



Iowa PERS

CEM Investment Benchmarking Report DB - 2024

December 5, 2025

Key Takeaways

Returns

- Your 5-year net total return was 7.6%. This was above both the U.S. Public median of 7.5% and the peer median of 6.3%.
- Your 5-year policy return was 6.8%. This was above both the U.S. Public median of 6.6% and the peer median of 5.0%.

Value added

- Your 5-year net value added was 0.8%. This was equal to the U.S. Public median of 0.8% and above the peer median of 0.7%.

Cost

- Your investment cost of 44.7 bps was below your benchmark cost of 54.0 bps. This suggests that your fund was low cost compared to your peers.
- Your fund was below benchmark cost because it had a lower cost implementation style.
- Your costs increased by 13.4 bps, from 31.3 bps in 2020 to 44.7 bps in 2024, because you had a higher cost asset mix and paid more in total for similar investment styles.

Risk

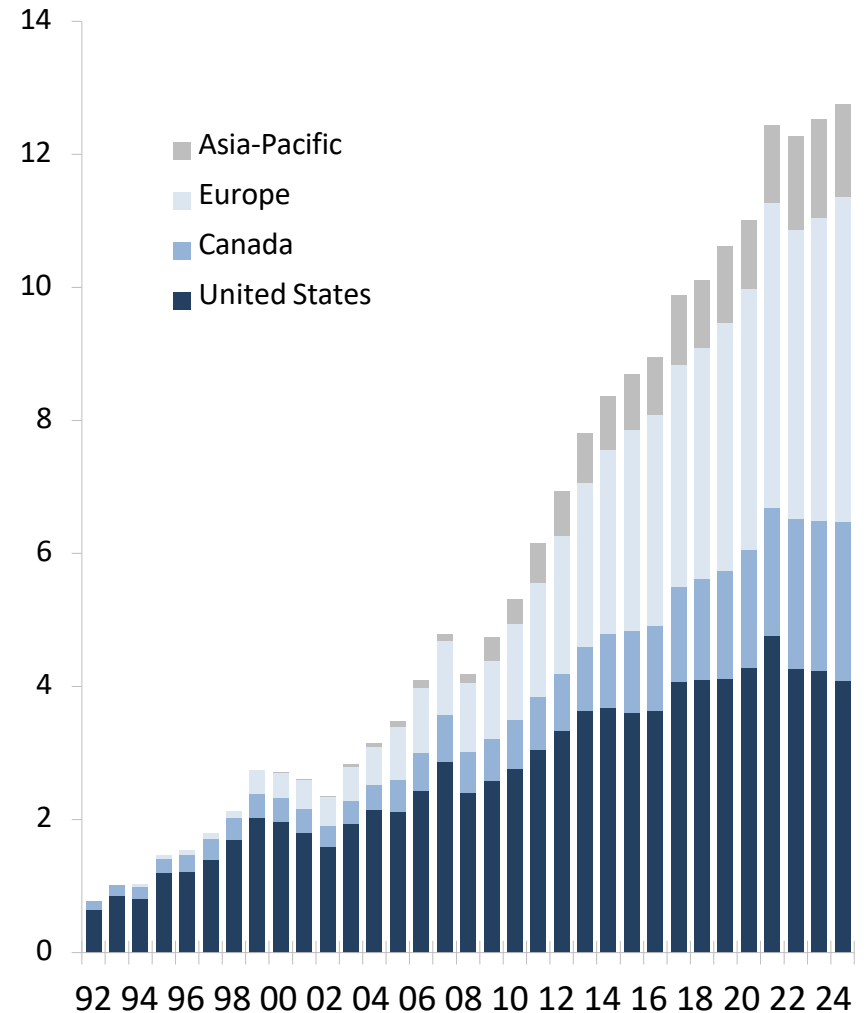
- Your asset risk of 11.5% was equal to the U.S. Public median of 11.5%. Your asset-liability risk of 14.6% was above the U.S. Public median of 12.5%.
- Your 10-year realized Sharpe ratio of 0.66 was above the U.S. Public median of 0.63.
- Your 10-year realized information ratio of 0.48 was above the U.S. Public median of 0.33.

This benchmarking report compares your cost and performance to the 249 funds in CEM's extensive pension database.

- 133 U.S. pension funds participate. The median U.S. fund had assets of \$8.5 billion and the average U.S. fund had assets of \$30.8 billion. Total participating U.S. assets were \$4.1 trillion.
- 60 Canadian funds participate with assets totaling \$2.4 trillion.
- 45 European funds participate with aggregate assets of \$4.9 trillion. Included are funds from the Netherlands, Norway, Sweden, Finland, Ireland, Denmark and the UK.
- 8 Asia-Pacific funds participate with aggregate assets of \$1.4 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 38 funds. The U.S. Public universe assets totaled \$3.0 trillion and the median fund had assets of \$45.3 billion.

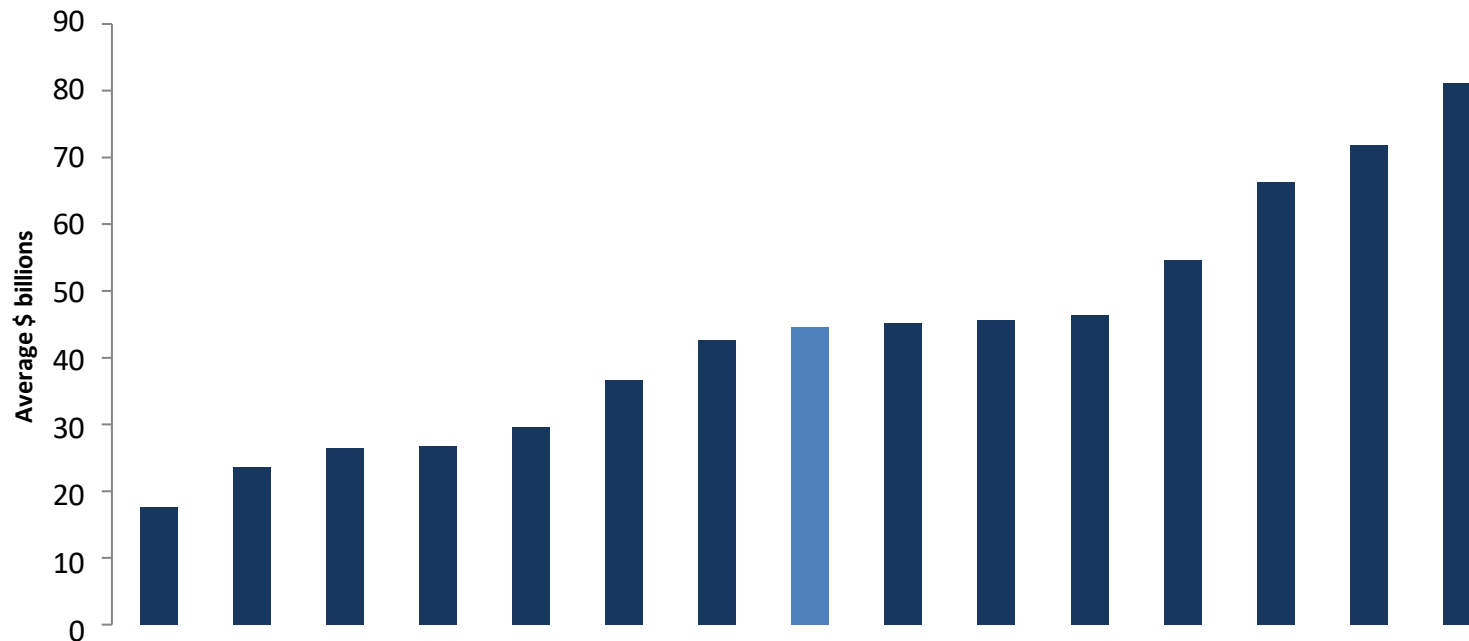
Participating assets (\$ trillions)



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

Peer group for Iowa Public Employees' Retirement System

- 15 U.S. sponsors from \$17.6 billion to \$81.2 billion
- Median size of \$44.6 billion versus your \$44.6 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.

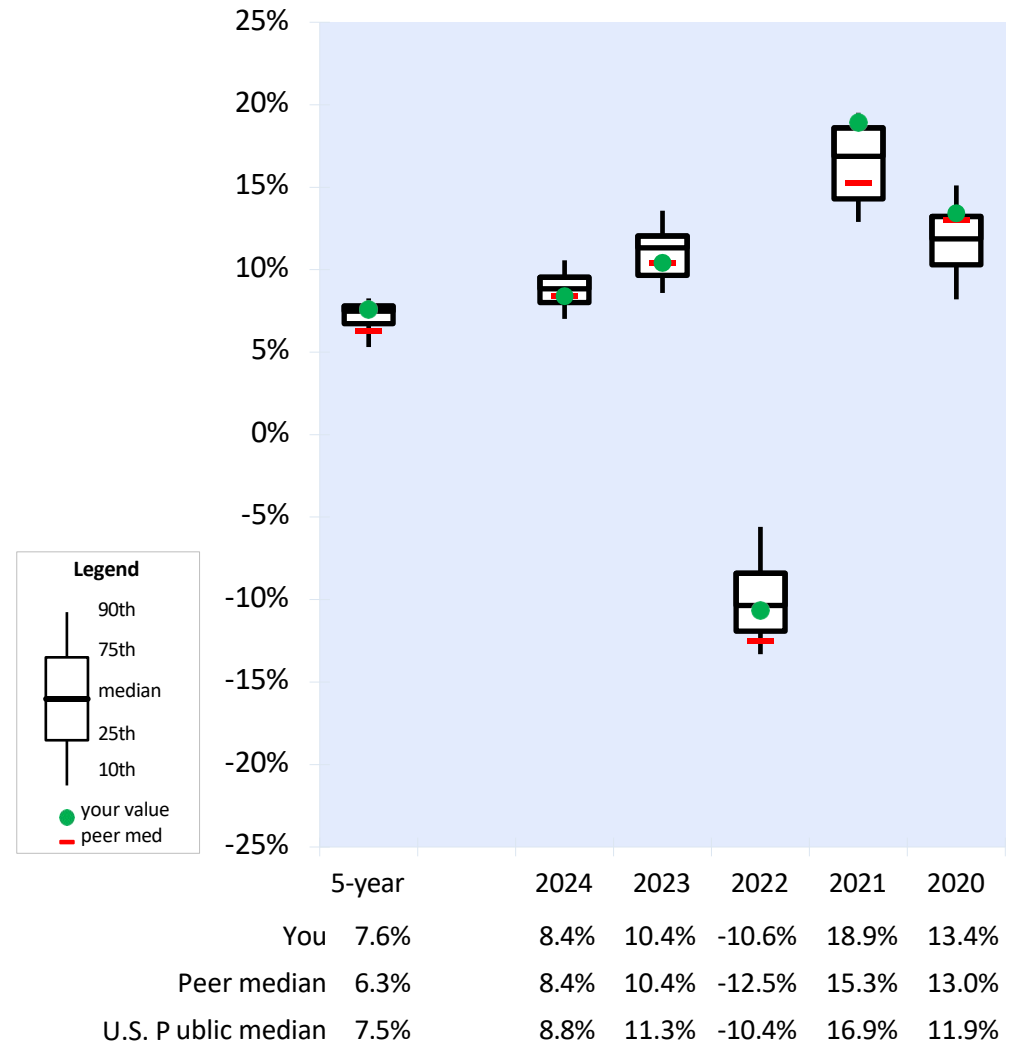
Your 5-year net total return of 7.6% was above both the U.S. Public median of 7.5% and the peer median of 6.3%.

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	7.6%
- Policy return	6.8%
= Net value added	0.8%

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 6.8% was above both the U.S. Public median of 6.6% and the peer median of 5.0%.

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

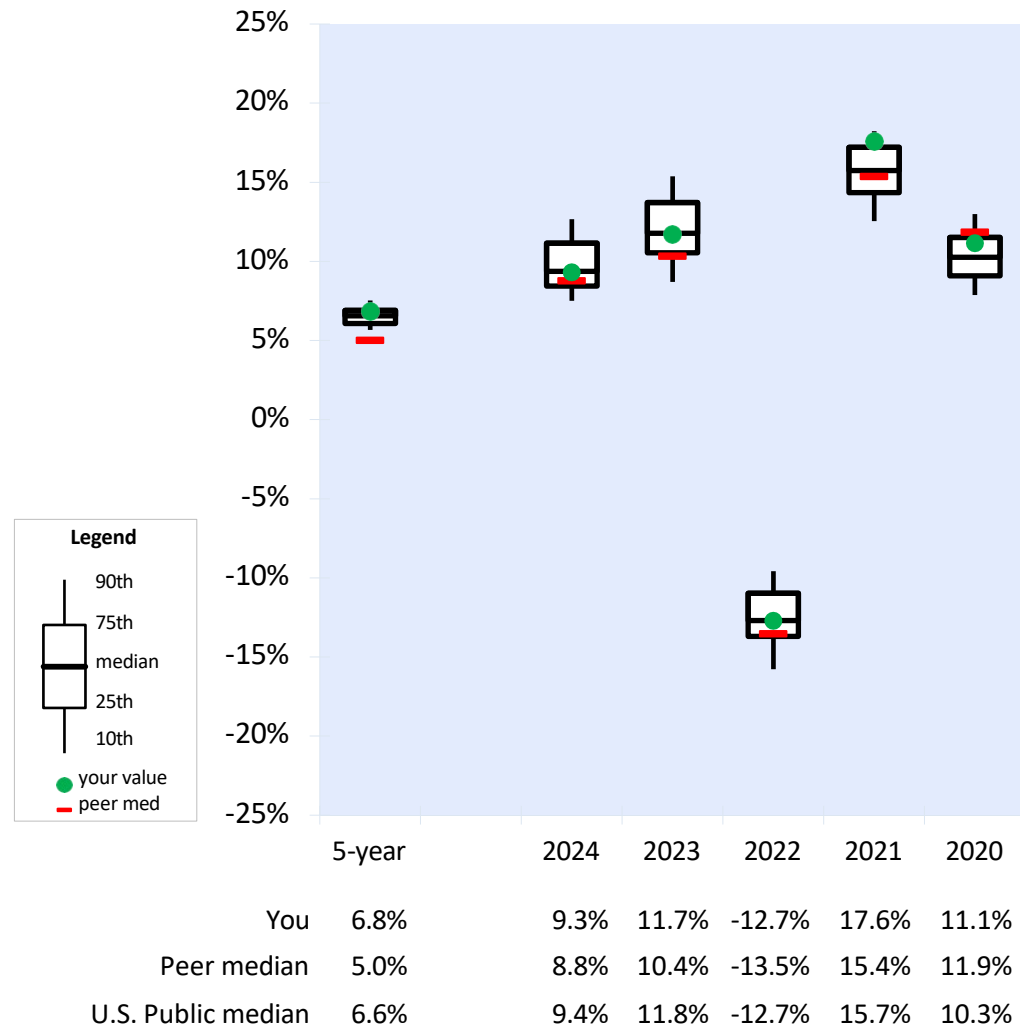
Having a higher or lower relative policy return is not necessarily good or bad. Your policy return reflects your investment policy, which should reflect your:

- 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 7.5%, 0.6% higher than your adjusted 5-year policy return of 6.8%. Mirroring this, your 5-year total fund net value added would be 0.6% lower.

U.S. Public policy returns - quartile rankings



Your 5-year policy return of 6.8% was slightly above the U.S. Public median of 6.6% primarily because of:

- The positive impact of a higher benchmark return in total fixed income than the U.S. Public average.
- The positive impact of a higher allocation to private equity, one of the higher returning asset classes over the past 5 years.
- The offsetting impact of a higher allocation to total fixed income, one of the lower 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 fixed income includes: Fixed income - U.S. gov't, Fixed income - U.S. credits and Fixed Inc. - Inflation indexed. 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.	24%	16%	8%	14.1%	13.5%
Stock - EAFE	0%	4%	-4%	n/a ³	5.1%
Stock - ACWI x U.S.	18%	6%	12%	4.1%	4.3%
Stock - Global	0%	15%	-15%	n/a ³	10.1%
Other Stock	0%	4%	-4%	n/a ³	n/a ³
Total Stock	42%	45%	-3%	10.1%	10.0%
Fixed Income - U.S.	25%	16%	9%	-0.2%	-0.3%
Fixed Income - Long bonds	0%	1%	-2%	n/a ³	-6.6%
Cash	1%	-1%	2%	2.5%	2.4%
Other Fixed Income ²	3%	8%	-5%	n/a ³	n/a ³
Total Fixed Income	30%	24%	6%	0.3%	-0.3%
Hedge funds	0%	3%	-3%	n/a ³	4.2%
Infrastructure	1%	2%	-1%	n/a ³	7.3%
Real estate incl. REITs	6%	10%	-3%	2.8%	3.0%
Other Real Assets ²	1%	2%	-1%	n/a ³	n/a ³
Private equity	16%	12%	4%	9.8%	9.8%
Private debt	4%	3%	1%	7.3%	6.2%
Total	100%	100%			

Net value added is the component of total return from active management. Your 5-year net value added was 0.8%.

Net value added equals total net return minus policy return.

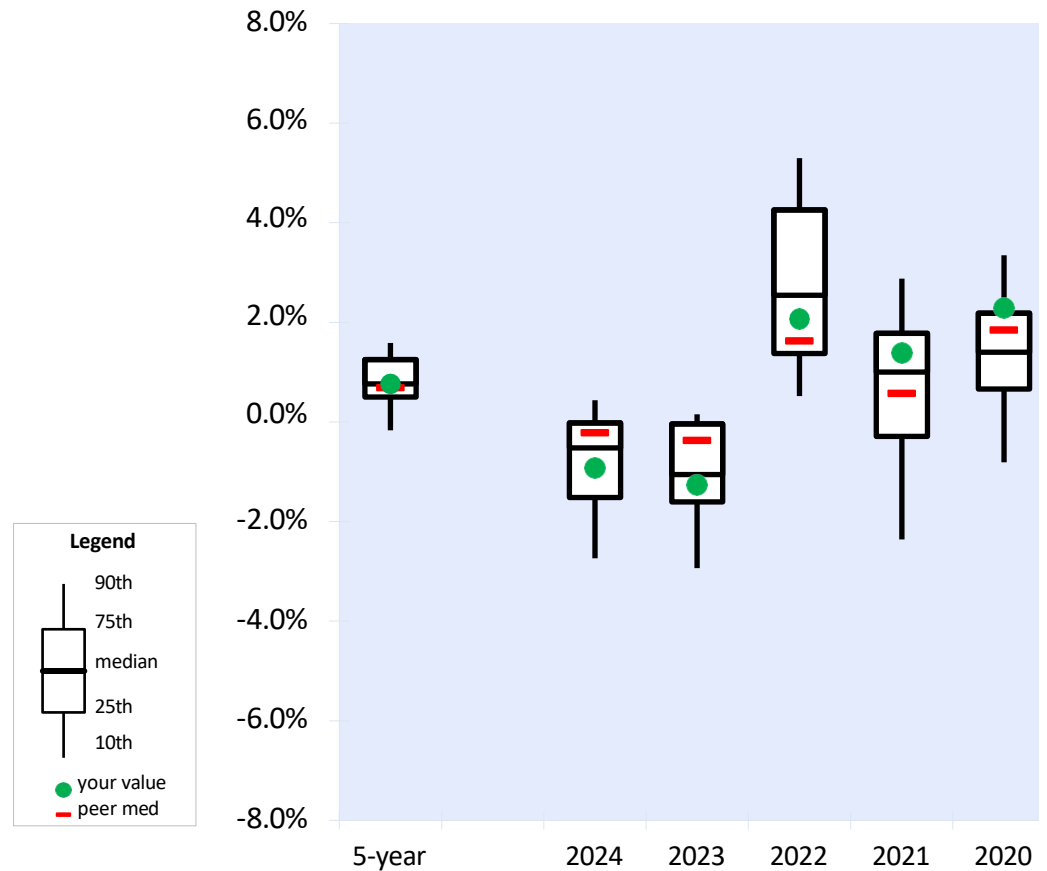
Value added for Iowa Public Employees' Retirement System

Year	Net return	Policy return	Net value added
2024	8.4%	9.3%	-0.9%
2023	10.4%	11.7%	-1.3%
2022	-10.6%	-12.7%	2.1%
2021	18.9%	17.6%	1.4%
2020	13.4%	11.1%	2.3%
5-Year	7.6%	6.8%	0.8%

Your 5-year net value added of 0.8% compares to a median of 0.7% for your peers and 0.8% for the U.S. Public universe.

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 0.1%.

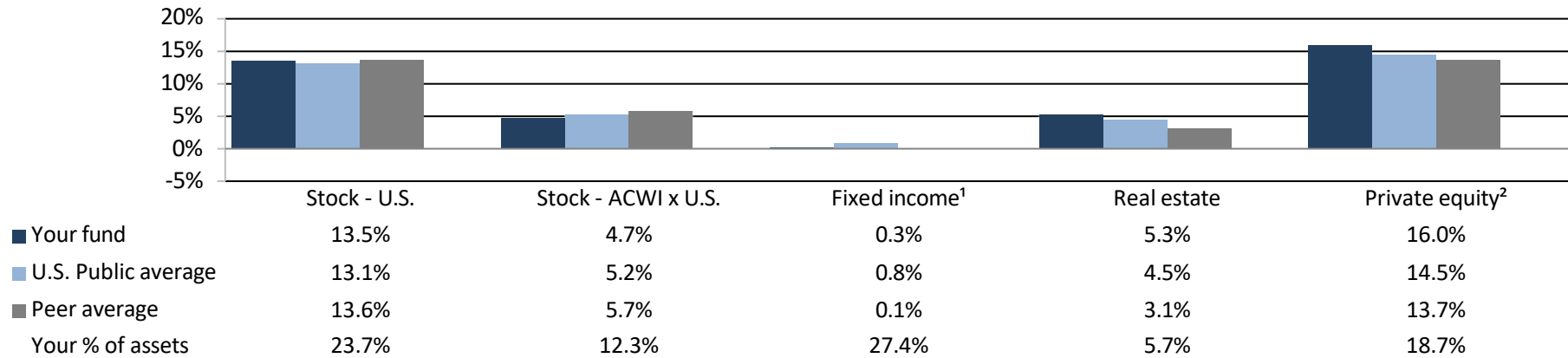
U.S. Public net value added - quartile rankings



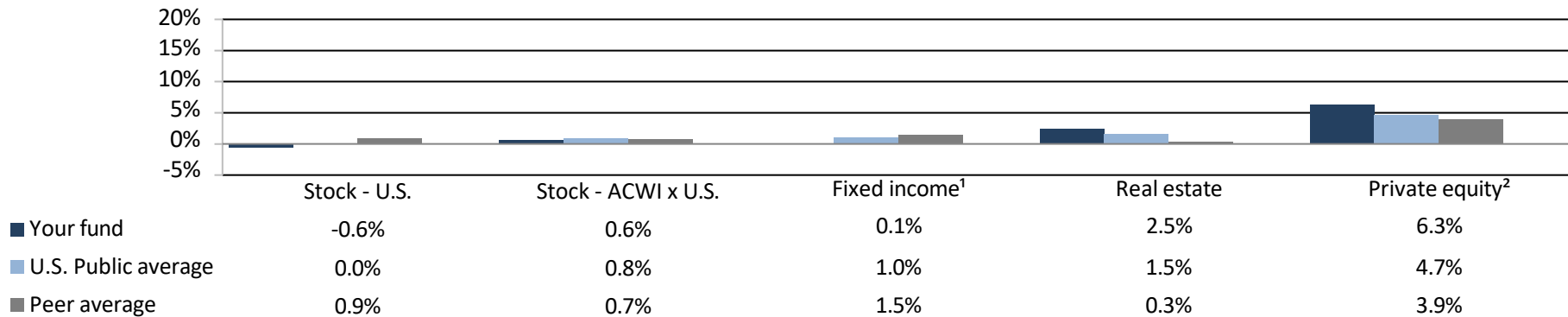
	5-year	2024	2023	2022	2021	2020
You	0.8%	-0.9%	-1.3%	2.1%	1.4%	2.3%
Peer median	0.7%	-0.2%	-0.4%	1.6%	0.6%	1.9%
U.S. Public median	0.8%	-0.5%	-1.1%	2.5%	1.0%	1.4%

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



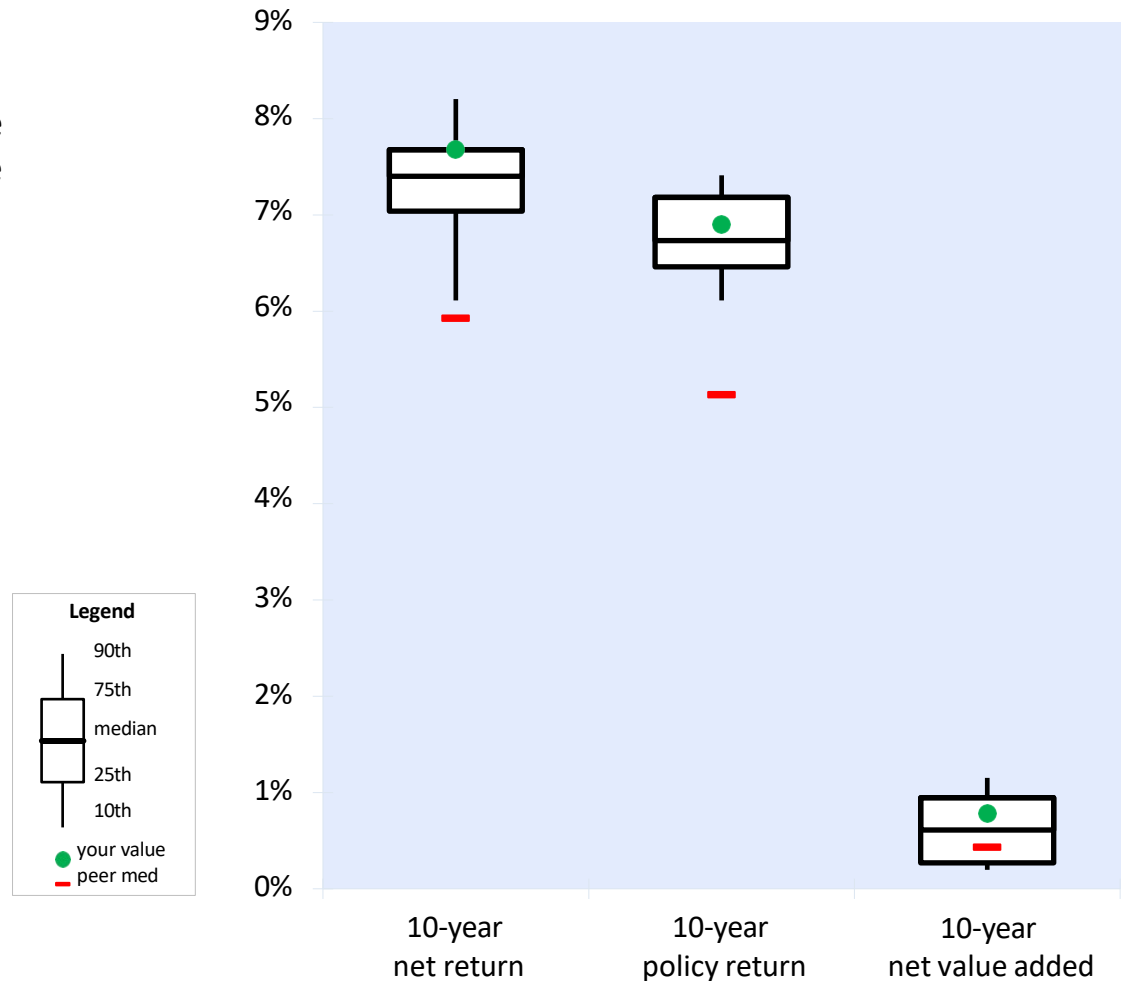
1. Excludes cash and leverage.

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 0.3%.

Your long-term net return of 7.7% was above the U.S. Public median of 7.4%.

- Your 10-year net return of 7.7% was above the U.S. Public median of 7.4% and above the peer median of 5.9%.
- Your 10-year policy return of 6.9% was above the U.S. Public median of 6.7% and above the peer median of 5.1%.
- Your 10-year net value added of 0.8% was above the U.S. Public median of 0.6% and above the peer median of 0.4%.

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



Your investment costs, excluding private asset performance fees, were \$193.8 million or 44.7 basis points in 2024.

Asset management costs by asset class and style (\$000s)	Internal Overseeing of external	External Management			Total
		Passive fees	Active base fees	Perform. fees ²	
Stock - U.S. broad/all		292	130	12,019	12,441
Stock - Emerging		146	628	3,683	4,457
Stock - ACWI x U.S.		442	213	9,860	10,516
Fixed income - U.S.		-335		3,567	3,232
Fixed income - Emerging				282	282
Fixed income - High yield			519	280	799
Cash			251		251
Infrastructure ²			2,330	658	2,330
Natural resources ²			2,374	165	2,374
Real estate ex-REITs ²			9,262	1,214	9,262
Private equity - Diversified - LP/Value add ^{1,2}	10,002		105,234	81,550	115,236
Private equity - Diversified - Co-invest. ²	1,685				1,685
Private credit - Core/Evergreen ²			21,889		21,889
Derivatives/Overlays	466	148		4,319	4,933
Total excluding private asset performance fees					189,688
					43.7bp
Oversight, custodial and other costs ³					
Oversight of the fund					2,501
Trustee & custodial					684
Consulting and performance measurement					260
Audit					201
Other					426
Total oversight, custodial & other costs					4,072
					0.9bp
Total investment costs (excl. transaction costs & private asset performance fees)					193,760
					44.7bp

Footnotes

1. Fees are the weighted average of the deal-based management costs calculated using the detailed limited partnership survey provided.

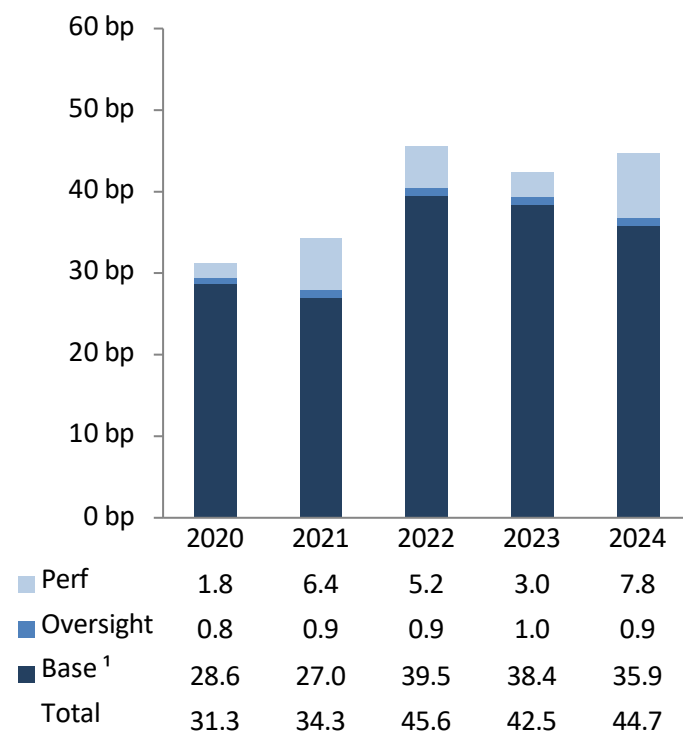
Refer to Appendix A for full details regarding the different forms of cost completion.

2. Total cost excludes carry/performance fees for real estate, infrastructure, natural resources and private equity. Performance fees are included for the public market asset classes and hedge funds.

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

Your costs increased by 13.4 bps, from 31.3 bps in 2020 to 44.7 bps in 2024, because you had a higher cost asset mix and paid more in total for similar investment styles.

Trend in cost



Reasons why your costs increased by 13.4 bps

	Impact in bps		
1. Higher cost asset mix			
• More Private equity: 2020 14% vs 2024 18%		7.0	
• More Private debt: 2020 3% vs 2024 6%		2.8	
• All other mix changes		0.5	
		<hr/> 10.3	
2. Lower cost implementation style		(0.5)	
3. Paid more in total for similar investment styles	<u>2020 cost</u>	<u>2024 cost</u>	
• Higher external active U.S. Broad/All Stock costs	3.0 bp	47.8 bp	2.6
• Higher external active ACWI X U.S. Stock costs	2.5 bp	59.9 bp	2.2
• Lower Private Equity LP/Value add base fees	181.6 bp	169.6 bp	(1.9)
• Higher external active U.S. Fixed Income costs	2.7 bp	23.0 bp	0.7
• Higher oversight, custodial & other costs	0.8 bp	0.9 bp	0.1
• All other differences			(0.2)
			<hr/> 3.6
Total increase			<hr/> 13.4

The cost trend model is based on your average assets.

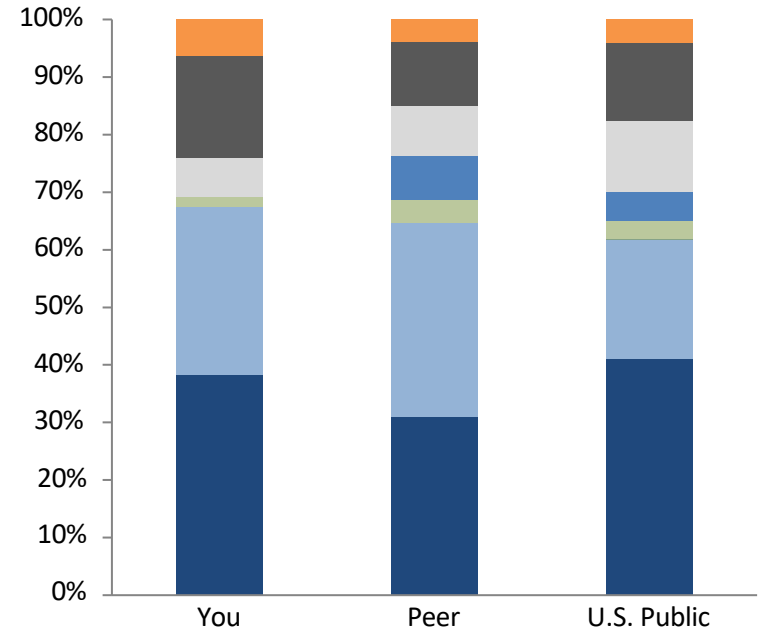
1. Includes fees for managing internal assets and internal costs of monitoring external programs, where allocated.

High-cost assets equaled 31% of your assets at the end of 2024 versus a peer average of 31%.

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 69% at the end of 2024 versus a peer average of 69%.

Your alternative asset classes represent 31% of your assets, but 79% of your total costs.

2024 Actual asset allocation



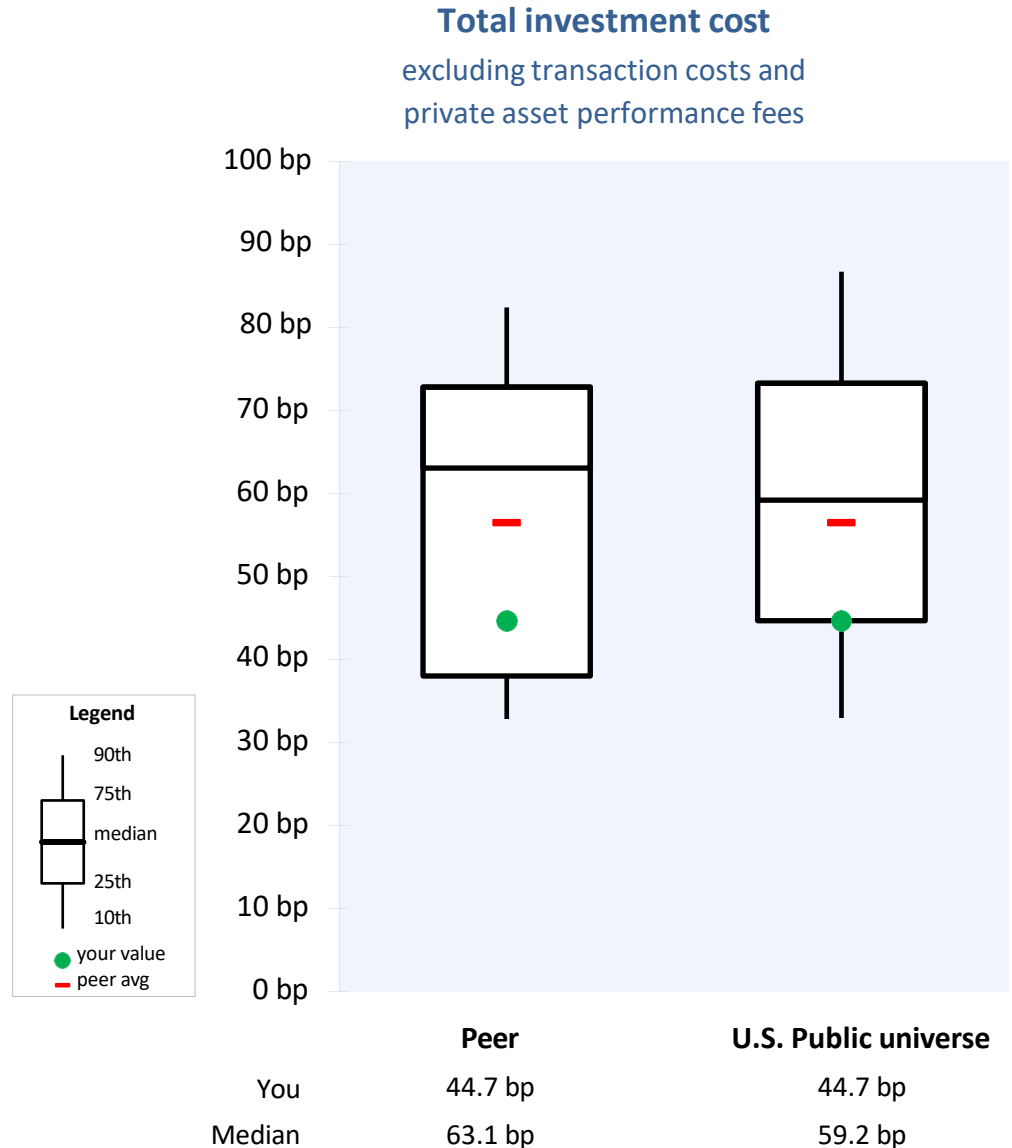
Asset Class	You	Peer	U.S. Public
Private credit	6%	4%	4%
Private equity	18%	11%	13%
Real assets	7%	9%	12%
Hedge funds	0%	8%	5%
Cash & derivatives	2%	4%	3%
Fixed income	29%	34%	21%
Public equity	38%	31%	41%

Before adjusting for asset mix differences, your total investment cost of 44.7 bps was below the peer median of 63.1 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 below benchmark cost by 9.4 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 44.7 bp was below your benchmark cost of 54.0 bp. Thus, your cost savings were 9.4 bp.

Your cost versus benchmark

	\$000s	basis points
Your total investment cost	193,760	44.7 bp
Your benchmark cost	234,545	54.0 bp
Your excess cost	(40,785)	(9.4) bp

Your fund was below benchmark cost because it had a lower cost implementation style.

Reasons for your low cost status

	Excess Cost/ (Savings)	
	\$000s	bps
1. Lower cost implementation style		
• Less active management, more lower cost passive	(25,539)	(5.9)
• More external management, less lower cost internal	1,117	0.3
• Less LPs as a percentage of external	(11,070)	(2.6)
• Less fund of funds	(1,534)	(0.4)
• More co-investment as a percentage of LP/Co	(7,513)	(1.7)
• More overlays	2,656	0.6
	<u>(41,883)</u>	<u>(9.7)</u>
2. Paying more than peers for some services		
• External investment management costs	5,488	1.3
• Oversight, custodial & other costs	(4,390)	(1.0)
	<u>1,098</u>	<u>0.3</u>
Total savings	(40,785)	(9.4)

Your implementation style was 9.7 bps lower cost than the peer average.

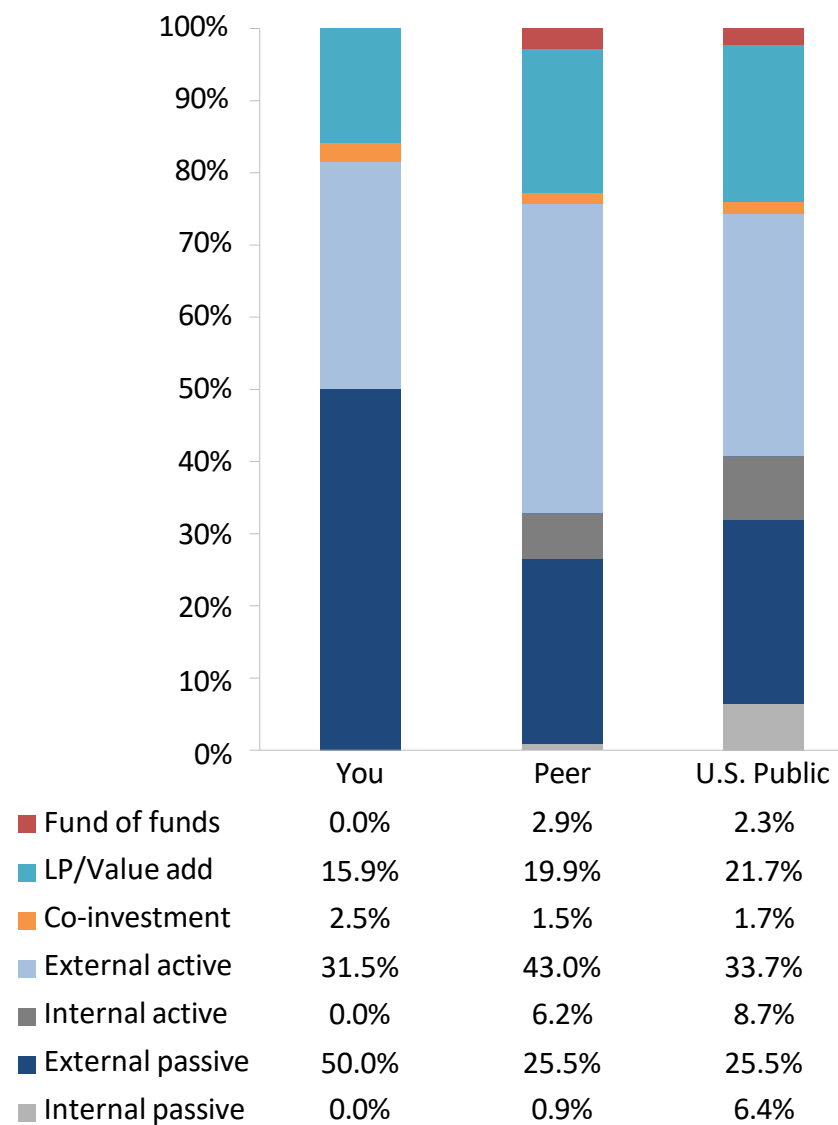
Implementation style is the way in which your fund implements asset allocation. Each implementation choice has a cost. Your first choice is how much to implement passively or actively. The table below summarizes your aggregate choices versus peers and their cost impact.

Implementation choices	Impact
Less active, more passive	(5.9) bp
Less internal as a % of passive	0.1 bp
Less internal as a % of active	0.2 bp
Less LPs as a % of external	(2.6) bp
Less fund of funds	(0.4) bp
More co-investment as a percentage of LP/Co	(1.7) bp
More overlays	0.6 bp
Total impact	(9.7) 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.

Implementation style¹



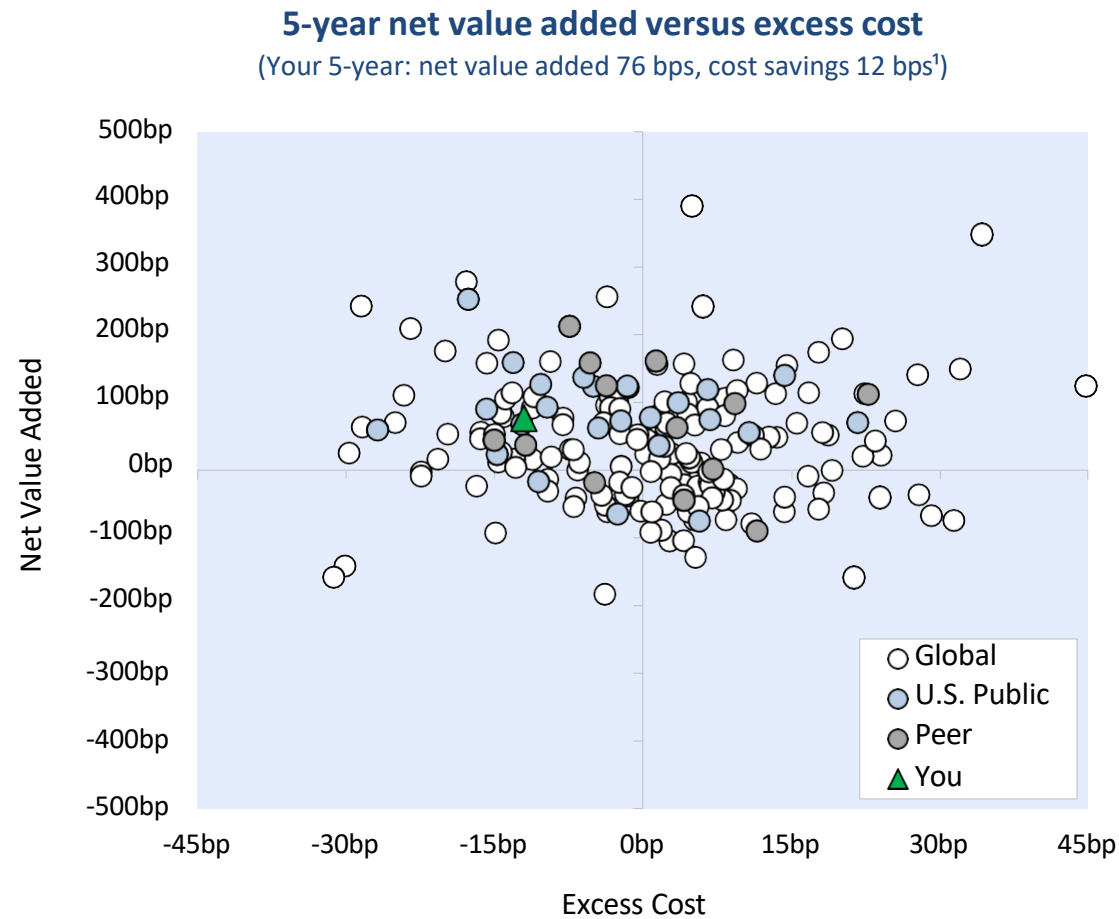
The table below summarizes why your fund is high/low cost relative to the peer-median by asset class.

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

Asset class/category	Style weighted cost			Your average assets (or fee basis) ²	Due to impl. style	Due to paying more/(less)	Total more/(less)
	Your cost	Peer median ¹ = Benchmark	More/(less)				
	(A)	(B)	(C = A - B)	(D)			(C x D)
Asset management costs							
Stock - U.S. broad/all	12.1 bp	22.6 bp	(10.5) bp	10,248	(9,354)	(1,408)	(10,762)
Stock - Emerging	24.5 bp	44.0 bp	(19.5) bp	1,819	(2,776)	(768)	(3,544)
Stock - ACWI x U.S.	22.6 bp	33.1 bp	(10.5) bp	4,652	(5,851)	980	(4,871)
Fixed income - U.S.	2.9 bp	8.8 bp	(5.9) bp	11,072	(6,725)	194	(6,531)
Fixed income - Emerging	6.3 bp	29.9 bp	(23.6) bp	446	0	(1,053)	(1,053)
Fixed income - High yield	9.1 bp	28.3 bp	(19.2) bp	880	130	(1,818)	(1,688)
Real estate ex-REITs	38.2 bp	82.6 bp	(44.5) bp	2,427	(3,630)	(7,167)	(10,797)
Infrastructure	70.9 bp	95.8 bp	(24.9) bp	329	(680)	(139)	(818)
Natural resources	71.8 bp	102.4 bp	(30.5) bp	330	(1,276)	267	(1,009)
Private equity - Diversified	148.5 bp	146.6 bp	1.9 bp	7,876	(9,046)	10,512	1,466
Private credit	84.6 bp	82.5 bp	2.2 bp	2,587	(5,330)	5,887	556
Derivatives/Overlays	1.1 bp	0.5 bp	0.6 bp	43,394	2,656	0	2,656
Total asset management	43.7 bp	52.1 bp	(8.4) bp	43,394	(41,883)	5,488	(36,395)
Oversight, custody and other costs³							
Oversight of the Fund	0.6 bp	0.9 bp	(0.4) bp				
Trustee & Custodial	0.2 bp	0.3 bp	(0.1) bp				
Consulting	0.1 bp	0.2 bp	(0.2) bp				
Audit	0.0 bp	0.1 bp	(0.0) bp				
Other	0.1 bp	0.1 bp	0.0 bp				
Total oversight, custody & other	0.9 bp	1.9 bp	(1.0) bp	43,394	n/a	(4,390)	(4,390)
Total	44.7 bp	54.0 bp	(9.4) bp	43,394	(41,883)	1,098	(40,785)

1. The weighted peer median cost for asset management is the style-weighted average of the peer median costs for all implementation styles (e.g., internal passive, external active, fund of fund, etc.).
2. Total fund average holdings is used as the base when calculating the relative cost impact of the overlay programs.
3. Benchmarks for oversight total and individual lines are based on peer medians. Sum of the lines may be different from the total.

Your 5-year performance placed in the positive value added, low cost quadrant of the cost-effectiveness chart.



1. Your 5-year savings of 12.0 basis points is the average of your peer-based savings for the past 5 years.

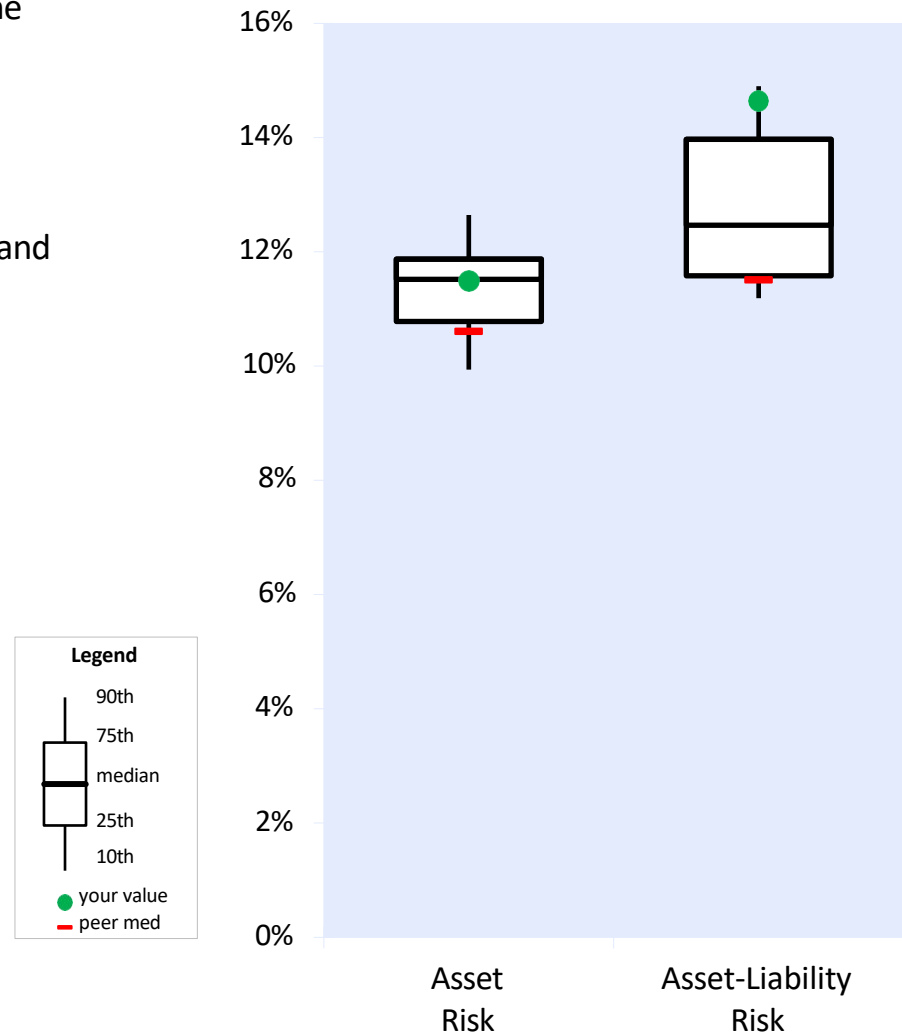
	5-year ¹	2024	2023	2022	2021	2020
Net value added	76.3bp	(92.5) bp	(126.5) bp	206.7bp	138.4bp	228.7bp
Excess cost	(12.0) bp	(9.4) bp	(14.4) bp	(13.4) bp	(9.0) bp	(14.0) bp

Your asset risk of 11.5% was equal to the U.S. Public median of 11.5% and your asset-liability risk of 14.6% was above the U.S. Public median of 12.5%.

Asset risk is the standard deviation of your policy return. It is based on the historical variance of, and covariance between, the asset classes in your policy mix.

Asset-liability risk is the standard deviation of funded status caused by market factors. It is a function of the standard deviations of your asset risk, your marked-to-market liabilities and the correlation between the two.

U.S. Public risk levels at December 31, 2024

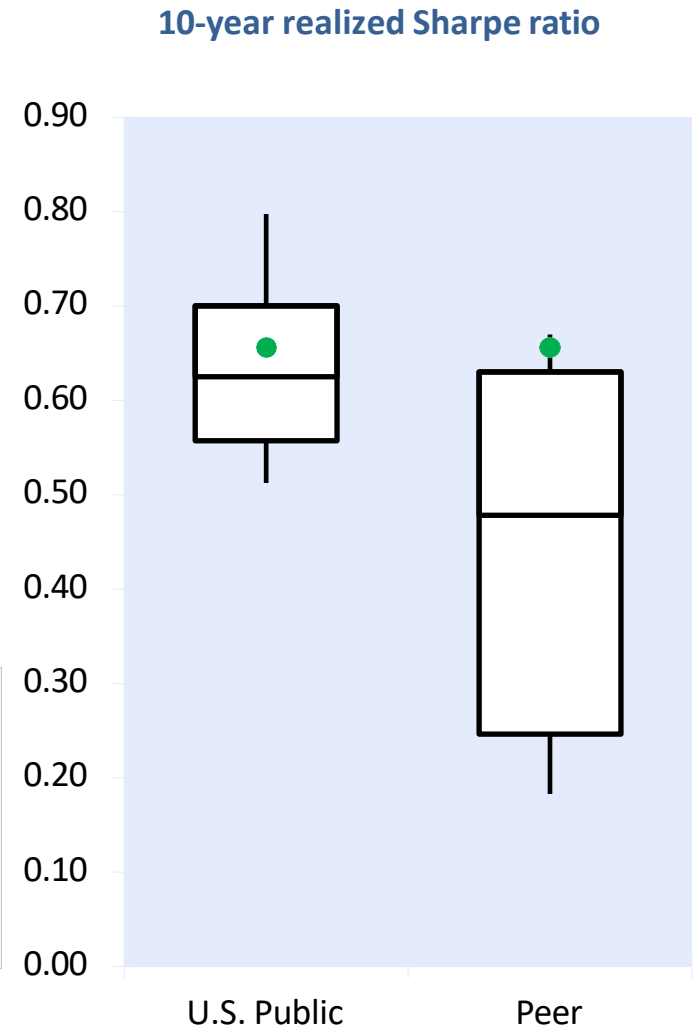
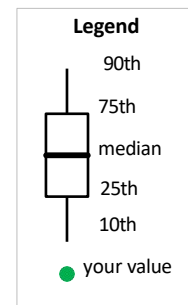


Your 10-year realized Sharpe ratio of 0.66 was above the U.S. Public median of 0.63.

Realized Sharpe ratio measures your portfolio's performance on a risk-adjusted basis. It is calculated as your portfolio's actual net return, minus the risk-free rate, divided by the standard deviation (often called volatility) of your portfolio's excess return.

Sharpe ratios tend to be positive when equity markets have positive returns. Your 10-year realized Sharpe ratio was 0.66, which was higher than the U.S. Public universe median of 0.63.

A higher Sharpe ratio can be obtained through some combination of higher net returns and lower volatility. Lower volatility can be the result of either having less risky assets or having better diversification.



Your 10-year realized information ratio of 0.48 was above the U.S. Public median of 0.33.

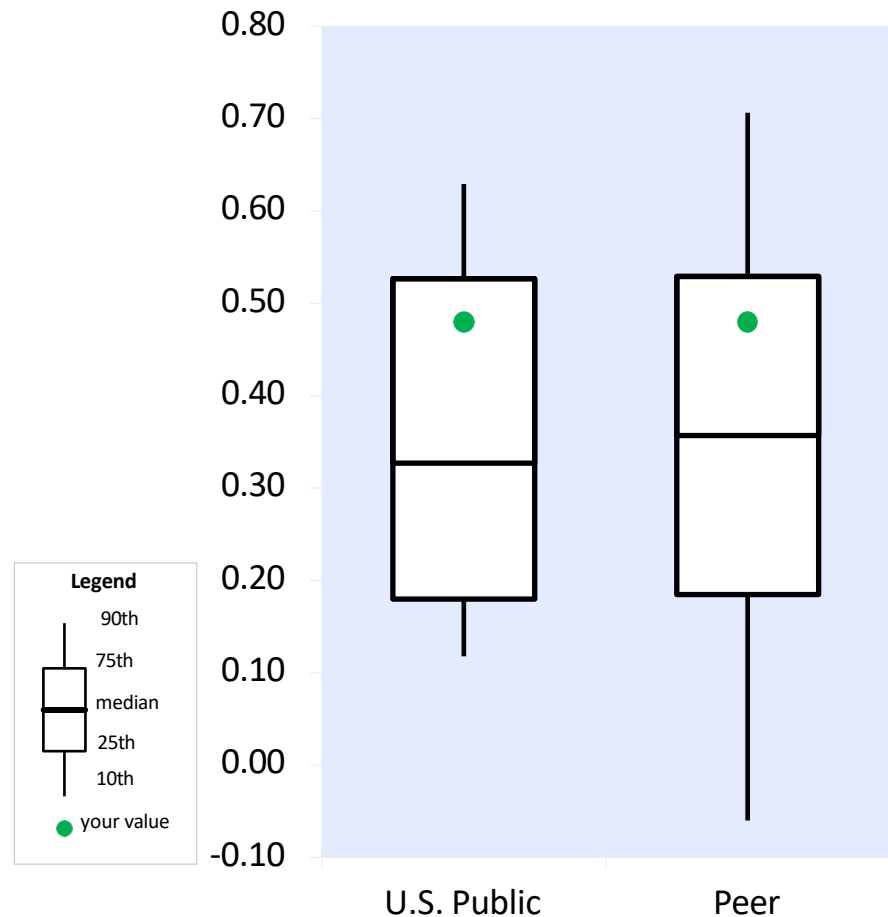
Realized information ratio measures your portfolio's active return per unit of active risk. It is calculated as your portfolio's net value added divided by the standard deviation of your portfolio's net value added, which is often called the active risk or tracking error of the portfolio.

Your 10-year realized information ratio of 0.48 was above the U.S. Public median of 0.33.

Information Ratio is positive when net value added is positive, and it is negative when net value added is negative. The median 10-year information ratio in the U.S. Public universe was 0.33, meaning that most plans managed to generate positive net value added.

Using information ratio as a measure of risk-adjusted performance allows the comparison of success in generating positive net value between funds with different levels of active risk.

10-year realized information ratio



Summary of key takeaways

Returns

- Your 5-year net total return was 7.6%. This was above both the U.S. Public median of 7.5% and the peer median of 6.3%.
- Your 5-year policy return was 6.8%. This was above both the U.S. Public median of 6.6% and the peer median of 5.0%.

Value added

- Your 5-year net value added was 0.8%. This was equal to the U.S. Public median of 0.8% and above the peer median of 0.7%.

Cost

- Your investment cost of 44.7 bps was below your benchmark cost of 54.0 bps. This suggests that your fund was low cost compared to your peers.
- Your fund was below benchmark cost because it had a lower cost implementation style.
- Your costs increased by 13.4 bps, from 31.3 bps in 2020 to 44.7 bps in 2024, because you had a higher cost asset mix and paid more in total for similar investment styles.

Risk

- Your asset risk of 11.5% was equal to the U.S. Public median of 11.5%. Your asset-liability risk of 14.6% was above the U.S. Public median of 12.5%.
- Your 10-year realized Sharpe ratio of 0.66 was above the U.S. Public median of 0.63.
- Your 10-year realized information ratio of 0.48 was above the U.S. Public median of 0.33.

Thank you



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