

**Investment
Benchmarking Analysis**
(for the 5-year period ending December 31, 2024)

South Carolina Retirement System Investment Commission



Key Takeaways

2024 Calendar Year

- Your 1-year net total return was 9.6%. This was above both the U.S. Public median of 8.9% and the peer median of 8.9%.
- Your investment cost of 114.0 bps was above your benchmark cost of 95.0 bps.
- Your fund was above benchmark cost because it paid more than peer funds for some services, primarily hedge fund performance fees. Hedge Fund performance fees were higher given your Hedge Funds outperformed the peers. This was offset by having a lower cost implementation style.
- You placed in the high cost, positive net value added quadrant for 2024.

5-year Returns

- Your 5-year net total return was 7.8%. This was above both the U.S. Public median of 7.5% and the peer median of 7.6%.
- Your 5-year policy return was 5.7%. This was below the U.S. Public median of 6.6% and close to the peer median of 6.7%.

5-year Value added

- Your 5-year net value added was 2.1%. This was above both the U.S. Public median of 0.8% and the peer median of 0.9%.
- Your 2.1% 5-year value added translates into approximately \$3.8 billion of cumulative value added over 5 years.

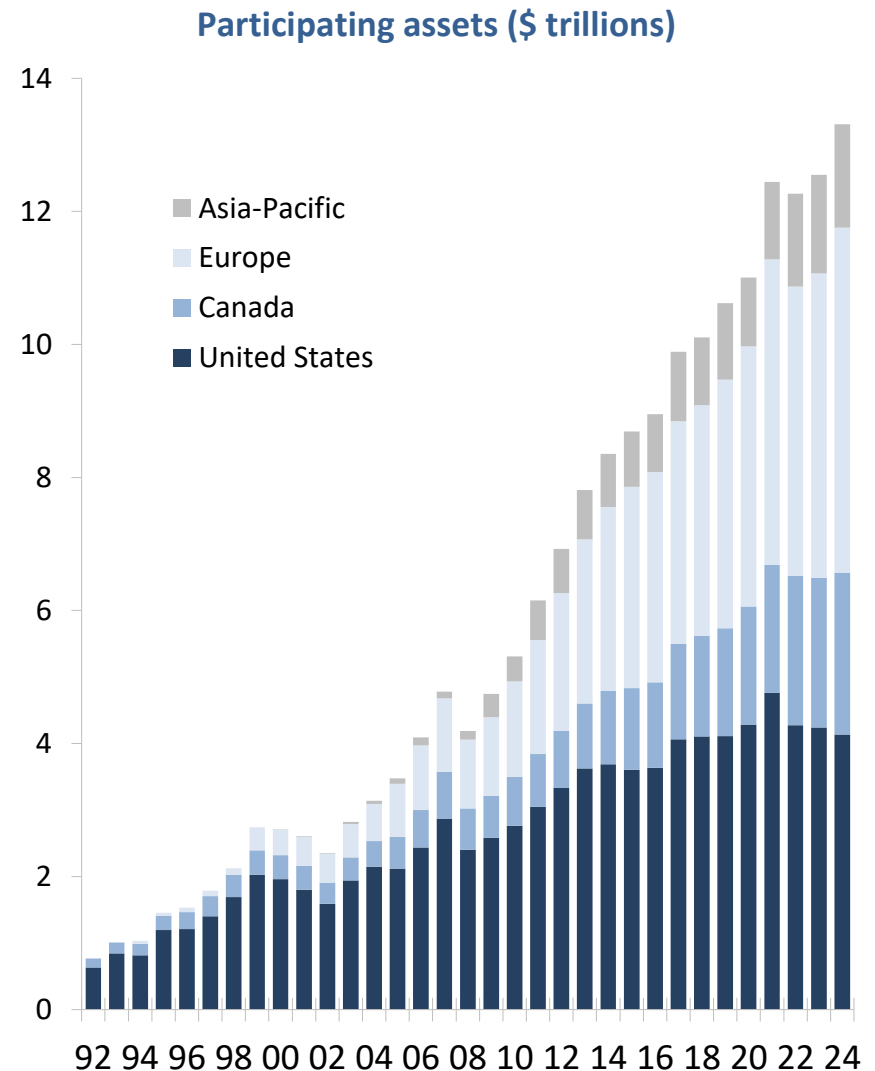
5-year Cost

- Your 5-year average costs were 119.2 bps. This was below your benchmark over the period, providing an average annual savings of 5.9 bps.

This benchmarking report compares your cost and performance to the 269 funds in CEM's extensive pension database.

- 136 U.S. pension funds participate. The median U.S. fund had assets of \$8.3 billion and the average U.S. fund had assets of \$30.4 billion. Total participating U.S. assets were \$4.1 trillion.
- 61 Canadian funds participate with assets totaling \$2.4 trillion.
- 61 European funds participate with aggregate assets of \$5.2 trillion. Included are funds from the Netherlands, Norway, Sweden, Finland, Ireland, Denmark and the UK.
- 8 Asia-Pacific funds participate with aggregate assets of \$1.6 trillion. Included are funds from New Zealand, South Korea, and Australia.
- 3 funds from other regions participate.

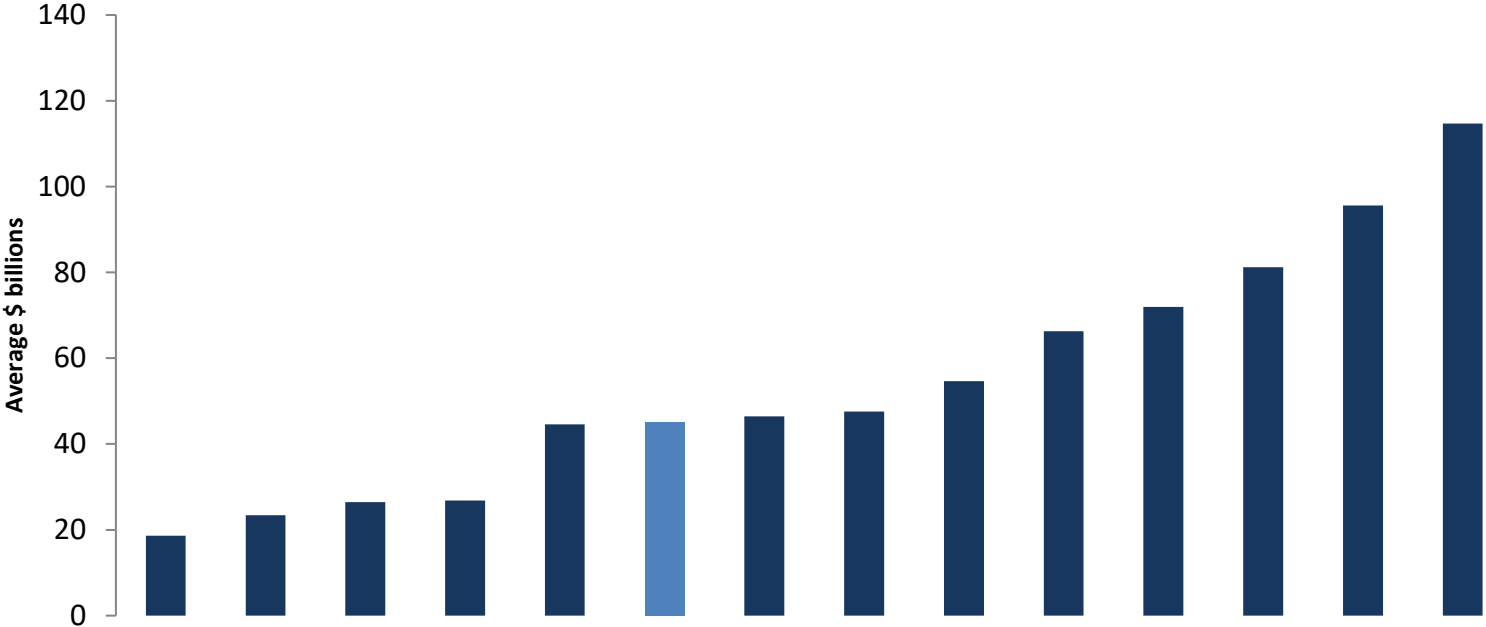
The most meaningful comparisons for your returns and value added are to the U.S. Public universe, which consists of 39 funds. The U.S. Public universe assets totaled \$3.0 trillion and the median fund had assets of \$45.2 billion.



The most valuable comparisons for cost performance are to your custom peer group because size impacts costs.

Peer group for South Carolina Retirement System Investment Commission

- 14 U.S. sponsors from \$18.6 billion to \$114.7 billion
- Median size of \$47.0 billion versus your \$45.2 billion



To preserve client confidentiality, given potential access to documents as permitted by the Freedom of Information Act, we do not disclose your peers' names in this document.

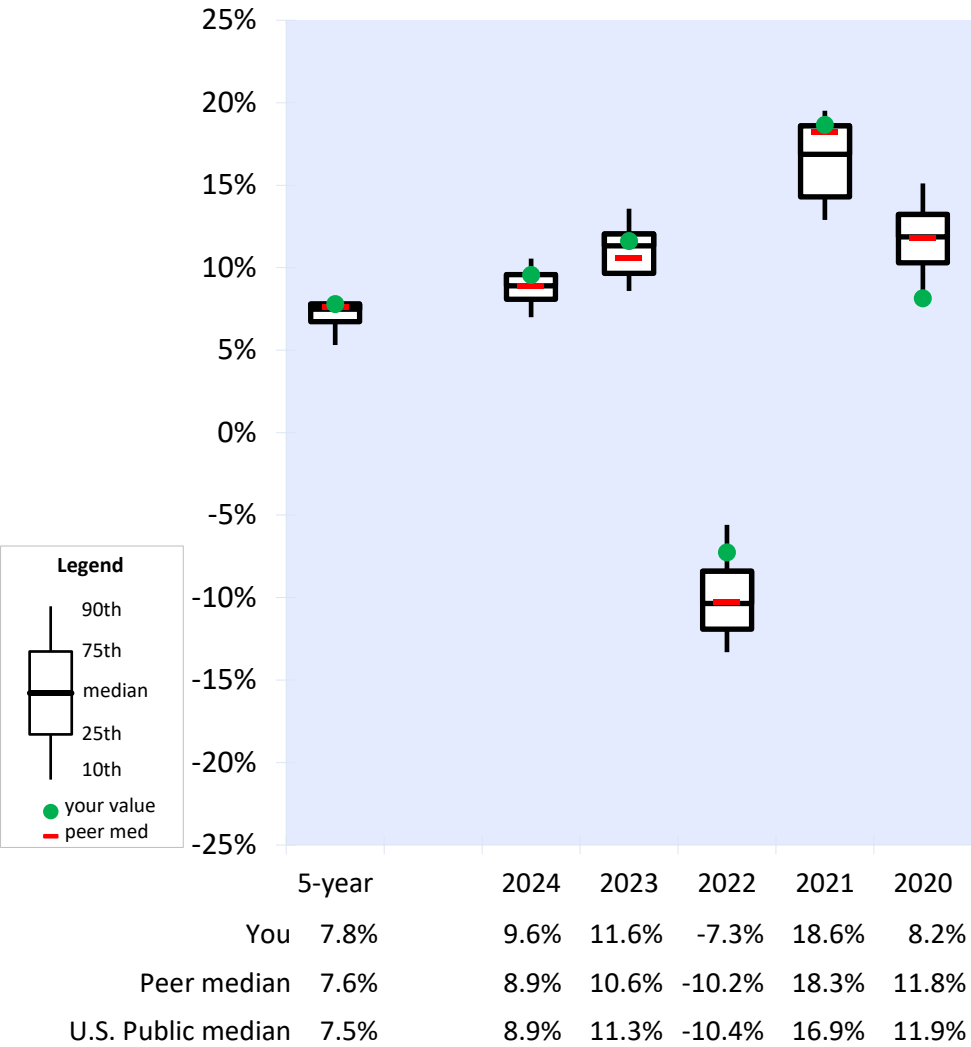
Your 5-year net total return of 7.8% was above both the U.S. Public median of 7.5% and the peer median of 7.6%.

Total returns, by themselves, provide little insight into the reasons behind relative performance. Therefore, we separate total return into its more meaningful components: policy return and value added.

	Your 5-year
Net total fund return	7.8%
- Policy return	5.7%
= Net value added	2.1%

This approach enables you to understand the contribution from both policy mix decisions (which tend to be the board's responsibility) and implementation decisions (which tend to be management's responsibility).

U.S. Public net total returns - quartile rankings



Your 5-year policy return of 5.7% was below both the U.S. Public median of 6.6% and the peer median of 6.7%.

Your policy return is the return you could have earned passively by indexing your investments according to your policy mix.

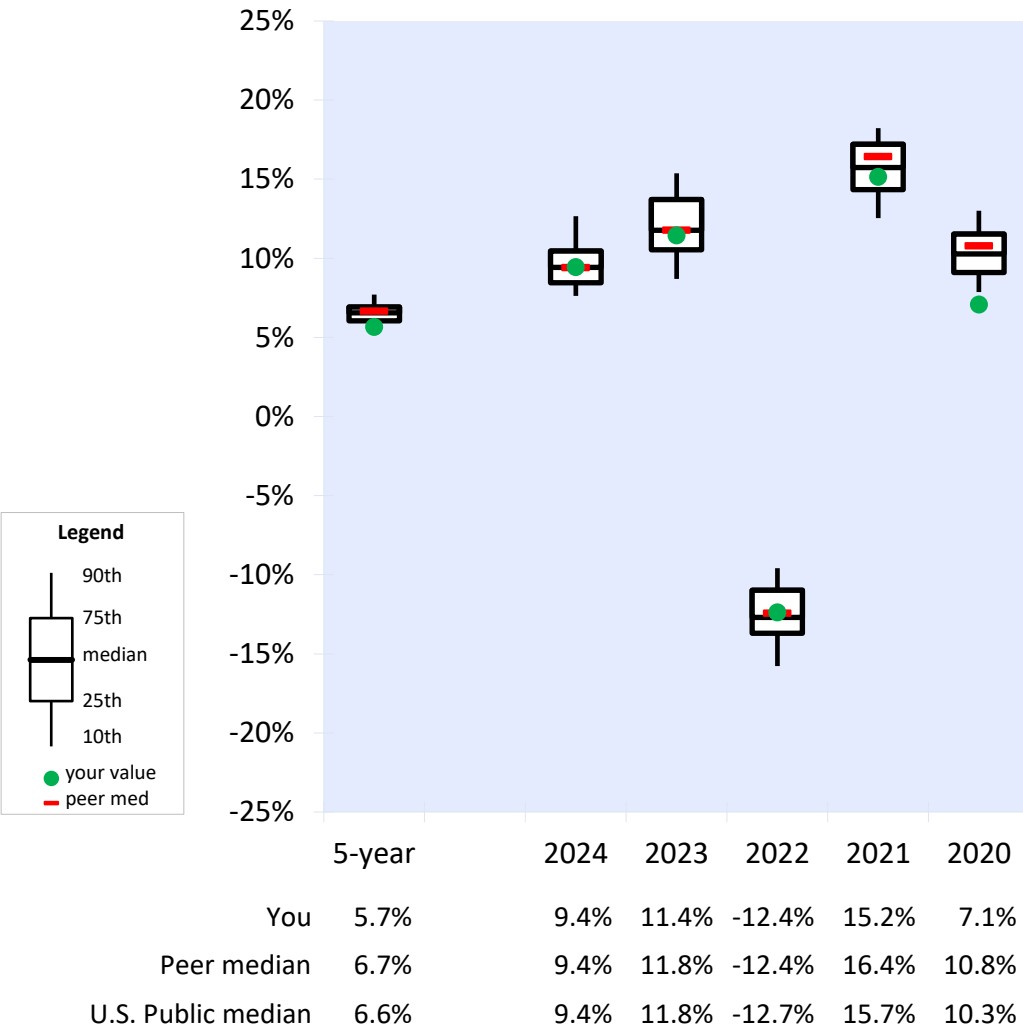
Having a higher or lower relative policy return is not necessarily good or bad. Your policy return reflects your investment policy, which should reflect your:

- Long term capital market expectations
- Liabilities
- Appetite for risk

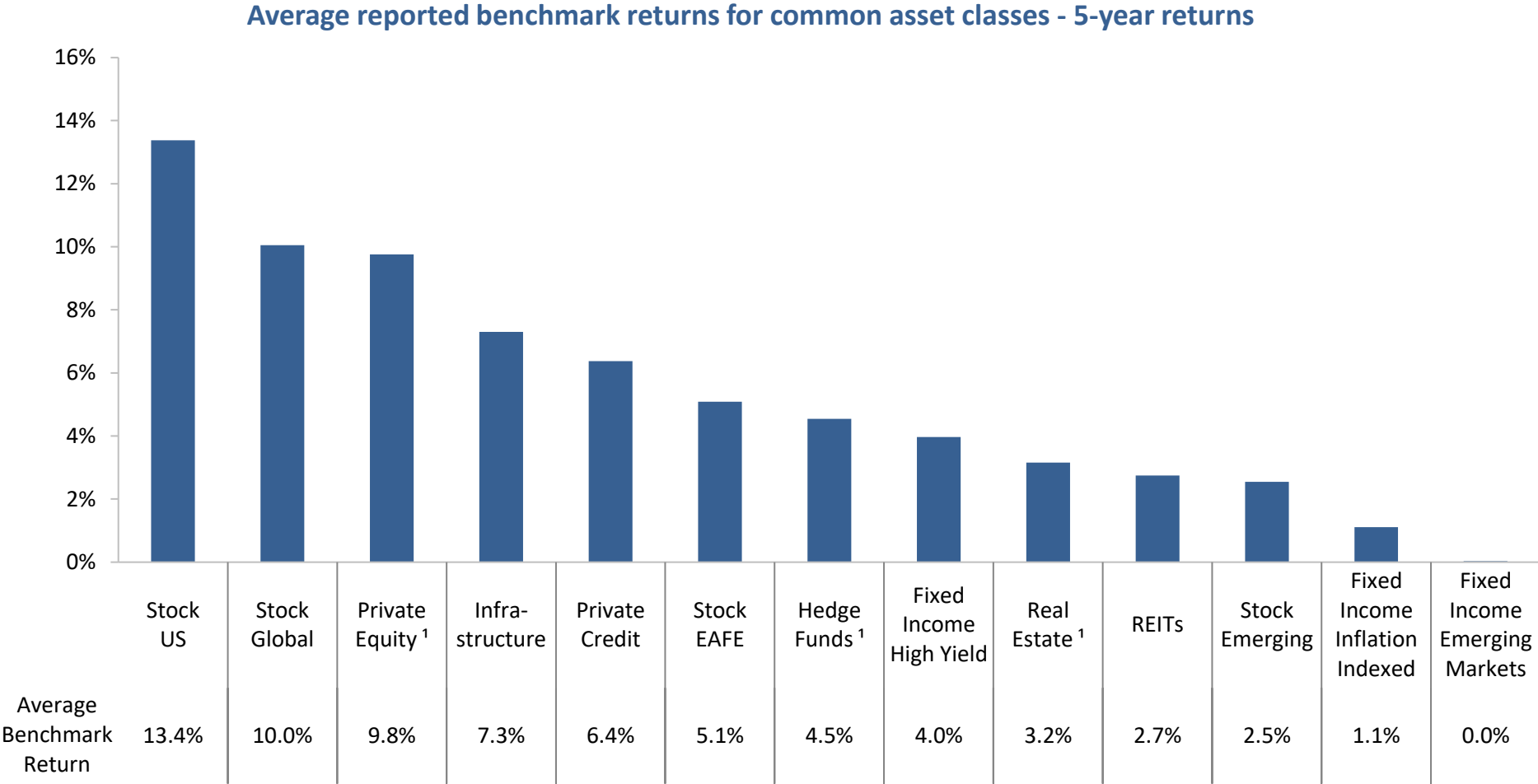
Each of these three factors is different across funds. Therefore, it is not surprising that policy returns often vary widely between funds.

To enable fairer comparisons, the policy returns of all participants, including your fund, were adjusted to reflect private equity benchmarks based on lagged, investable, public-market indices. Prior to this adjustment, your 5-year policy return was 6.0%, 0.3% higher than your adjusted 5-year policy return of 5.7%. Mirroring this, your 5-year total fund net value added would be 0.3% lower.

U.S. Public policy returns - quartile rankings



Differences in policy returns are caused by differences in benchmarks and policy mix. The two best performing asset classes for the 5 years ending 2024 were Stock - U.S. and Stock - Global.



1. The private equity benchmark is the average of the standardized private equity benchmark returns applied to U.S. Public participants based on a blend of listed small cap proxies. The hedge fund and real estate benchmarks are the averages of benchmark returns reported by U.S. Public participants.

Your 5-year policy return of 5.7% was below the U.S. Public median of 6.6% primarily because of:

- The negative impact of lower benchmark returns in total stock and infrastructure than the U.S. Public average.
- The negative impact of a slightly higher allocation to total fixed income, one of the lower returning asset classes over the past 5 years.
- The negative impact of a slightly lower allocation to private equity, one of the higher returning asset classes over the past 5 years.

1. 5-year weights are based only on plans with 5 years of continuous data.
 2. Other stock includes: Stock - ACWI x U.S.. Other fixed income includes: Fixed income - U.S. gov't and Fixed income - High yield. Other real assets include: Commodities and Natural resources.
 3. A value of 'n/a' is shown if asset class returns are not available for the full 5 years or if they are broad and incomparable.

	5-year average policy mix ¹			5-year benchmark return	
	Your Fund	U.S. Publ Avg.	More/Less	Your Fund	U.S. Publ Avg.
Stock - U.S.	0%	16%	-16%	n/a ³	13.4%
Stock - EAFE	0%	4%	-4%	n/a ³	5.1%
Stock - Global	46%	15%	31%	9.7%	10.0%
Other Stock ²	0%	10%	-10%	n/a ³	n/a ³
Total Stock	46%	45%	1%	9.7%	10.0%
Fixed Income - U.S.	25%	16%	9%	-0.3%	-0.4%
Fixed Inc. - Inflation indexed	0%	3%	-3%	n/a ³	1.1%
Cash	0%	-1%	1%	2.4%	2.4%
Other Fixed Income ²	1%	6%	-5%	n/a ³	n/a ³
Total Fixed Income	26%	24%	2%	-0.1%	-0.3%
Hedge funds	0%	3%	-3%	5.2%	4.5%
Infrastructure	3%	2%	2%	3.7%	7.3%
Real estate incl. REITs	9%	10%	-1%	2.7%	3.1%
Other Real Assets ²	0%	2%	-2%	n/a ³	n/a ³
Private equity	9%	12%	-3%	9.8%	9.8%
Private debt	7%	3%	4%	7.3%	6.4%
Total	100%	100%			

Net value added is the component of total return from active management. Your 5-year net value added was 2.1%.

Net value added equals total net return minus policy return.

Value added for South Carolina Retirement System Investment Commission

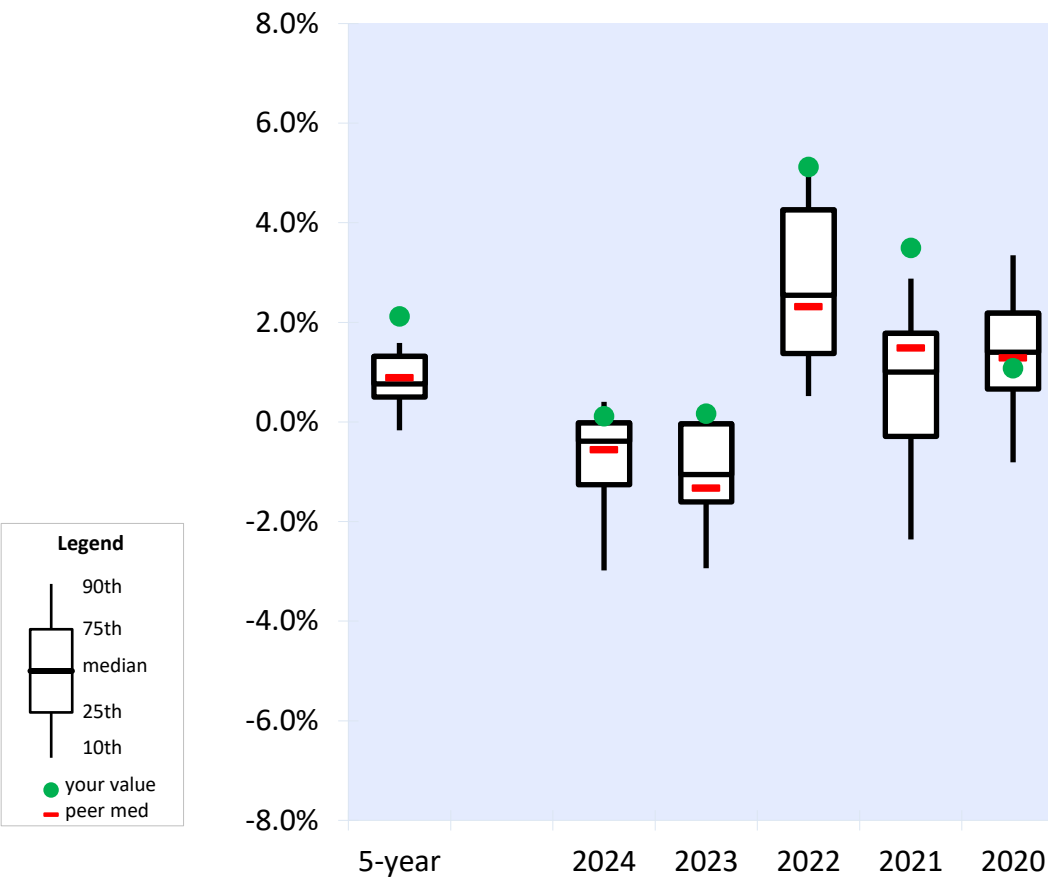
Year	Net return	Policy return	Net value added
2024	9.6%	9.4%	0.1%
2023	11.6%	11.4%	0.2%
2022	-7.3%	-12.4%	5.1%
2021	18.6%	15.2%	3.5%
2020	8.2%	7.1%	1.1%
5-Year	7.8%	5.7%	2.1%

Your 5-year net value added of 2.1% compares to a median of 0.9% for your peers and 0.8% for the U.S. Public universe.

Your 2.1% 5-year value added translates into approximately \$3.8 billion of cumulative value added over 5 years.

To enable fairer comparisons, the value added for each participant including your fund was adjusted to reflect private equity benchmarks based on lagged, investable public market indices. Prior to this adjustment, your fund’s 5-year total fund net value added was 1.8%.

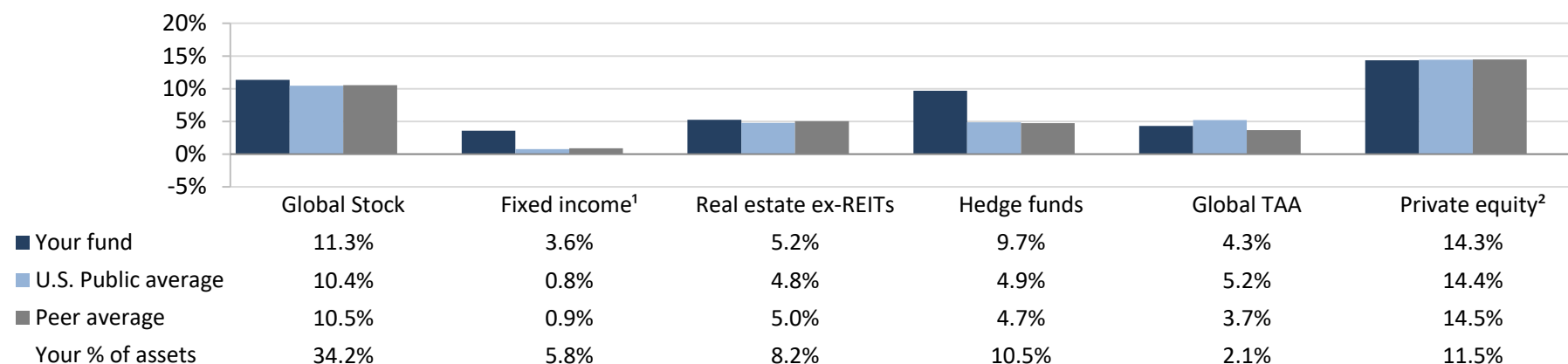
U.S. Public net value added - quartile rankings



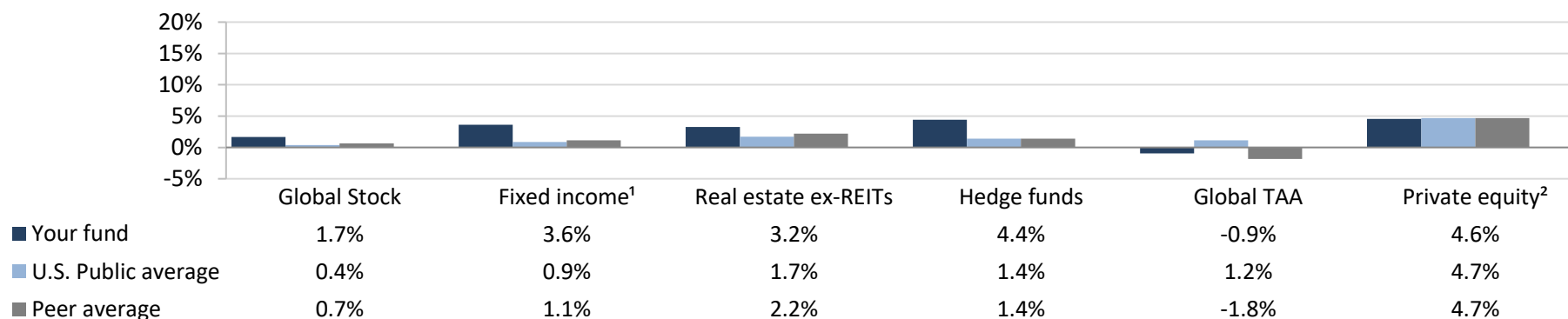
You	2.1%	0.1%	0.2%	5.1%	3.5%	1.1%
Peer median	0.9%	-0.6%	-1.3%	2.3%	1.5%	1.3%
U.S. Public median	0.8%	-0.4%	-1.1%	2.5%	1.0%	1.4%

Comparisons of your 5-year net return and net value added by major asset class:

5-year average net return by major asset class



5-year average net value added by major asset class

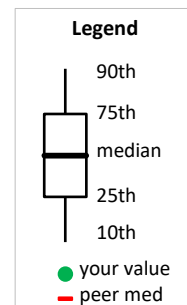


1. Excludes cash and leverage.

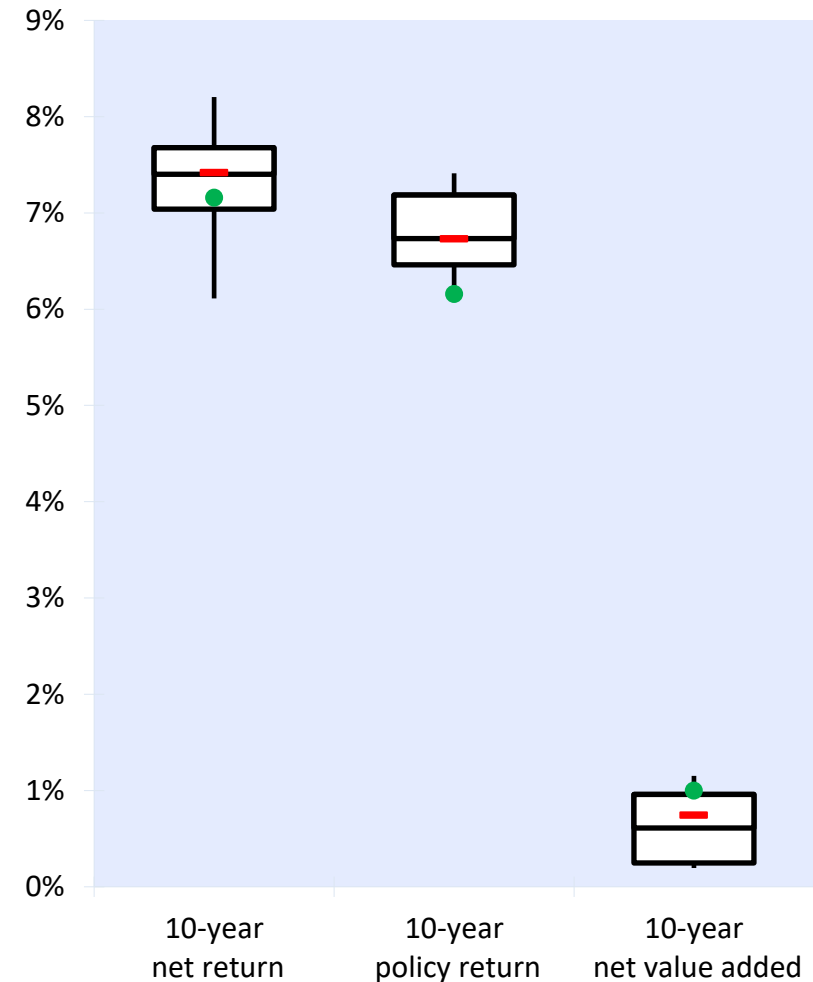
2. To enable fairer comparisons, the private equity benchmarks of all participants, including your fund were adjusted to reflect lagged, investable, public-market indices. Prior to this adjustment, your fund's 5-year private equity net value added was 0.6%.

Your fund had higher long-term net value added relative to the U.S. Public median.

- Your 10-year net return of 7.2% was slightly below the U.S. Public median of 7.4% and slightly below the peer median of 7.4%.
- Your 10-year policy return of 6.2% was below the U.S. Public median of 6.7% and below the peer median of 6.7%.
- Your 10-year net value added of 1.0% was above the U.S. Public median of 0.6% and above the peer median of 0.7%.

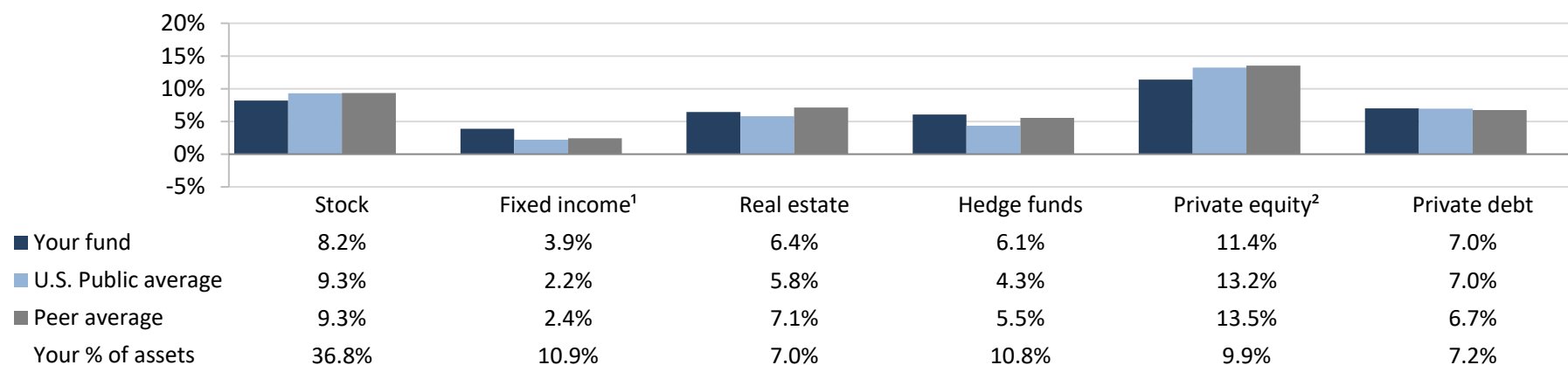


U.S. Public long term returns and value add - quartile rankings
(10-year period ending December 31, 2024)

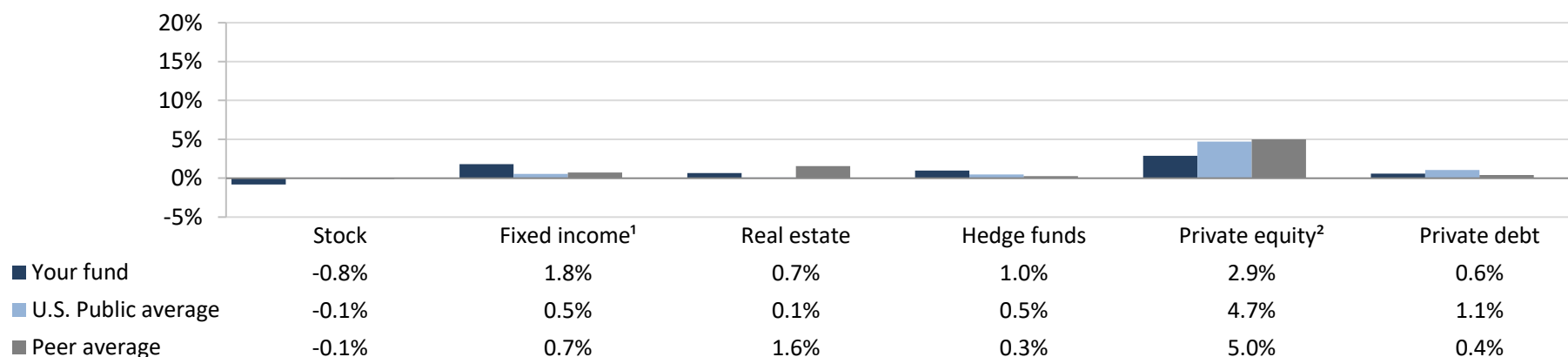


Comparisons of your 10-year net return and net value added by major asset class:

10-year average net return by major asset class



10-year average net value added by major asset class



1. Excludes cash and leverage.

2. To enable fairer comparisons, the private equity benchmarks of all participants, including your fund were adjusted to reflect lagged, investable, public-market indices.

Your investment costs were \$515.9 million or 114.0 basis points in 2024.

Asset management costs by asset class and style (\$000s)	Internal Management			External Management			Total
	Passive	Active	Overseeing of external	Passive fees	Active base fees	Perform. fees ⁶	
Public stock and commodities ⁴	0		3,438	4,144	657		8,240
Public fixed income ⁴		1,023	292		4,286		5,602
Infrastructure ¹			99		4,887	4,651	9,637
Infrastructure - LP/Value add & Co			150		7,722	5,013	12,885
Real estate ex-REITs			368		16,901	2,471	19,740
Real estate ex-REITs - LP/Value add & Co			200		18,658	-10,388	8,795
Global TAA ⁵			118		6,678	5,396	12,193
Hedge funds - External active ^{1 5}			739		77,352	148,574	226,666
Hedge funds - FoFs ^{2 3 5}			2		115	268	384
Private equity - Diversified - LP/Value add			27		1,222	5,025	6,273
Private equity - Diversified - Co-invest.			40				40
Private equity - Diversified - FoFs ^{2 3}			35		4,569	2,261	6,865
LBO - LP/Value add			254		21,526	43,842	65,622
LBO - Co-invest.			348		3,612	12,018	15,978
LBO - FoFs ^{2 3}			28		3,255	2,624	5,906
Venture capital - LP/Value add & Co			52		6,052	6,234	12,338
Venture capital - FoFs ^{2 3}			89		10,021	4,478	14,588
Private credit - LP/Value add			518		26,725	38,772	66,014
Private credit - Co-invest.			85		1,137	1,051	2,273
Private equity - Other - LP/Value add			89		7,471	655	8,216
Private equity - Other - Co-invest.			21		300	-898	-577
Private equity - Other - FoFs ^{2 3}			1		1,496	20	1,517
Derivatives/Overlays			130	1,368			1,498
Total							510,693 112.9bp
Oversight, custodial and other costs ⁷							
Oversight of the fund							1,964
Trustee & custodial							1,128
Consulting and performance measurement							1,484
Audit & Other							656
Total oversight, custodial & other costs							5,232 1.2bp
Total investment costs (excl. transaction costs)							515,925 114.0bp

Footnotes

1. CEM-imputed costs were applied to the following manager performance fees for one or more mandates were added: Hedge funds - External active 130 bps, Infrastructure - Core/Evergreen 20 bps.

2. CEM-imputed costs were applied to the underlying manager base fees for one or more mandates were added: Hedge funds - FoFs 125 bps, LBO - FoFs 150 bps, Private equity - Other - FoFs 120 bps, Venture capital - FoFs 150 bps, Private equity - Diversified - FoFs 150 bps.

3. CEM-imputed costs were applied to the underlying performance fees for one or more mandates were added: Hedge funds - FoFs 130 bps, LBO - FoFs 130 bps, Private equity - Other - FoFs 60 bps, Venture capital - FoFs 70 bps, Private equity - Diversified - FoFs 120 bps.

4. Internal costs for one or more mandates were estimated with forward-filled costs.

5. Base fees for one or more mandates were estimated from forward-filled costs.

Refer to Appendix A for full details regarding the different forms of cost completion.

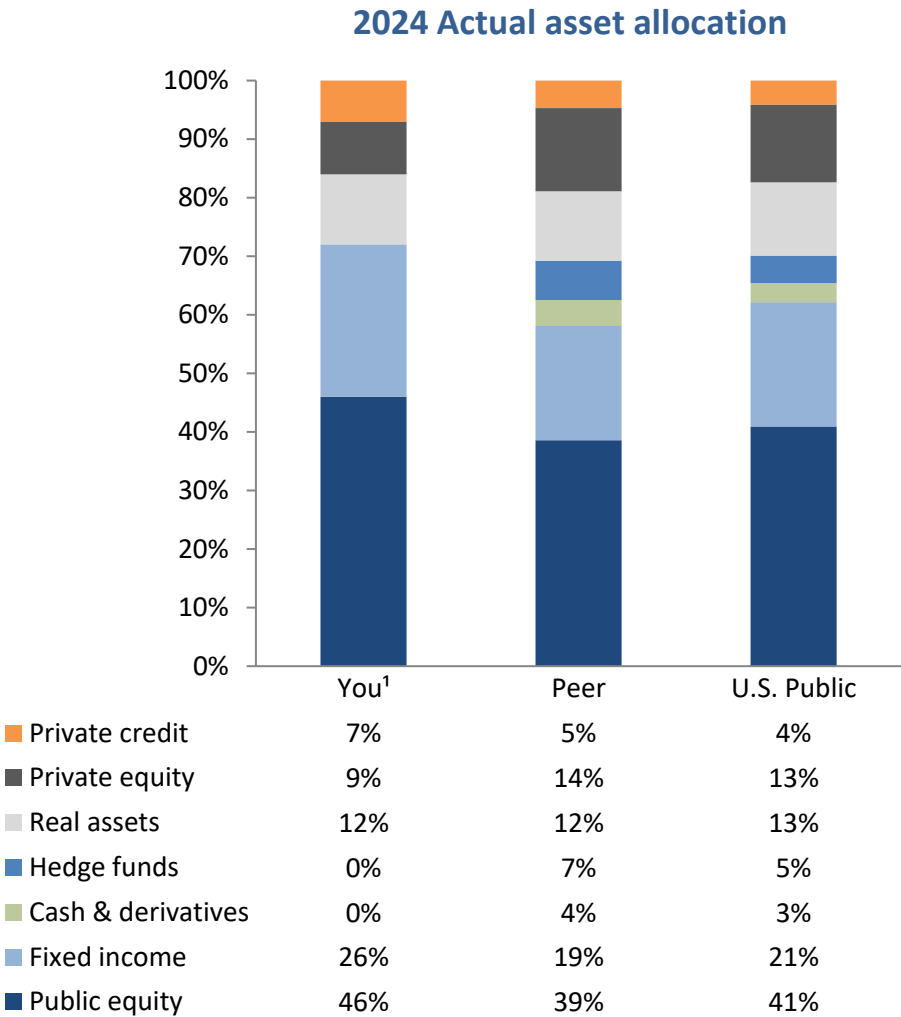
6. Total cost includes carry/performance fees for all asset classes.

7. Excludes non-investment costs, such as benefit insurance premiums and preparing cheques for retirees.

High-cost assets equaled 28% of your assets at the end of 2024 versus a peer average of 38%.

Alternative asset classes, such as, real estate (excl. REITs), infrastructure, hedge funds, private equity and private credit are typically higher cost asset classes than public asset classes such as public equity and fixed income. You had a combined public market allocation, including cash and derivatives, of 72% at the end of 2024 versus a peer average of 62%.

Your alternative asset classes represent 28% of your assets, but 96% of your total costs.



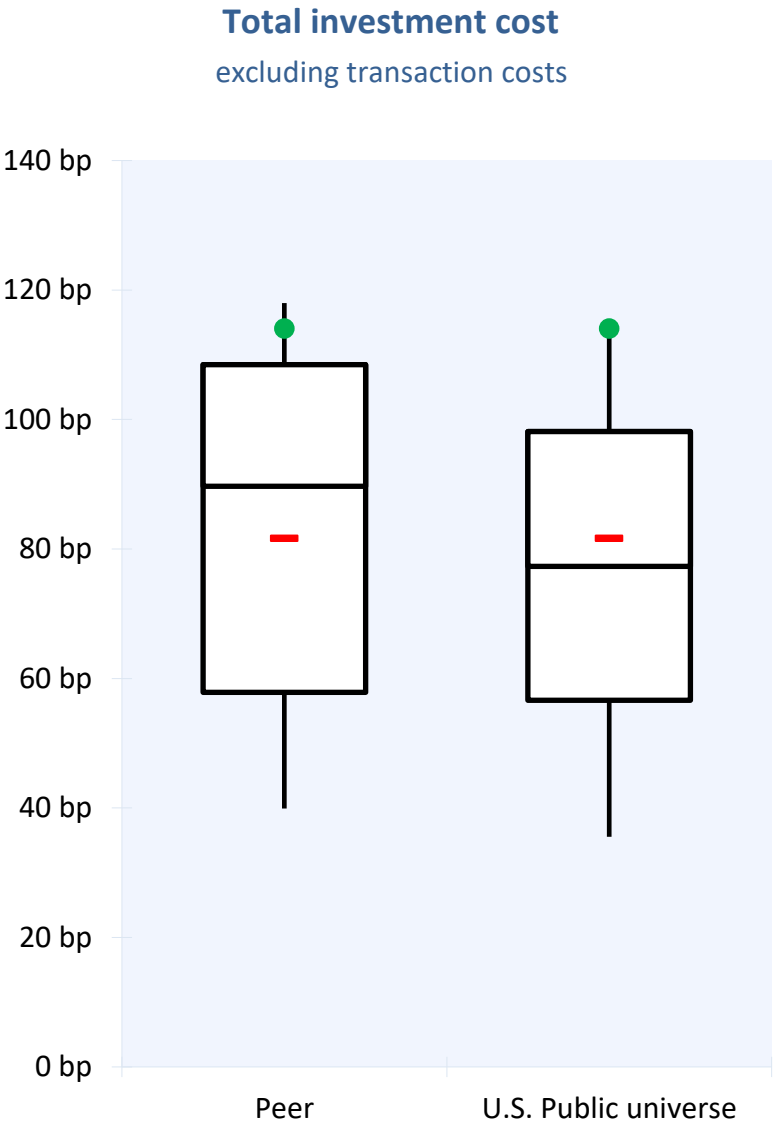
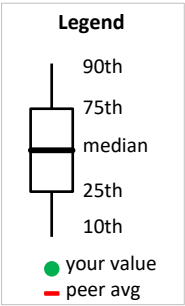
1. Effective mix includes the impact of derivatives.

Before adjusting for asset mix differences, your total investment cost of 114.0 bps was above the peer median of 89.7 bps.

Differences in total investment cost are often caused by two factors that are often outside of management's control:

- Asset mix - private asset classes are generally more expensive than public asset classes.
- Fund size - bigger funds have advantages of scale.

Therefore, to assess whether your costs are high or low given your unique asset mix and size, CEM calculates a benchmark cost for your fund. This analysis is shown on the following page.



Benchmark cost analysis suggests that, after adjusting for fund size and asset mix, your fund was above benchmark cost by 19.0 basis points in 2024.

Your benchmark cost is an estimate of what your cost would be given your actual asset mix and the median costs that your peers pay for similar services. It represents the cost your peers would incur if they had your actual asset mix.

Your total cost of 114.0 bp was above your benchmark cost of 95.0 bp. Thus, your excess cost was 19.0 bp.

Your cost versus benchmark

	\$000s	basis points
Your total investment cost	515,925	114.0 bp
Your benchmark cost	429,831	95.0 bp
Your excess cost ¹	86,094	19.0 bp

1. Part of the excess cost is attributed to Hedge Funds outperforming peers, resulting in higher performance fees.

Your fund was above benchmark cost because it paid more than peer funds for some services, primarily hedge fund performance fees, as a result of your hedge funds outperforming peers. This was offset by having a lower cost implementation style.

Explanation of your cost status

		Excess Cost/ (Savings)	
		\$000s	bps
1. Lower cost implementation style			
• Less active management, more lower cost passive		(29,611)	(6.5)
• More external management, less lower cost internal		2,436	0.5
• More LPs as a percentage of external		8,388	1.9
• Use of fund of funds		2,362	0.5
• More co-investment as a percentage of LP/Co		(60,918)	(13.5)
• Less overlays		(874)	(0.2)
		(78,215)	(17.3)
2. Paying more than peers for some services			
• External investment management costs		74,855	16.5
• Internal investment management costs		(0)	(0.0)
• Oversight, custodial & other costs		(2,493)	(0.6)
		72,362	16.0
Total structural excess savings		(5,854)	(1.3)
3. Paying more for hedge fund performance fees			
		<u>You</u>	<u>Peer Median</u>
		341.1 bp	130.0 bp
		91,948	20.3
Total excess cost		86,094	19.0

Your implementation style was 17.3 bps lower cost than the peer average.

Implementation style is the way in which your fund implements asset allocation. Each implementation choice has a cost. Your first choice is how much to implement passively or actively. The table below summarizes your aggregate choices versus peers and their cost impact.

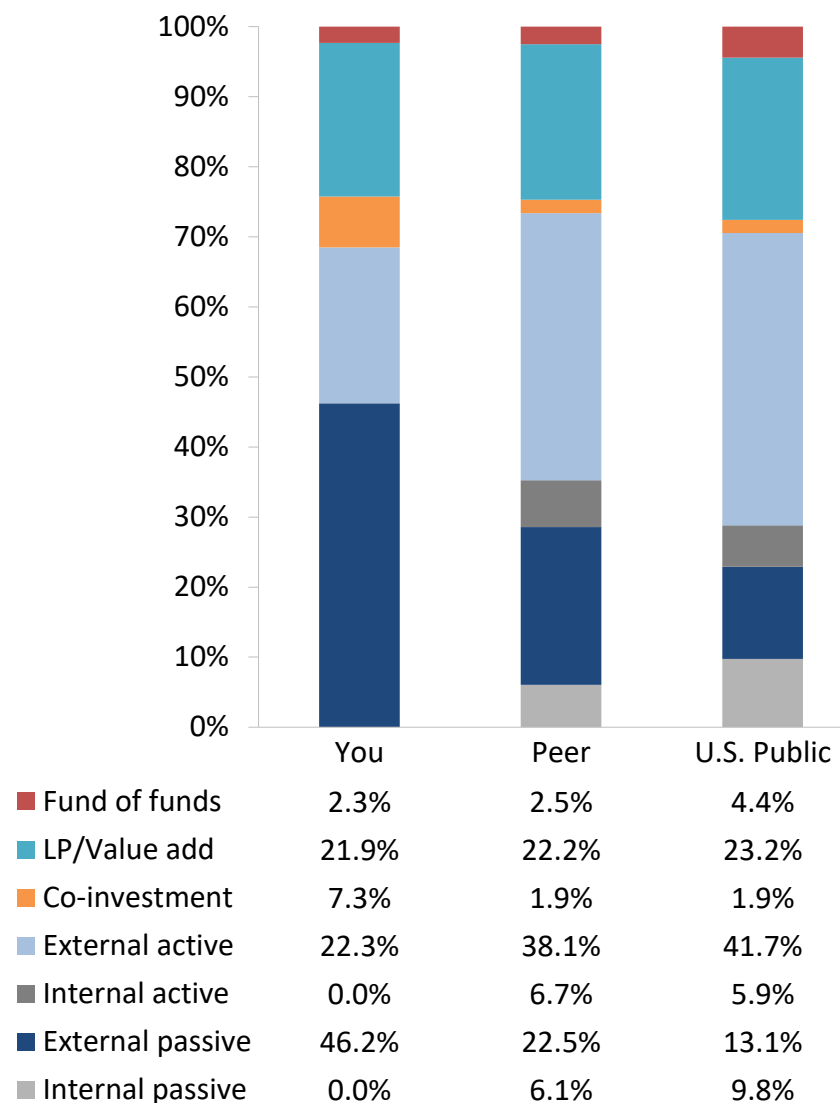
Implementation choices	Impact
Less active, more passive	(6.5) bp
Less internal as a % of passive	0.0 bp
Less internal as a % of active	0.5 bp
More LPs as a % of external	1.9 bp
Less fund of funds	0.5 bp ²
More co-investment as a percentage of LP/Co	(13.5) bp
Less overlays	(0.2) bp
Total impact	(17.3) bp

The peer and universe style was adjusted to match your asset mix. It equals their average style for each asset class weighted by your fee basis for the asset class. It shows how the average peer would implement your asset mix.

1. Implementation style is shown as a % of total fund fee basis because the fee basis is the primary driver of cost for private assets (e.g., new private equity LP commitments increase costs before LP NAV increases). Style weights are based on average holdings. Cash and derivatives are excluded.

2. Typically, less fund of funds as a % of LP/Co/FoF is lower cost. But your mix of fund of funds increased your cost.

Implementation style¹

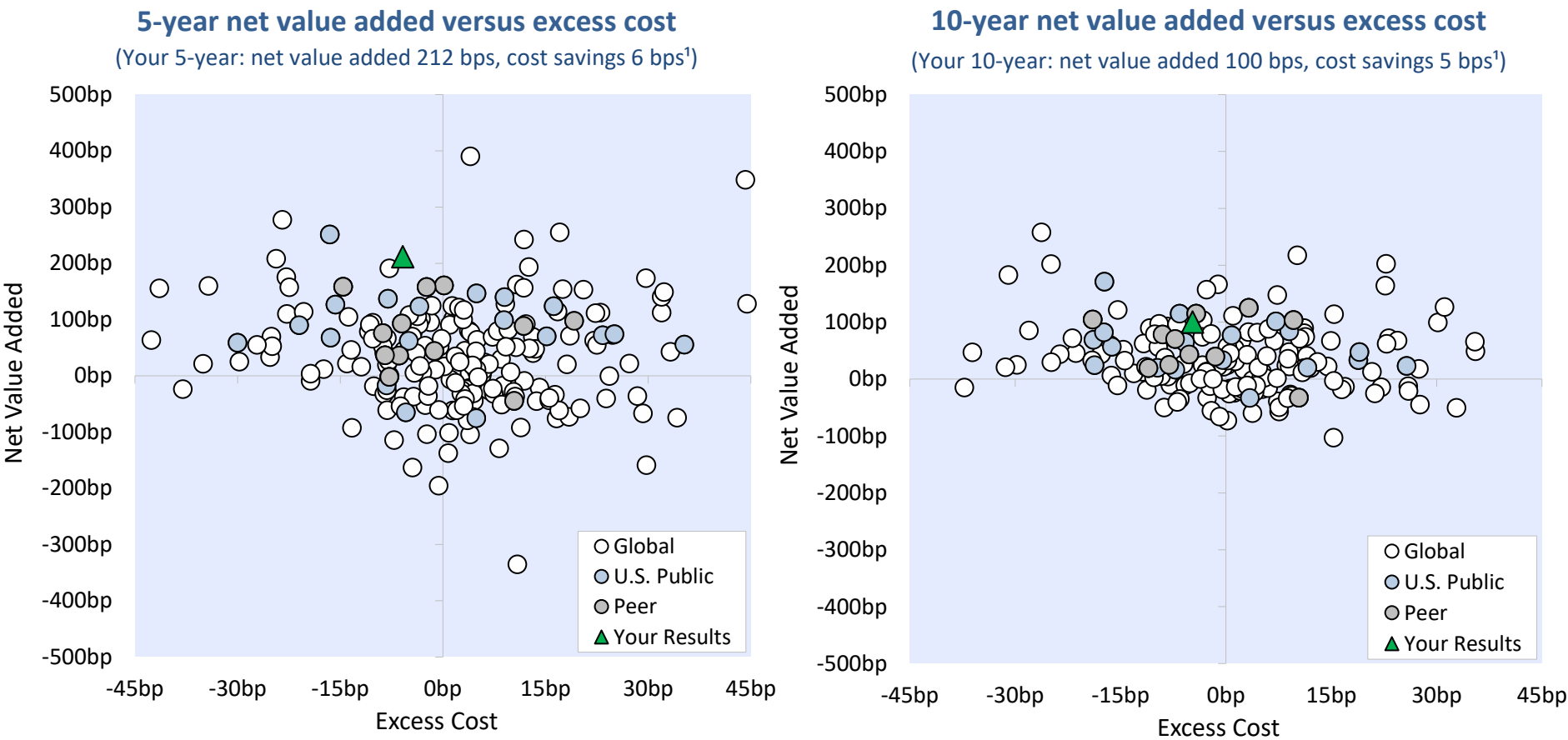


The table below summarizes why your fund is high/low cost relative to the peer median by asset class.

Why are you high/(low) cost by asset class?

Asset class/category	Impl. style \$000s	Paying more/(less) \$000s	Total \$000s	Total bps	2024 Holding %	2024 Net value added
Stock - U.S. small cap	(3,779)	619	(3,161)	(27.3) bp	3%	-4.5%
Stock - EAFE	(2,228)	24	(2,204)	(30.5) bp	2%	-13.5%
Stock - Emerging	(1,003)	14	(989)	(32.7) bp	1%	-12.6%
Stock - Global	(22,528)	0	(22,528)	(12.6) bp	40%	1.4%
Fixed income - U.S.	75	(159)	(83)	(5.3) bp	0%	5.5%
Fixed income - Emerging	0	(7)	(7)	(15.3) bp	0%	-4.1%
Fixed income - High yield	108	1,134	1,242	13.1 bp	2%	8.0%
Fixed income - Other	91	(114)	(23)	(1.3) bp	0%	4.2%
REITs	32	26	58	3.5 bp	0%	1.7%
Real estate ex-REITs	2,027	(11,766)	(9,739)	(29.0) bp	7%	-1.5%
Infrastructure	(2,746)	(773)	(3,519)	(22.8) bp	3%	-4.0%
Hedge funds	(2,802)	114,536	111,734	256.0 bp	10%	0.6%
Global TAA	18	8,225	8,243	114.5 bp	2%	-1.4%
Private equity - Diversified	(3,576)	1,978	(1,597)	(24.7) bp	1%	-6.3%
Venture capital	1,659	5,113	6,772	77.5 bp	2%	-7.1%
LBO	(48,784)	26,497	(22,287)	(58.2) bp	8%	-2.5%
Private equity - Other	--	--	Excluded	Excluded	1%	-11.6%
Performance fees (on NAV)	--	--	Excluded	Excluded	1%	-11.6%
Private credit	6,094	21,455	27,550	72.1 bp	8%	0.3%
Derivatives and overlays	(874)	0	(874)	(0.2) bp	2%	--
Oversight, custodial & other	n/a	(2,493)	(2,493)	(0.6) bp	--	--
Total	(78,215)	164,310	86,094	19.0 bp	100%	0.1%

Your 10-year performance placed in the positive value added, low cost quadrant of the cost-effectiveness chart.



	5-year	10-year ¹	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Net value added	211.9 bp	100.0 bp	11.4 bp	16.9 bp	512.3 bp	349.2 bp	107.7 bp	86.6 bp	(177.6) bp	55.2 bp	(56.1) bp	57.9 bp
Excess cost	(5.9) bp	(4.7) bp	19.0 bp	(8.7) bp	(12.4) bp	(8.7) bp	(18.5) bp	(11.0) bp	(9.6) bp	(1.5) bp	(1.0) bp	5.1 bp

Summary of key takeaways

Returns

- Your 5-year net total return was 7.8%. This was above both the U.S. Public median of 7.5% and the peer median of 7.6%.
- Your 5-year policy return was 5.7%. This was below the U.S. Public median of 6.6% and close to the peer median of 6.7%.

Value added

- Your 5-year net value added was 2.1%. This was above both the U.S. Public median of 0.8% and the peer median of 0.9%.
- Your 2.1% 5-year value added translates into approximately \$3.8 billion of cumulative value added over 5 years.

Cost and cost effectiveness

- Your investment cost of 114.0 bps was above your benchmark cost of 95.0 bps.
- Your fund was above benchmark cost because it paid more than peer funds for some services, primarily hedge fund performance fees. This was offset by having a lower cost implementation style.