



Investment Committee

Item number 3 – Open session

Subject: 2023 Annual Cost & Collaborative Model Savings Report

Presenter(s): April Wilcox, Shifat Hasan, and Mike Dunigan

Item type: Information

Date and time: November 6, 2024 – 30 minutes

Attachment(s): Attachment 1 – Cost Breakdown

Attachment 2 – Cost Breakout by Category

Attachment 3 – Capture Ratio

Attachment 4 – Peer Comparison

Attachment 5 – Collaborative Savings

PowerPoint presentation(s): Cost & Collaborative Model Savings Report

Item purpose

The purpose of this informational report is to provide the Committee with a complete breakdown of the costs associated with running the Total Fund for the calendar year 2023. It is important to note that information in this Cost Report is on a cash basis and at one point in time. Costs can fluctuate significantly each year depending on the life cycle of the underlying investments and/or the investment pace of the strategy. CalSTRS is a long-term investor and return and cost data is more meaningful when compared over longer time periods; as such, data over a 9-year period has been included in this report.

Executive summary

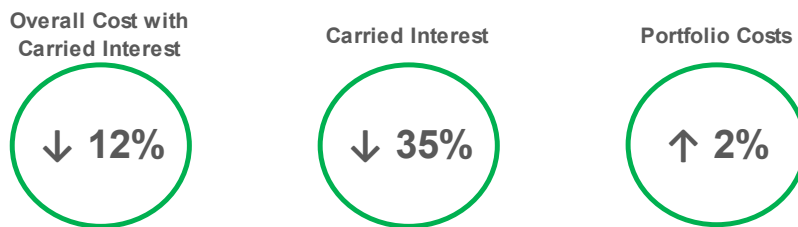
In 2023, CalSTRS paid out just over \$2 billion in costs to run the Total Fund and another \$820 million in carried interest. This was a slight increase to Total Portfolio Costs from the previous year, but a decrease overall in Total Costs with Carried Interest.

The 2023 financial markets were a complete reversal of a very challenging 2022. Despite a feared recession instigated by an aggressive rate hike cycle, Global Equities captured double-digit returns led by the technology sector. In mid-November, after seeing inflation continue to

decline toward their target, the U.S. Federal Reserve announced they would pause raising rates. This relief inspired the U.S. bond market to have one of its best months in over 40 years, helping to bring the Fixed Income annual return to 6% for the year.

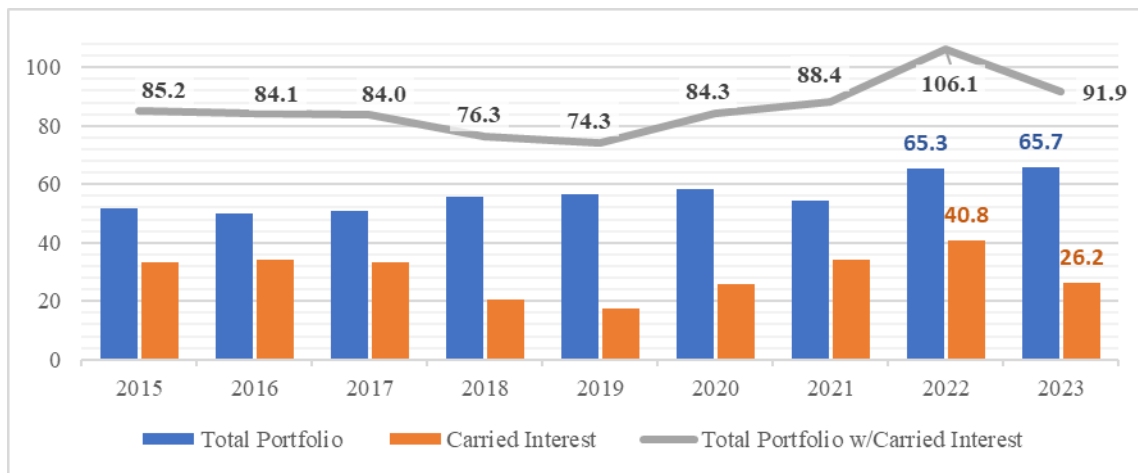
In the private markets, Real Estate declined 9%, while Private Equity and Infrastructure increased around 8% despite increasing capital costs and the regional bank crisis.

Additionally, over the first half of 2023, per the board-approved strategic asset allocation, CalSTRS decreased its Public Equity allocation by 1%, increased the allocation to Private Equity by the same amount, and continued to allocate more funds toward private credit. The overall Net Asset Value (NAV) and the allocation to private assets tend to be the biggest drivers of cost. This year, Portfolio Costs stayed relatively in alignment with NAV growth, even as the allocation to private assets grew. Below are the year-over-year percentage changes to key cost factors.



Background

Chart / Table 1 – Overall Costs in Basis Points and Absolute Dollars



(\$ in Millions)	2019	2020	2021	2022	2023	2023 Δ
NAV	242,190	261,992	338,296	308,309	312,963	2%
Total Portfolio Costs	1,374	1,527	1,840	2,014	2,056	2%
Carried Interest Paid	426	681	1,150	1,257	820	-35%
Total w/Carried Interest	1,800	2,209	2,990	3,271	2,876	-12%

Overall costs decreased by 12% in 2023 primarily due to a significant drop in the amount of carried interest paid out by private investments during the year. Carried interest is a profit-

sharing agreement between the general partners and CalSTRS and is only paid out upon exiting a profitable investment. The agreements are tied to profits realized over a period of years rather than a single year, and as a result, this number will fluctuate. CalSTRS carried interest paid had increased over the prior few years after the private equity market saw double digit returns in 2020 and 2021. However, in 2023, carried interest decreased by 35%, after a flat performance year in 2022.

Total Portfolio Costs increased by 2% over the year. They include management fees, internal operating expense, and partnership costs (other expense). These costs are impacted the most by changes in the NAV, the allocation to private assets, and the split between internal and external management. The impact of these drivers is shown in Table 2 below.

Table 2 – Portfolio Cost Drivers

Driver	Impact	Details
Asset Growth	+ 1.5%	Management fees increased relative to the overall NAV increase
Private Asset Allocation	+ 1.5%	Allocation shift to private equity and private credit impacted management fees and operating costs
Internal Management	- 1%	Partnership cost and management fee decrease
2%		

Table 3 breaks down the splits between internal and external management costs across public and private assets. In 2023, internally managed assets increased 1% on par with internally managed cost. The allocation to private assets grew, while the total percentage of private costs stayed flat. This shows that the increased allocation to privates was primarily used for internal management, which had less of an impact on cost.

Table 3 – Total Portfolio Costs as a Percentage of Net Asset Value (in Millions)

	NAV	%	Cost	%	Avg Cost in Basis Points	
Externally Managed	115,751	37%	1,412	69%	Private	
Private	80,103	26%	1,230	60%	External	Internal
Public	35,648	11%	182	9%	154	102
Internally Managed	197,212	63%	644	31%	Public	
Private	56,907	18%	579	28%	External	Internal
Public	140,305	45%	65	3%	51	5
Total	312,963	100%	2,056	100%		

The 2023 calendar year saw the CalSTRS Total Fund return over 9%, Total Costs with Carried Interest declined by 12%, and the Collaborative Model saved the plan \$363 million. The

additional total portfolio costs created from the increase in NAV and an allocation shift toward private assets, were partially offset by an increase in internal management. Costs declined overall as less carried interest was paid out – a combination of managers not taking profits after a flat 2022 and increased internal private management over the years.

The capture ratio showed slight improvement for this same reason, up 20 basis points (bps) from 2022. CalSTRS captured 91.9% of its gross profits over the last 9 years (see attachment 3). In addition, CalSTRS continued to operate as a low-cost fund relative to its peers, as measured by CEM Benchmarking, Inc. The 2023 investment cost of 54.4 bps was lower than our expected cost resulting in a savings of \$162 million in 2023 as shown in Attachment 4.

Strategic Plan linkage: **Trusted stewards:** Ensure a well-governed, financially sound trust fund.

Board Policy linkage: N/A

Optional reference material:

[Annual Investment Cost Report - CalSTRS](#) – for historical Annual Cost & Collaborative Model Savings Reports.

[Investment terms glossary - CalSTRS](#) – for a full listing of glossary terms and definitions.



Overall Cost Breakdown

Overall Cost by Asset Class

External Management Costs ²										
Asset Class/ Investment Strategy	Net Asset Value	Ending Market Allocation	Manager Fee	Operating Expense	Other Expenses	Total Expense	2023 Basis Points	2022 Basis Points	Carried Interest	2023 Basis Points w/Carry
Public Market Costs										
Global Equity	27,504	9%	116	13	12	140	51.0	57.7	0	51.0
Fixed Income	3,415	1%	6	2	0	8	24.7	26.3	0	24.7
Inflation Sensitive	1,617	1%	6	1	0	7.3	44.9	39.7	0	44.9
SISS	3,107	1%	17	2	2	21	68.2	61.9	0	68.2
Strategic Overlay ¹	4	0%	5	0	0	5	12.5	12.5	0	12.5
Total	\$ 35,648	11%	\$ 150	\$ 18	\$ 14	\$ 182	51.1	55.2	\$ -	51.1
Private Market Costs										
Private Equity	38,038	12%	469	26	182	677	177.9	186.9	339	267.2
Risk Mitigating Strategies	19,302	6%	123	10	82	215	111.6	101.0	215	223.0
Real Estate	13,179	4%	121	11	74	206	156.3	141.7	80	216.8
SISS	1,005	0%	19	1	6	27	264.3	124.4	41	671.5
Inflation Sensitive	5,282	2%	45	4	18	66.7	126.3	132.8	12	148.6
Innovative Strategies	3,237	1%	24	2	12	38	118.5	164.0	12	154.1
Fixed Income	59	0%	-	0	-	0	8.0	5.7	0	0.0
Total	\$ 80,103	26%	\$ 801	\$ 55	\$ 374	\$ 1,230	153.6	149.7	\$ 698	240.7
Total External Mgt.	\$115,751	37%	\$ 952	\$ 72	\$ 388	\$ 1,412	122.0		\$ 698	182.3

¹ Net Asset Value reflects gains / (losses) on notional values and uses notional values for calculating basis points for currency management.

² Zero '0' indicates a number rounded to less than 1 million. "--" indicates no value.

Internal Management Costs ²										
Asset Class/ Investment Strategy	Net Asset Value	Ending Market Allocation	Manager Fee	Operating Expense	Other Expenses	Total Expense	2023 Basis Points	2022 Basis Points	Carried Interest	2023 Basis Points w/Carry
Public Market Costs										
Global Equity	88,740	28%	-	33	3	36	4.0	3.7	0	4.0
Fixed Income	28,868	9%	-	16	0	16	5.5	5.1	0	5.5
Risk Mitigating Strategies	7,945	3%	-	3	-	3	3.7	3.6	0	3.7
Cash / Liquidity	6,252	2%	-	3	-	3	4.2	4.0	0	4.2
Inflation Sensitive	5,078	2%	-	2	-	2.3	4.5	4.5	0	4.5
SISS	3,026	1%	-	1	0	1	4.6	4.4	0	4.6
Strategic Overlay ¹	396	0%	-	1	3	4	1.4	1.5	0	1.4
Total	\$140,305	45%	\$ -	\$ 59	\$ 6	\$ 65	4.6	4.4	\$ -	4.6
Private Market Costs										
Real Estate	37,271	12%	261	29	190	480	128.8	139.0	121	161.4
Private Equity	10,962	4%	3	8	17	28	25.2	31.2	0	25.2
Inflation Sensitive	7,185	2%	27	4	11	41.7	58.0	64.2	0.0	58.0
Innovative Strategies	1,296	0%	15	2	11	27.4	211.4	88.4	0.0	211.4
Fixed Income	97	0%	-	0	-	0	7.9		0	7.9
SISS	96	0%	0	0	2	2	218.8	92.7	0	218.8
Total	\$ 56,907	18%	\$ 306	\$ 42	\$ 231	\$ 579	101.7	106.9	\$ 121	123.1
Total Internal Mgt.	\$197,212	63%	\$ 306	\$ 101	\$ 237	\$ 644	32.6		\$ 121	38.8
Total Public Market	\$175,952	56%	\$ 150	\$ 77	\$ 20	\$ 247	14.0		\$ -	14.0
Total Private Market	\$137,011	44%	\$ 1,107	\$ 97	\$ 605	\$ 1,809	132.0		\$ 820	191.9
Grand Total	\$312,963	100%	\$ 1,257	\$ 174	\$ 625	\$ 2,056	65.7		\$ 820	91.9

¹ Net Asset Value reflects gains / (losses) on notional values and uses notional values for calculating basis points for currency management.

² Zero '0' indicates a number rounded to less than 1 million. "--" indicates no value.



Overall Cost Breakout by Sub-Category (\$000)

Asset Class	Manager & Performance Fees*	Operating Expenses								Other Expenses	
		Internal Salary & Travel	Org Wide Allocated Expenses	Advisors & Consultants	Legal	Custody & Other Operating	Research & Rating Services	Risk Management Systems	Trading Systems	Partnership	Broker Commission
Global Equity	116,047	16,261	15,114		3,591	4,907	2,191	2,969	831		14,232
SISS	37,067	2,437	941	136	223	305	136	185	52	8,658	1,092
Private Equity	471,768	14,211	6,371	6,998	1,514	2,068	924	1,252	350	198,916	127
Real Estate	382,241	13,425	6,559	13,464	1,559	2,130	951	1,289	360	264,051	15
Inflation Sensitive	77,230	6,095	2,491	246	592	809	361	489	137	28,998	457
Fixed Income	5,803	9,583	4,218		1,002	1,369	944	829	232		365
Risk Mitigating Strategies	123,144	6,172	3,543	90	842	1,150	514	696	195	82,054	
Innovative Strategies	39,116	2,644	589		140	191	85	116	32	22,842	
Strategic Overlay	5,000	973	52		12	17	8	10	3		3,007
Total Portfolio Allocations**	1,257,417	72,844	40,691	20,933	9,669	13,210	6,231	7,994	2,236	605,519	19,296

* Does not include carried interest

** Columns will not add as expenses related to the cash/liquidity portfolios are included only in the Total Portfolio Allocation amounts

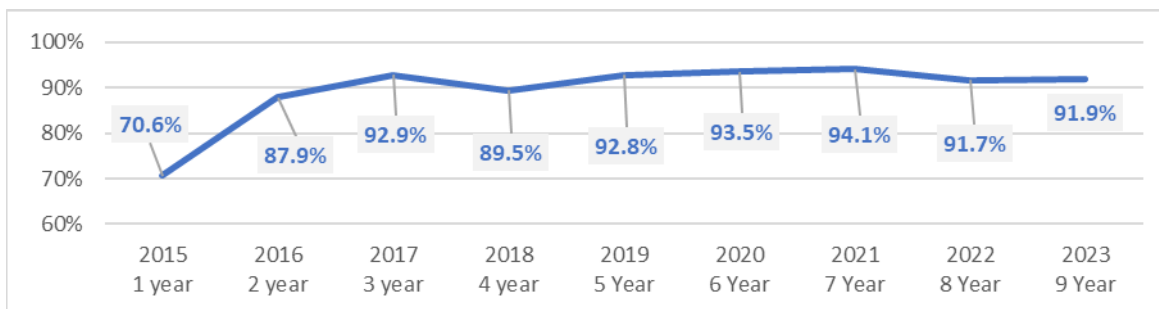
Capture Ratio Analysis

Capture Ratio Analysis

The Capture Ratio reflects the percentage of gross profits captured and reflected in the net returns over the nine-year period ending December 31, 2023.

9-Year Period <i>Ending December 31, 2023</i>		2023 Target Weights	Costs*	Gross Return <i>(Time Weighted)</i>	Net Return <i>(Time Weighted)</i>	Capture Ratio
Total Portfolio			\$14,767	8.02%	7.84%	91.9%
Growth	Global Equity	41%	1,107	8.86%	8.74%	98.8%
	Private Equity	14%	6,455	13.32%	13.32%	82.8%
Real Assets	Real Estate	15%	3,958	9.17%	8.41%	85.4%
	Inflation Sensitive	6%	456	7.00%	6.98%	92.3%
Diversifying	Fixed Income	12%	83	1.99%	1.95%	98.3%
	Risk Mitigating Strategies	10%	1,521	2.14%	2.11%	77.1%

** Management fees and carried interest are considered the industry standard for measuring costs
Cumulative dollar over the period in millions*

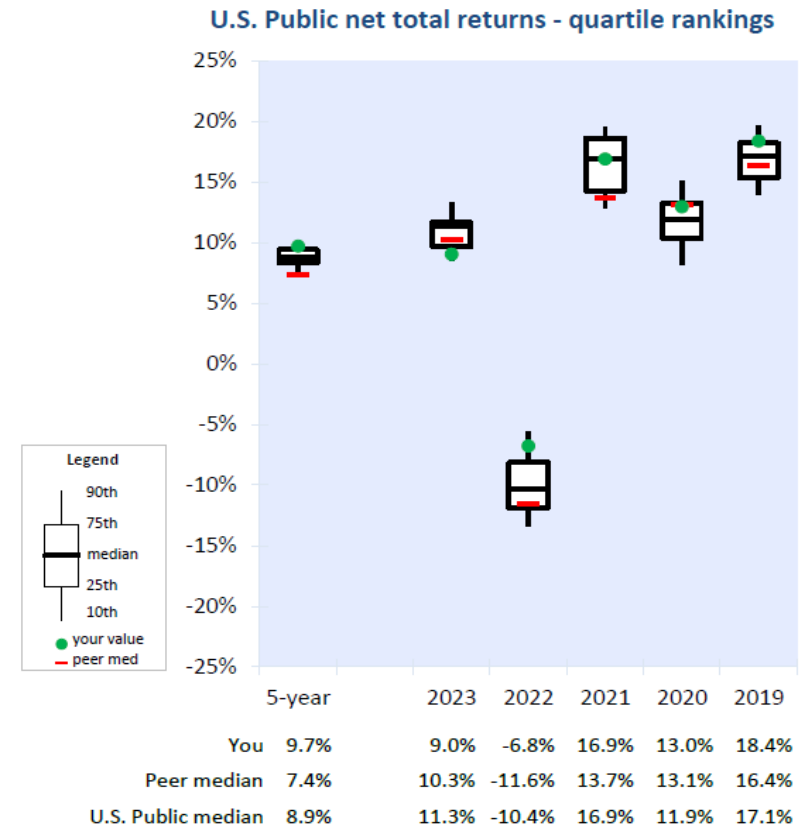
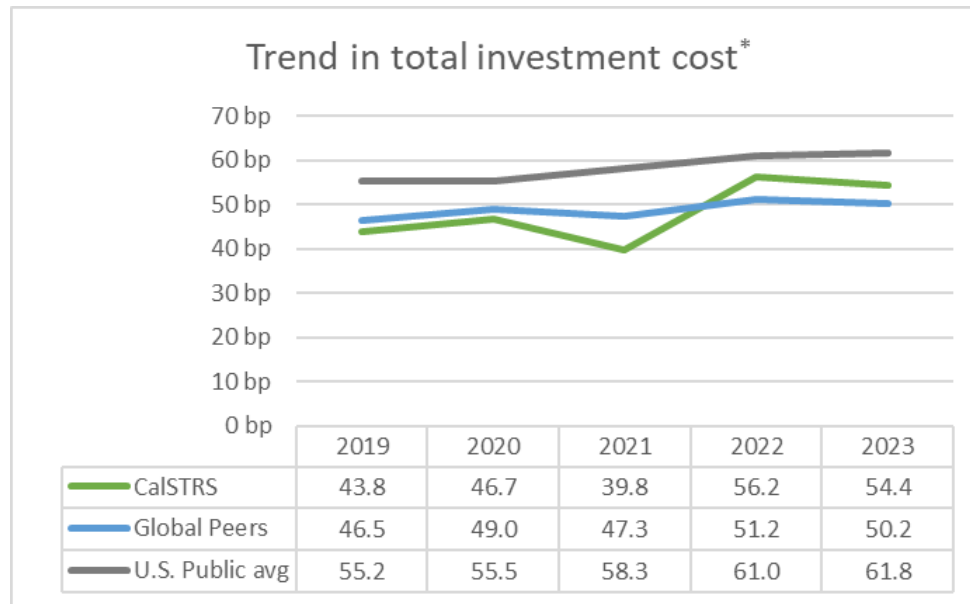


CalSTRS captured 91.9% of the gross dollars earned over the last nine years, slightly up from the prior 8-year figure.

In 2022, the ratio declined after years of an increased allocation to private assets. The capture ratios for private asset classes will tend to be lower due to the carried interest paid out from these investment types, but this is offset by their higher long term expected net returns and risk diversification value.

In 2023, the allocation to privates increased again by 1%, but less carried interest was paid out over the period. This result was a combination of increased internal private management over the recent years and less capital being distributed back to investors after a flat year of returns in 2022 - resulting in a slightly higher capture ratio.

Peer Comparison (5-Year Trends)

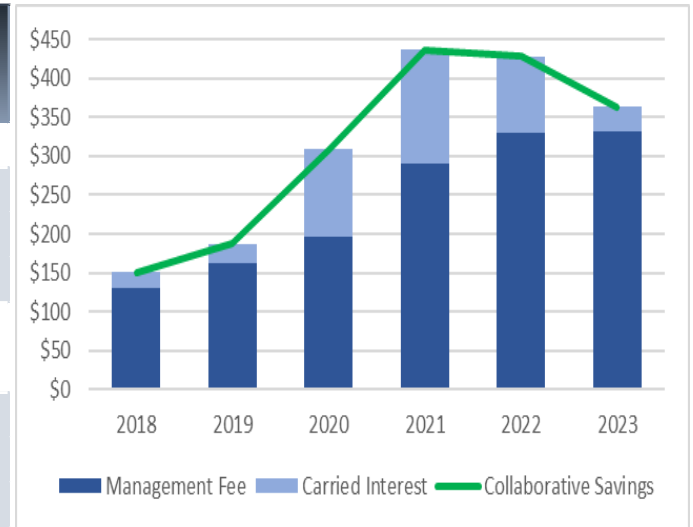


- Over the last 5 years, investment costs have increased due to an increase in the allocation to private assets (higher cost asset mix). As of 2023, CalSTRS' investment costs (54.4 bps) were below the U.S Public Fund Average, but higher than our Global Peers (50.2 bps).
- CalSTRS' expected cost benchmark of 59.6 bps is calculated by adjusting the global peer group to have an identical asset mix. CalSTRS saved 5.2 bps relative to this benchmark, equating to approximately \$162 million dollars saved.
- CalSTRS' higher cost asset mix has yielded the highest 5-year net return (9.7%) and 5-year policy benchmark return (9.1%) among our global peer group.

* Based on 33 U.S. Public Funds and 14 Global Peer Funds excluding transaction costs and carried interest.

Collaborative Savings

Asset Class <i>(in millions)</i>		Net Dollars Earned	Collaborative Dollars Saved	2023 Return	Return with Savings Removed	Excess Return Added
Total Portfolio		\$27,362.4	\$362.9	9.13%	9.01%	0.12%
Growth	Global Equity	23,493.0	15.0	22.34%	22.33%	0.01%
	Private Equity	3,655.0	185.9	7.75%	7.36%	0.39%
	SISS	1,415.7	1.4	19.84%	19.82%	0.02%
Real Assets	Real Estate	-5,154.5	59.9	-9.60%	-9.72%	0.11%
	Inflation Sensitive	716.0	31.4	3.81%	3.64%	0.17%
Diversifying	Fixed Income	1,949.6	38.2	6.13%	6.01%	0.12%
	RMS	-596.7	4.5	-2.15%	-2.17%	0.02%
	Innovative	652.5	24.5	15.51%	14.92%	0.58%



<i>(\$ millions)</i>	2017	2018	2019	2020	2021	2022	2023	Total 7 Yr Savings
Collaborative Savings	134.4	150.6	187.2	308.9	434.9	428.0	362.9	\$2.01B
Management Fee	110.8	130.2	161.4	195.3	288.9	330.0	332.6	
Carried Interest	23.6	20.3	25.8	113.5	146.0	98.0	30.3	
Component Count	106	140	167	200	324	371	425	

The total cost savings for 2023 was \$362.9 million, a decrease from the previous year. While management fee savings stayed relatively consistent with 2022, the carried interest savings decreased. This is consistent with the decrease in carried interest paid out to external managers in 2023 – after a flat performance year in 2022. Management fee savings were expected to taper off in 2023 as a result of a decreasing private asset deal flow and a slowed pacing for private assets. The increased allocation to Private Equity at the beginning of the year, and an overall increase in internal management, helped to offset the expected decrease, resulting in a slight increased savings compared to 2022.

Co-investments overall contribute greater than half of the annual savings, due to the reduced fee and carried interest structure. The savings will increase or decrease variably over time based significantly on whether private asset profits were realized in a given year. The table below outlines the savings per asset class and investment type over the last 5 years.



Rolling 5-Year Collaborative Model Savings (per Asset Class and Investment Type)

(\$ Millions)	2023		2022		2021		2020		2019		2018		2017	
	Manager Fee	Carried Interest	Manager Fee	Carried Interest	Manager Fee	Carried Interest	Manager Fee	Carried Interest	Manager Fee	Carried Interest	Manager Fee	Carried Interest	Manager Fee	Carried Interest
Private Equity	\$160.0	\$25.8	\$120.8	\$64.7	\$97.8	\$90.5	\$62.3	\$95.6	\$43.6	\$7.2	\$28.3	\$18.9	\$15.4	\$10.0
Co-Investments	\$160.0	\$25.8	\$120.8	\$64.7	\$97.8	\$90.5	\$62.3	\$95.6	\$43.6	\$7.2	\$28.3	\$18.9	\$15.4	\$10.0
Real Estate	\$57.8	\$2.1	\$72.8	\$14.0	\$62.3	\$17.9	\$46.4	\$17.7	\$39.2	\$10.4	\$33.3	\$1.5	\$27.7	\$13.6
Co-Investments	\$10.8	\$0.5	\$8.2	\$6.2	\$9.9	\$3.4	\$6.2	\$7.1	\$5.3	\$4.3	\$3.3	\$0.2	\$2.0	\$1.4
Joint Ventures	\$46.9	\$1.7	\$32.8	\$7.8	\$28.9	\$11.6	\$21.0	\$10.6	\$18.6	\$6.0	\$16.3	\$1.3	\$14.7	\$12.2
Separate Accounts	\$0.0	\$0.0	\$31.8	\$0.0	\$23.5	\$2.9	\$19.2	\$0.0	\$15.4	\$0.0	\$13.7	\$0.0	\$11.1	\$0.0
Inflation Sensitive	\$29.6	\$1.7	\$35.6	\$18.8	\$36.6	\$37.5	\$13.1	\$0.0	\$11.5	\$8.2	\$9.9	\$0.0	\$6.6	\$0.0
Co-Investments	\$15.6	\$18.7	\$15.6	\$18.7	\$15.6	\$0.0	\$6.3	\$0.0	\$4.8	\$3.5	\$4.4	\$0.0	\$2.6	\$0.0
Internally Managed	\$0.0	\$0.0	\$1.9	\$0.0	\$1.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Managed Accounts	\$9.1	\$1.3	\$18.0	\$0.1	\$19.8	\$37.5	\$6.7	\$0.0	\$6.7	\$4.7	\$5.5	\$0.0	\$4.0	\$0.0
SISS	\$1.4	\$0.0	\$0.4	\$0.0	\$0.3	\$0.0	\$0.3	\$0.0	\$0.3	\$0.0	\$0.3	\$0.0	\$0.3	\$0.0
Co-Investments	\$1.4	\$0.0	\$0.4	\$0.0	\$0.3	\$0.0	\$0.3	\$0.0	\$0.3	\$0.0	\$0.3	\$0.0	\$0.3	\$0.0
Fixed Income	\$38.2	\$0.0	\$59.4	\$0.0	\$59.4	\$0.0	\$62.3	\$0.0	\$56.9	\$0.0	\$52.8	\$0.0	\$55.1	\$0.0
Internally Managed	\$38.2	\$0.0	\$59.4	\$0.0	\$59.4	\$0.0	\$62.3	\$0.0	\$56.9	\$0.0	\$52.8	\$0.0	\$55.1	\$0.0
Global Equity	\$15.0	\$0.0	\$20.8	\$0.0	\$21.0	\$0.0	\$9.2	\$0.0	\$9.4	\$0.0	\$5.5	\$0.0	\$5.7	\$0.0
Internally Managed	\$15.0	\$0.0	\$20.8	\$0.0	\$21.0	\$0.0	\$9.2	\$0.0	\$9.4	\$0.0	\$5.5	\$0.0	\$5.7	\$0.0
Innovative Strategies	\$24.4	\$0.1	\$11.6	\$0.0	\$4.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Co-Investments	\$24.4	\$0.1	\$11.6	\$0.0	\$4.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
RMS	\$4.5	\$0.0	\$6.0	\$0.0	\$6.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Internally Managed	\$4.5	\$0.0	\$6.0	\$0.0	\$6.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Rebate Agreements	\$1.8	\$0.5	\$2.5	\$0.5	\$2.7	\$0.5	\$1.8	\$0.2	\$0.5	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0
Total Savings	\$332.6	\$30.3	\$330.0	\$98.0	\$290.5	\$146.4	\$195.3	\$113.5	\$161.4	\$25.8	\$130.2	\$20.3	\$110.8	\$23.6