\$1.8	\$1.3	-\$6.0	-\$6.0	\$0.0	\$20.7	\$0.0	\$20.7
Intermediate Capital Group PLC	Private Credit (7)	\$4.2	\$7.5	\$9.2	\$6.3	\$2.9	\$8.4	\$2.9	\$5.5
LaSalle Investment Management	Private Credit (1)	\$0.9	\$9.0	\$0.0	\$0.0	\$0.0	\$6.4	\$0.0	\$6.4
LBC Credit Management LP	Private Credit (3)	\$7.3	\$44.3	\$16.7	\$8.2	\$8.6	\$10.7	\$8.6	\$2.1
Mariner Investment Group LLC	Private Credit (2)	\$0.4	\$0.3	\$0.0	\$0.0	\$0.0	\$5.5	\$0.0	\$5.5
NewMarket Investment Management LP	Private Credit (3)	\$1.5	\$1.8	\$3.5	\$3.1	\$0.3	\$31.0	\$0.3	\$30.7
Pacific Investment Management Company	Private Credit (4)	\$1.6	\$45.2	\$9.0	\$8.8	\$0.2	\$0.2	\$0.2	\$0.0
Park Square Capital LLP	Private Credit (2)	\$5.6	\$76.4	\$9.9	\$9.9	\$0.0	\$28.0	\$0.0	\$28.0
Sixth Street Advisers LLC	Private Credit (12)	\$10.9	\$9.0	\$28.1	\$21.4	\$6.7	\$172.0	\$6.7	\$165.3
Summit Partners	Private Credit (1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.8	\$0.0	\$1.8
TCI Fund Management Limited	Private Credit (2)	\$0.1	\$0.2	\$0.9	\$0.9	\$0.0	\$6.2	\$0.0	\$6.2
Varde Management LP	Private Credit (2)	\$0.1	\$0.4	\$0.0	\$0.0	\$0.0	\$9.0	\$0.0	\$9.0
Angelo Gordon & Co LP	Real Estate (6)	\$4.8	\$3.5	-\$0.7	-\$1.5	\$0.8	\$7.9	\$0.8	\$7.1
Ares Management LLC	Real Estate (5)	\$1.0	\$0.7	-\$0.4	-\$0.6	\$0.2	\$4.7	\$0.2	\$4.5
Avenue Capital Group	Real Estate (1)	\$0.3	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bell Partners Inc	Real Estate (11)	\$4.7	-\$2.8	-\$5.4	-\$5.4	\$0.0	\$13.0	\$0.0	\$13.0
BlackRock Inc	Real Estate (1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Blackstone Group LP	Real Estate (11)	\$2.6	\$3.1	-\$10.8	-\$11.0	\$0.2	\$9.7	\$0.2	\$9.5
Brookfield Asset Management	Real Estate (6)	\$8.2	\$2.6	-\$0.2	-\$4.6	\$4.4	\$63.6	\$4.4	\$59.2
Cabot Properties LP	Real Estate (5)	\$4.6	\$19.0	-\$2.5	-\$2.5	\$0.0	\$5.3	\$0.0	\$5.3

# Private Markets – Detail by Manager (CY 2023)

CY 2023			Paid or Accrued to Manager				Distribution of Profits			
Manager (\$M)	Asset Class (# Funds)		Management Fees	Expenses	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
Carlyle	Real Estate (5)		\$3.4	\$8.8	\$0.5	-\$2.7	\$3.2	\$15.5	\$3.2	\$12.3
CenterSquare Investment Management	Real Estate (4)		\$0.3	\$1.2	\$0.0	\$0.0	\$0.0	\$0.9	\$0.0	\$0.9
DRA Advisors LLC	Real Estate (7)		\$5.3	\$2.0	\$1.6	\$0.3	\$1.3	\$17.1	\$1.3	\$15.8
EQT Partners AB	Real Estate (8)		\$4.6	\$0.0	-\$1.6	-\$2.6	\$1.0	\$17.1	\$1.0	\$16.1
Fortress Investment Group LLC	Real Estate (2)		\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
GF Management LLC	Real Estate (2)		\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$3.3	\$0.0	\$3.3
Island Capital Group LLC	Real Estate (1)		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
L&B Realty Advisors LLP	Real Estate (2)		\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$2.3	\$0.0	\$2.3
LaSalle Investment Management	Real Estate (1)		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	\$0.0	\$0.5
LEM Capital LP	Real Estate (3)		\$1.7	\$0.7	-\$2.1	-\$2.3	\$0.1	\$2.2	\$0.1	\$2.0
Neuberger Berman	Real Estate (6)		\$2.0	\$0.2	-\$2.9	-\$3.0	\$0.1	\$12.1	\$0.1	\$12.0
O'Connor Capital Partners	Real Estate (1)		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
O'Connor Real Estate Advisors LLC	Real Estate (1)		\$0.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Paramount Group Inc	Real Estate (1)		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
PGIM Real Estate	Real Estate (4)		\$2.8	\$2.4	-\$0.1	-\$0.1	\$0.0	\$2.2	\$0.0	\$2.2
Property Management Inc	Real Estate (2)		\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Silverpeak Real Estate Partners LP	Real Estate (1)		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Stockbridge Capital Group LLC	Real Estate (5)		\$6.2	\$1.2	\$6.7	\$6.7	\$0.0	\$25.5	\$0.0	\$25.5
UBS Financial Services Inc	Real Estate (1)		\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.7	\$0.0	\$0.7
Blackstone Group LP	Real Assets (4)		\$7.6	\$8.9	\$0.0	\$0.0	\$0.0	\$24.3	\$0.0	\$24.3
Brookfield Asset Management	Real Assets (2)		\$3.1	\$2.5	\$0.0	\$0.0	\$0.0	\$0.2	\$0.0	\$0.2
CIM Group LLC	Real Assets (2)		\$1.0	\$1.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Denham Capital Management LP	Real Assets (3)		\$1.6	\$3.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
DIF Capital Partners	Real Assets (1)		\$3.6	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grosvenor Capital Management LP	Real Assets (2)		\$0.9	\$0.2	\$0.0	\$0.0	\$0.0	\$5.4	\$0.0	\$5.4
I Squared Capital Advisors (US) LLC	Real Assets (4)		\$5.3	\$3.4	\$0.0	\$0.0	\$0.0	\$2.2	\$0.0	\$2.2
LS Power Equity Advisors LLC	Real Assets (1)		\$0.5	\$0.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
NewMarket Investment Management LP	Real Assets (1)		\$0.7	\$0.2	\$0.0	\$0.0	\$0.0	\$9.2	\$0.0	\$9.2
NGP Energy Capital Management LLC	Real Assets (1)		\$2.7	\$0.2	\$0.0	\$0.0	\$0.0	\$58.5	\$0.0	\$58.5

# Private Equity – Detail by Fund (CY 2023)

Investment	Paid or Accrued to Manager					Distribution of Profits		
	Management Fees	Expenses	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
Actis Emerging Markets 3, L.P.	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Actis Global 4, L.P.	\$0.8	NP	\$0.0	\$0.0	\$0.0	\$1.6	\$0.0	\$1.6
Adams Capital Management, L.P.	\$0.0	\$0.0	NP	NP	NP	\$0.0	NP	\$0.0
Aisling Capital II L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Aisling Capital III, L.P.	\$0.0	\$0.0	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0
Aisling Capital IV, L.P.	\$0.9	\$0.2	\$5.3	\$5.3	\$0.0	\$0.6	\$0.0	\$0.6
Apax Digital II, L.P.	\$2.4	\$2.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Apax Digital, L.P.	\$1.4	\$1.1	\$2.3	\$2.3	\$0.0	\$1.3	\$0.0	\$1.3
Apax Europe VII, L.P.	\$0.0	\$0.0	\$0.4	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0
Apax X USD, L.P.	\$1.6	\$1.6	\$4.7	\$4.7	\$0.0	\$0.8	\$0.0	\$0.8
Apollo Investment Fund IX, L.P.	\$1.0	\$1.2	\$7.6	\$4.6	\$3.0	\$13.5	\$3.0	\$10.5
Apollo Investment Fund VIII, L.P.	\$0.3	\$0.3	-\$1.8	-\$4.3	\$2.4	\$15.6	\$2.4	\$13.2
Avenue Special Situations Fund VI, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bain Capital Asia Fund II, L.P.	\$0.4	\$0.1	\$0.2	\$0.1	\$0.1	\$0.8	\$0.1	\$0.6
Bain Capital Asia Fund III-A, L.P.	\$0.8	\$0.1	\$4.3	-\$5.5	\$9.8	\$50.7	\$9.8	\$40.9
Bain Capital Asia Fund IV-B, L.P.	\$1.2	\$0.3	\$30.3	\$30.3	\$0.0	\$45.1	\$0.0	\$45.1
Bain Capital Fund XI-A, L.P.	\$0.3	\$0.0	\$2.3	\$2.3	\$0.0	\$10.8	\$0.0	\$10.8
Bain Capital Fund XII-A, L.P.	\$0.9	\$0.2	\$10.0	\$6.1	\$4.0	\$17.2	\$4.0	\$13.2
Baring Asia Private Equity Fund IV, L.P.	\$0.0	NP	-\$0.7	-\$0.7	\$0.0	-\$15.5	\$0.0	-\$15.5
Blue Point Capital Partners II (B), L.P.	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Blue Point Capital Partners III (B), L.P.	\$0.3	\$0.1	\$10.7	\$10.7	\$0.0	\$0.0	\$0.0	\$0.0
Blue Point Capital Partners IV, L.P.	\$0.7	\$0.2	\$3.0	\$3.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridgepoint Development Capital III, L.P.	\$0.5	\$0.2	\$14.5	\$14.5	\$0.0	\$0.0	\$0.0	\$0.0
Bridgepoint Development Capital IV, L.P.	\$2.4	\$2.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridgepoint Europe III A, L.P.	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$22.1	\$0.0	\$22.1
Bridgepoint Europe IV, L.P.	\$0.5	\$0.2	-\$0.1	-\$0.5	\$0.4	\$1.2	\$0.4	\$0.8
Bridgepoint Europe V, L.P.	\$0.7	\$1.1	\$23.5	\$21.7	\$1.8	\$3.2	\$1.8	\$1.4
Bridgepoint Europe VI, L.P.	\$1.1	\$0.7	\$13.3	\$13.3	\$0.0	\$0.2	\$0.0	\$0.2
Capital International Private Equity Fund V L.P.	NP	NP	NP	NP	NP	\$0.0	NP	\$0.0
Capital International Private Equity Fund VI, L.P.	\$0.2	\$0.1	\$0.0	\$0.0	\$0.0	\$6.5	\$0.0	\$6.5
Catterton Growth Partners II, L.P.	\$0.8	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Catterton Growth Partners, L.P.	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$11.5	\$0.0	\$11.5
Catterton Partners VI, L.P.	\$0.2	\$0.0	\$5.3	\$0.0	\$5.3	\$9.6	\$5.3	\$4.3

# Private Equity – Detail by Fund (CY 2023)

Investment	Paid or Accrued to Manager					Distribution of Profits		
	Management Fees	Expenses	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
Catterton Partners VII, L.P.	\$0.9	\$0.1	\$2.0	\$2.0	\$0.0	\$0.0	\$0.0	\$0.0
Cerberus Institutional Partners V, L.P.	\$0.1	\$0.5	\$1.0	-\$1.7	\$2.7	\$16.6	\$2.7	\$13.9
Cerberus Institutional Partners VI, L.P.	\$2.0	\$0.9	\$4.4	\$4.4	\$0.1	\$4.6	\$0.1	\$4.5
Cerberus Institutional Partners, L.P.(Series Four)	\$0.0	\$0.4	\$0.4	-\$6.0	\$6.4	\$32.3	\$6.4	\$25.8
Clayton Dubilier & Rice Fund XII LP	\$1.0	\$0.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Clearlake Capital Partners IV, L.P.	\$0.3	\$0.0	\$2.6	\$0.7	\$2.0	\$8.2	\$2.0	\$6.3
Clearlake Capital Partners V, L.P.	\$0.9	\$0.4	\$0.9	-\$1.9	\$2.9	\$14.3	\$2.9	\$11.4
Clearlake Capital Partners VI, L.P.	\$1.1	\$1.1	\$7.0	\$7.0	\$0.0	\$3.3	\$0.0	\$3.3
Clearlake Capital Partners VII, L.P.	\$0.8	\$0.4	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	\$0.1
Clearlake Capital Partners VIII, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Clearlake Flagship Plus Partners, L.P.	\$0.0	\$0.5	\$1.4	\$1.4	\$0.0	\$1.3	\$0.0	\$1.3
Co-Investment 2000 Fund, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Co-Investment Fund II, L.P.	\$0.0	NP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Coller International Partners VI, L.P.	\$0.3	\$0.0	-\$0.1	-\$0.6	\$0.5	\$5.5	\$0.5	\$5.0
Coller International Partners VII, L.P. - Series A	\$0.8	\$1.3	\$0.4	\$0.4	\$0.0	\$6.9	\$0.0	\$6.9
Crestview Partners II, L.P.	\$0.6	\$0.3	\$3.0	-\$2.2	\$5.2	\$32.4	\$5.2	\$27.3
Crestview Partners III, L.P.	\$1.5	\$2.5	-\$12.9	-\$13.3	\$0.4	\$5.1	\$0.4	\$4.7
Crestview Partners, L.P.	\$0.2	\$0.1	\$5.0	\$5.0	\$0.0	\$3.7	\$0.0	\$3.7
Cross Atlantic Technology Fund II	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Cross Atlantic Technology Fund, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Crown CG Private Equity Fund 2019, L.P.	\$1.2	\$0.2	\$4.1	\$4.1	\$0.0	\$0.0	\$0.0	\$0.0
Crown CG Private Equity Fund 2019S, L.P.	\$0.0	\$0.1	\$0.7	\$0.7	\$0.0	\$0.0	\$0.0	\$0.0
CVC Capital Partners Asia Pacific III, L.P.	\$0.0	\$0.0	\$0.1	-\$0.1	\$0.2	\$1.5	\$0.2	\$1.3
CVC European Equity Partners V (A), L.P.	\$0.0	\$0.0	\$1.6	\$1.5	\$0.0	\$0.3	\$0.0	\$0.2
DCPF VI Oil and Gas Co-Investment Fund, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Denham Commodity Partners Fund VI, L.P.	\$0.4	\$0.1	\$0.2	\$0.2	\$0.0	-\$0.1	\$0.0	-\$0.1
Equistone Partners Europe Fund V E, L.P.	\$0.6	\$0.8	-\$3.2	-\$3.2	\$0.0	\$0.8	\$0.0	\$0.8
Equistone Partners Europe Fund VI E, SCSp	\$1.2	\$0.9	\$2.0	\$2.0	\$0.0	\$29.5	\$0.0	\$29.5
First Reserve Fund XII, L.P.	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Gleacher Mezzanine Fund II, L.P.	\$0.0	\$0.0	\$0.3	\$0.0	\$0.3	\$0.3	\$0.3	\$0.0
Gold Hill Venture Lending 03, L.P.	\$0.0	\$0.0	-\$0.1	-\$0.1	\$0.0	\$0.4	\$0.0	\$0.4

# Private Equity – Detail by Fund (CY 2023)

CY 2023	Paid or Accrued to Manager					Distribution of Profits		
Investment	Management Fees	Expenses	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
GoldPoint Partners Co-Investment V, L.P.	\$0.1	\$0.2	-\$0.3	-\$0.3	\$0.1	\$13.1	\$0.1	\$13.0
Greenoaks Capital Opportunities Fund III	\$2.0	\$0.1	-\$7.1	-\$7.1	\$0.0	\$0.0	\$0.0	\$0.0
Greenoaks Capital Opportunities Fund V LP	\$2.9	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
GSC Recovery II, L.P.	\$0.0	NP	NP	NP	NP	\$0.0	NP	\$0.0
Hahn & Company III L.P.	\$2.0	\$1.4	\$5.4	\$5.4	\$0.0	\$1.0	\$0.0	\$1.0
Hahn & Company III-S L.P.	\$0.5	\$0.1	\$2.0	\$2.0	\$0.0	\$0.0	\$0.0	\$0.0
Hg Genesis 9 L.P.	\$1.5	\$3.1	\$4.0	\$4.0	\$0.0	\$0.0	\$0.0	\$0.0
Hg Saturn 2 A L.P.	\$0.7	\$4.1	\$7.7	\$7.7	\$0.0	\$0.0	\$0.0	\$0.0
Hg Saturn 3 A L.P.	\$1.0	\$1.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
HgCapital 7 A, L.P.	\$0.1	\$0.0	\$1.8	-\$2.4	\$4.2	\$12.3	\$4.2	\$8.1
HgCapital 8 D, L.P.	\$1.2	\$3.0	\$10.6	\$4.2	\$6.3	\$13.8	\$6.3	\$7.4
HGGC Fund II, L.P.	\$0.0	\$0.1	-\$1.1	-\$1.1	\$0.0	\$3.0	\$0.0	\$3.0
HGGC Fund III, L.P.	\$1.3	\$0.2	\$18.2	\$16.0	\$2.3	\$15.3	\$2.3	\$13.0
Honeydew Co-Invest, L.P.	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Incline Elevate Fund II, L.P.	\$1.3	\$0.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Incline Elevate Fund, L.P.	\$0.7	\$0.1	\$1.2	\$1.2	\$0.0	\$0.4	\$0.0	\$0.4
Incline Equity Partners III (PSERS), L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Incline Equity Partners IV, L.P.	\$0.8	\$0.1	\$0.9	-\$7.6	\$8.5	\$40.1	\$8.5	\$31.6
Incline Equity Partners V, L.P.	\$2.3	\$0.9	\$0.0	\$0.0	\$0.0	\$0.2	\$0.0	\$0.2
Incline Equity Partners VI, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Insight Opportunities Fund I, L.P.	\$0.9	\$0.1	\$2.5	\$2.5	\$0.0	\$0.0	\$0.0	\$0.0
Insight Partners XI, L.P.	\$2.3	\$1.1	\$6.5	\$6.5	\$0.0	\$0.6	\$0.0	\$0.6
Insight Partners XII Buyout Annex Fund, L.P.	\$0.5	\$0.2	\$0.2	\$0.2	\$0.0	\$0.1	\$0.0	\$0.1
Insight Partners XII, L.P.	\$1.2	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Insight Venture Partners X, L.P.	\$1.5	\$0.1	\$10.8	\$8.2	\$2.6	\$13.4	\$2.6	\$10.9
Insight Vision Capital II L.P.	\$0.0	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Irving Place Capital Partners III SPV, L.P.	NP	NP	NP	NP	NP	\$2.1	NP	\$2.1
K4 Private Investors, L.P.	\$1.7	\$0.2	\$2.3	\$2.3	\$0.0	\$0.0	\$0.0	\$0.0
L Catterton Growth Partners III, L.P.	\$1.3	\$0.3	\$12.1	\$4.3	\$7.8	\$28.3	\$7.8	\$20.5
L Catterton VIII, L.P.	\$1.4	\$0.4	\$0.4	\$0.4	\$0.0	\$14.3	\$0.0	\$14.3
Landmark Equity Partners IV, L.P.	\$0.0	NP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Landmark Equity Partners V, L.P.	\$0.0	NP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0



# Private Equity – Detail by Fund (CY 2023)

CY'2023	Paid or Accrued to Manager					Distribution of Profits		
Investment (\$M)	Management Fees	Expenses	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
Landmark Equity Partners XIII, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Landmark Equity Partners XIV, L.P.	\$0.1	\$0.0	\$0.1	-\$0.2	\$0.3	\$2.7	\$0.3	\$2.4
Landmark Mezzanine Partners	\$0.0	NP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Lindsay Goldberg V, L.P.	\$2.6	\$2.8	\$5.0	\$4.9	\$0.1	\$0.2	\$0.1	\$0.1
LLR Equity Partners III, L.P.	\$0.0	\$0.1	-\$0.8	-\$0.8	\$0.0	\$0.0	\$0.0	\$0.0
LLR Equity Partners IV, L.P.	\$0.9	\$0.2	\$3.4	\$2.6	\$0.7	\$3.1	\$0.7	\$2.3
LLR Equity Partners V, L.P.	\$2.8	\$0.8	\$10.0	\$10.0	\$0.0	\$3.3	\$0.0	\$3.3
LLR Equity Partners VI, L.P.	\$3.5	\$1.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Milestone Partners FS 2, L.P.	\$0.5	\$0.1	-\$6.8	-\$6.8	\$0.0	\$0.0	\$0.0	\$0.0
Milestone Partners III, L.P.	-\$2.8	\$0.0	\$0.0	\$0.0	\$0.0	\$4.5	\$0.0	\$4.5
Milestone Partners IV, L.P.	\$0.2	\$0.1	-\$2.8	-\$2.8	\$0.0	\$0.0	\$0.0	\$0.0
NEPA Venture Fund II	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	\$0.1
New Mountain Partners III L.P.	\$0.0	\$0.0	-\$0.5	-\$0.5	\$0.0	\$0.0	\$0.0	\$0.0
New Mountain Partners IV, L.P.	\$0.2	\$0.2	-\$0.3	-\$2.5	\$2.2	\$10.6	\$2.2	\$8.3
New Mountain Partners V, L.P.	\$1.2	\$0.1	\$3.4	-\$19.6	\$22.9	\$115.7	\$22.9	\$92.7
New Mountain Partners VI, L.P.	\$3.9	\$2.5	\$7.9	\$7.9	\$0.0	\$0.5	\$0.0	\$0.5
New York Life Capital Partners I, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New York Life Capital Partners III-A, L.P.	\$0.0	NP	NP	NP	NP	\$0.3	NP	\$0.3
New York Life Capital Partners IV-A, L.P.	\$0.0	-\$0.1	\$0.2	\$0.2	\$0.0	\$0.1	\$0.0	\$0.1
NGP Natural Resources X, L.P.	\$0.2	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
NGP Natural Resources XI, L.P.	\$0.9	\$0.0	\$0.4	\$0.4	\$0.0	\$18.9	\$0.0	\$18.9
North Haven Private Equity Asia IV, L.P.	\$0.8	\$0.2	NP	NP	NP	\$9.6	NP	\$9.6
Oak HC/FT Partners IV, L.P.	\$2.2	\$0.2	\$4.5	\$4.5	\$0.0	\$0.0	\$0.0	\$0.0
Oak HC/FT Partners V, L.P.	\$1.9	\$0.1	-\$0.3	-\$0.3	\$0.0	\$0.0	\$0.0	\$0.0
OCM Opportunities Fund VII L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
OCM Opportunities Fund VII-b L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Odyssey Investment Partners Fund V, L.P.	\$0.6	\$0.1	\$0.0	\$0.0	\$0.0	\$2.2	\$0.0	\$2.2
Orchid Asia V, L.P.	\$0.1	\$0.0	-\$0.4	-\$0.4	\$0.0	\$0.0	\$0.0	\$0.0
Orchid Asia VI, L.P.	\$0.7	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Orchid Asia VII, L.P.	\$1.0	\$0.3	-\$3.2	-\$3.2	\$0.0	\$0.0	\$0.0	\$0.0
PA Portfolio Advisors Secondary Fund, L.P.	\$0.5	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

# Private Equity – Detail by Fund (CY 2023)

Investment (\$M)	Paid or Accrued to Manager					Distribution of Profits		
	Management Fees	Expenses	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
PAI Europe VI, L.P.	\$1.0	\$0.1	-\$1.3	-\$2.8	\$1.5	\$1.3	\$1.5	-\$0.2
PAI Europe VII, L.P.	\$1.4	\$0.1	\$3.0	\$3.0	\$0.0	\$15.0	\$0.0	\$15.0
Palladium Equity Partners IV, L.P.	\$0.3	\$0.1	\$8.8	\$8.8	\$0.0	\$1.6	\$0.0	\$1.6
Partners Group Secondary 2008, L.P.	\$0.0	\$0.0	\$0.2	\$0.0	\$0.2	\$2.8	\$0.2	\$2.6
Partners Group Secondary 2011 (USD), L.P. Inc.	\$0.5	\$0.0	\$0.2	\$0.0	\$0.2	\$1.4	\$0.2	\$1.2
Partners Group Secondary 2015 (USD) A, L.P.	\$0.9	\$0.1	\$0.0	\$0.0	\$0.0	\$2.2	\$0.0	\$2.2
Perseus-Soros BioPharmaceutical Fund, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.9	\$0.0	\$0.9
Platinum Equity Capital Partners IV, L.P.	\$0.0	\$0.2	-\$8.5	-\$8.7	\$0.2	\$33.4	\$0.2	\$33.2
Platinum Equity Capital Partners V, L.P.	\$0.0	\$0.2	\$1.5	\$0.5	\$1.0	\$5.6	\$1.0	\$4.6
Platinum Equity Capital Partners-A II, L.P.	\$0.0	\$0.2	\$0.9	-\$3.1	\$4.0	\$21.6	\$4.0	\$17.6
Platinum Equity Capital Partners-A III, L.P.	\$0.0	\$0.0	\$1.0	\$1.0	\$0.0	\$12.6	\$0.0	\$12.6
Platinum Equity Capital Partners-A, L.P.	\$0.0	\$0.2	\$0.5	-\$1.7	\$2.2	\$12.3	\$2.2	\$10.1
Platinum Equity Small Cap Fund, L.P.	\$2.3	\$0.7	-\$1.2	-\$1.2	\$0.0	\$0.0	\$0.0	\$0.0
Portfolio Advisors Secondary Fund III, L.P.	\$1.3	\$0.1	-\$0.5	-\$0.5	\$0.0	\$4.4	\$0.0	\$4.4
Portfolio Advisors Secondary Fund IV, L.P.	\$1.7	\$0.2	\$0.5	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0
Sante Health Ventures III	\$1.4	\$0.3	\$19.3	\$19.3	\$0.0	\$22.7	\$0.0	\$22.7
Sante Health Ventures IV	\$2.1	\$0.2	\$2.5	\$2.5	\$0.0	\$0.0	\$0.0	\$0.0
SCP Private Equity Partners II, L.P.	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Searchlight Capital II, L.P.	\$0.5	\$0.1	-\$1.3	-\$1.3	\$0.0	\$0.0	\$0.0	\$0.0
Searchlight Capital III, L.P.	\$2.8	\$0.4	\$5.7	\$4.1	\$1.6	\$13.0	\$1.6	\$11.4
StarVest Partners II (Parallel), L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$4.4	\$0.0	\$4.4
StepStone International Investors III L.P.	\$0.0	NP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Sterling Capital Partners, L.P.	\$0.0	\$0.0	-\$0.1	NP	-\$0.1	-\$0.1	-\$0.1	\$0.0
Sterling Venture Partners, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Strategic Partners Fund III VC, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	\$0.0	\$0.2
Strategic Partners Fund III-B, L.P.	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Strategic Partners Fund IV VC, L.P.	\$0.0	\$0.1	\$0.3	\$0.0	\$0.3	\$2.1	\$0.3	\$1.8
Strategic Partners Fund IV, L.P.	\$0.0	\$0.0	-\$0.1	-\$0.4	\$0.4	\$2.6	\$0.4	\$2.3
Strategic Partners Fund V, L.P.	\$0.1	\$0.1	-\$0.5	-\$1.8	\$1.3	\$10.5	\$1.3	\$9.3
Strategic Partners Fund VI, L.P.	\$0.2	\$0.1	\$4.2	\$3.3	\$0.9	\$4.1	\$0.9	\$3.2

# Private Equity – Detail by Fund (CY 2023)

CY'2023	Paid or Accrued to Manager					Distribution of Profits		
Investment(\$M)	Management Fees	Expenses	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
Strategic Partners Fund VII, L.P.	\$1.2	\$1.7	\$0.1	-\$1.0	\$1.1	\$5.7	\$1.1	\$4.5
Summit Partners Growth Equity Fund IX-A, L.P.	\$0.9	\$0.0	-\$3.3	-\$4.5	\$1.2	\$4.4	\$1.2	\$3.3
Summit Partners Growth Equity Fund VIII-A, L.P.	\$0.0	\$0.0	-\$0.6	-\$1.2	\$0.6	\$2.9	\$0.6	\$2.3
Summit Partners Growth Equity Fund X-A, L.P.	\$2.4	\$0.4	\$5.7	\$5.7	\$0.0	\$0.0	\$0.0	\$0.0
Summit Partners Growth Equity Fund XI-A, L.P.	\$2.8	\$1.5	\$1.0	\$1.0	\$0.0	\$0.0	\$0.0	\$0.0
Summit Partners Venture Capital Fund III-A, L.P.	\$0.0	\$0.0	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0
Summit Partners Venture Capital Fund IV-A, L.P.	\$0.6	\$0.0	\$2.3	\$2.3	\$0.0	\$0.0	\$0.0	\$0.0
TDR Capital V L.P.	\$1.8	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Tenaya Capital VI, L.P.	\$0.4	\$0.3	\$1.8	\$1.5	\$0.3	\$3.2	\$0.3	\$2.9
Tenaya Capital VII, L.P.	\$1.3	\$0.1	-\$5.2	-\$9.2	\$4.0	\$4.0	\$4.0	\$0.0
Tenaya Capital V-P, L.P.	\$0.0	\$0.1	\$0.4	-\$0.5	\$0.9	\$0.9	\$0.9	\$0.0
The Energy & Minerals Group Fund III, L.P.	\$0.8	\$0.0	\$0.0	\$0.0	\$0.0	\$2.7	\$0.0	\$2.7
The Fourth Cinven Fund, L.P.	NP	NP	NP	NP	NP	\$0.0	NP	\$0.0
Trilantic Capital Partners IV L.P.	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Trilantic Capital Partners V (North America), L.P.	\$0.3	\$0.1	\$0.1	\$0.1	\$0.0	\$0.1	\$0.0	\$0.1
Trilantic Capital Partners VI (North America), L.P.	\$2.2	\$1.4	-\$0.7	-\$4.1	\$3.4	\$31.4	\$3.4	\$28.0
Valar Velocity Fund 2 LP	\$0.0	\$0.0	NP	NP	NP	\$0.0	NP	\$0.0
Venor Special Situations Fund II, L.P.	\$0.3	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Versa Capital Fund II, L.P.	\$0.8	\$0.2	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	\$0.1
Versa Capital Fund III, L.P.	\$1.4	\$0.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Webster Capital IV, L.P.	-\$0.3	NP	\$3.2	\$3.2	\$0.0	\$0.0	\$0.0	\$0.0
<b>Fund Total</b>	<b>\$118.2</b>	<b>\$65.1</b>	<b>\$294.3</b>	<b>\$163.8</b>	<b>\$130.5</b>	<b>\$923.4</b>	<b>\$130.5</b>	<b>\$792.9</b>
<b>Co-Investment Total</b>	<b>\$0.5</b>	<b>\$0.9</b>	<b>-\$0.1</b>	<b>-\$0.1</b>	<b>\$0.0</b>	<b>\$104.6</b>	<b>\$0.0</b>	<b>\$104.6</b>
<b>Direct Investment Total</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1.1</b>	<b>\$0.0</b>	<b>\$1.1</b>
<b>Grand Total</b>	<b>\$118.7</b>	<b>\$65.9</b>	<b>\$294.2</b>	<b>\$163.7</b>	<b>\$130.5</b>	<b>\$1029.2</b>	<b>\$130.5</b>	<b>\$898.6</b>

# Private Credit – Detail by Fund (CY 2023)

CY 2023	Paid or Accrued to Manager						Distribution of Profits		
Investment	Management Fees	Expenses	Interest Expense	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
Apollo European Principal Finance Fund II (Dollar A), L.P.	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Apollo European Principal Finance Fund III (Dollar A), LP	\$1.6	\$0.7	\$1.0	-\$2.7	-\$5.0	\$2.2	\$5.1	\$2.2	\$2.8
Avenue Energy Opportunities Fund II, L.P.	\$0.0	\$0.4	\$0.1	\$6.2	\$3.5	\$2.7	\$4.7	\$2.7	\$2.1
Avenue Energy Opportunities Fund, L.P.	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Avenue Europe Special Situations Fund III (U.S.), L.P.	\$0.4	\$0.5	\$0.0	\$7.7	\$7.7	\$0.0	\$0.0	\$0.0	\$0.0
Bain Capital Distressed and Special Situations 2013 (A + AIV I), L.P.	\$0.0	\$0.1	\$0.0	-\$1.8	-\$1.8	\$0.0	\$0.0	\$0.0	\$0.0
Bain Capital Distressed and Special Situations 2016 (A), L.P.	\$1.8	\$0.6	\$1.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bain Capital Distressed and Special Situations 2019 (A), L.P.	\$2.5	\$0.7	\$4.3	\$0.2	\$0.2	NP	\$11.7	NP	\$11.7
Bain Capital Middle Market Credit 2010, L.P.	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bain Capital Middle Market Credit 2014, LP	\$0.3	\$0.0	\$0.0	\$7.3	\$7.3	\$0.0	\$0.0	\$0.0	\$0.0
Bain Capital Special Situations Asia II, L.P.	\$0.2	\$0.2	\$2.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Carlyle Energy Mezzanine Opportunities Fund II, L.P.	\$0.4	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$1.7	\$0.0	\$1.7
Carlyle Energy Mezzanine Opportunities Fund-Q, L.P.	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$26.1	\$0.0	\$26.1
Cerberus Levered Loan Opportunities Fund II, L.P.	\$0.0	\$0.2	\$0.0	-\$0.5	-\$0.7	\$0.2	\$0.2	\$0.2	\$0.0
Cerberus PSERS Levered Loan Opportunities Fund, L.P.	\$10.6	\$2.5	\$63.9	\$5.5	-\$0.8	\$6.3	\$6.3	\$6.3	\$0.0
Clearlake Opportunities Partners II, L.P.	\$1.1	\$1.9	NP	\$1.4	\$1.4	\$0.0	\$2.7	\$0.0	\$2.7
Clearlake Opportunities Partners III, L.P.	\$0.8	\$0.6	NP	\$0.0	\$0.0	\$0.0	\$0.3	\$0.0	\$0.3
Dawson Partners (Independence), L.P.	\$8.4	\$2.7	\$3.3	\$7.0	\$7.0	\$0.0	\$0.0	\$0.0	\$0.0
Galton Onshore Mortgage Recovery Fund III LP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Galton Onshore Mortgage Recovery Fund IV, L.P.	\$0.4	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$5.5	\$0.0	\$5.5
Hayfin SOF II USD Co-Invest, L.P.	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$3.1	\$0.0	\$3.1
Hayfin SOF II USD, L.P.	\$1.7	\$0.5	\$0.5	-\$0.9	-\$0.9	\$0.0	\$16.0	\$0.0	\$16.0
HayFin Special Opportunities Credit Fund (Parallel), L.P.	\$0.0	\$0.1	NP	-\$5.1	-\$5.1	\$0.0	\$1.6	\$0.0	\$1.6
ICG Europe Fund V, L.P.	\$0.1	NP	NP	\$0.4	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0
ICG Europe Fund VI, L.P.	\$0.2	\$0.2	\$0.2	\$2.2	-\$0.8	\$2.9	\$8.2	\$2.9	\$5.3
ICG Europe Fund VII Feeder SCSp	\$0.9	\$0.2	\$0.4	\$3.3	\$3.3	\$0.0	\$0.0	\$0.0	\$0.0
ICG Europe Fund VIII Feeder SCSp	\$3.0	\$2.9	\$3.5	\$3.4	\$3.4	\$0.0	\$0.3	\$0.0	\$0.3
International Infrastructure Finance Company Fund, L.P.	\$0.5	\$0.4	\$0.0	\$2.3	\$2.3	\$0.0	\$2.3	\$0.0	\$2.3
Keystone Partners L.P. - Series A	\$1.1	\$0.6	\$0.2	\$0.9	\$0.9	\$0.0	\$16.2	\$0.0	\$16.2
Keystone Partners L.P. - Series B	\$0.0	\$0.6	\$0.0	\$0.3	\$0.0	\$0.3	\$12.5	\$0.3	\$12.2
Latitude Management Real Estate Capital IV, Inc.	\$0.9	\$2.3	\$6.7	\$0.0	\$0.0	\$0.0	\$6.4	\$0.0	\$6.4

# Private Credit – Detail by Fund (CY 2023)

CY'2023	Paid or Accrued to Manager						Distribution of Profits		
Investment	Management Fees	Expenses	Interest Expense	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
LBC Credit Partners III, L.P.	\$0.0	\$0.1	\$0.0	\$3.0	\$3.0	\$0.0	\$0.0	\$0.0	\$0.0
LBC-P Credit Fund, L.P.	\$7.2	\$1.3	\$42.9	\$13.8	\$5.2	\$8.6	\$8.6	\$8.6	\$0.0
Park Square - PSERS Credit Opportunities Fund, L.P.	\$5.6	\$7.5	\$68.9	\$9.9	\$9.9	\$0.0	\$27.3	\$0.0	\$27.3
PIMCO BRAVO Fund III Onshore Feeder, LP	\$1.6	\$1.0	\$12.0	\$6.5	\$6.3	\$0.2	\$0.2	\$0.2	\$0.0
PIMCO Commercial Real Estate Debt Fund II Onshore Feeder, L.P.	\$0.0	\$0.6	\$9.2	\$1.3	\$1.3	\$0.0	\$0.0	\$0.0	\$0.0
PIMCO Commercial Real Estate Debt Fund, L.P.	\$0.0	\$1.5	\$20.5	\$1.2	\$1.2	\$0.0	\$0.0	\$0.0	\$0.0
PSERS TAO Partners Parallel Fund, L.P. - (TAO 2.0)	\$1.8	\$0.6	\$0.2	\$11.8	\$9.0	\$2.7	\$31.8	\$2.7	\$29.1
PSERS TAO Partners Parallel Fund, L.P. - (TAO 3.0)	\$1.9	\$0.6	\$0.2	\$4.1	\$3.2	\$0.9	\$27.3	\$0.9	\$26.4
PSERS TAO Partners Parallel Fund, L.P. - (TAO Contingent)	\$1.3	\$0.6	\$0.2	\$3.4	\$2.2	\$1.3	\$25.1	\$1.3	\$23.8
Sankaty Credit Opportunities IV, L.P.	\$0.0	\$0.1	\$0.0	-\$0.3	-\$0.3	\$0.0	\$0.0	\$0.0	\$0.0
Sixth Street Fundamental Strategies Partners	\$1.3	\$0.5	\$0.5	\$4.5	\$4.3	\$0.3	\$38.4	\$0.3	\$38.1
Sixth Street Lending Partners	\$0.0	\$0.1	NP	NP	NP	NP	\$0.0	NP	\$0.0
Sixth Street Opportunities Partners II (A), L.P.	\$0.0	\$0.1	\$0.0	-\$0.8	-\$0.8	\$0.0	\$1.8	\$0.0	\$1.8
Sixth Street Opportunities Partners III (A), L.P.	\$0.3	\$0.2	\$0.0	-\$0.8	-\$0.9	\$0.1	\$6.6	\$0.1	\$6.5
Sixth Street Opportunities Partners IV (A), L.P.	\$1.4	\$0.6	\$0.0	\$3.8	\$2.4	\$1.5	\$17.3	\$1.5	\$15.9
Sixth Street Opportunities Partners V (A), L.P.	\$2.3	\$0.4	\$0.3	\$0.0	\$0.0	\$0.0	\$1.7	\$0.0	\$1.7
Sixth Street Specialty Lending Europe II (USD Feeder), L.P.	\$0.7	\$0.4	\$3.4	\$2.1	\$2.1	\$0.0	\$21.9	\$0.0	\$21.9
SSG Capital Partners V Sidecar, L.P.	\$0.7	\$1.2	\$3.5	\$1.1	\$1.1	\$0.0	\$8.3	\$0.0	\$8.3
SSG Capital Partners V, L.P.	\$1.5	\$1.6	\$3.7	\$3.3	\$3.3	\$0.0	\$4.2	\$0.0	\$4.2
Summit Partners Credit Fund II, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.8	\$0.0	\$1.8
TCI Real Estate Partners Fund III	\$0.0	\$0.1	\$0.0	\$0.9	\$0.9	\$0.0	\$6.2	\$0.0	\$6.2
TCI Real Estate Partners Fund IV, LP	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Varde Scratch and Dent Feeder I-A, L.P.	\$0.1	\$0.2	\$0.1	\$0.0	\$0.0	\$0.0	\$2.0	\$0.0	\$2.0
Varde Scratch and Dent Feeder, L.P.	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$6.9	\$0.0	\$6.9
Whitehorse Liquidity Partners IV, L.P.	NP	NP	NP	NP	NP	NP	\$119.1	NP	\$119.1
Whitehorse Liquidity Partners V LP	NP	NP	NP	NP	NP	NP	\$68.7	NP	\$68.7
<b>Fund Total</b>	<b>\$64.8</b>	<b>\$40.0</b>	<b>\$254.2</b>	<b>\$105.7</b>	<b>\$75.6</b>	<b>\$30.1</b>	<b>\$556.4</b>	<b>\$30.1</b>	<b>\$526.2</b>
<b>Co-Investment Total</b>	<b>\$0.0</b>	<b>\$0.2</b>	<b>\$0.4</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$3.3</b>	<b>\$0.0</b>	<b>\$3.3</b>
<b>Grand Total</b>	<b>\$64.8</b>	<b>\$40.2</b>	<b>\$254.6</b>	<b>\$105.7</b>	<b>\$75.5</b>	<b>\$30.1</b>	<b>\$559.6</b>	<b>\$30.1</b>	<b>\$529.5</b>

# Real Estate – Detail by Fund (CY 2023)

CY 2023	Paid or Accrued to Manager					Distribution of Profits		
Investment	Management Fees	Expenses	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
AG Core Plus Realty Fund III, L.P.	\$0.0	\$0.0	\$0.0	-\$0.3	\$0.3	\$0.0	\$0.3	-\$0.3
AG Core Plus Realty Fund IV, L.P.	\$0.9	\$0.2	\$0.0	\$0.0	\$0.0	\$0.4	\$0.0	\$0.4
AG Europe Realty Fund II, L.P.	\$1.1	\$0.8	-\$7.3	-\$7.3	\$0.0	\$1.7	\$0.0	\$1.7
AG Europe Realty Fund III, L.P.	\$1.1	\$1.3	-\$1.5	-\$1.5	\$0.0	\$0.2	\$0.0	\$0.2
AG Europe Realty Fund IV, L.P.	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
AG Realty Value Fund X, L.P.	\$1.4	\$1.2	\$8.1	\$7.5	\$0.5	\$5.6	\$0.5	\$5.0
Almanac Realty Securities V, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Almanac Realty Securities VI, L.P.	\$0.1	\$0.0	\$0.1	\$0.0	\$0.1	\$0.2	\$0.1	\$0.1
Almanac Realty Securities VII, L.P.	\$0.7	\$0.0	\$0.2	\$0.2	\$0.0	\$4.1	\$0.0	\$4.1
Almanac Realty Securities VIII, L.P.	\$1.0	\$0.1	-\$3.1	-\$3.1	\$0.0	\$5.0	\$0.0	\$5.0
Ares European Real Estate Fund III, L.P.	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Ares European Real Estate Fund IV, L.P.	\$0.3	\$0.5	-\$0.4	-\$0.4	\$0.0	\$0.0	\$0.0	\$0.0
Ares U.S. Real Estate Fund IX, L.P.	\$0.6	\$0.2	\$0.3	\$0.3	\$0.0	\$4.1	\$0.0	\$4.1
Ares U.S. Real Estate Fund VII, L.P.	\$0.0	NP	NP	NP	NP	\$0.0	NP	\$0.0
Ares U.S. Real Estate Fund VIII, L.P.	\$0.1	\$0.0	-\$0.2	-\$0.5	\$0.2	\$0.6	\$0.2	\$0.4
Avenue Real Estate Fund (Parallel) L.P.	\$0.3	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bell Institutional Fund V, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bell Institutional Fund VI, L.P.	\$0.8	-\$2.6	-\$3.4	-\$3.4	\$0.0	\$6.5	\$0.0	\$6.5
Bell Institutional Fund VII, L.P.	\$1.1	-\$0.1	-\$2.0	-\$2.0	\$0.0	\$1.5	\$0.0	\$1.5
Bell Value-Add Fund VIII, L.P.	\$2.3	\$0.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
BlackRock Europe Property Fund III, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Blackstone Real Estate Debt Strategies II, L.P.	\$0.0	\$0.0	NP	\$0.0	NP	\$0.0	NP	\$0.0
Blackstone Real Estate Debt Strategies III, L.P.	\$0.3	\$0.1	-\$0.3	-\$0.3	\$0.0	\$1.1	\$0.0	\$1.1
Blackstone Real Estate Partners Europe III, L.P.	\$0.0	\$0.1	-\$0.4	\$0.0	-\$0.4	\$0.3	-\$0.4	\$0.7
Blackstone Real Estate Partners Europe IV, L.P.	\$0.3	\$0.3	-\$0.5	-\$0.5	\$0.0	\$0.6	\$0.0	\$0.6
Blackstone Real Estate Partners V, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	\$0.1
Blackstone Real Estate Partners VI, L.P.	\$0.0	\$0.1	\$0.1	-\$0.5	\$0.6	\$3.0	\$0.6	\$2.4
Blackstone Real Estate Partners VII, L.P.	\$0.0	\$0.9	-\$4.2	-\$4.2	\$0.0	\$1.4	\$0.0	\$1.4
Blackstone Real Estate Partners VIII, L.P.	\$2.0	\$1.6	-\$5.5	-\$5.5	\$0.0	\$2.1	\$0.0	\$2.1

# Real Estate – Detail by Fund (CY 2023)

Investment	Paid or Accrued to Manager					Distribution of Profits		
	Management Fees	Expenses	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
Brookfield Strategic Real Estate Partners II, L.P.	\$1.2	\$0.2	-\$0.5	-\$0.5	\$0.0	\$32.5	\$0.0	\$32.5
Brookfield Strategic Real Estate Partners III, L.P.	\$1.9	\$0.3	\$4.2	\$4.2	\$0.0	\$5.3	\$0.0	\$5.3
Brookfield Strategic Real Estate Partners IV, L.P.	\$3.6	\$0.8	-\$1.9	-\$1.9	\$0.0	\$9.5	\$0.0	\$9.5
Brookfield Strategic Real Estate Partners V–B L.P.	\$0.9	\$0.7	\$0.0	NP	\$0.0	\$0.0	\$0.0	\$0.0
Brookfield Strategic Real Estate Partners, L.P.	\$0.5	\$0.6	-\$2.1	-\$6.5	\$4.4	\$16.2	\$4.4	\$11.7
Cabot Industrial Core Fund II, L.P.	\$1.0	NP	NP	NP	NP	\$4.0	NP	\$4.0
Cabot Industrial Value Fund V, L.P.	\$0.0	NP	NP	NP	NP	\$0.0	NP	\$0.0
Cabot Industrial Value Fund VI, L.P.	\$1.5	\$6.2	-\$2.5	-\$2.5	\$0.0	\$0.0	\$0.0	\$0.0
Cabot Industrial Value Fund VII, L.P.	\$2.1	\$5.2	\$0.0	\$0.0	\$0.0	\$1.3	\$0.0	\$1.3
Cabot UK Core Plus Industrial Fund SCSp	NP	NP	NP	NP	NP	\$0.0	NP	\$0.0
Carlyle Realty Partners IX, L.P.	\$2.0	\$4.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Carlyle Realty Partners V, L.P.	\$0.0	-\$0.2	\$0.3	-\$0.1	\$0.4	\$0.9	\$0.4	\$0.5
Carlyle Realty Partners VI, L.P.	\$0.0	\$0.1	-\$0.2	-\$0.2	\$0.0	\$0.0	\$0.0	\$0.0
Carlyle Realty Partners VII, L.P.	\$0.2	\$0.9	-\$0.7	-\$0.7	\$0.0	\$0.2	\$0.0	\$0.2
Carlyle Realty Partners VIII, L.P.	\$1.1	\$3.4	\$1.0	-\$1.8	\$2.8	\$14.4	\$2.8	\$11.6
C-III Capital Partners LLC	\$0.0	NP	NP	NP	NP	\$0.0	NP	\$0.0
DRA Growth and Income Fund IX, LLC	\$1.3	\$0.1	-\$1.3	-\$1.3	\$0.0	\$7.1	\$0.0	\$7.1
DRA Growth and Income Fund VII, L.P.	\$0.0	\$0.0	-\$0.2	-\$1.6	\$1.3	\$4.3	\$1.3	\$3.0
DRA Growth and Income Fund VIII, LLC	\$0.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
DRA Growth and Income Fund X, LLC	\$1.6	\$0.7	\$3.2	\$3.2	\$0.0	\$5.7	\$0.0	\$5.7
DRA Growth and Income Master Fund XI, LLC	\$1.6	\$1.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
EQT Exeter Industrial Core-Plus Fund IV, L.P.	\$0.1	NP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
EQT Exeter Industrial Value Fund VI, LP	\$1.4	NP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Exeter Core Industrial Club Fund II, L.P.	\$0.7	NP	-\$0.9	-\$0.9	\$0.0	\$10.8	\$0.0	\$10.8
Exeter Industrial Core Fund III, L.P.	\$0.9	\$0.0	-\$0.7	-\$0.7	\$0.0	\$6.2	\$0.0	\$6.2
Exeter Industrial Value Fund III, L.P.	\$0.0	NP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Exeter Industrial Value Fund IV, L.P.	\$0.1	\$0.0	-\$0.2	-\$1.2	\$1.0	\$0.0	\$1.0	-\$1.0
Exeter Industrial Value Fund V, L.P.	\$1.1	\$0.0	\$0.2	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0
Fortress Investment Fund IV LP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Fortress Investment Fund V L.P.	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Latitude Management Real Estate Capital III, Inc.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	\$0.0	\$0.5

# Real Estate – Detail by Fund (CY 2023)

Investment(\$M)	Paid or Accrued to Manager					Distribution of Profits		
	Management Fees	Expenses	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
LEM Multifamily Fund V, L.P.	\$0.8	\$0.2	-\$2.3	-\$2.3	\$0.0	\$1.5	\$0.0	\$1.5
LEM Multifamily Fund VI, L.P.	\$0.9	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
LEM Multifamily Senior Equity Fund IV, L.P.	\$0.0	\$0.0	\$0.1	\$0.0	\$0.1	\$0.7	\$0.1	\$0.6
Paramount Group Real Estate Fund VII, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Peabody Global Real Estate Partners	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
PGIM Real Estate Capital VII, SCSp	\$0.8	\$2.0	-\$0.1	-\$0.1	\$0.0	\$2.2	\$0.0	\$2.2
Pramerica Real Estate Capital VI, L.P.	\$0.4	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
RCG Longview Debt Fund IV, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
RCG Longview Debt Fund VI, L.P.	\$0.3	\$1.2	\$0.0	\$0.0	\$0.0	\$0.9	\$0.0	\$0.9
RCG Longview Equity Fund, L.P.	\$0.0	NP	NP	NP	NP	\$0.0	NP	\$0.0
Senior Housing Partnership Fund V, L.P.	\$0.7	NP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Silverpeak Legacy/PSERS, L.P.	\$0.0	NP	NP	NP	NP	\$0.0	NP	\$0.0
Stockbridge Real Estate Fund II, LP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Stockbridge Real Estate Fund III, LP	\$0.3	\$0.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Stockbridge Real Estate Fund, L.P.	\$5.8	\$0.3	\$6.6	\$6.6	\$0.0	\$0.0	\$0.0	\$0.0
Strategic Partners Fund III RE, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Strategic Partners Fund IV RE, L.P.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.9	\$0.0	\$0.9
UBS (US) Trumbull Property Fund, L.P.	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.7	\$0.0	\$0.7
<b>Fund Total</b>	<b>\$51.2</b>	<b>\$36.3</b>	<b>-\$18.0</b>	<b>-\$29.4</b>	<b>\$11.4</b>	<b>\$189.9</b>	<b>\$11.4</b>	<b>\$178.5</b>
<b>Direct Investment Total</b>	<b>\$1.2</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$9.1</b>	<b>\$0.0</b>	<b>\$9.1</b>
<b>Co-Investment Total</b>	<b>\$1.3</b>	<b>-\$0.6</b>	<b>\$0.2</b>	<b>\$0.1</b>	<b>\$0.1</b>	<b>\$4.5</b>	<b>\$0.1</b>	<b>\$4.5</b>
<b>Grand Total</b>	<b>\$53.7</b>	<b>\$35.7</b>	<b>-\$17.9</b>	<b>-\$29.3</b>	<b>\$11.5</b>	<b>\$203.5</b>	<b>\$11.5</b>	<b>\$192.0</b>



# Infrastructure and Commodities – Detail by Fund (CY 2023)

CY 2023	Paid or Accrued to Manager						Distribution of Profits			
	Investment (\$M)	Management Fees	Expenses	Interest Expense	Total Carried Interest	Accrued Carried Interest	Paid Carried Interest	Total Profits Paid Out	Retained by GP	Retained by PSERS
<b>Infrastructure</b>										
Blackstone Infrastructure Partners L.P.	\$6.5	\$3.4	NP	\$8.9	\$8.9	\$0.0	\$24.1	\$0.0	\$24.1	
Brookfield Global Transition Fund, L.P.	\$3.1	\$2.5	NP	\$2.3	\$2.3	\$0.0	\$0.2	\$0.0	\$0.2	
CIM Infrastructure Fund III, L.P.	\$1.0	\$1.9	NP	\$11.6	\$11.6	\$0.0	\$0.0	\$0.0	\$0.0	
DIF Infrastructure Fund VII SCSp	\$3.6	\$0.3	NP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
GCM Grosvenor Customized Infrastructure Strategies II, LP	\$0.3	\$0.1	NP	\$0.2	-\$0.5	\$0.8	\$6.2	\$0.8	\$5.4	
GCM US Partnership Opportunities, L.P.	\$0.6	\$0.2	\$0.0	\$1.3	\$1.3	\$0.0	\$0.0	\$0.0	\$0.0	
International Infrastructure Finance Company II, L.P.	\$0.7	\$0.2	NP	\$1.2	\$1.2	\$0.0	\$9.2	\$0.0	\$9.2	
ISQ Global Infrastructure Fund III, L.P.	\$5.3	\$3.3	\$2.4	\$4.8	\$4.8	\$0.0	\$0.9	\$0.0	\$0.9	
LS Power Equity Partners V, L.P.	\$0.5	\$0.9	NP	\$0.0	NP	\$0.0	\$0.0	\$0.0	\$0.0	
Strategic Partners Real Assets II, L.P.	\$1.1	\$2.7	NP	\$3.0	\$1.4	\$1.6	\$1.3	\$1.6	-\$0.3	
<b>Infrastructure Fund Total</b>	<b>\$22.6</b>	<b>\$15.4</b>	<b>\$2.4</b>	<b>\$33.3</b>	<b>\$31.0</b>	<b>\$2.4</b>	<b>\$41.9</b>	<b>\$2.4</b>	<b>\$39.5</b>	
<b>Infrastructure Co-Investment Total</b>	<b>\$0.0</b>	<b>\$3.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1.8</b>	<b>\$0.0</b>	<b>\$1.8</b>	
<b>Infrastructure Total</b>	<b>\$22.6</b>	<b>\$18.4</b>	<b>\$2.4</b>	<b>\$33.3</b>	<b>\$31.0</b>	<b>\$2.4</b>	<b>\$43.6</b>	<b>\$2.4</b>	<b>\$41.3</b>	
<b>Commodities</b>										
Denham Mining Fund, L.P.	\$1.6	\$3.4	NP	\$2.6	\$2.6	\$0.0	\$0.0	\$0.0	\$0.0	
NGP Natural Resources XII, L.P.	\$2.7	\$0.2	NP	\$6.3	-\$10.5	\$16.7	\$75.3	\$16.7	\$58.5	
<b>Commodities Fund Total</b>	<b>\$4.3</b>	<b>\$3.5</b>	<b>\$0.0</b>	<b>\$8.8</b>	<b>-\$7.9</b>	<b>\$16.7</b>	<b>\$75.3</b>	<b>\$16.7</b>	<b>\$58.5</b>	
<b>Commodities Co-Investment Total</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	
<b>Commodities Total</b>	<b>\$4.3</b>	<b>\$3.5</b>	<b>\$0.0</b>	<b>\$8.8</b>	<b>-\$7.9</b>	<b>\$16.7</b>	<b>\$75.3</b>	<b>\$16.7</b>	<b>\$58.5</b>	

# Private Markets – 10 Year Summary

10-Year Performance	Total Private Markets	Private Equity	Real Estate	Private Credit	Infrastructure <sup>2</sup>
<b>Benchmark</b>	<b>60/40</b>	<b>MSCI ACWI IMI</b>	<b>FTSE EPRA NAREIT</b>	<b>Morningstar/LSTA LLI</b>	<b>FTSE Developed Core Infra 50/50</b>
NAV (\$B)	\$26.0 <sup>1</sup>	\$12.3	\$5.7	\$5.5	\$2.1
Direct Alpha (%)	4.3%	3.3%	2.2%	2.8%	10.2%
KS PME	1.15x	1.11x	1.07x	1.09x	1.24x
EVM (\$M)	\$10,550	\$4,319	\$1,664	\$1,419	\$506
<b>NAV Sensitivities</b>	<b>Resulting EVM</b>	<b>Resulting EVM</b>	<b>Resulting EVM</b>	<b>Resulting EVM</b>	<b>Resulting EVM</b>
1.25x	\$13,187	\$5,399	\$2,081	\$1,774	\$633
1.10x	\$11,605	\$4,751	\$1,831	\$1,561	\$557
1.00x	\$10,550	\$4,319	\$1,664	\$1,419	\$506
0.90x	\$9,495	\$3,888	\$1,498	\$1,277	\$456
0.75x	\$7,912	\$3,240	\$1,248	\$1,064	\$380

## Terms:

Direct Alpha (% rate) – Annualized excess return / loss achieved by an investor compared to an investment in the equivalent public index (>0.0% = Good)

KS PME (multiple) – Ratio which represents how many dollars an investor has earned compared to an investment in the equivalent public index (>1.0x = Good)

Excess Value Method “EVM” (\$ value) – How many more / less dollars will an investor have compared to an investment in the equivalent public index, expressed in dollars (Positive \$ = Good)

Notes: Data sourced from internal databases and excludes the impact of FX hedges. See appendix for description of benchmarks.

<sup>1</sup>Total Private Markets includes Private Commodities (\$0.4B NAV).

<sup>2</sup>Infrastructure period: Jan-17 – Dec-2023

# Benchmark Detail

Portfolio	Benchmark
<b>Total Private Markets</b>	<b>60/40:</b> 60% MSCI ACWI IMI with USA Gross, Non-US Net Index (M1WDW\$GI) and 40% Bloomberg U.S. Aggregate Bond Index (LBUSTRUU)
<b>Private Equity</b>	<b>MSCI ACWI IMI:</b> MSCI ACWI IMI with USA Gross, Non-US Net Index (M1WDW\$GI)
<b>Private Credit</b>	<b>Morningstar/LSTA LLI:</b> Morningstar/LSTA Leveraged Loan Index
<b>Real Estate</b>	<b>FTSE EPRA NAREIT:</b> FTSE EPRA NAREIT Custom Developed 100% Hedged to USD Net Tax Index (GPPPSH1)
<b>Infrastructure</b>	<b>FTSE Developed Core Infra 50/50:</b> FTSE Developed Core Infrastructure 50/50 100% Hedged to USD Net Tax Index (FDCICUHN).