



LACERS
LA CITY EMPLOYEES'
RETIREMENT SYSTEM

PORTFOLIO PERFORMANCE REVIEW

LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

QUARTER ENDING SEPTEMBER 30, 2023

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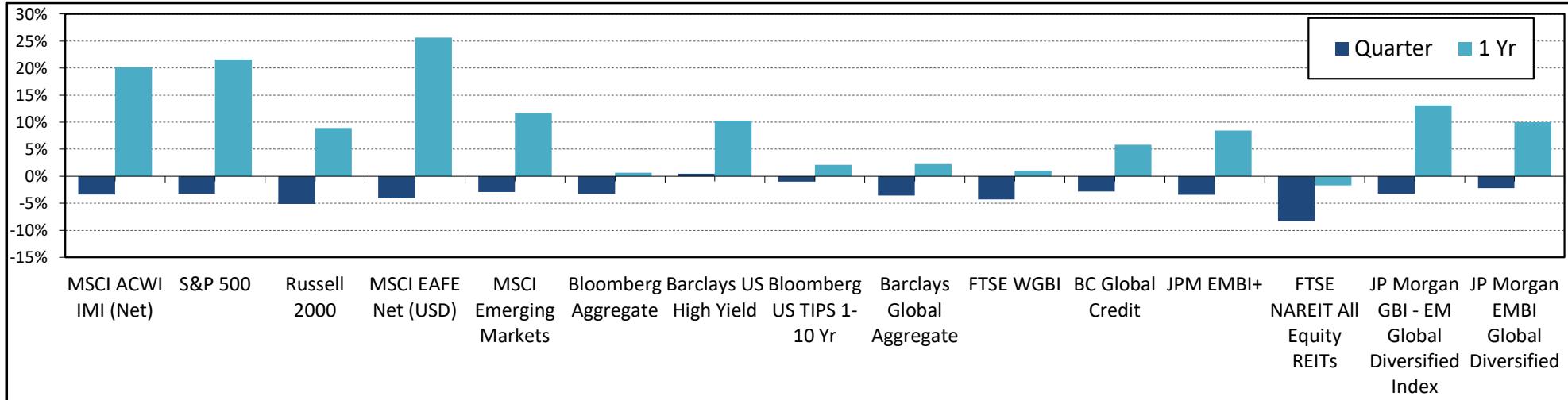
- U.S. Equity Manager Performance**
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EXECUTIVE SUMMARY

PERFORMANCE OVERVIEW

Market Summary – Equities and Core Bonds Declined in Q3



	Market Value (\$)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	21,576,118,306	-2.2 (66)	4.2 (61)	10.4 (46)	5.8 (53)	5.7 (53)	7.1 (50)	6.9 (43)	7.3 (28)	7.9	Nov-94
Policy Index		-2.1 (64)	4.4 (60)	10.0 (61)	4.3 (90)	5.3 (61)	6.8 (53)	6.6 (47)	7.2 (32)	7.8	
InvMetrics Public DB \$5-50B Gross Median		-1.7	4.9	10.2	6.0	5.7	7.1	6.3	6.5		

Note: Performance is gross of fees

Equities declined in the third quarter, though are up strongly over the past year.

The U.S. Equity and Non-U.S. Equity composites underperformed their benchmarks.

The Fed Funds rate increased in Q3 by 0.25% to a targeted range of 5.25%-to-5.50%. The 10-year Treasury Yield (constant maturity) finished Q3 at 4.38% up substantially from 3.75% in Q2.

Core Fixed Income and Credit Opportunities underperformed their respective benchmarks.

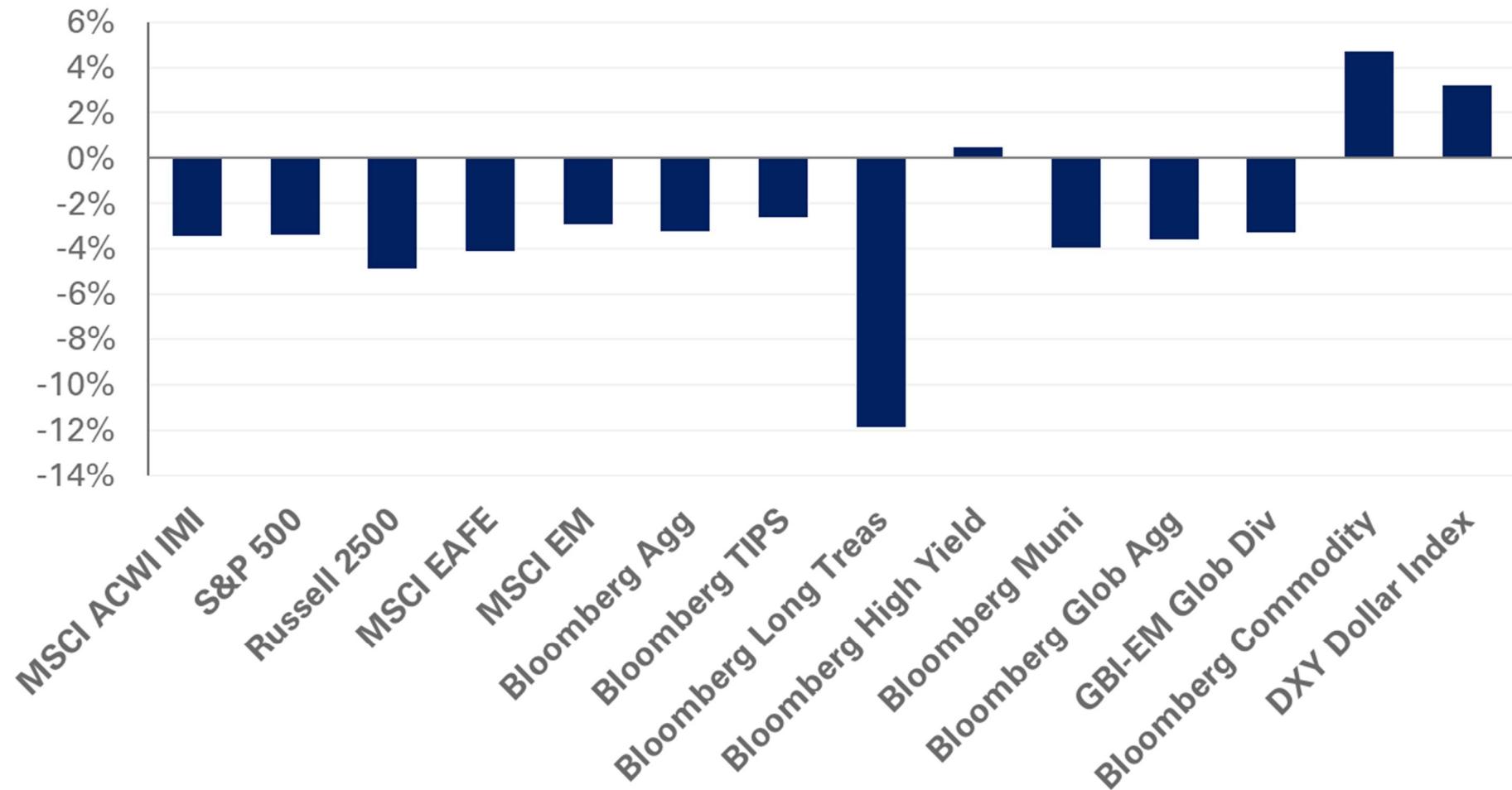




MARKET ENVIRONMENT

STOCKS AND BONDS SOLD OFF SHARPLY

QUARTERLY TOTAL RETURNS

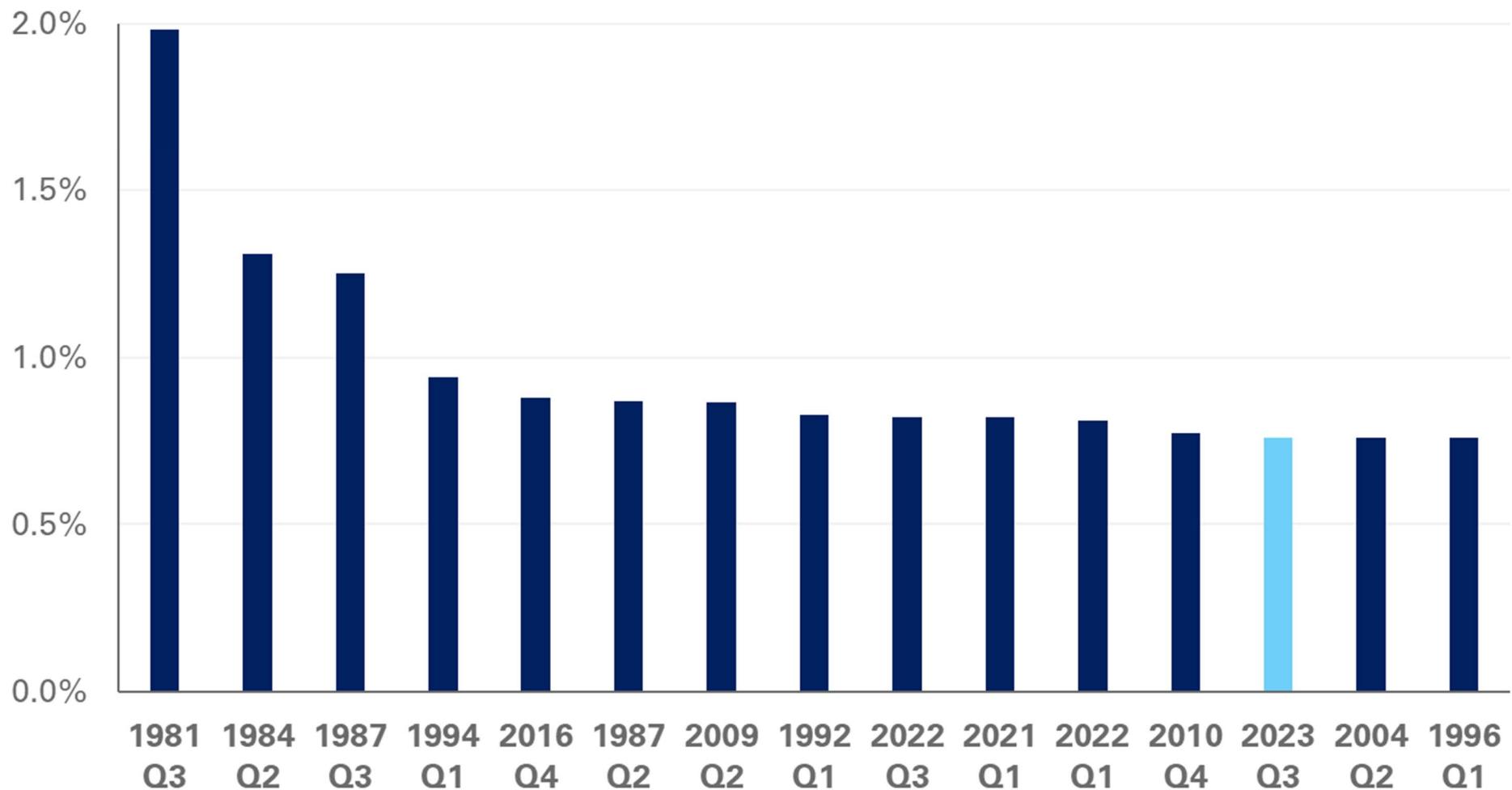


Source: MSCI, S&P, Russell, Bloomberg, JP Morgan, FactSet



10-YEAR YIELDS ROSE SIGNIFICANTLY

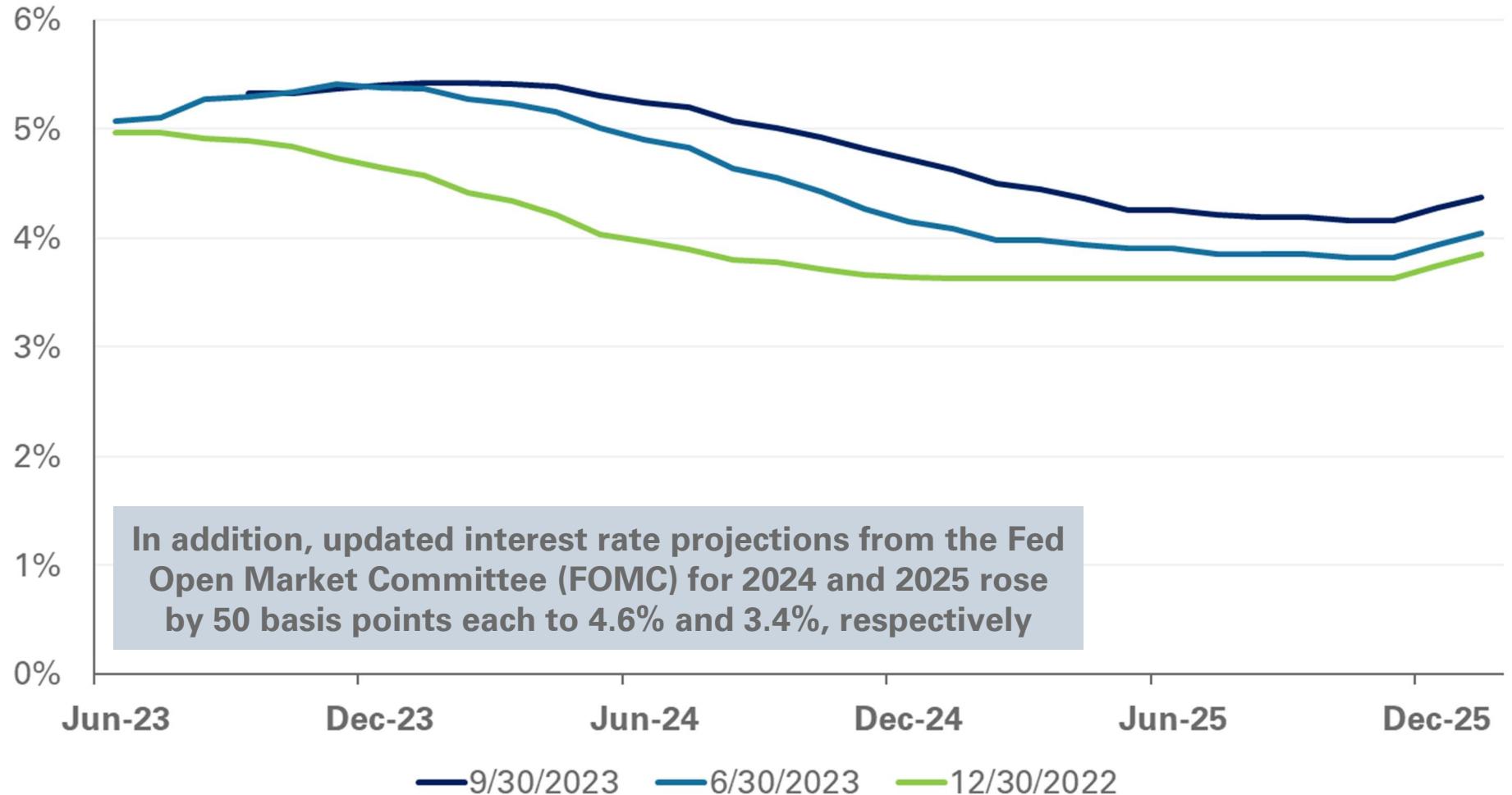
TOP 15 QUARTERLY CHANGE: 10-YEAR U.S TREASURY YIELD



Calculated based on data as of 12/31/1980
Source: FactSet



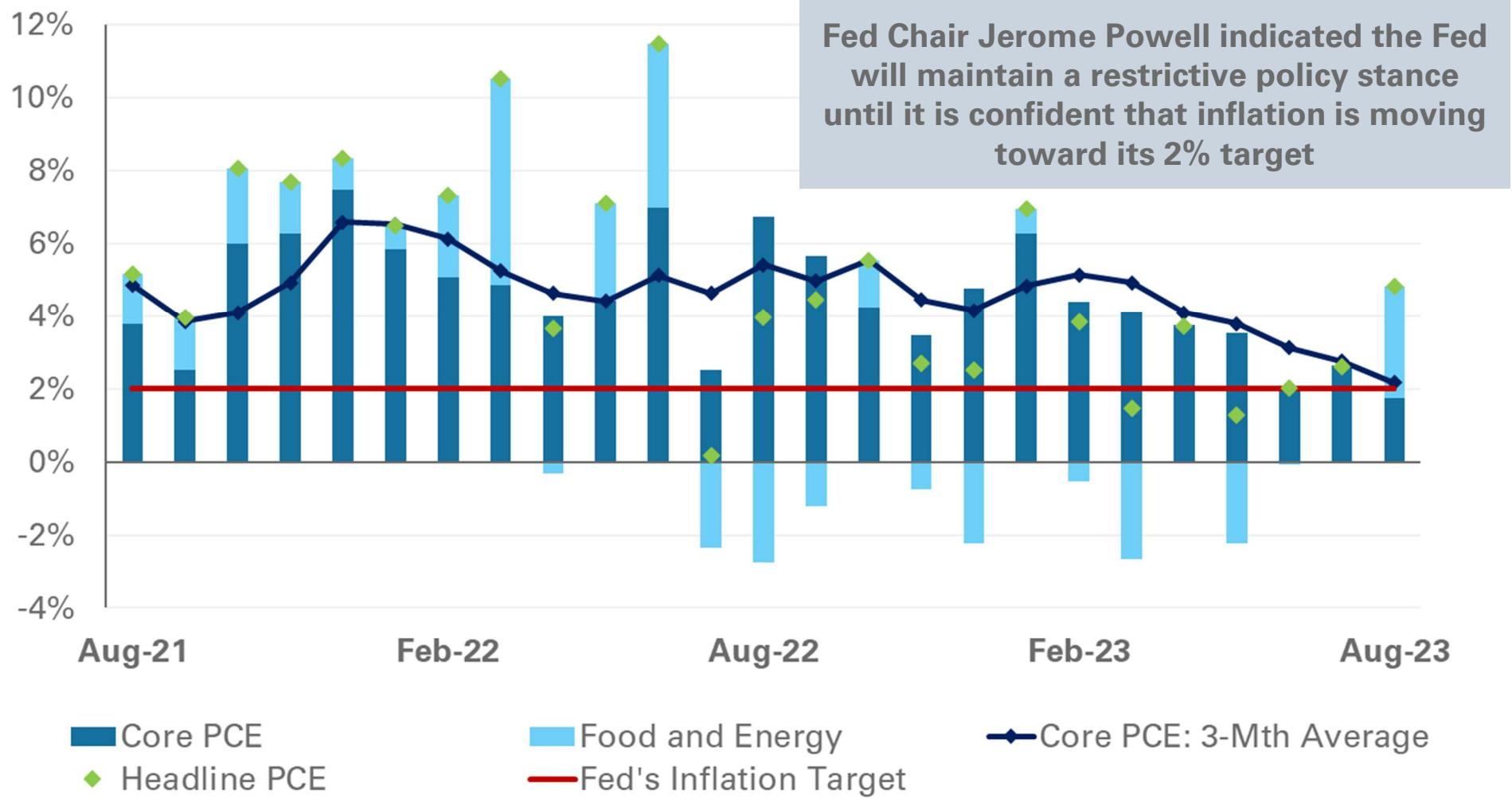
THE MARKET IS PRICING IN “HIGHER FOR LONGER” FEDERAL FUND FUTURES



Source: FactSet

CORE INFLATION NEAR FED'S INFLATION TARGET

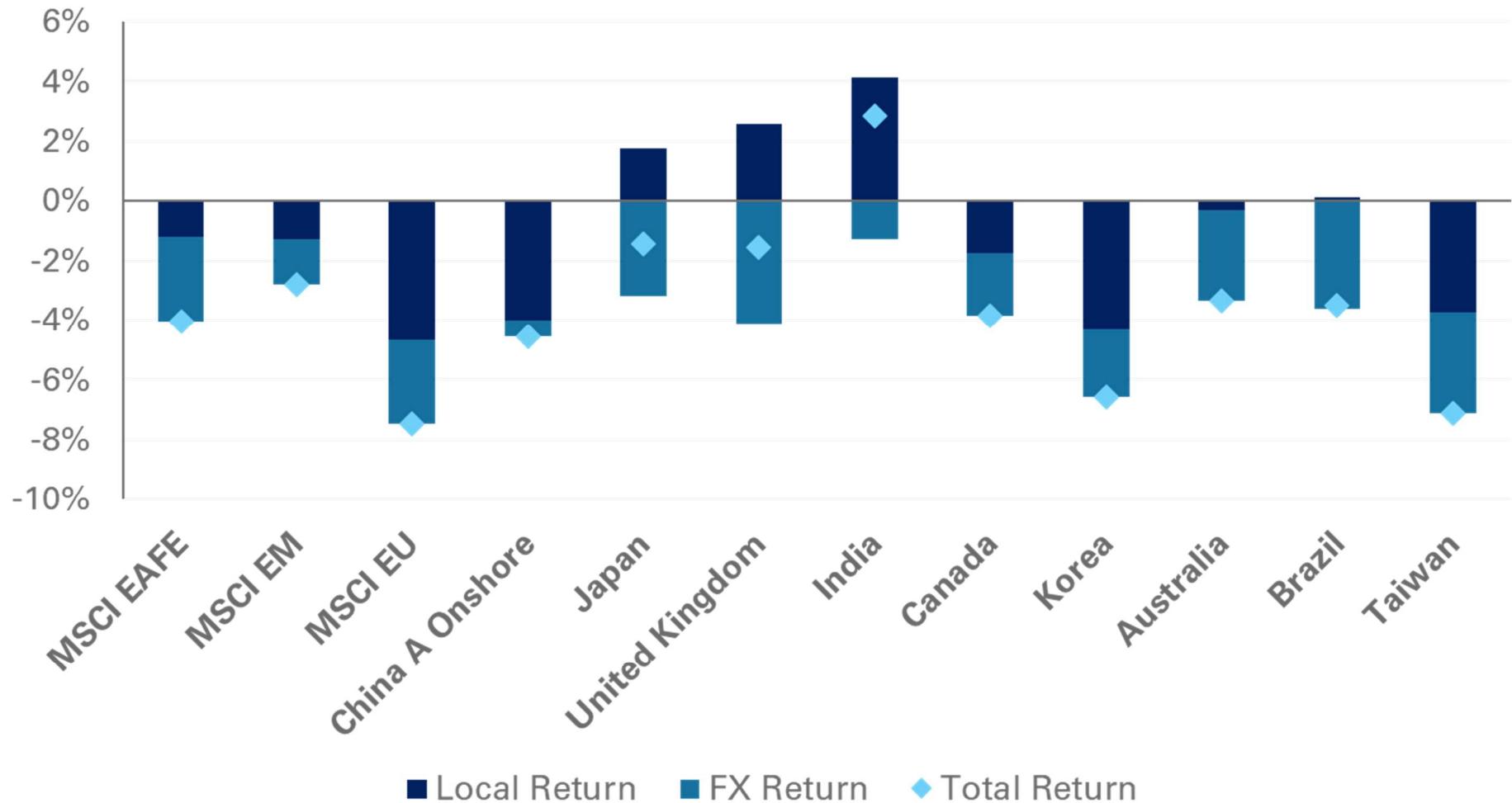
ANNUALIZED MONTHLY U.S. PCE PRICE INDEX CHANGES



Sources: Department of Labor, FactSet

A STRONGER USD WEIGHED ON NON-U.S. ASSETS

QUARTERLY TOTAL RETURNS

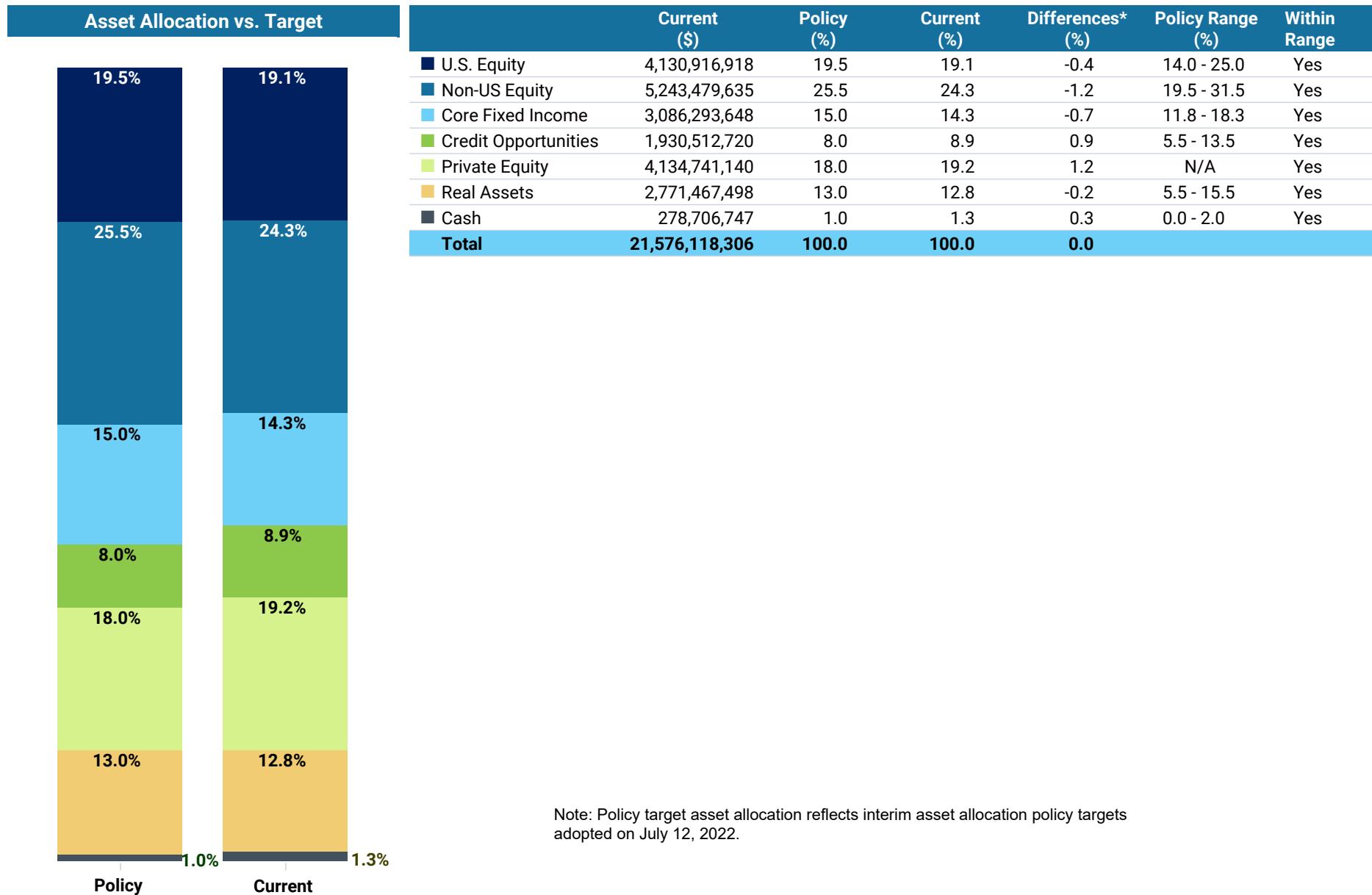


Sources: MSCI, FactSet



ASSET CLASS POLICY OVERVIEW

ASSET ALLOCATION VS. POLICY



Note: Policy target asset allocation reflects interim asset allocation policy targets adopted on July 12, 2022.

*Difference between Policy and Current Allocation

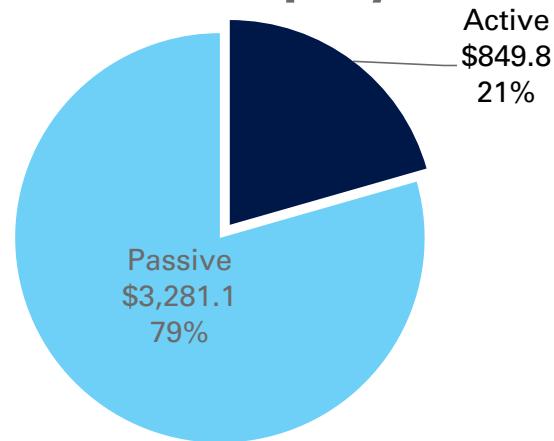
ACTIVE AND PASSIVE MANAGER BREAKDOWN

Note: Market values shown in millions \$(000).

Total Fund



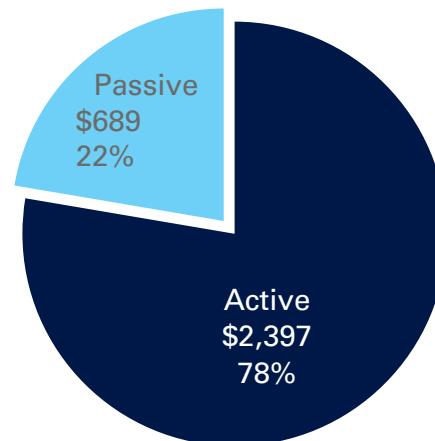
U.S. Equity



Non-U.S. Equity



Core Fixed Income



- LACERS allocated 71% to active managers and 29% to passive managers.
- Credit Opportunities, Private Equity, and Real Assets programs are active and therefore are not shown.



PERFORMANCE OVERVIEW

TOTAL FUND PERFORMANCE SUMMARY

GROSS OF FEES

	Market Value (\$)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	21,576,118,306	-2.2 (66)	4.2 (61)	10.4 (46)	5.8 (53)	5.7 (53)	7.1 (50)	6.9 (43)	7.3 (28)	7.9	Nov-94
Policy Index		-2.1 (64)	4.4 (60)	10.0 (61)	4.3 (90)	5.3 (61)	6.8 (53)	6.6 (47)	7.2 (32)	7.8	
InvMetrics Public DB \$5-50B Gross Median		-1.7	4.9	10.2	6.0	5.7	7.1	6.3	6.5		

Over the past five years the Fund return of 5.7% outperformed the policy index by 0.4% and ranked in the 53rd percentile within the Public Funds \$5 Billion- \$50 Billion universe. The Fund's volatility of 10.8% ranked in the 70th percentile over this period. The Fund's risk-adjusted performance, as measured by the Sharpe Ratio ranked in the 48th percentile and the Sortino Ratio ranked in the 48th percentile.

Over the past three years the Fund return of 5.8% outperformed the policy index by 1.5% and ranked in the 53rd percentile in its peer group. The Fund's volatility ranked in the 57th percentile and the Sharpe Ratio ranked in the 58th percentile. The Sortino Ratio of 0.7 ranked in the 64th percentile.

In the one-year ended September 30, 2023, the Fund returned 10.4% and outperformed the policy index by 0.4%. The Fund's return ranked in the 46th percentile in its peer group.



	5 Years Ending June 30, 2023							
	Return	Rank	Standard Deviation	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank
LACERS Master Trust	5.7	53	10.8	70	0.4	48	0.6	48
Policy Index	5.3	61	12.1	100	0.3	74	0.5	75
InvMetrics Public DB \$5-50B Gross Median	5.7		10.3		0.4		0.6	

	3 Years Ending June 30, 2023							
	Return	Rank	Standard Deviation	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank
LACERS Master Trust	5.8	53	10.3	57	0.4	58	0.7	64
Policy Index	4.3	90	11.1	83	0.3	97	0.4	98
InvMetrics Public DB \$5-50B Gross Median	6.0		9.9		0.4		0.7	

EXECUTIVE SUMMARY

	Market Value (\$)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	21,576,118,306	-2.2 (60)	4.2 (52)	10.4 (37)	5.8 (47)	5.7 (32)	7.1 (35)	6.9 (29)	7.3 (19)	7.9 (18)	Nov-94
Policy Index		-2.1 (57)	4.4 (50)	10.0 (45)	4.3 (88)	5.3 (48)	6.8 (46)	6.6 (41)	7.2 (23)	7.8 (26)	
InvMetrics Public DB \$1-50B Gross Median		-2.0	4.4	9.7	5.7	5.3	6.5	6.1	6.8	7.5	

3 Years Ending September 30, 2023				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
LACERS Master Trust	5.8	10.3	0.4	0.7
Policy Index	4.3	11.1	0.3	0.4
InvMetrics Public DB \$1-50B Gross Median	5.7	10.0	0.4	0.7

5 Years Ending September 30, 2023				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
LACERS Master Trust	5.7	10.8	0.4	0.6
Policy Index	5.3	12.1	0.3	0.5
InvMetrics Public DB \$1-50B Gross Median	5.3	10.9	0.4	0.5

COMPOSITE PERFORMANCE DETAIL GROSS

	Allocation			Performance (%)								
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	20 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	21,576,118,306	100.00		-2.23	4.24	10.38	5.82	5.69	6.88	7.42	7.88	Nov-94
Policy Index				<u>-2.13</u>	<u>4.42</u>	<u>10.00</u>	<u>4.31</u>	<u>5.32</u>	<u>6.57</u>	<u>7.16</u>	<u>7.75</u>	
Over/Under				<u>-0.10</u>	<u>-0.18</u>	<u>0.38</u>	<u>1.51</u>	<u>0.37</u>	<u>0.31</u>	<u>0.26</u>	<u>0.13</u>	
U.S. Equity	4,130,916,918	19.15		-3.86	10.52	18.96	9.60	8.63	11.03	9.63	10.41	Nov-94
U.S. Equity Blend				<u>-3.25</u>	<u>12.39</u>	<u>20.46</u>	<u>9.38</u>	<u>9.14</u>	<u>11.28</u>	<u>9.68</u>	<u>9.56</u>	
Over/Under				<u>-0.61</u>	<u>-1.87</u>	<u>-1.50</u>	<u>0.22</u>	<u>-0.51</u>	<u>-0.25</u>	<u>-0.05</u>	<u>0.85</u>	
Non-U.S. Equity	5,243,479,635	24.30		-3.85	5.49	19.96	4.43	3.52	4.55	6.88	5.07	Nov-94
MSCI AC World ex USA (Net)				<u>-3.77</u>	<u>5.34</u>	<u>20.39</u>	<u>3.74</u>	<u>2.58</u>	<u>3.35</u>	<u>6.02</u>	<u>4.73</u>	
Over/Under				<u>-0.08</u>	<u>0.15</u>	<u>-0.43</u>	<u>0.69</u>	<u>0.94</u>	<u>1.20</u>	<u>0.86</u>	<u>0.34</u>	
Core Fixed Income	3,086,293,648	14.30		-3.39	-0.96	0.92	-4.67	0.64	1.64	-	1.69	Jul-12
Core Fixed Income Blend				<u>-3.23</u>	<u>-1.21</u>	<u>0.64</u>	<u>-5.21</u>	<u>0.10</u>	<u>1.13</u>	-	<u>1.07</u>	
Over/Under				<u>-0.16</u>	<u>0.25</u>	<u>0.28</u>	<u>0.54</u>	<u>0.54</u>	<u>0.51</u>	-	<u>0.62</u>	
Credit Opportunities	1,930,512,720	8.95		-0.13	6.18	11.69	0.56	2.32	3.70	-	3.84	Jul-13
Credit Opportunities Blend				<u>0.19</u>	<u>6.09</u>	<u>11.95</u>	<u>0.34</u>	<u>2.31</u>	<u>3.86</u>	-	<u>3.99</u>	
Over/Under				<u>-0.32</u>	<u>0.09</u>	<u>-0.26</u>	<u>0.22</u>	<u>0.01</u>	<u>-0.16</u>	-	<u>-0.15</u>	
Real Assets	2,771,467,498	12.85		-2.99	-4.57	-3.07	2.74	3.21	5.29	4.48	5.76	Dec-94
Real Assets Policy Benchmark				<u>-3.22</u>	<u>-4.01</u>	<u>-4.38</u>	<u>1.77</u>	<u>3.68</u>	<u>5.13</u>	<u>5.63</u>	<u>7.23</u>	
Over/Under				<u>0.23</u>	<u>-0.56</u>	<u>1.31</u>	<u>0.97</u>	<u>-0.47</u>	<u>0.16</u>	<u>-1.15</u>	<u>-1.47</u>	
Public Real Assets	1,446,794,634	6.71		-4.38	-2.05	0.67	0.07	2.24	-	-	1.59	Jul-14
Public Real Assets Blend				<u>-4.66</u>	<u>-2.29</u>	<u>0.56</u>	<u>1.79</u>	<u>1.68</u>	-	-	<u>0.30</u>	
Over/Under				<u>0.28</u>	<u>0.24</u>	<u>0.11</u>	<u>-1.72</u>	<u>0.56</u>	-	-	<u>1.29</u>	
Private Real Estate	1,304,318,138	6.05		-1.42	-7.43	-7.19	7.33	4.94	7.69	5.66	6.58	Nov-94
Real Estate Blend				<u>-1.70</u>	<u>-6.99</u>	<u>-11.43</u>	<u>7.98</u>	<u>6.49</u>	<u>8.95</u>	<u>8.88</u>	<u>9.37</u>	
Over/Under				<u>0.28</u>	<u>-0.44</u>	<u>4.24</u>	<u>-0.65</u>	<u>-1.55</u>	<u>-1.26</u>	<u>-3.22</u>	<u>-2.79</u>	
Private Equity	4,134,741,140	19.16		1.70	5.20	5.70	21.78	15.75	13.99	13.83	11.44	Dec-95
Private Equity Blend				<u>1.60</u>	<u>4.28</u>	<u>2.17</u>	<u>13.85</u>	<u>13.12</u>	<u>14.96</u>	<u>13.62</u>	<u>13.27</u>	
Over/Under				<u>0.10</u>	<u>0.92</u>	<u>3.53</u>	<u>7.93</u>	<u>2.63</u>	<u>-0.97</u>	<u>0.21</u>	<u>-1.83</u>	
Cash	278,706,747	1.29										

Refer to appendix for blended benchmark definitions.

COMPOSITE PERFORMANCE DETAIL NET

	Allocation			Performance (%)								
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	20 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	21,576,118,306	100.00		-2.27	4.12	10.21	5.66	5.52	6.70	7.22	6.58	Jul-01
Policy Index				-2.13	4.42	10.00	4.31	5.32	6.57	7.16	6.50	
Over/Under				-0.14	-0.30	0.21	1.35	0.20	0.13	0.06	0.08	
U.S. Equity	4,130,916,918	19.15		-3.88	10.43	18.84	9.50	8.55	10.93	9.47	8.42	Sep-01
U.S. Equity Blend				-3.25	12.39	20.46	9.38	9.14	11.28	9.68	8.39	
Over/Under				-0.63	-1.96	-1.62	0.12	-0.59	-0.35	-0.21	0.03	
Non-U.S. Equity	5,243,479,635	24.30		-3.93	5.24	19.59	4.09	3.17	4.20	6.52	5.64	Jun-01
MSCI AC World ex USA (Net)				-3.77	5.34	20.39	3.74	2.58	3.35	6.02	4.94	
Over/Under				-0.16	-0.10	-0.80	0.35	0.59	0.85	0.50	0.70	
Core Fixed Income	3,086,293,648	14.30		-3.41	-1.04	0.81	-4.76	0.55	1.54	-	1.59	Jul-12
Core Fixed Income Blend				-3.23	-1.21	0.64	-5.21	0.10	1.13	-	1.07	
Over/Under				-0.18	0.17	0.17	0.45	0.45	0.41	-	0.52	
Credit Opportunities	1,930,512,720	8.95		-0.21	5.94	11.34	0.25	2.01	3.37	-	3.51	Jul-13
Credit Opportunities Blend				0.19	6.09	11.95	0.34	2.31	3.86	-	3.99	
Over/Under				-0.40	-0.15	-0.61	-0.09	-0.30	-0.49	-	-0.48	
Real Assets	2,771,467,498	12.85		-3.02	-4.65	-3.18	2.61	3.07	5.14	4.32	4.57	Jun-01
Real Assets Policy Benchmark				-3.22	-4.01	-4.38	1.77	3.68	5.13	5.63	5.74	
Over/Under				0.20	-0.64	1.20	0.84	-0.61	0.01	-1.31	-1.17	
Public Real Assets	1,446,794,634	6.71		-4.42	-2.17	0.51	-0.08	2.06	-	-	1.40	Jul-14
Public Real Assets Blend				-4.66	-2.29	0.56	1.79	1.68	-	-	0.30	
Over/Under				0.24	0.12	-0.05	-1.87	0.38	-	-	1.10	
Private Real Estate	1,304,318,138	6.05		-1.44	-7.48	-7.25	7.25	4.85	7.59	5.52	5.68	Jul-01
Real Estate Blend				-1.70	-6.99	-11.43	7.98	6.49	8.95	8.88	8.66	
Over/Under				0.26	-0.49	4.18	-0.73	-1.64	-1.36	-3.36	-2.98	
Private Equity	4,134,741,140	19.16		1.70	5.21	5.72	21.80	15.76	14.00	13.75	11.53	Sep-01
Private Equity Blend				1.60	4.28	2.17	13.85	13.12	14.96	13.62	12.32	
Over/Under				0.10	0.93	3.55	7.95	2.64	-0.96	0.13	-0.79	
Cash	278,706,747	1.29										

Refer to appendix for blended benchmark definitions.



RISK STATISTICS

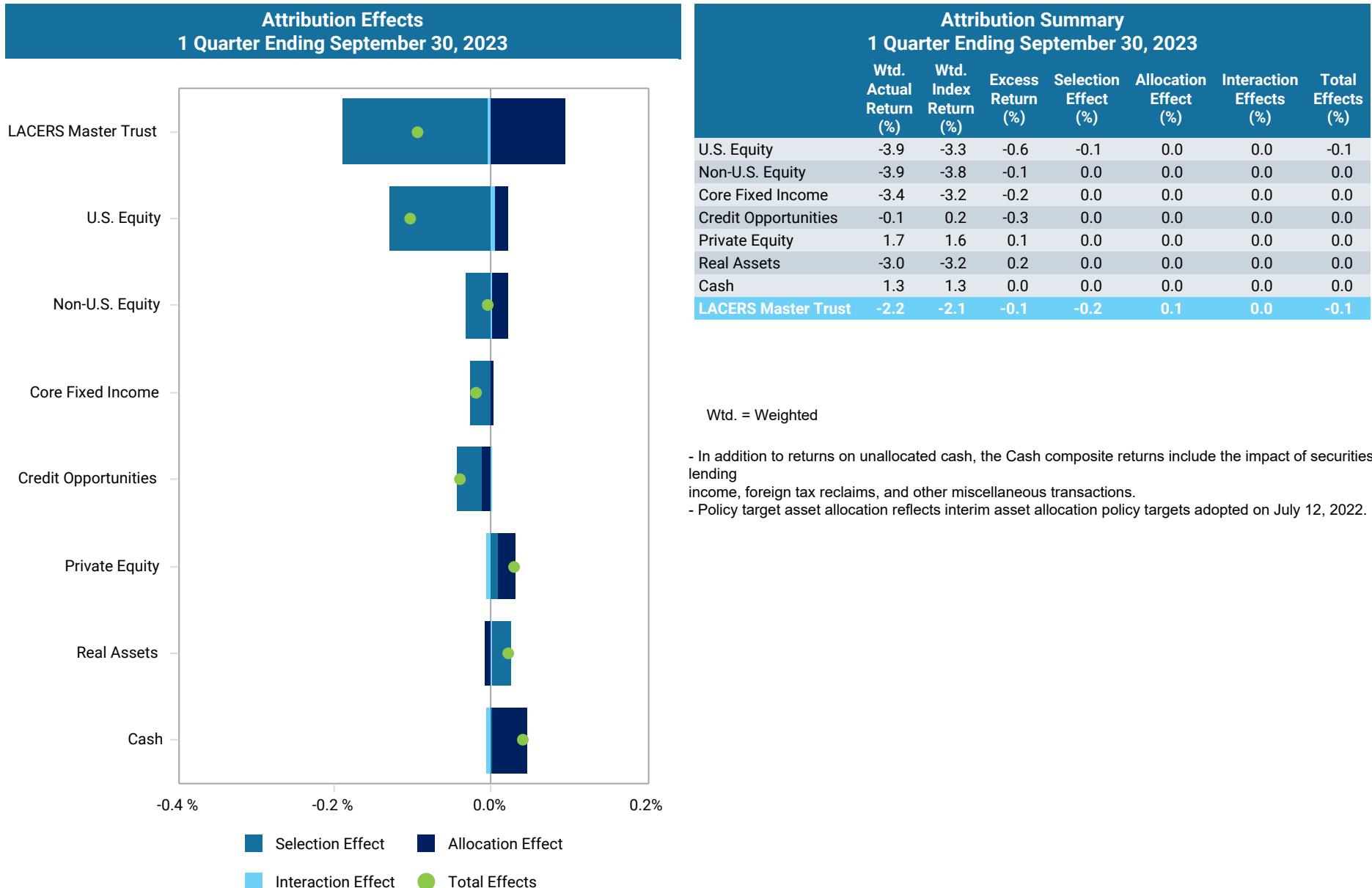
	3 Years Ending September 30, 2023					
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
LACERS Master Trust	5.82 (50)	10.29 (53)	1.78 (54)	0.74 (37)	0.67 (56)	1.83 (10)
InvMetrics Public DB \$1-50B Gross Median	5.82	10.16	1.89	0.50	0.68	2.66

	5 Years Ending September 30, 2023					
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
LACERS Master Trust	5.69 (42)	10.83 (49)	0.89 (45)	0.10 (44)	0.59 (39)	2.07 (22)
InvMetrics Public DB \$1-50B Gross Median	5.47	10.85	0.60	0.02	0.53	2.80

	3 Years Ending September 30, 2023					
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
LACERS Master Trust	5.82 (53)	10.29 (57)	1.78 (58)	0.74 (43)	0.67 (64)	1.83 (21)
InvMetrics Public DB \$5-50B Gross Median	5.99	9.85	1.85	0.67	0.68	2.68

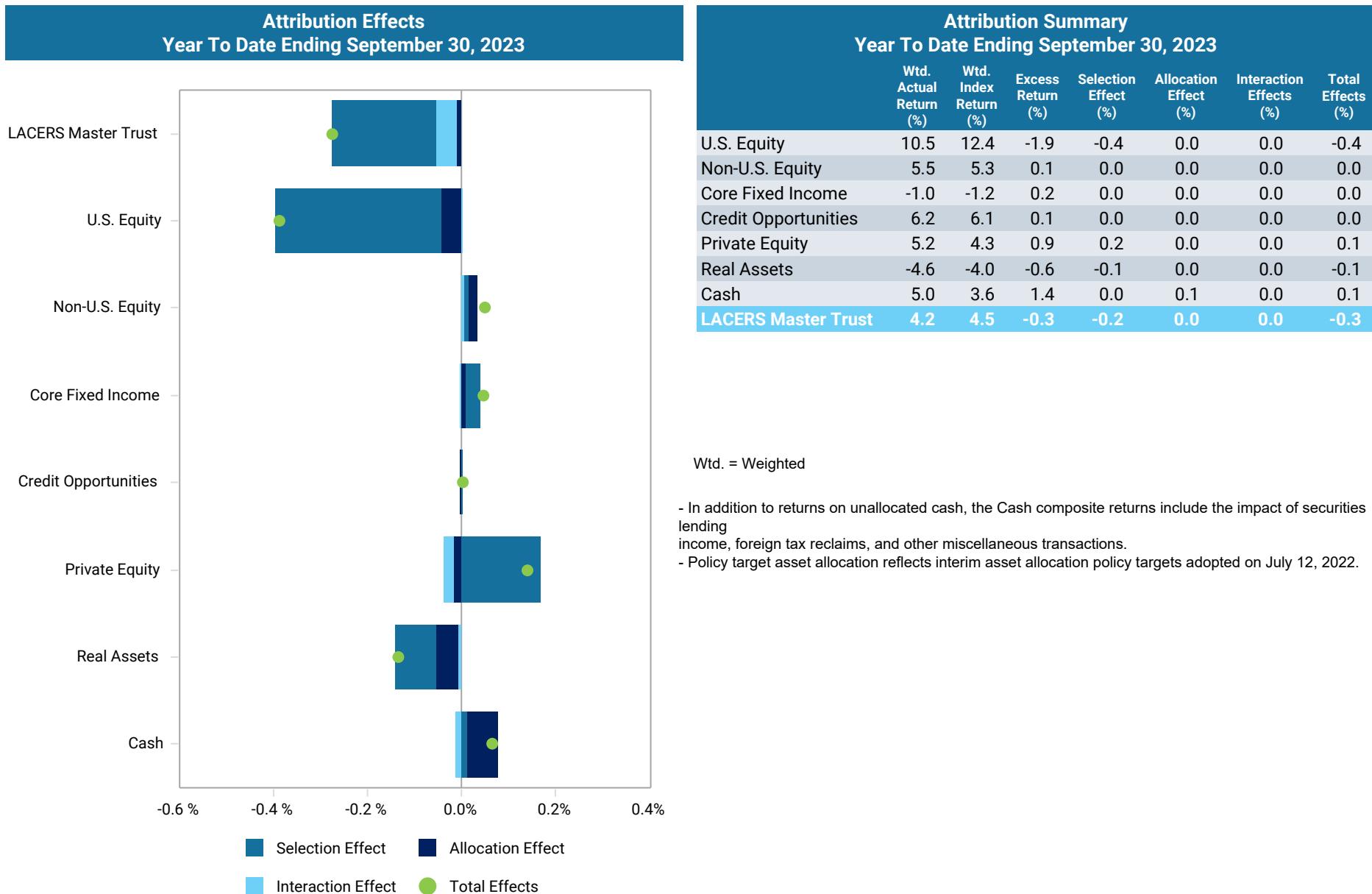
	5 Years Ending September 30, 2023					
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
LACERS Master Trust	5.69 (53)	10.83 (70)	0.89 (48)	0.10 (53)	0.59 (48)	2.07 (23)
InvMetrics Public DB \$5-50B Gross Median	5.75	10.30	0.81	0.10	0.57	2.86

ATTRIBUTION ANALYSIS



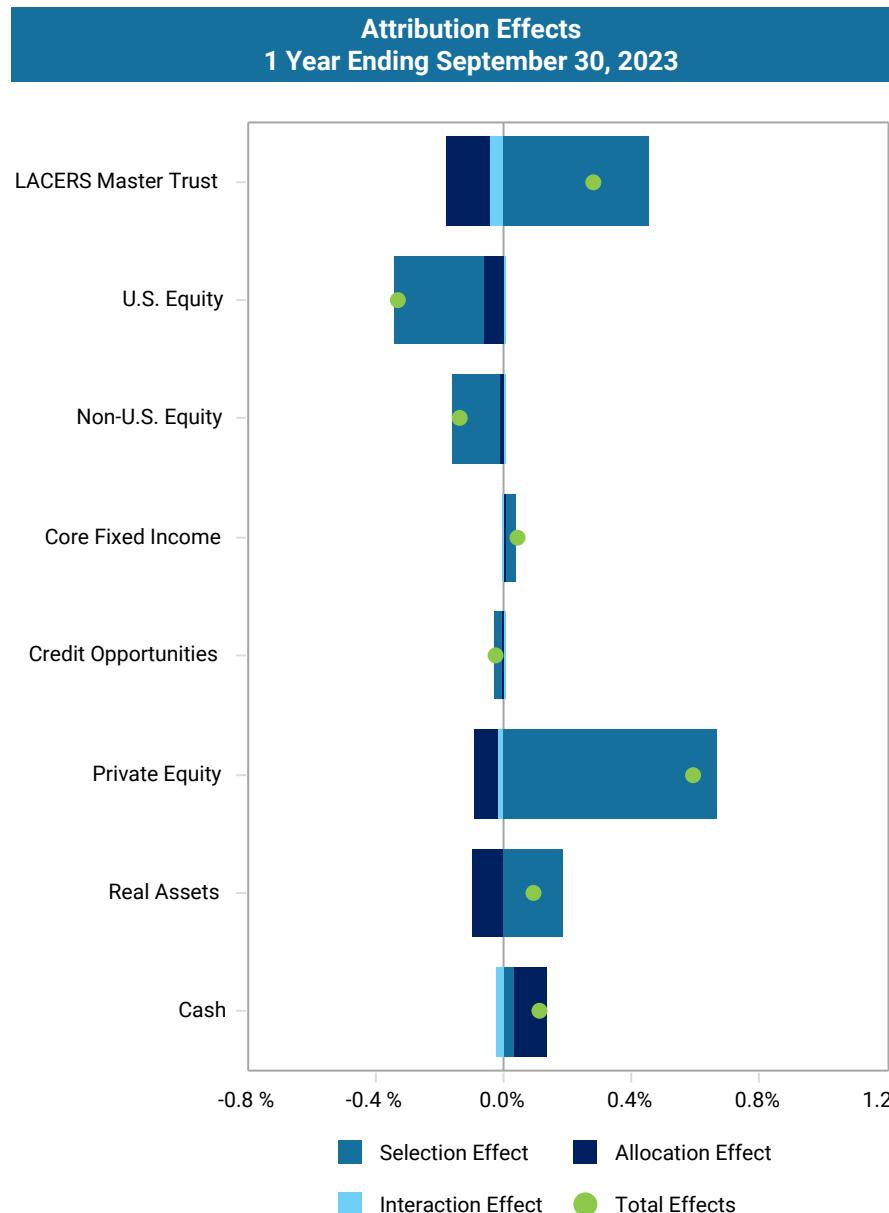
*Total Actual and Index returns are weighted average calculations.

ATTRIBUTION ANALYSIS



*Total Actual and Index returns are weighted average calculations.

ATTRIBUTION ANALYSIS



**Attribution Summary
1 Year Ending September 30, 2023**

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
U.S. Equity	19.0	20.5	-1.5	-0.3	-0.1	0.0	-0.3
Non-U.S. Equity	20.0	20.4	-0.4	-0.1	0.0	0.0	-0.1
Core Fixed Income	0.9	0.6	0.3	0.0	0.0	0.0	0.0
Credit Opportunities	11.7	12.0	-0.3	0.0	0.0	0.0	0.0
Private Equity	5.7	2.2	3.5	0.7	-0.1	0.0	0.6
Real Assets	-3.1	-4.4	1.3	0.2	-0.1	0.0	0.1
Cash	7.5	4.5	3.1	0.0	0.1	0.0	0.1
LACERS Master Trust	10.4	10.1	0.3	0.5	-0.1	0.0	0.3

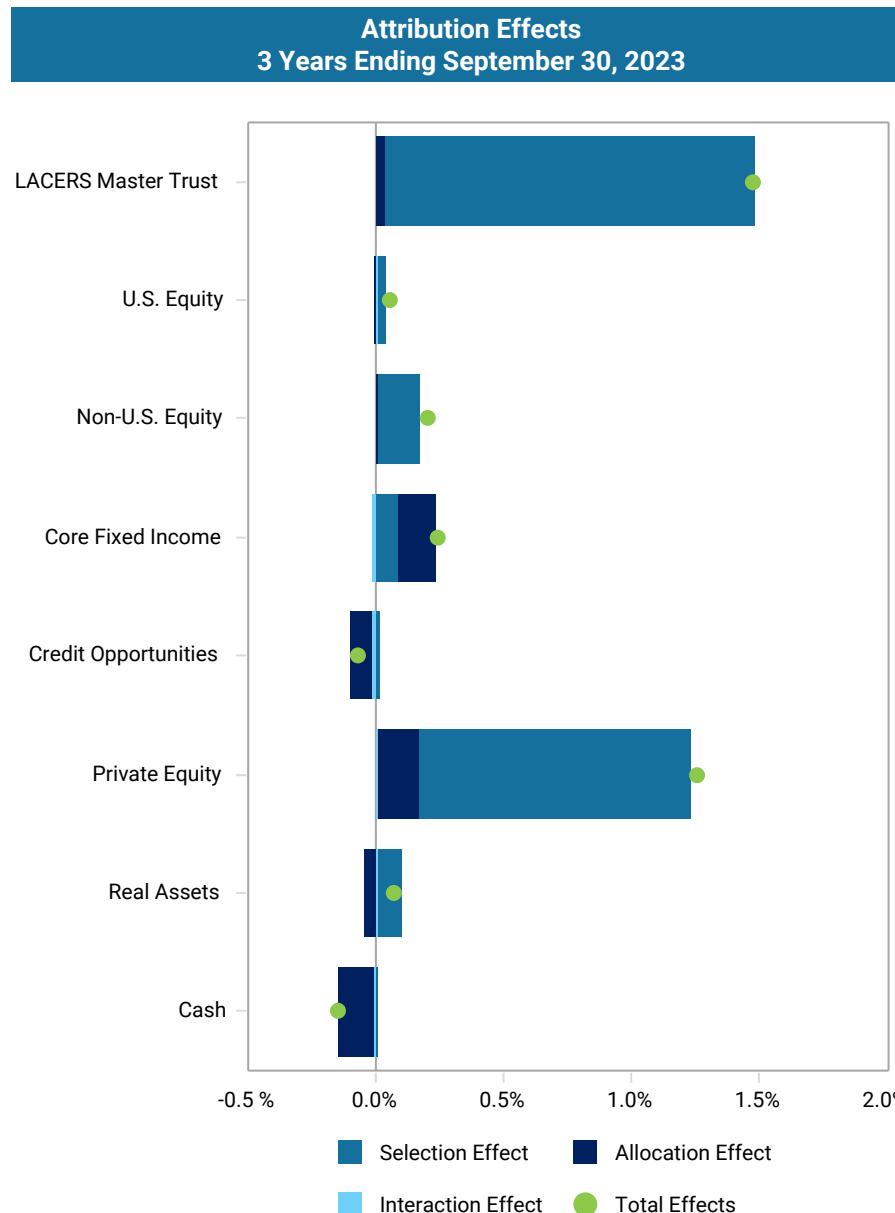
Wtd. = Weighted

- In addition to returns on unallocated cash, the Cash composite returns include the impact of securities lending income, foreign tax reclaims, and other miscellaneous transactions.
- Policy target asset allocation reflects interim asset allocation policy targets adopted on July 12, 2022.

*Total Actual and Index returns are weighted average calculations.



ATTRIBUTION ANALYSIS



**Attribution Summary
3 Years Ending September 30, 2023**

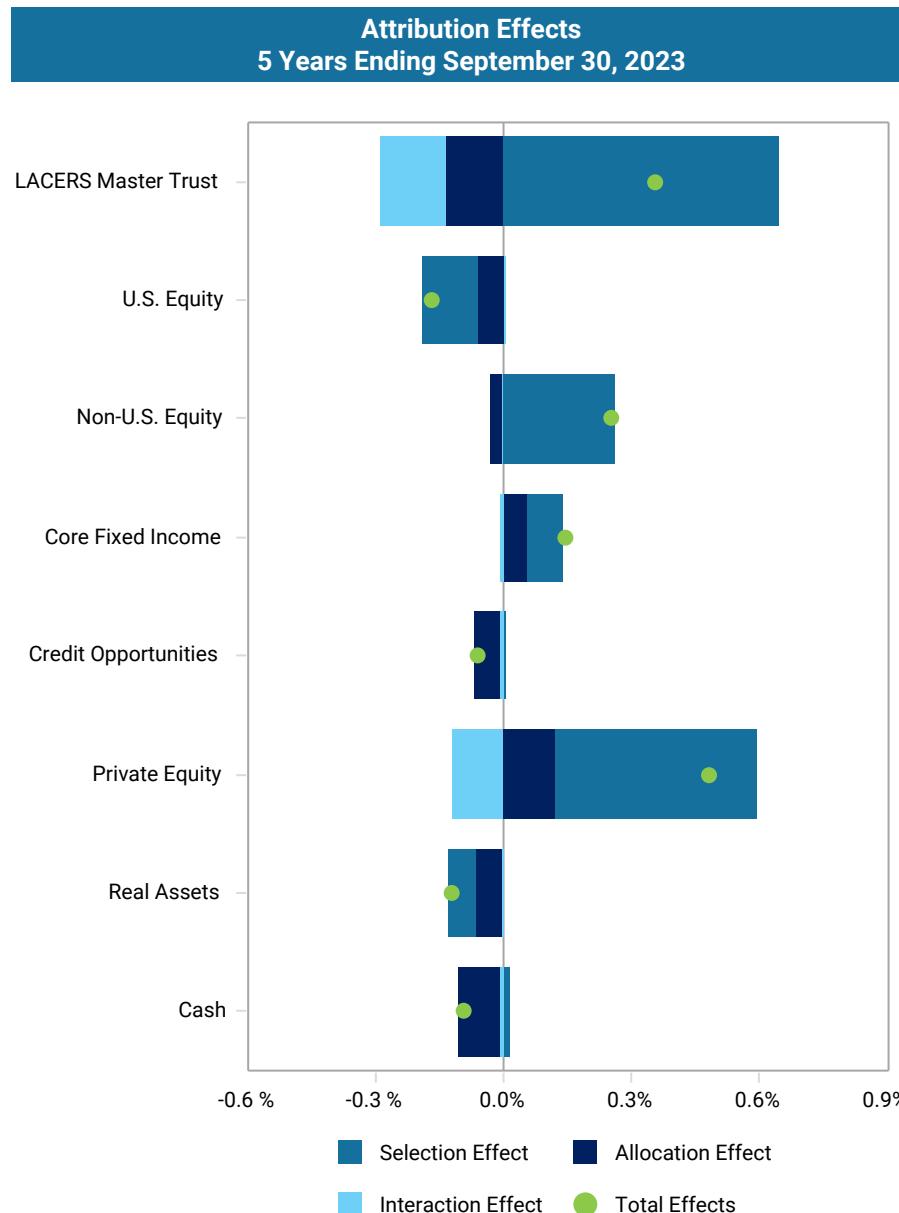
	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
U.S. Equity	9.6	9.4	0.2	0.0	0.0	0.0	0.1
Non-U.S. Equity	4.4	3.7	0.7	0.2	0.0	0.0	0.2
Core Fixed Income	-4.7	-5.2	0.5	0.1	0.2	0.0	0.2
Credit Opportunities	0.6	0.3	0.2	0.0	-0.1	0.0	-0.1
Private Equity	21.8	13.8	7.9	1.1	0.2	0.0	1.3
Real Assets	2.7	1.8	1.0	0.1	0.0	0.0	0.1
Cash	1.6	1.7	-0.1	0.0	-0.1	0.0	-0.2
LACERS Master Trust	5.8	4.3	1.5	1.4	0.0	0.0	1.5

Wtd. = Weighted

- In addition to returns on unallocated cash, the Cash composite returns include the impact of securities lending income, foreign tax reclaims, and other miscellaneous transactions.
- Policy target asset allocation reflects interim asset allocation policy targets adopted on July 12, 2022.

*Total Actual and Index returns are weighted average calculations.

ATTRIBUTION ANALYSIS



**Attribution Summary
5 Years Ending September 30, 2023**

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
U.S. Equity	8.6	9.1	-0.5	-0.1	-0.1	0.0	-0.2
Non-U.S. Equity	3.5	2.6	0.9	0.3	0.0	0.0	0.3
Core Fixed Income	0.6	0.1	0.5	0.1	0.1	0.0	0.1
Credit Opportunities	2.3	2.3	0.0	0.0	-0.1	0.0	-0.1
Private Equity	15.7	13.1	2.6	0.5	0.1	-0.1	0.5
Real Assets	3.2	3.7	-0.5	-0.1	-0.1	0.0	-0.1
Cash	3.3	1.7	1.6	0.0	-0.1	0.0	-0.1
LACERS Master Trust	5.7	5.3	0.4	0.6	-0.1	-0.2	0.4

Wtd. = Weighted

- In addition to returns on unallocated cash, the Cash composite returns include the impact of securities lending income, foreign tax reclaims, and other miscellaneous transactions.

- Policy target asset allocation reflects interim asset allocation policy targets adopted on July 12, 2022.

*Total Actual and Index returns are weighted average calculations.

PRIVATE MARKETS PERFORMANCE

AS OF JUNE 30, 2023

Private Equity	10 Year IRR	Since Inception IRR	Since Inception Multiple
Aggregate Portfolio	14.3%	12.2%	1.65x
Core Portfolio	14.9%	12.7%	1.67x
Specialized Portfolio	1.1%	1.8%	1.12x
PE Blended Benchmark	15.1%	13.1%	N/A

Source: Aksia

Real Estate	10 Year Return (Net)	Since Inception Return (Net)
Total Portfolio (TWR) ¹	7.7%	6.0%
NFI-ODCE + 80 basis points (TWR)	8.6%	7.0%

Source: The Townsend Group

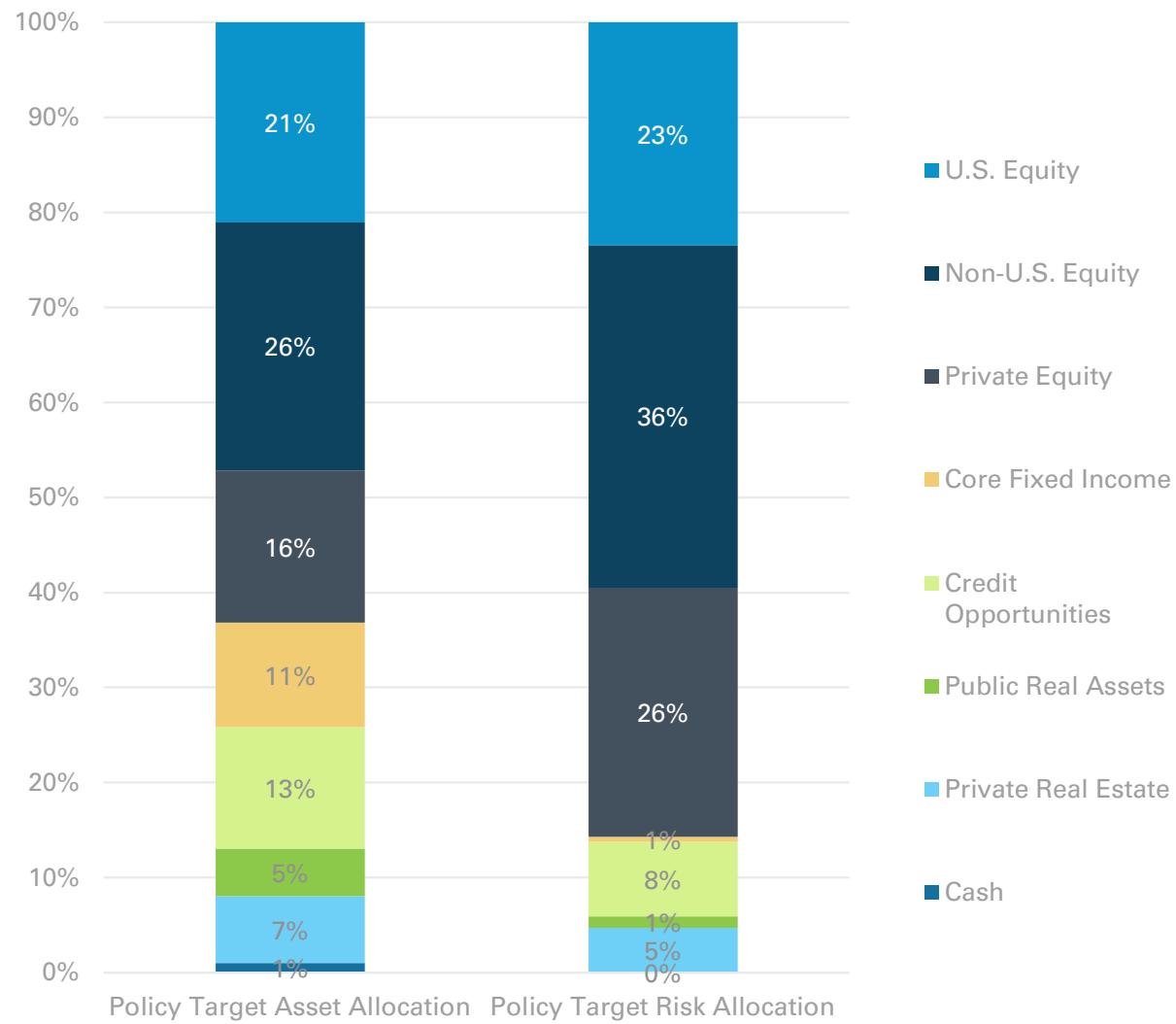
Note: The Total Value to Paid-In Ratio (TVPI) is a multiple that relates the current value of the private equity portfolio plus all distributions received to date with the total amount of capital contributed.

1 - IRR is not available for the Real Estate portfolio and therefore only time weighted returns (TWR) are reported.



TOTAL FUND RISK ALLOCATION

ASSET ALLOCATION VS. RISK ALLOCATION



- Public and Private Equity policy target asset allocation is 63%; accounts for 86% of the policy target portfolio risk.
- Core Fixed Income and Credit Opportunities policy allocation is 24%, accounting for 8% of the policy target portfolio risk.
- Real Assets (Private Real Estate and Public Real Assets) policy allocation is 12%, accounting for 5% of policy target portfolio risk.

* Adopted May 11, 2021

PUBLIC MARKETS RISK BUDGET COMPARISON

AS OF SEPTEMBER 30, 2023

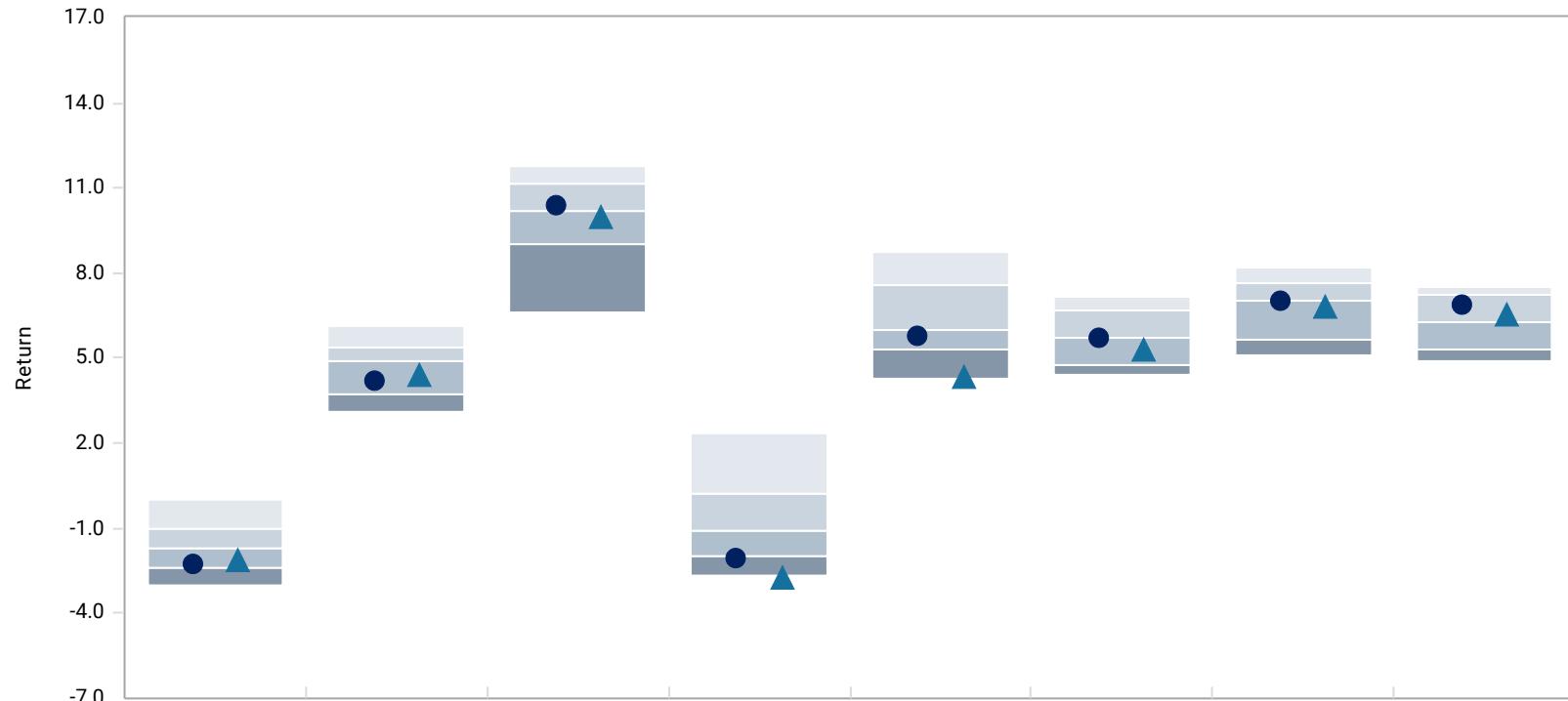
Public Markets Asset Class	Target Risk Budget	Actual 3 Yr Tracking Error
U.S. Equity	1.25%	1.07%
Non-U.S. Equity	1.75%	1.79%
Core Fixed Income	1.75%	0.36%
Credit Opportunities	3.50%	1.38%
Public Real Assets*	1.25%	2.05%

- Current public market asset class composite tracking error statistics are compared to asset class target risk budgets to ensure active risks are within expectations.
- Risk budgets are to be evaluated over three-year periods, at minimum, to reflect a full market cycle.
- Public Equity asset classes are within an appropriate range of their respective risk budgets.
- Both Core Fixed Income and Credit Opportunities have exhibited lower than expected active risk.
- The Public Real Assets benchmark includes prior historical composition.
- Note: The target Risk Budget was approved by the Board on June 22, 2021, and is reflected in the table above. Implementation of the new asset allocation is in progress.

* The benchmark for the Public Real Assets composite is a custom policy benchmark that is comprised of the target weights of the public real asset components: 62.5% Bloomberg Barclays US TIPS and 37.5% FTSE NAREIT All Equity REIT Index. Historical composition can be found in the investment policy statement.

RETURN SUMMARY VS. PEER UNIVERSE

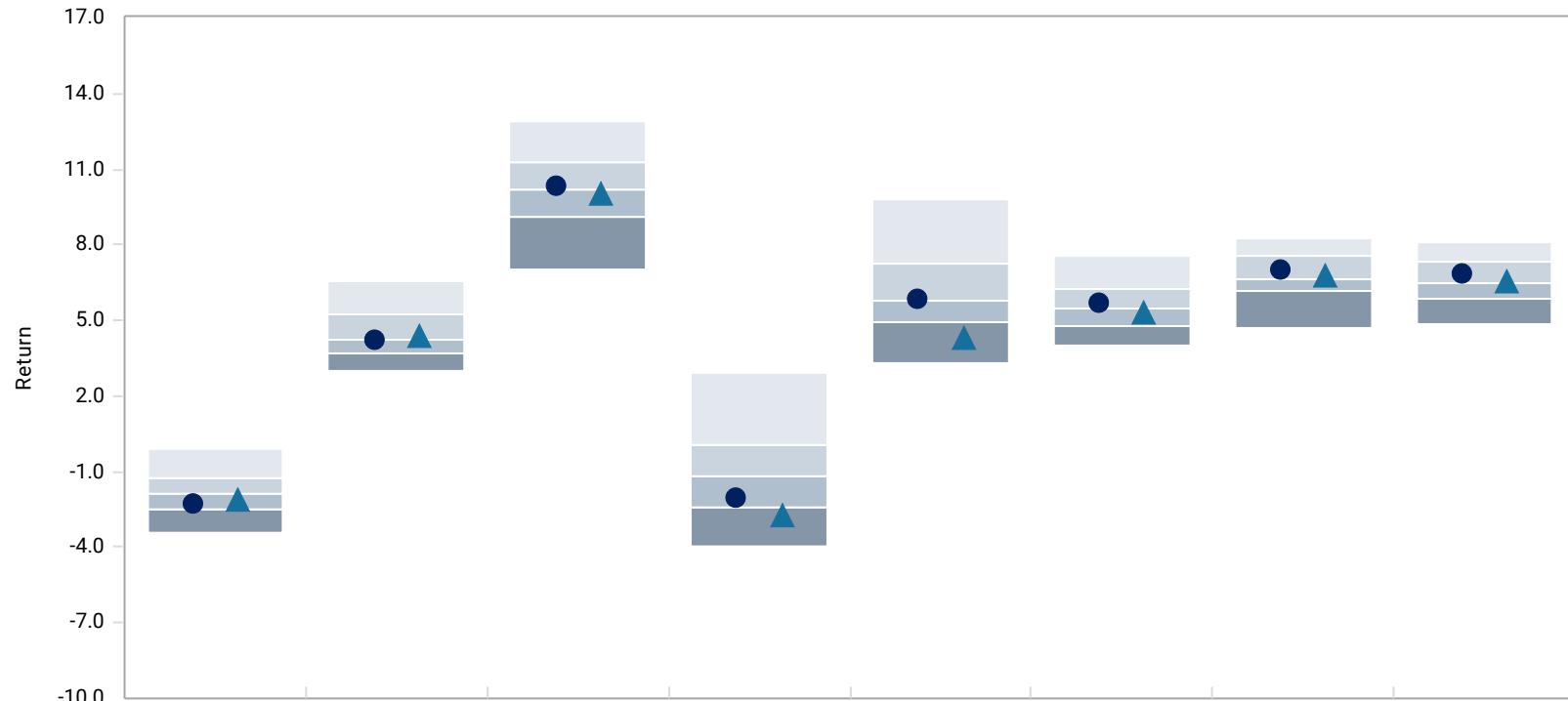
LACERS Master Trust vs. InvMetrics Public DB \$5-50B Gross



	3 Mo (%)	YTD (%)	1 Year (%)	2 Years (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
● LACERS Master Trust	-2.2 (66)	4.2 (61)	10.4 (46)	-2.0 (79)	5.8 (53)	5.7 (53)	7.1 (50)	6.9 (43)
▲ Policy Index	-2.1 (64)	4.4 (60)	10.0 (61)	-2.7 (96)	4.3 (90)	5.3 (61)	6.8 (53)	6.6 (47)
5th Percentile	0.0	6.1	11.8	2.3	8.8	7.1	8.2	7.5
1st Quartile	-1.0	5.3	11.1	0.2	7.6	6.7	7.7	7.2
Median	-1.7	4.9	10.2	-1.1	6.0	5.7	7.1	6.3
3rd Quartile	-2.4	3.7	9.0	-2.0	5.3	4.8	5.7	5.3
95th Percentile	-3.0	3.1	6.6	-2.7	4.3	4.4	5.1	4.9
Population	27	24	23	20	20	18	17	15

RETURN SUMMARY VS. PEER UNIVERSE

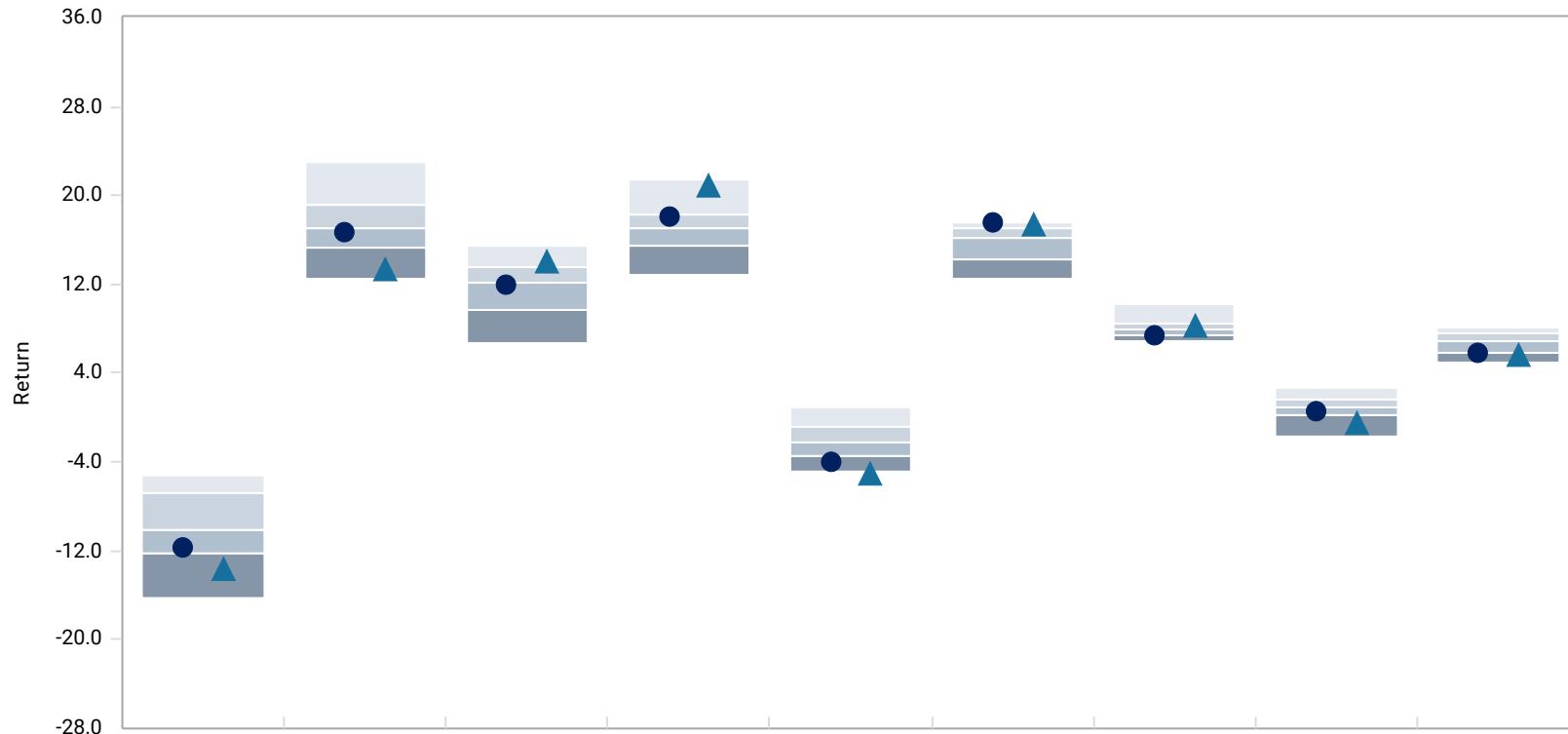
LACERS Master Trust vs. InvMetrics Public DB \$1-50B Gross



	3 Mo (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
● LACERS Master Trust	-2.2 (61)	4.2 (51)	10.4 (45)	-2.0 (71)	5.8 (50)	5.7 (42)	7.1 (41)	6.9 (38)
▲ Policy Index	-2.1 (59)	4.4 (47)	10.0 (55)	-2.7 (82)	4.3 (85)	5.3 (58)	6.8 (46)	6.6 (48)
5th Percentile	-0.1	6.5	12.9	2.9	9.8	7.5	8.3	8.1
1st Quartile	-1.2	5.2	11.3	0.1	7.2	6.2	7.6	7.3
Median	-1.9	4.2	10.2	-1.2	5.8	5.5	6.7	6.5
3rd Quartile	-2.5	3.7	9.1	-2.4	4.9	4.8	6.1	5.8
95th Percentile	-3.4	3.0	7.0	-4.0	3.3	4.0	4.7	4.9
Population	84	78	77	72	70	68	67	62

RETURN SUMMARY VS. PEER UNIVERSE

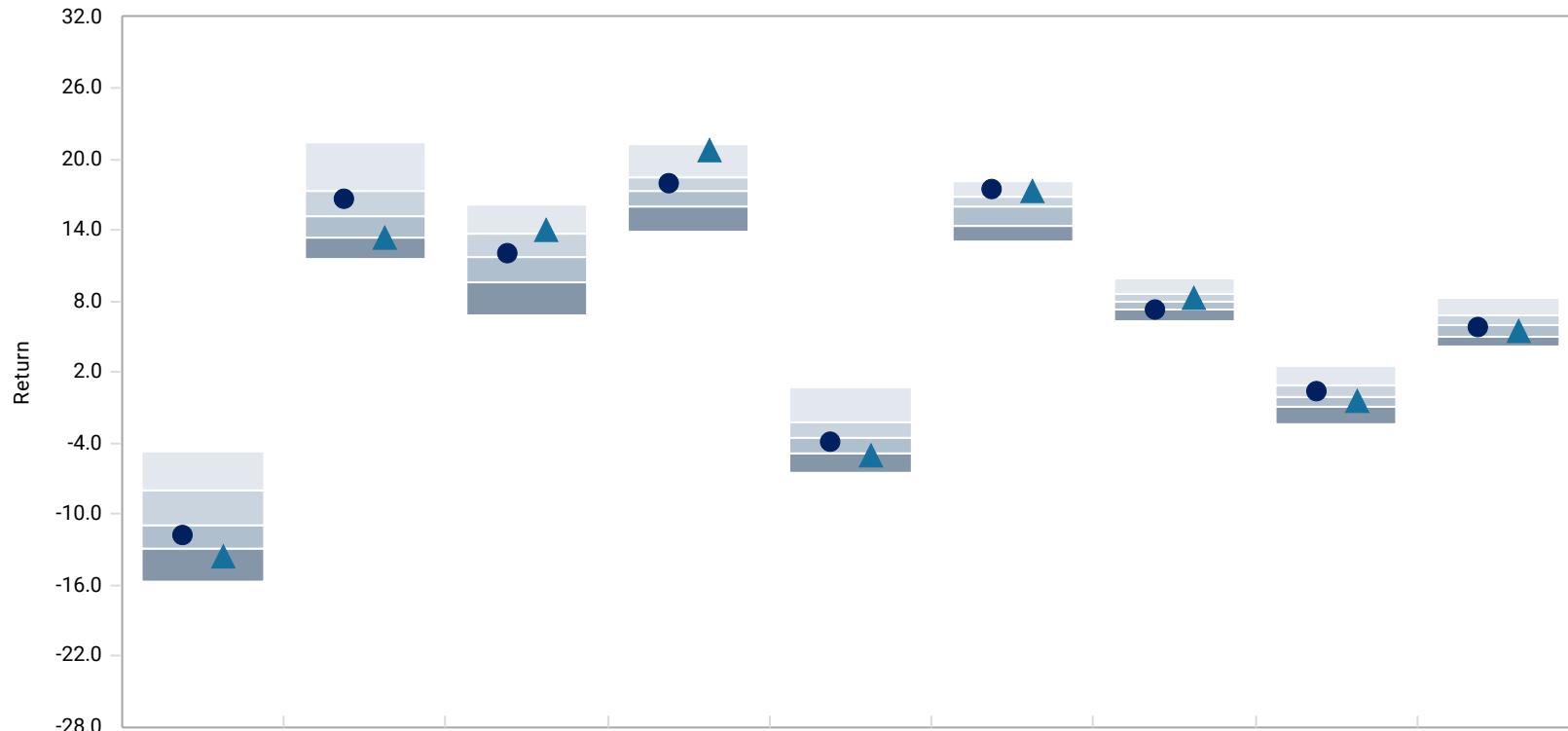
LACERS Master Trust vs. InvMetrics Public DB \$5-50B Gross



	2022	2021	2020	2019	2018	2017	2016	2015	2014
● LACERS Master Trust	-11.8 (72)	16.8 (57)	12.1 (51)	18.1 (26)	-3.9 (82)	17.6 (6)	7.4 (80)	0.5 (65)	5.9 (73)
▲ Policy Index	-13.6 (88)	13.5 (86)	14.1 (19)	20.9 (6)	-5.0 (98)	17.4 (8)	8.3 (31)	-0.4 (84)	5.6 (81)
5th Percentile	-5.3	23.0	15.5	21.4	0.9	17.6	10.3	2.7	8.2
1st Quartile	-6.8	19.1	13.6	18.2	-0.8	17.0	8.5	1.7	7.5
Median	-10.0	17.1	12.1	17.1	-2.2	16.2	8.0	0.8	6.8
3rd Quartile	-12.3	15.3	9.6	15.6	-3.4	14.3	7.5	0.3	5.9
95th Percentile	-16.2	12.4	6.8	12.9	-4.9	12.5	6.9	-1.6	5.0
Population	43	49	54	40	34	40	40	40	38

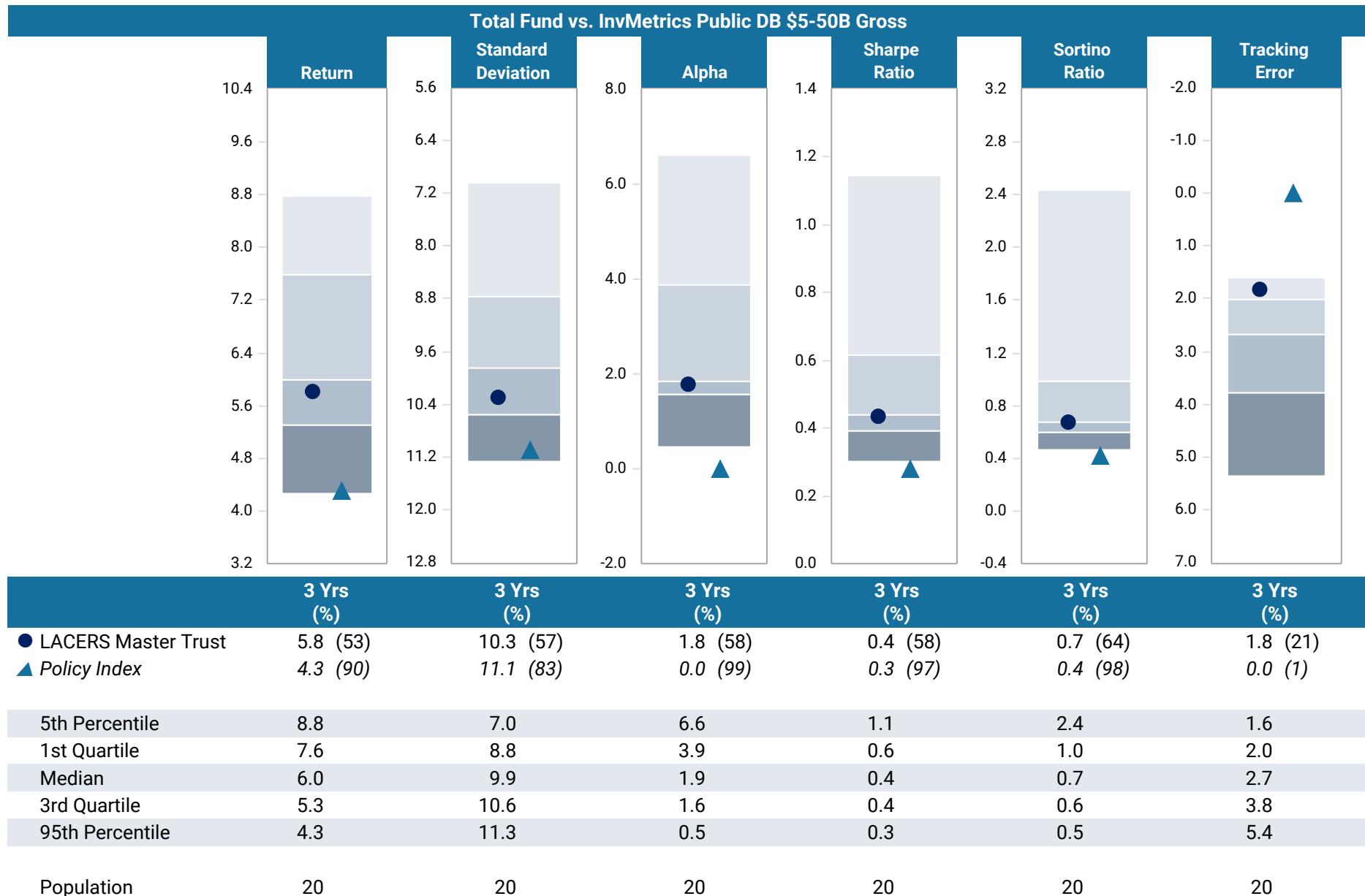
RETURN SUMMARY VS. PEER UNIVERSE

LACERS Master Trust vs. InvMetrics Public DB \$1-50B Gross

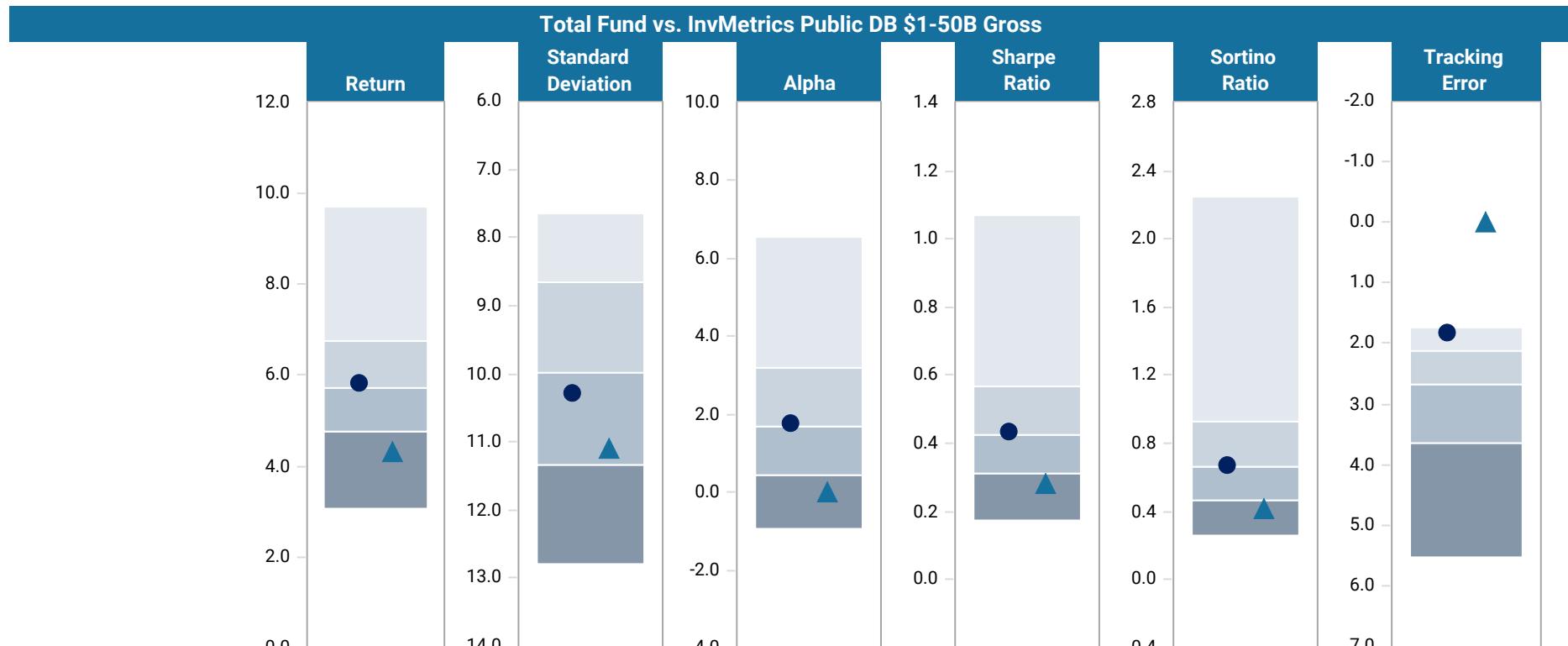


	2022	2021	2020	2019	2018	2017	2016	2015	2014
● LACERS Master Trust	-11.8 (63)	16.8 (37)	12.1 (48)	18.1 (32)	-3.9 (59)	17.6 (12)	7.4 (75)	0.5 (36)	5.9 (52)
▲ Policy Index	-13.6 (83)	13.5 (75)	14.1 (21)	20.9 (8)	-5.0 (77)	17.4 (13)	8.3 (34)	-0.4 (60)	5.6 (58)
5th Percentile	-4.7	21.4	16.2	21.4	0.8	18.1	10.0	2.5	8.3
1st Quartile	-7.9	17.3	13.7	18.5	-2.2	16.8	8.6	1.0	6.9
Median	-10.9	15.3	11.7	17.3	-3.5	16.0	8.1	0.0	6.0
3rd Quartile	-12.8	13.5	9.7	16.1	-4.8	14.4	7.4	-0.9	5.1
95th Percentile	-15.6	11.6	6.8	13.9	-6.5	13.0	6.3	-2.4	4.1
Population	109	140	154	120	105	112	120	117	113

RISK STATISTICS VS. PEER UNIVERSE

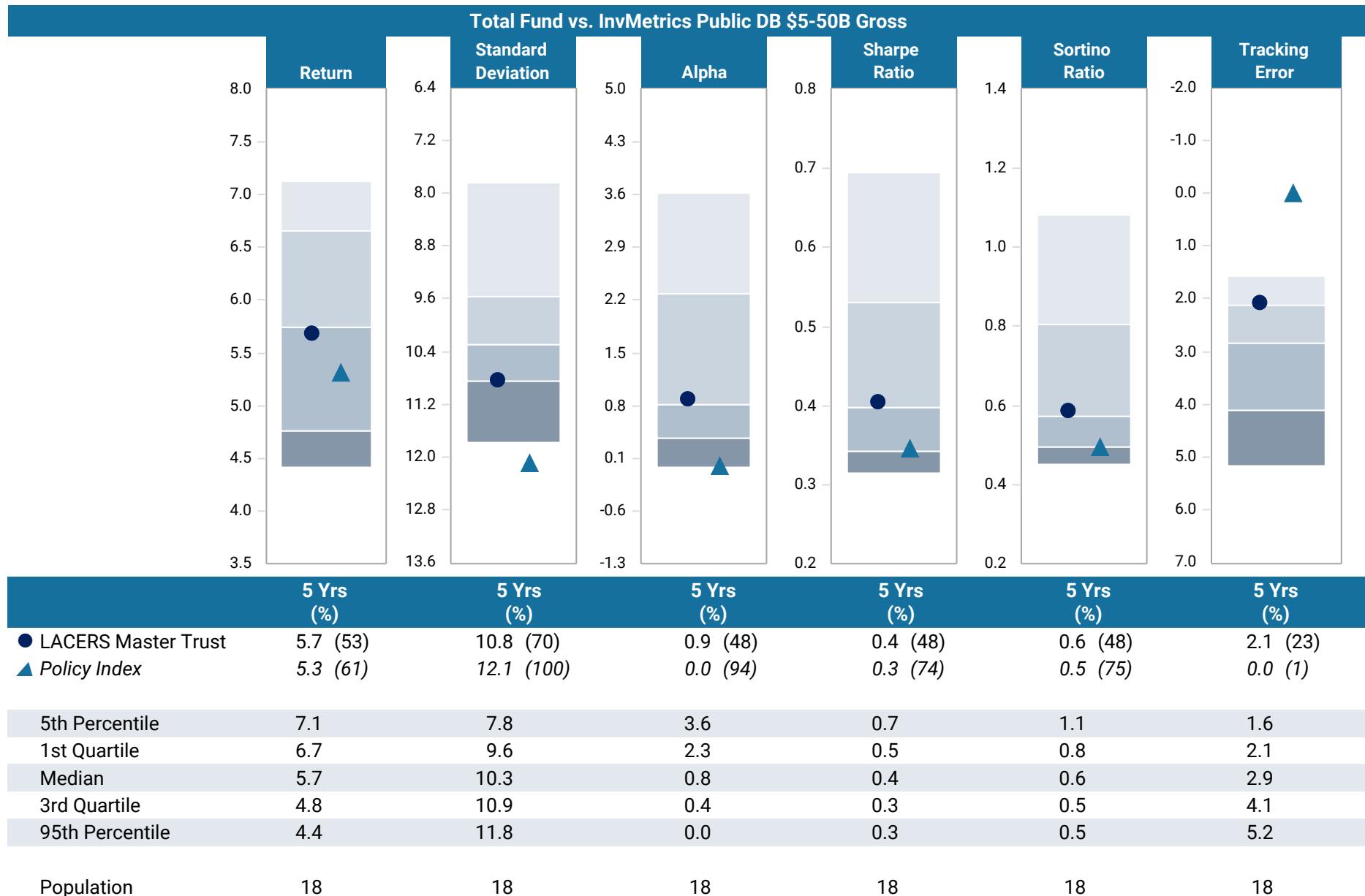


RISK STATISTICS VS. PEER UNIVERSE

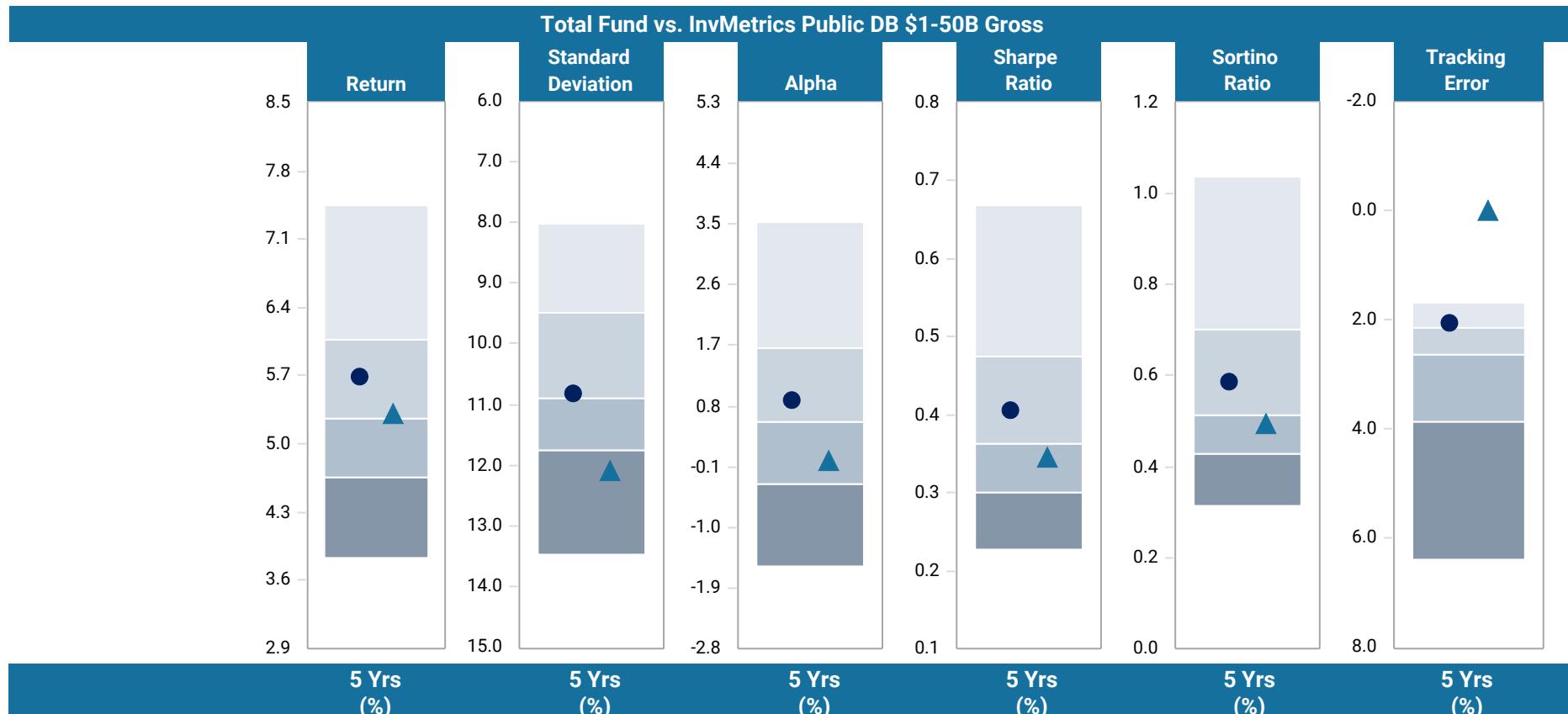


	3 Yrs (%)					
● LACERS Master Trust	5.8 (47)	10.3 (55)	1.8 (49)	0.4 (49)	0.7 (49)	1.8 (10)
▲ Policy Index	4.3 (88)	11.1 (70)	0.0 (86)	0.3 (87)	0.4 (87)	0.0 (1)
5th Percentile	9.7	7.7	6.6	1.1	2.2	1.7
1st Quartile	6.8	8.7	3.2	0.6	0.9	2.1
Median	5.7	10.0	1.7	0.4	0.7	2.7
3rd Quartile	4.8	11.3	0.4	0.3	0.5	3.6
95th Percentile	3.1	12.8	-0.9	0.2	0.3	5.5
Population	62	62	62	62	62	62

RISK STATISTICS VS. PEER UNIVERSE

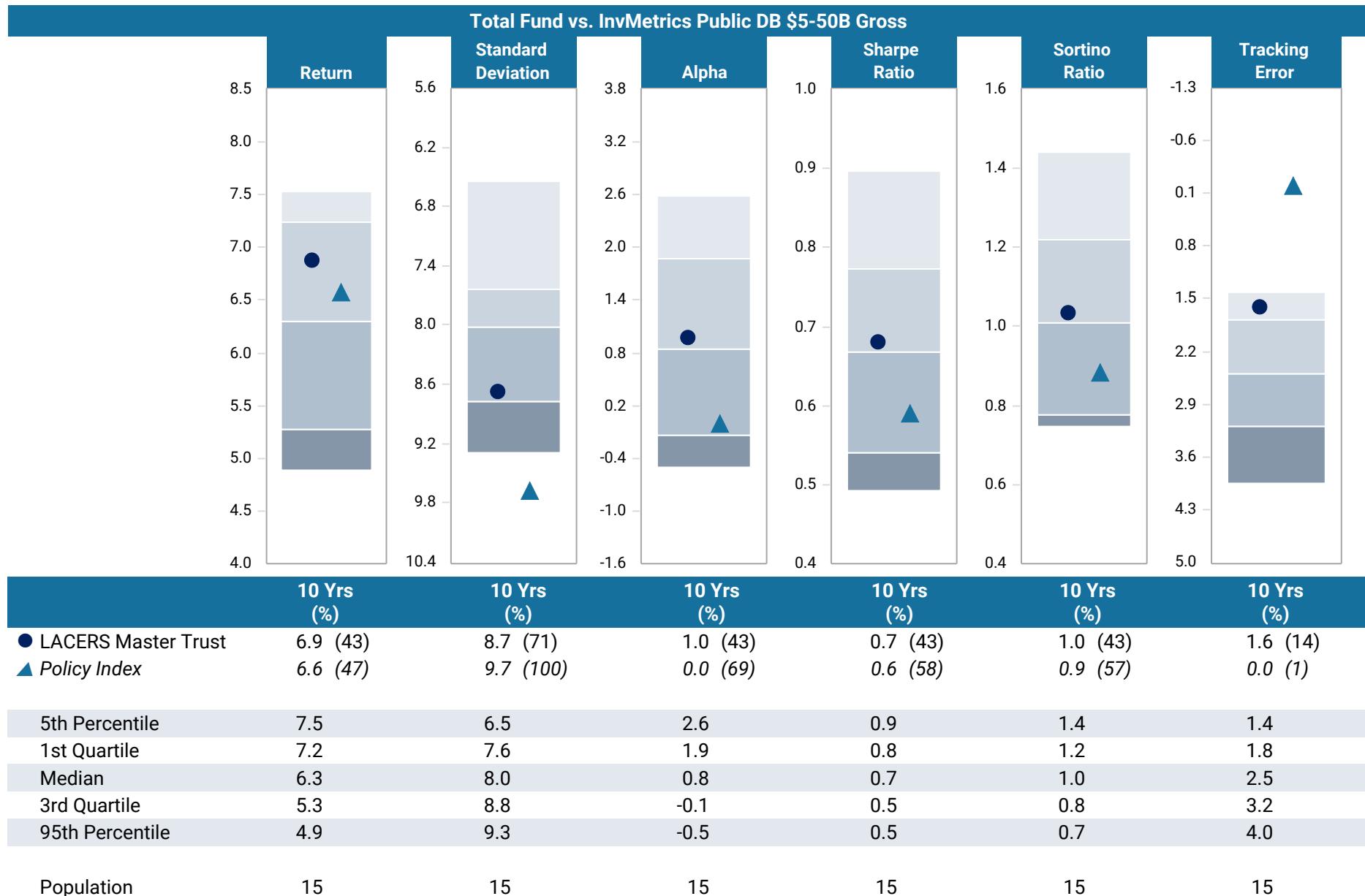


RISK STATISTICS VS. PEER UNIVERSE

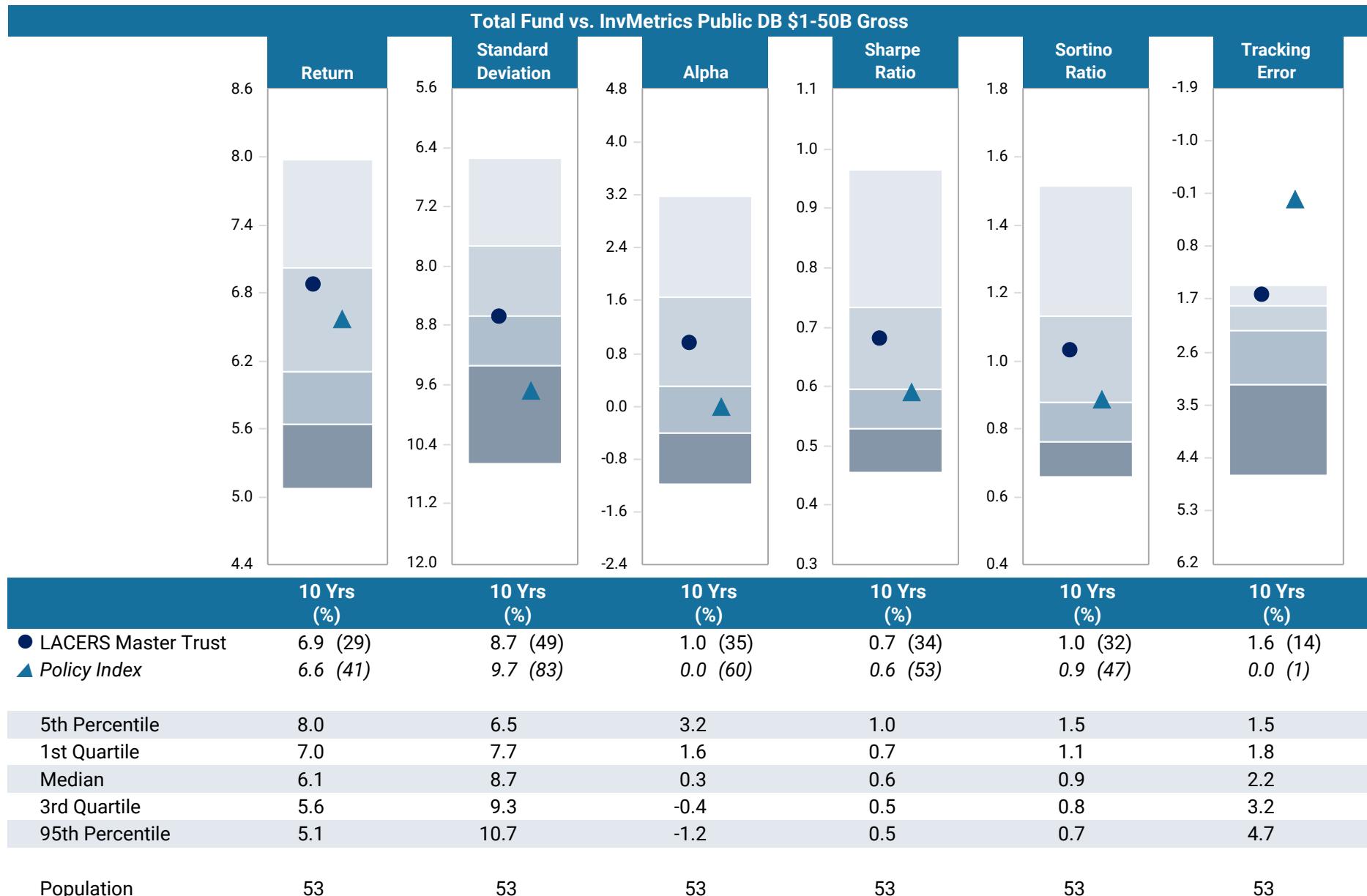


	5 Yrs (%)					
● LACERS Master Trust	5.7 (32)	10.8 (47)	0.9 (36)	0.4 (35)	0.6 (35)	2.1 (23)
▲ Policy Index	5.3 (48)	12.1 (83)	0.0 (63)	0.3 (54)	0.5 (55)	0.0 (1)
5th Percentile	7.4	8.0	3.5	0.7	1.0	1.7
1st Quartile	6.1	9.5	1.7	0.5	0.7	2.1
Median	5.3	10.9	0.6	0.4	0.5	2.6
3rd Quartile	4.7	11.8	-0.4	0.3	0.4	3.9
95th Percentile	3.8	13.5	-1.6	0.2	0.3	6.4
Population	60	60	60	60	60	60

RISK STATISTICS VS. PEER UNIVERSE



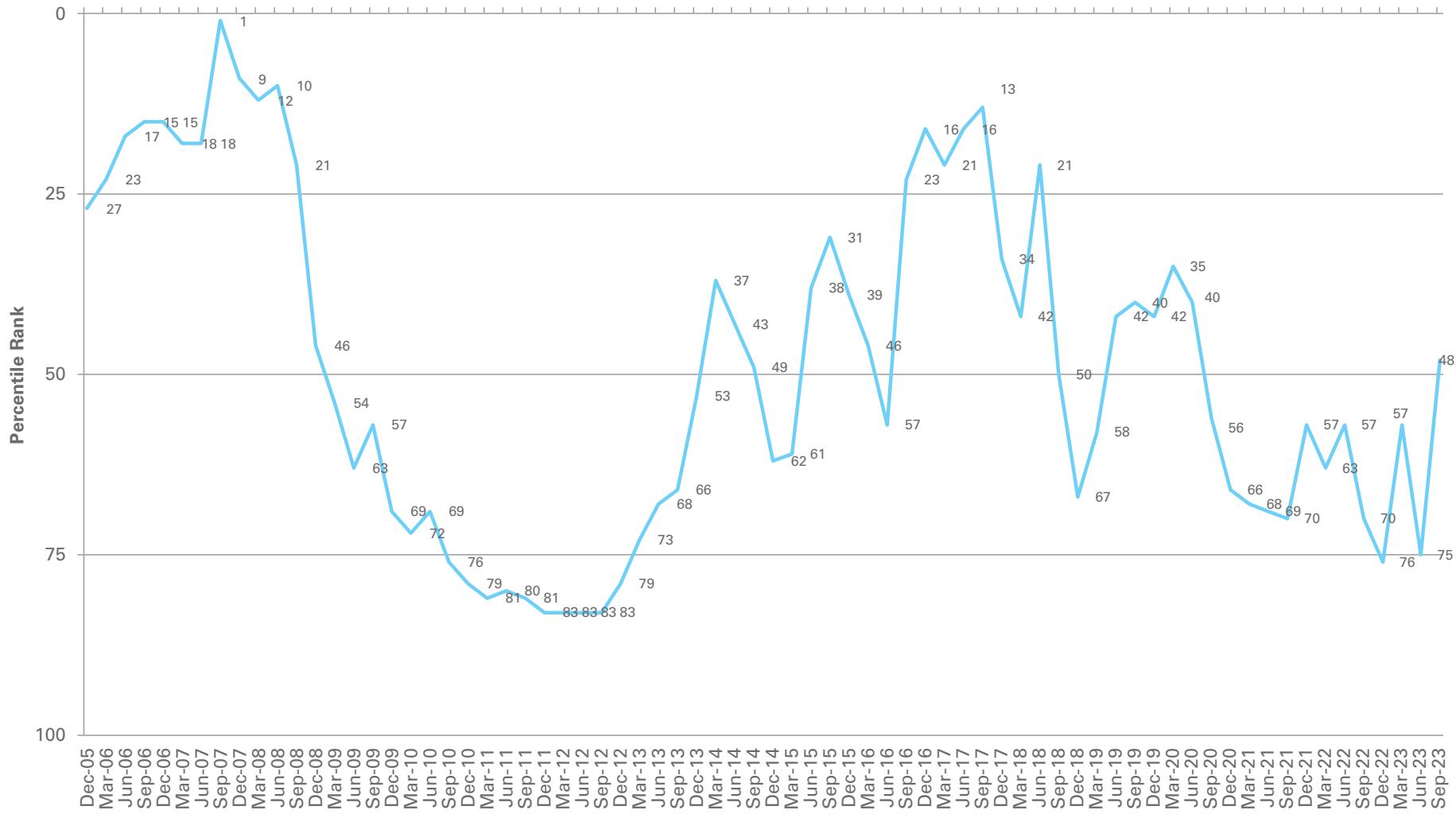
RISK STATISTICS VS. PEER UNIVERSE



HISTORICAL RISK ADJUSTED RETURN

UNIVERSE COMPARISON (\$5-\$50 B GROSS OF FEES)

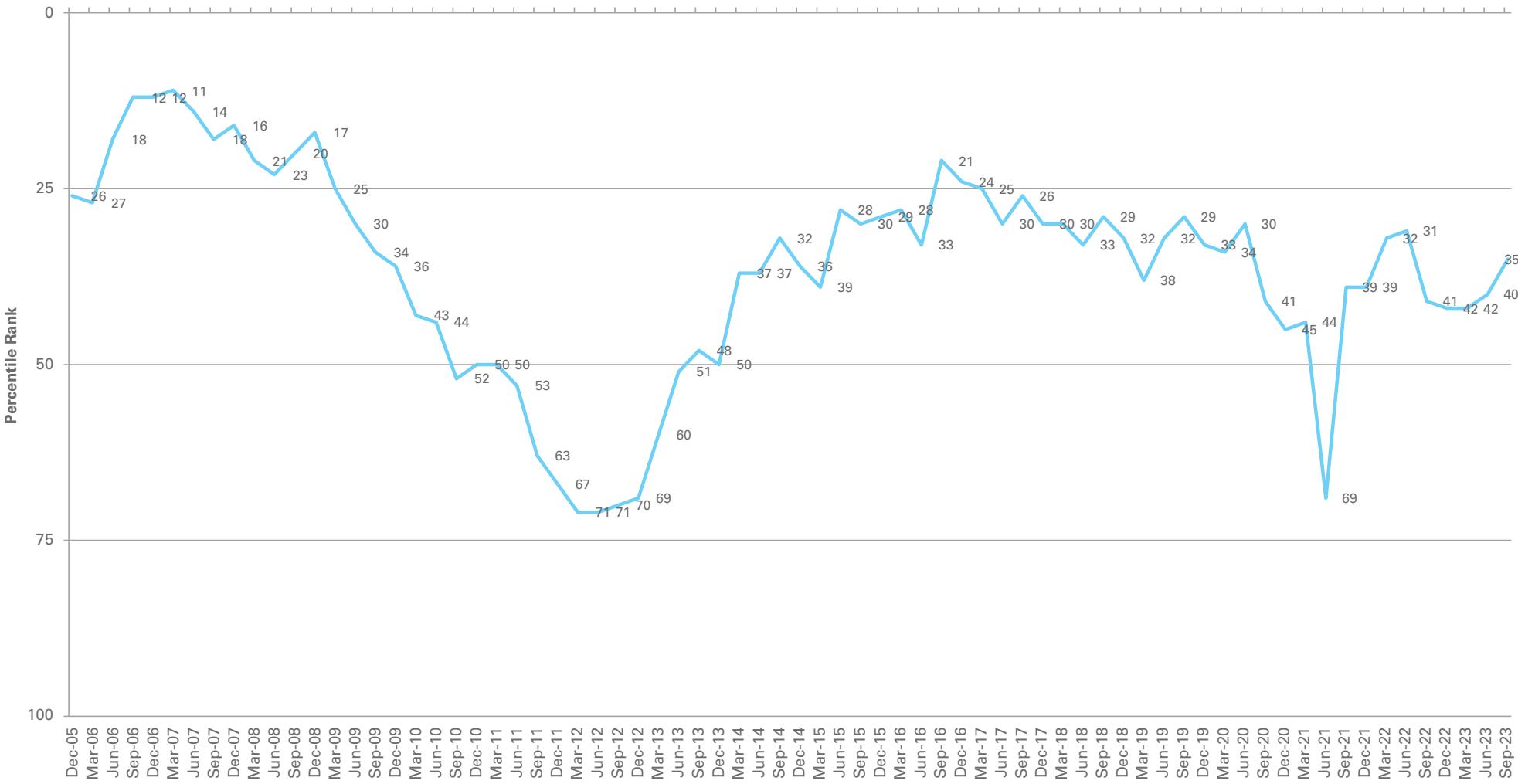
5 Yr Sharpe Ratio Percentile Rank
LACERS Master Trust vs InvMetrics Public Funds \$5B-\$50B Gross of Fees



HISTORICAL RISK ADJUSTED RETURN

UNIVERSE COMPARISON (\$1-\$50 B GROSS OF FEES)

5 Yr Sharpe Ratio Percentile Rank
LACERS Master Trust vs InvMetrics Public Funds \$1B-\$50B Gross of Fees





U.S. EQUITY MANAGER PERFORMANCE

U.S EQUITY (GROSS)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
U.S. Equity	4,130,916,918	100.00		-3.86	10.52	18.96	9.60	8.63	11.03	8.60	Sep-01
<i>U.S. Equity Blend</i>				-3.25	12.39	20.46	9.38	9.14	11.28	8.39	
Over/Under				-0.61	-1.87	-1.50	0.22	-0.51	-0.25	0.21	
RhumbLine Advisers Russell 2000	267,916,713	6.49		-5.12	2.54	8.97	7.21	2.46		5.67	Apr-15
<i>Russell 2000 Index</i>				-5.13	2.54	8.93	7.16	2.40		5.68	
Over/Under				0.01	0.00	0.04	0.05	0.06		-0.01	
Rhumbline Advisers Russell 2000 Value	108,633,674	2.63		-2.96	-0.56	8.11				3.32	Jan-21
<i>Russell 2000 Value Index</i>				-2.96	-0.53	7.84				3.22	
Over/Under				0.00	-0.03	0.27				0.10	
EAM Investors	82,830,780	2.01		-6.34	0.66	3.83	-2.20	1.25		8.05	Oct-15
<i>Russell 2000 Growth Index</i>				-7.32	5.24	9.59	1.09	1.55		7.43	
Over/Under				0.98	-4.58	-5.76	-3.29	-0.30		0.62	
Principal Global Investors	302,984,555	7.33		-5.06	10.55	19.61	8.15	10.46		11.89	Aug-14
<i>Russell Midcap Index</i>				-4.68	3.91	13.45	8.09	6.38		8.25	
Over/Under				-0.38	6.64	6.16	0.06	4.08		3.64	
RhumbLine Advisers S&P 500	2,904,479,761	70.31		-3.27	13.01	21.49	10.24	9.87	11.87	6.71	Sep-00
<i>S&P 500 Index</i>				-3.27	13.07	21.62	10.15	9.92	11.91	6.62	
Over/Under				0.00	-0.06	-0.13	0.09	-0.05	-0.04	0.09	
Copeland Capital Management	243,687,454	5.90		-4.88	8.41	19.49	13.28			13.28	Oct-20
<i>Russell 2000 Index</i>				-5.13	2.54	8.93	7.16			7.16	
Over/Under				0.25	5.87	10.56	6.12			6.12	
Granahan Investment Management	111,432,220	2.70		-9.23	-0.90	5.42	-1.90			-1.90	Oct-20
<i>Russell 2000 Growth Index</i>				-7.32	5.24	9.59	1.09			1.09	
Over/Under				-1.91	-6.14	-4.17	-2.99			-2.99	
Segall, Bryant & Hamill	108,899,071	2.64		-3.84	2.64	14.57	9.97			9.97	Oct-20
<i>Russell 2000 Value Index</i>				-2.96	-0.53	7.84	13.32			13.32	
Over/Under				-0.88	3.17	6.73	-3.35			-3.35	

Note: All portfolios in U.S. Equity have mid-month inception dates. Since inception return is calculated from the first full month of performance.

eA = eVestment

Refer to appendix for blended benchmark definitions.



U.S. EQUITY (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
U.S. Equity	4,130,916,918	100.00		-3.88	10.43	18.84	9.50	8.55	10.93	8.42	Sep-01
U.S. Equity Blend				-3.25	12.39	20.46	9.38	9.14	11.28	8.39	
Over/Under				-0.63	-1.96	-1.62	0.12	-0.59	-0.35	0.03	
All Public Plans > \$1B-US Equity Segment Median											
RhumbLine Advisers Russell 2000	267,916,713	6.49	-5.12 (60)	2.53 (61)	8.97 (74)	7.21 (68)	2.46 (82)			5.66 (75)	Apr-15
Russell 2000 Index			-5.13 (60)	2.54 (61)	8.93 (74)	7.16 (68)	2.40 (83)			5.68 (75)	
Over/Under			0.01	-0.01	0.04	0.05	0.06			-0.02	
eV US Small Cap Equity Median			-4.48	3.89	12.36	11.00	4.39			6.83	
Rhumbline Advisers Russell 2000 Value	108,633,674	2.63	-2.96 (40)	-0.56 (80)	8.11 (89)					3.31 (79)	Jan-21
Russell 2000 Value Index			-2.96 (40)	-0.53 (80)	7.84 (90)					3.22 (79)	
Over/Under			0.00	-0.03	0.27					0.09	
eV US Small-Mid Cap Value Equity Median			-3.62	3.00	14.16					6.05	
EAM Investors	82,830,780	2.01	-6.51 (50)	0.11 (82)	3.10 (82)	-2.90 (84)	0.53 (92)			7.29 (88)	Oct-15
Russell 2000 Growth Index			-7.32 (64)	5.24 (49)	9.59 (54)	1.09 (58)	1.55 (86)			7.43 (86)	
Over/Under			0.81	-5.13	-6.49	-3.99	-1.02			-0.14	
eV US Small Cap Growth Equity Median			-6.59	4.96	9.78	2.05	4.24			9.87	
Principal Global Investors	302,984,555	7.33	-5.14 (69)	10.25 (19)	19.19 (20)	7.77 (57)	10.07 (5)			11.50 (6)	Aug-14
Russell Midcap Index			-4.68 (61)	3.91 (65)	13.45 (60)	8.09 (55)	6.38 (51)			8.25 (52)	
Over/Under			-0.46	6.34	5.74	-0.32	3.69			3.25	
eV US Mid Cap Equity Median			-4.32	5.91	14.95	9.32	6.40			8.30	
RhumbLine Advisers S&P 500	2,904,479,761	70.31	-3.27 (60)	13.00 (33)	21.49 (36)	10.23 (41)	9.87 (25)	11.86 (25)			
S&P 500 Index			-3.27 (60)	13.07 (33)	21.62 (35)	10.15 (41)	9.92 (24)	11.91 (24)			
Over/Under			0.00	-0.07	-0.13	0.08	-0.05	-0.05			
eV US Large Cap Equity Median			-2.96	8.04	18.63	9.36	8.40	10.43			

Note: All portfolios in U.S. Equity have mid-month inception dates. Since inception return is calculated from the first full month of performance.

eA = eVestment

Refer to appendix for blended benchmark definitions.

U.S. EQUITY (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Copeland Capital Management	243,687,454	5.90	-4.99 (58)	8.04 (18)	18.96 (14)	12.85 (41)				12.85 (41)	Oct-20
Russell 2000 Index			-5.13 (60)	2.54 (61)	8.93 (74)	7.16 (68)				7.16 (68)	
Over/Under			0.14	5.50	10.03	5.69				5.69	
eV US Small Cap Equity Median			-4.48	3.89	12.36	11.00				11.01	
Granahan Investment Management	111,432,220	2.70	-9.40 (82)	-1.42 (88)	4.70 (78)	-2.55 (82)				-2.55 (82)	Oct-20
Russell 2000 Growth Index			-7.32 (64)	5.24 (49)	9.59 (54)	1.09 (58)				1.09 (57)	
Over/Under			-2.08	-6.66	-4.89	-3.64				-3.64	
eV US Small Cap Growth Equity Median			-6.59	4.96	9.78	2.05				2.05	
Segall, Bryant & Hamill	108,899,071	2.64	-3.98 (72)	2.17 (56)	13.90 (51)	9.35 (92)				9.35 (92)	Oct-20
Russell 2000 Value Index			-2.96 (54)	-0.53 (80)	7.84 (87)	13.32 (72)				13.32 (72)	
Over/Under			-1.02	2.70	6.06	-3.97				-3.97	
eV US Small Cap Value Equity Median			-2.89	2.90	13.96	15.08				15.05	

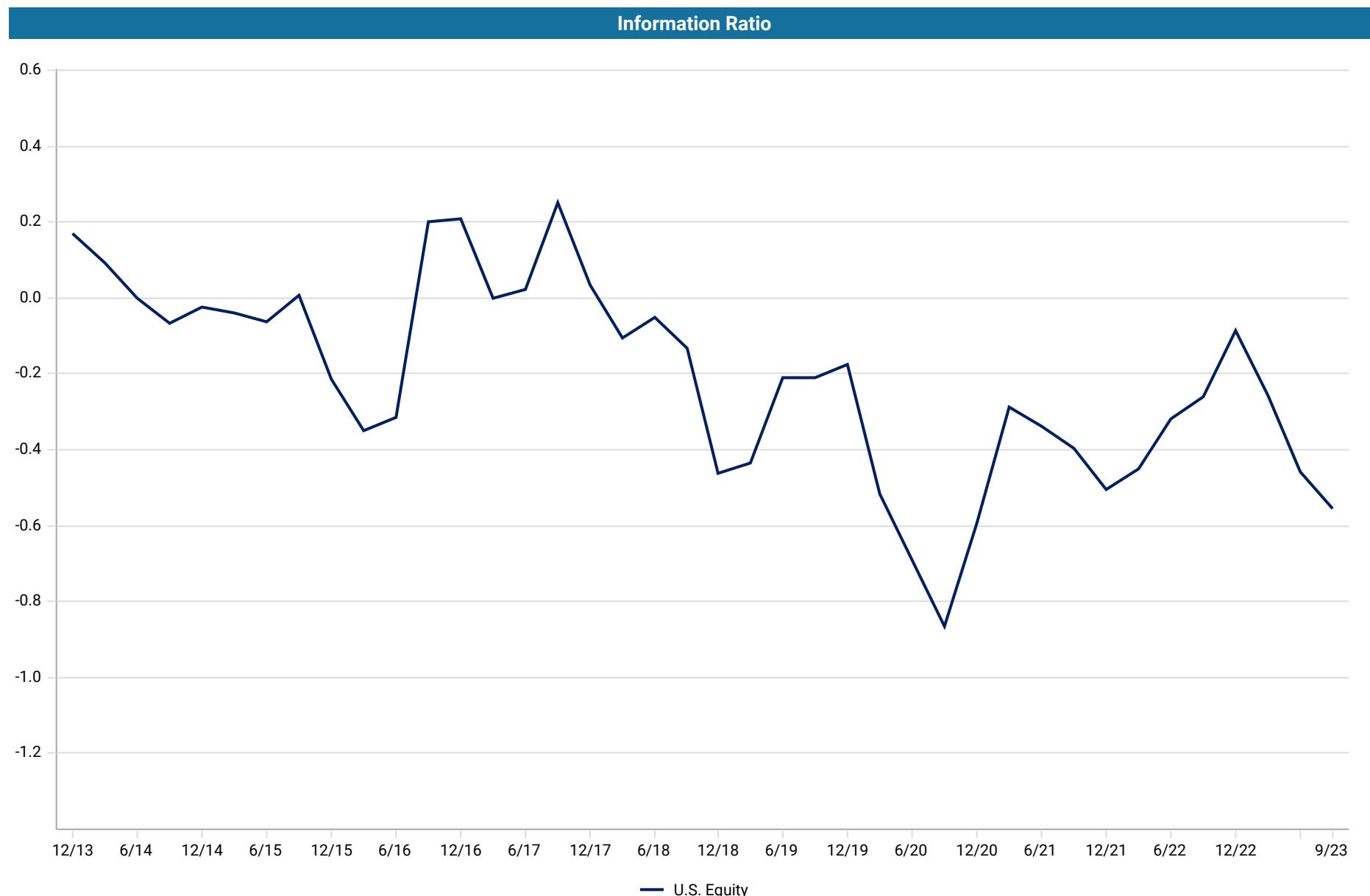
Note: All portfolios in U.S. Equity have mid-month inception dates. Since inception return is calculated from the first full month of performance.

eA = eVestment

Refer to appendix for blended benchmark definitions.



U.S. EQUITY ROLLING 5 YEAR INFORMATION RATIO



INVESTMENT MANAGER REPORT CARD

U.S. EQUITY

U.S. Equity Managers	Inception Date	Mandate	Current Quarter (Net)		One Year (Net)		Three Years (Net)		Five Years (Net)		Since Inception (Net)	Annual Mgt Fee Paid \$ (000)	Comments
			Index	Universe	Index	Universe	Index	Universe	Index	Universe			
Principal Global Investors	Jul-14	Mid Cap	✗	✗	✓	✓	✗	✗	✓	✓	✓	1,046.3	Performance compliant with LACERS' Manager Monitoring Policy
EAM Investors	Sep-15	Small Cap Growth	✓	=	✗	✗	✗	✗	✗	✗	✗	614.2	Performance compliant with LACERS' Manager Monitoring Policy
Copeland	Oct-20	Small Cap Core	✓	✗	✓	✓	✓	✓	N/A	N/A	✓	1,083.3	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Granahan	Oct-20	Small Cap Growth	✗	✗	✗	✗	✗	✗	N/A	N/A	✗	829.8	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Segall Bryant & Hamill	Oct-20	Small Cap Value	✗	✗	✓	✗	✗	✗	N/A	N/A	✗	648	Performance compliant with LACERS' Manager Monitoring Policy
RhumbLine (Passive)	Dec-20	R2000 Value	=	✓	✓	✗	N/A	N/A	N/A	N/A	✓	6.5	Performance compliant with LACERS' Manager Monitoring Policy
RhumbLine (Passive)	Feb-93	S&P 500	=	✗	✗	✓	✓	✓	✗	✓	✓✓	156.1	Performance compliant with LACERS' Manager Monitoring Policy
RhumbLine (Passive)	Jun-15	R2000	✓	✗	✓	✗	✓	✗	✓	✗	✗	14.8	Performance compliant with LACERS' Manager Monitoring Policy

Note: Managers are placed on Watch List for concerns with organization, process and performance. Managers are normally on the Watch List for 12 months though may be longer if manager issues remain but not severe enough to warrant termination recommendation.

- Annual Management Fee Paid as of fiscal year ending June 30, 2023.
- * Where net of fees performance is not available gross of fee returns are evaluated.

Legend	
✓	Outperformed
✗	Underperformed
=	Equal to
✓✓	Gross Return





NON-U.S. EQUITY MANAGER PERFORMANCE

NON-U.S. EQUITY (GROSS)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Non-U.S. Equity	5,243,479,635	100.00		-3.85	5.49	19.96	4.43	3.52	4.55	5.07	Nov-94
MSCI AC World ex USA (Net)				-3.77	5.34	20.39	3.74	2.58	3.35	4.73	
Over/Under				-0.08	0.15	-0.43	0.69	0.94	1.20	0.34	
Developed ex-U.S.	3,673,237,723	70.05		-4.71	5.71	22.37	5.22	3.86	4.79	6.91	Jul-12
MSCI EAFE (Net)				-4.11	7.08	25.65	5.75	3.24	3.82	6.00	
Over/Under				-0.60	-1.37	-3.28	-0.53	0.62	0.97	0.91	
Barrow Hanley	559,126,157	10.66		-2.72	10.10	30.89	15.09	7.22	-	5.33	Dec-13
MSCI EAFE Value Index (Net)				0.59	9.92	31.51	11.11	2.81	-	2.53	
Over/Under				-3.31	0.18	-0.62	3.98	4.41	-	2.80	
Lazard Asset Management	540,506,500	10.31		-5.82	5.09	20.37	3.39	2.66	-	3.98	Dec-13
MSCI EAFE (Net)				-4.11	7.08	25.65	5.75	3.24	-	3.46	
Over/Under				-1.71	-1.99	-5.28	-2.36	-0.58	-	0.52	
MFS Institutional Advisors	559,443,879	10.67		-7.72	4.79	19.42	3.52	5.32	-	6.28	Nov-13
MSCI World ex USA Growth NR USD				-8.24	4.38	19.27	0.47	3.37	-	4.13	
Over/Under				0.52	0.41	0.15	3.05	1.95	-	2.15	
Oberweis Asset Mgmt	300,266,526	5.73		-5.56	-1.20	11.28	-7.05	1.38	-	5.38	Feb-14
MSCI EAFE Small Cap (Net)				-3.51	1.82	17.90	1.10	0.76	-	4.00	
Over/Under				-2.05	-3.02	-6.62	-8.15	0.62	-	1.38	
SSgA World ex US IMI	1,404,885,297	26.79		-3.92	6.35	23.37	6.16	3.70	4.37	4.54	Jul-98
MSCI World ex U.S. IMI Index (Net)				-4.02	6.02	23.03	5.45	3.12	3.87	4.56	
Over/Under				0.10	0.33	0.34	0.71	0.58	0.50	-0.02	
State Street EAFE SC	309,009,363	5.89		-3.37	2.18	18.24	-	-	-	-4.16	Jan-21
MSCI EAFE Small Cap (Net)				-3.51	1.82	17.90	-	-	-	-4.49	
Over/Under				0.14	0.36	0.34	-	-	-	0.33	

Note: The Barrow Hanley, Lazard, MFS, Oberweis, MSCI EAFE SC, Axiom Emerging Markets, DFA Emerging Markets, State Street Emerging Markets, Wasatch, portfolios have mid-month inception dates. Since inception return is calculated from the first full month of performance.

eA = eVestment

Refer to appendix for blended benchmark definitions.



NON-U.S. EQUITY (GROSS)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Emerging Markets	1,570,241,912	29.95	-1.78	4.89	14.10	2.03	2.47	3.05	3.47		Jul-12
<i>MSCI Emerging Markets (Net)</i>			<u>-2.93</u>	<u>1.82</u>	<u>11.70</u>	<u>-1.73</u>	<u>0.55</u>	<u>2.07</u>		<u>2.61</u>	
Over/Under			1.15	3.07	2.40	3.76	1.92	0.98		0.86	
Axiom Emerging Markets	268,351,130	5.12	<u>-3.88</u>	<u>-0.53</u>	<u>5.79</u>	<u>-6.87</u>	<u>0.28</u>	-		2.43	May-14
<i>MSCI Emerging Markets (Net)</i>			<u>-2.93</u>	<u>1.82</u>	<u>11.70</u>	<u>-1.73</u>	<u>0.55</u>	-		<u>2.02</u>	
Over/Under			-0.95	-2.35	-5.91	-5.14	-0.27	-		0.41	
<i>MSCI Emerging Markets Growth (Net)</i>			<u>-4.92</u>	<u>-1.76</u>	<u>7.71</u>	<u>-7.19</u>	<u>0.63</u>	-		<u>2.68</u>	
Over/Under			1.04	1.23	-1.92	0.32	-0.35	-		-0.25	
<i>Axiom Custom Blended BM</i>			<u>-2.93</u>	<u>1.82</u>	<u>11.70</u>	<u>-1.73</u>	<u>3.75</u>	-		<u>4.36</u>	
Over/Under			-0.95	-2.35	-5.91	-5.14	-3.47	-		-1.93	
DFA Emerging Markets	505,061,728	9.63	0.83	8.71	20.91	10.42	3.59	-	2.49		Aug-14
<i>MSCI Emerging Markets Value (Net)</i>			<u>-0.78</u>	<u>5.70</u>	<u>16.03</u>	<u>4.40</u>	<u>0.38</u>	-		<u>0.29</u>	
Over/Under			1.61	3.01	4.88	6.02	3.21	-		2.20	
State Street Emerging Markets	509,726,611	9.72	<u>-3.24</u>	1.47	11.89	-	-	-	<u>-8.22</u>		Jan-21
<i>MSCI Emerging Markets (Net)</i>			<u>-2.93</u>	<u>1.82</u>	<u>11.70</u>	-	-	-	<u>-8.09</u>		
Over/Under			-0.31	-0.35	0.19	-	-	-	<u>-0.13</u>		
Wasatch Global Investors	286,944,863	5.47	<u>-1.62</u>	10.41	15.11	-	-	-	<u>-2.74</u>		Jan-21
<i>MSCI Emerging Markets Small Cap (Net)</i>			<u>2.93</u>	<u>13.74</u>	<u>23.06</u>	-	-	-	<u>3.77</u>		
Over/Under			-4.55	-3.33	-7.95	-	-	-	<u>-6.51</u>		
Sanctioned Asset	157,580	0.00	0.00	0.00	0.00	-	-	-	0.00		Jun-22

Note: The Barrow Hanley, Lazard, MFS, Oberweis, MSCI EAFE SC, Axiom Emerging Markets, DFA Emerging Markets, State Street Emerging Markets, Wasatch, portfolios have mid-month inception dates. Since inception return is calculated from the first full month of performance.

eA = eVestment

Refer to appendix for blended benchmark definitions.



NON-U.S. EQUITY (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Non-U.S. Equity	5,243,479,635	100.00		-3.93 (39)	5.24 (53)	19.59 (60)	4.09 (41)	3.17 (46)	4.20 (52)	5.64 (53)	Jun-01
MSCI AC World ex USA (Net)				<u>-3.77</u> (38)	<u>5.34</u> (50)	<u>20.39</u> (54)	<u>3.74</u> (44)	<u>2.58</u> (64)	<u>3.35</u> (81)	<u>4.94</u> (79)	
Over/Under				<u>-0.16</u>	<u>-0.10</u>	<u>-0.80</u>	0.35	0.59	0.85	0.70	
eV All ACWI ex-US Equity Median				<u>-4.84</u>	5.33	20.75	3.03	3.00	4.24	5.71	
Developed ex-U.S.	3,673,237,723	70.05		-4.78	5.50	22.06	4.95	3.57	4.50	6.62	Jul-12
MSCI EAFE (Net)				<u>-4.11</u>	<u>7.08</u>	<u>25.65</u>	<u>5.75</u>	<u>3.24</u>	<u>3.82</u>	<u>6.00</u>	
Over/Under				<u>-0.67</u>	<u>-1.58</u>	<u>-3.59</u>	<u>-0.80</u>	0.33	0.68	0.62	
Barrow Hanley	559,126,157	10.66		<u>-2.83</u> (61)	9.75 (43)	30.33 (41)	14.58 (12)	6.73 (4)	-	4.83 (9)	Dec-13
MSCI EAFE Value Index (Net)				<u>0.59</u> (12)	<u>9.92</u> (43)	<u>31.51</u> (32)	<u>11.11</u> (32)	<u>2.81</u> (57)	-	<u>2.53</u> (70)	
Over/Under				<u>-3.42</u>	<u>-0.17</u>	<u>-1.18</u>	3.47	3.92	-	2.30	
eV EAFE Value Equity Median				<u>-2.05</u>	8.91	29.00	9.14	3.21	-	3.19	
Lazard Asset Management	540,506,500	10.31		<u>-5.93</u> (77)	4.72 (64)	19.82 (71)	2.90 (66)	2.16 (66)	-	3.46 (63)	Dec-13
MSCI EAFE (Net)				<u>-4.11</u> (51)	<u>7.08</u> (38)	<u>25.65</u> (36)	<u>5.75</u> (42)	<u>3.24</u> (42)	-	<u>3.46</u> (63)	
Over/Under				<u>-1.82</u>	<u>-2.36</u>	<u>-5.83</u>	<u>-2.85</u>	<u>-1.08</u>	-	0.00	
eV All EAFE Equity Median				<u>-4.09</u>	6.22	23.42	4.99	2.93	-	3.75	
MFS Institutional Advisors	559,443,879	10.67		<u>-7.81</u> (43)	4.50 (40)	18.98 (51)	3.12 (4)	4.90 (14)	-	5.81 (-)	Nov-13
MSCI World ex USA Growth NR USD				<u>-8.24</u> (45)	<u>4.38</u> (43)	<u>19.27</u> (40)	<u>0.47</u> (34)	<u>3.37</u> (32)	-	<u>4.13</u> (-)	
Over/Under				0.43	0.12	<u>-0.29</u>	2.65	1.53	-	1.68	
eV EAFE All Cap Growth Median				<u>-9.93</u>	4.25	19.01	0.01	2.67	-	-	
Oberweis Asset Mgmt	300,266,526	5.73		<u>-5.75</u> (74)	<u>-1.79</u> (86)	<u>10.43</u> (89)	<u>-7.80</u> (96)	0.57 (59)	-	4.52 (40)	Feb-14
MSCI EAFE Small Cap (Net)				<u>-3.51</u> (38)	<u>1.82</u> (57)	<u>17.90</u> (59)	<u>1.10</u> (57)	<u>0.76</u> (58)	-	<u>4.00</u> (54)	
Over/Under				<u>-2.24</u>	<u>-3.61</u>	<u>-7.47</u>	<u>-8.90</u>	<u>-0.19</u>	-	0.52	
eV EAFE Small Cap Equity Median				<u>-4.04</u>	3.13	19.18	2.25	1.19	-	4.19	

Note: The Barrow Hanley, Lazard, MFS, Oberweis, MSCI EAFE SC, Axiom Emerging Markets, DFA Emerging Markets, State Street Emerging Markets, Wasatch, portfolios have mid-month inception dates. Since inception return is calculated from the first full month of performance.

eA = eVestment

Refer to appendix for blended benchmark definitions.



NON-U.S. EQUITY (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
SSgA World ex US IMI	1,404,885,297	26.79	-3.93 (42)	6.33 (46)	23.35 (47)	6.14 (27)	3.68 (28)	4.35 (41)	-	-	Jul-98
<i>MSCI World ex U.S. IMI Index (Net)</i>			-4.02 (45)	6.02 (50)	23.03 (48)	5.45 (36)	3.12 (43)	3.87 (66)	-	-	
Over/Under		0.09	0.31	0.32	0.69	0.56	0.48	-	-	-	
eV EAFE Core Equity Median		-4.23	5.94	22.72	4.31	2.89	4.20	-	-	-	
State Street EAFE SC	309,009,363	5.89	-3.38 (37)	2.15 (57)	18.19 (58)	-	-	-	-	-4.19 (60)	Jan-21
<i>MSCI EAFE Small Cap (Net)</i>			-3.51 (38)	1.82 (57)	17.90 (59)	-	-	-	-	-4.49 (63)	
Over/Under		0.13	0.33	0.29	-	-	-	-	-	0.30	
eV EAFE Small Cap Equity Median		-4.04	3.13	19.18	-	-	-	-	-	-3.06	
Emerging Markets	1,570,241,912	29.95	-1.89	4.54	13.60	1.52	1.96	2.49	2.89	Jul-12	
<i>MSCI Emerging Markets (Net)</i>			-2.93	1.82	11.70	-1.73	0.55	2.07	2.61	-	
Over/Under		1.04	2.72	1.90	3.25	1.41	0.42	0.28	-	-	
Axiom Emerging Markets	268,351,130	5.12	-4.13 (67)	-1.14 (88)	4.99 (94)	-7.59 (96)	-0.44 (88)	-	1.72 (77)	May-14	
<i>MSCI Emerging Markets (Net)</i>			-2.93 (47)	1.82 (65)	11.70 (65)	-1.73 (61)	0.55 (74)	-	2.02 (71)	-	
Over/Under		-1.20	-2.96	-6.71	-5.86	-0.99	-	-	-0.30	-	
eV Emg Mkts Equity Median		-3.15	3.77	14.29	-0.20	1.87	-	-	2.66	-	
<i>MSCI Emerging Markets Growth (Net)</i>			-4.92 (78)	-1.76 (91)	7.71 (88)	-7.19 (94)	0.63 (73)	-	2.68 (49)	-	
Over/Under		0.79	0.62	-2.72	-0.40	-1.07	-	-	-0.96	-	
Axiom Custom Blended BM		-2.93 (47)	1.82 (65)	11.70 (65)	-1.73 (61)	3.75 (28)	-	-	4.36 (17)	-	
Over/Under		-1.20	-2.96	-6.71	-5.86	-4.19	-	-	-2.64	-	
DFA Emerging Markets	505,061,728	9.63	0.73 (12)	8.39 (23)	20.42 (21)	9.94 (11)	3.11 (34)	-	2.01 (49)	Aug-14	
<i>MSCI Emerging Markets Value (Net)</i>			-0.78 (23)	5.70 (37)	16.03 (43)	4.40 (30)	0.38 (78)	-	0.29 (91)	-	
Over/Under		1.51	2.69	4.39	5.54	2.73	-	-	1.72	-	
eV Emg Mkts Equity Median		-3.15	3.77	14.29	-0.20	1.87	-	-	1.96	-	
State Street Emerging Markets	509,726,611	9.72	-3.25 (51)	1.44 (70)	11.84 (64)	-	-	-	-8.26 (61)	Jan-21	
<i>MSCI Emerging Markets (Net)</i>			-2.93 (47)	1.82 (65)	11.70 (65)	-	-	-	-8.09 (61)	-	
Over/Under		-0.32	-0.38	0.14	-	-	-	-	-0.17	-	
eV Emg Mkts Equity Median		-3.15	3.77	14.29	-	-	-	-	-6.32	-	

Note: The Barrow Hanley, Lazard, MFS, Oberweis, MSCI EAFE SC, Axiom Emerging Markets, DFA Emerging Markets, State Street Emerging Markets, Wasatch, portfolios have mid-month inception dates. Since inception return is calculated from the first full month of performance.

eA = eVestment

Refer to appendix for blended benchmark definitions.



NON-U.S. EQUITY (NET)

	Allocation				Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Wasatch Global Investors	286,944,863	5.47	-1.81 (75)	9.66 (60)	14.00 (84)	-	-	-	-3.69 (86)	Jan-21
<i>MSCI Emerging Markets Small Cap (Net)</i>			2.93 (29)	13.74 (43)	23.06 (53)	-	-	-	3.77 (44)	
Over/Under			-4.74	-4.08	-9.06	-	-	-	-7.46	
<i>eV Emg Mkts Small Cap Equity Median</i>			0.28	11.52	23.36	-	-	-	3.33	
Sanctioned Asset	157,580	0.00	0.00	0.00	0.00	-	-	-	0.00	Jun-22

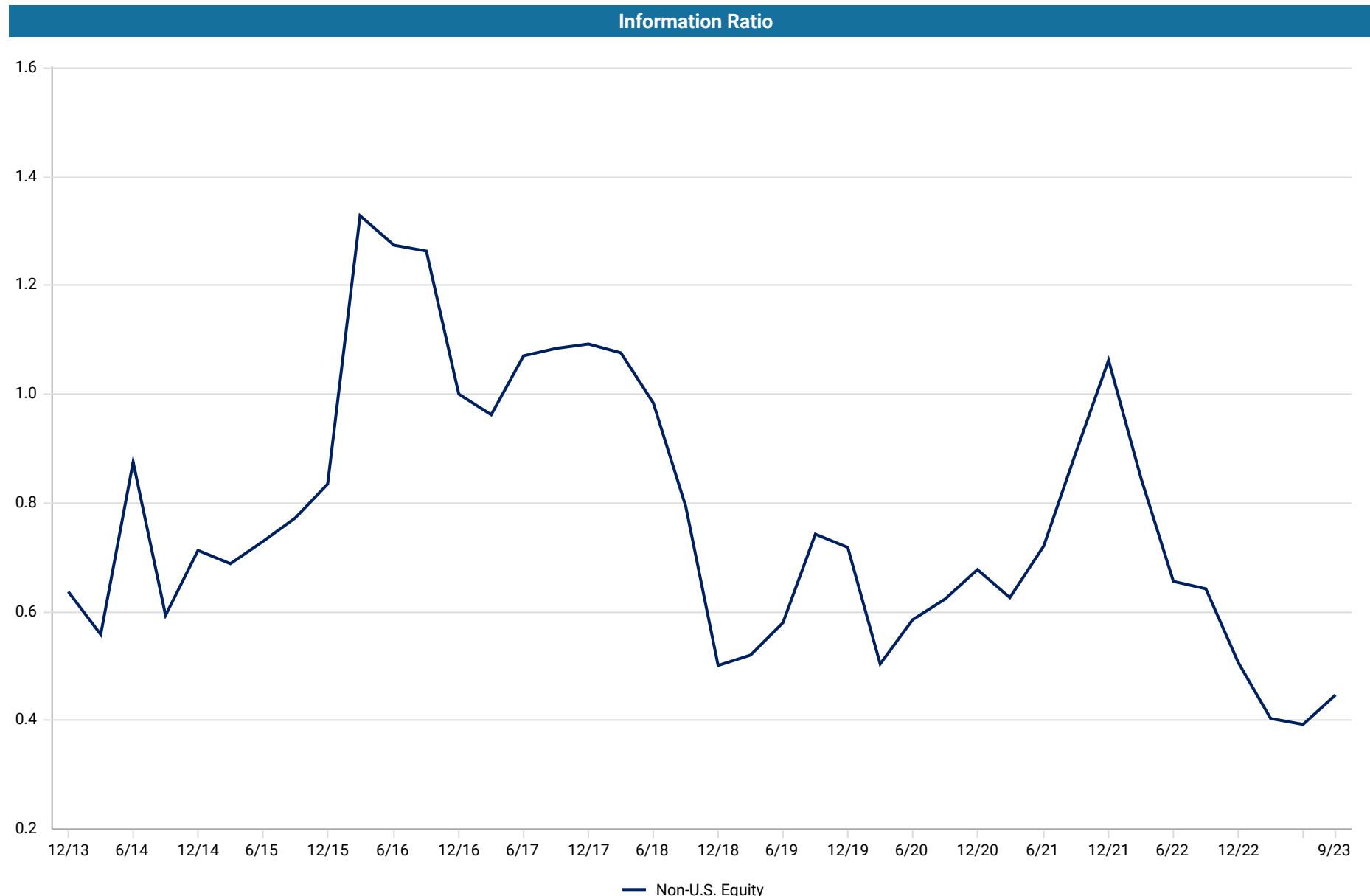
Note: The Barrow Hanley, Lazard, MFS, Oberweis, MSCI EAFE SC, Axiom Emerging Markets, DFA Emerging Markets, State Street Emerging Markets, Wasatch, portfolios have mid-month inception dates. Since inception return is calculated from the first full month of performance.

eA = eVestment

Refer to appendix for blended benchmark definitions.



NON-U.S. EQUITY ROLLING 5 YEAR INFORMATION RATIO



INVESTMENT MANAGER REPORT CARD

NON-U.S. EQUITY

Non-U.S. Equity Managers	Inception Date	Mandate	Current Quarter (Net)		One Year (Net)		Three Years (Net)		Five Years (Net)		Since Inception (Net)	Annual Mgt Fee Paid \$ (000)	Comments
			Index	Universe	Index	Universe	Index	Universe	Index	Universe			
SSgA (Passive)	Dec-20	Emerging Markets	✗	✗	✓	✗	N/A	N/A	N/A	N/A	✗	215.3	Performance compliant with LACERS' Manager Monitoring Policy
Axiom International	Mar-14	Emerging Markets	✗	✗	✗	✗	✗	✗	✗	✗	✗	1,631.8	Placed on Watch as of 4/4/23 due to performance.
DFA Emerging Markets	Jul-14	Emerging Markets	✓	✓	✓	✓	✓	✓	✓	✓	✓	1,758.5	Performance compliant with LACERS' Manager Monitoring Policy
Wasatch	Dec-20	Emerging Markets Small Cap	✗	✗	✗	✗	N/A	N/A	N/A	N/A	✗	2,034.5	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Oberweis Asset Mgt.	Jan-14	Non-U.S. Developed	✗	✗	✗	✗	✗	✗	✗	✗	✓	2,437.1	Performance compliant with LACERS' Manager Monitoring Policy
Barrow, Hanley, Mewhinney & Strauss	Nov-13	Non-U.S. Developed	✗	✗	✗	✓	✓	✓	✓	✓	✓	2,348.3	Watch extended to 5/15/24 due to PM departure.
Lazard Asset Mgt.	Nov-13	Non-U.S. Developed	✗	✗	✗	✗	✗	✗	✗	✗	=	2,479.9	Performance compliant with LACERS' Manager Monitoring Policy
MFS Institutional Advisors	Oct-13	Non-U.S. Developed	✓	✓	✗	✗	✓	✓	✓	✓	✓	2,091.3	Performance compliant with LACERS' Manager Monitoring Policy
SsgA (Passive)	Dec-20	Non-U.S. Developed Small Cap	✓	✓	✓	✗	N/A	N/A	N/A	N/A	✓	121.8	Performance compliant with LACERS' Manager Monitoring Policy
SsgA (Passive)	Aug-93	Non-U.S. Developed	✓	✓	✓	✓	✓	✓	✓	✓	✗	271.4	Performance compliant with LACERS' Manager Monitoring Policy

Note: Managers are placed on Watch List for concerns with organization, process and performance. Managers are normally on the Watch List for 12 months though may be longer if manager issues remain but not severe enough to warrant termination recommendation.

- Annual Management Fee Paid as of fiscal year ending June 30, 2023.
- * Where net of fees performance is not available gross of fee returns are evaluated.

Legend	
✓	Outperformed
✗	Underperformed
=	Equal to
✓✓	Gross Return





CORE FIXED INCOME MANAGER PERFORMANCE

CORE FIXED INCOME (GROSS)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Fixed Income	3,086,293,648	100.00		-3.39	-0.96	0.92	-4.67	0.64	1.64	1.69	Jul-12
Core Fixed Income Blend				-3.23	-1.21	0.64	-5.21	0.10	1.13	1.07	
Over/Under				-0.16	0.25	0.28	0.54	0.54	0.51	0.62	
Loomis Sayles & Co. Core Fixed Income	604,077,848	19.57		-3.40	-0.85	0.96	-4.54	1.07	2.19	8.02	Jul-80
Loomis Custom Benchmark				-3.23	-1.21	0.64	-5.21	0.10	1.13	6.61	
Over/Under				-0.17	0.36	0.32	0.67	0.97	1.06	1.41	
SSgA U.S. Aggregate Bond	688,995,431	22.32		-3.22	-0.99	0.68	-5.18	0.14	-	0.88	Aug-14
Blmbg. U.S. Aggregate Index				-3.23	-1.21	0.64	-5.21	0.10	-	0.85	
Over/Under				0.01	0.22	0.04	0.03	0.04	-	0.03	
Baird Advisors Core Fixed Income	605,119,093	19.61		-3.03	-0.46	1.64	-	-	-	-6.19	Jul-21
Blmbg. U.S. Aggregate Index				-3.23	-1.21	0.64	-	-	-	-6.49	
Over/Under				0.20	0.75	1.00	-	-	-	0.30	
Garcia Hamilton & Associates	350,303,856	11.35		-4.89	-2.47	-0.38	-	-	-	-6.18	Jul-21
Blmbg. U.S. Aggregate Index				-3.23	-1.21	0.64	-	-	-	-6.49	
Over/Under				-1.66	-1.26	-1.02	-	-	-	0.31	
JP Morgan Investment Management	414,959,324	13.45		-2.97	-0.65	1.13	-	-	-	-5.78	Jul-21
Blmbg. U.S. Aggregate Index				-3.23	-1.21	0.64	-	-	-	-6.49	
Over/Under				0.26	0.56	0.49	-	-	-	0.71	
Income Research & Management	422,822,448	13.70		-3.16	-0.63	1.20	-	-	-	-6.16	Jul-21
Blmbg. U.S. Aggregate Index				-3.23	-1.21	0.64	-	-	-	-6.49	
Over/Under				0.07	0.58	0.56	-	-	-	0.33	

Note: All portfolios in Core Fixed Income have mid-month inception dates. Since inception return is calculated from the first full month of performance.

- Core Fixed Income Blend = 100% Bloomberg U.S. Aggregate Index

Refer to appendix for blended benchmark definitions.



CORE FIXED INCOME (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Fixed Income	3,086,293,648	100.00		-3.41	-1.04	0.81	-4.76	0.55	1.54	1.59	Jul-12
Core Fixed Income Blend				<u>-3.23</u>	<u>-1.21</u>	<u>0.64</u>	<u>-5.21</u>	<u>0.10</u>	<u>1.13</u>	<u>1.07</u>	
Over/Under				<u>-0.18</u>	0.17	0.17	0.45	0.45	0.41	0.52	
Loomis Sayles & Co. Core Fixed Income	604,077,848	19.57	<u>-3.43</u> (83)	<u>-0.94</u> (58)	0.83 (58)	<u>-4.67</u> (33)	0.94 (7)	2.06 (4)	7.95 (-)	Jul-80	
Loomis Custom Benchmark			<u>-3.23</u> (67)	<u>-1.21</u> (78)	<u>0.64</u> (70)	<u>-5.21</u> (76)	<u>0.10</u> (79)	<u>1.13</u> (80)	<u>6.61</u> (-)		
Over/Under			<u>-0.20</u>	0.27	0.19	0.54	0.84	0.93	1.34		
eV US Core Fixed Inc Median			<u>-3.11</u>	<u>-0.85</u>	0.91	<u>-4.97</u>	0.36	1.36	-	-	
SSgA U.S. Aggregate Bond	688,995,431	22.32	<u>-3.22</u> (66)	<u>-1.01</u> (64)	0.66 (69)	<u>-5.21</u> (76)	0.11 (78)	-	0.84 (77)	Aug-14	
Blmbg. U.S. Aggregate Index			<u>-3.23</u> (67)	<u>-1.21</u> (78)	<u>0.64</u> (70)	<u>-5.21</u> (76)	<u>0.10</u> (79)	-	<u>0.85</u> (76)		
Over/Under			0.01	0.20	0.02	0.00	0.01	-	-	<u>-0.01</u>	
eV US Core Fixed Inc Median			<u>-3.11</u>	<u>-0.85</u>	0.91	<u>-4.97</u>	0.36	-	1.04		
Baird Advisors Core Fixed Income	605,119,093	19.61	<u>-3.05</u> (41)	<u>-0.54</u> (30)	1.54 (20)	-	-	-	<u>-6.28</u> (36)	Jul-21	
Blmbg. U.S. Aggregate Index			<u>-3.23</u> (67)	<u>-1.21</u> (78)	<u>0.64</u> (70)	-	-	-	<u>-6.49</u> (58)		
Over/Under			0.18	0.67	0.90	-	-	-	0.21		
eV US Core Fixed Inc Median			<u>-3.11</u>	<u>-0.85</u>	0.91	-	-	-	<u>-6.43</u>		
Garcia Hamilton & Associates	350,303,856	11.35	<u>-4.92</u> (99)	<u>-2.57</u> (100)	<u>-0.50</u> (98)	-	-	-	<u>-6.29</u> (36)	Jul-21	
Blmbg. U.S. Aggregate Index			<u>-3.23</u> (67)	<u>-1.21</u> (78)	<u>0.64</u> (70)	-	-	-	<u>-6.49</u> (58)		
Over/Under			<u>-1.69</u>	<u>-1.36</u>	<u>-1.14</u>	-	-	-	0.20		
eV US Core Fixed Inc Median			<u>-3.11</u>	<u>-0.85</u>	0.91	-	-	-	<u>-6.43</u>		
JP Morgan Investment Management	414,959,324	13.45	<u>-3.00</u> (38)	<u>-0.77</u> (45)	1.00 (42)	-	-	-	<u>-5.89</u> (19)	Jul-21	
Blmbg. U.S. Aggregate Index			<u>-3.23</u> (67)	<u>-1.21</u> (78)	<u>0.64</u> (70)	-	-	-	<u>-6.49</u> (58)		
Over/Under			0.23	0.44	0.36	-	-	-	0.60		
eV US Core Fixed Inc Median			<u>-3.11</u>	<u>-0.85</u>	0.91	-	-	-	<u>-6.43</u>		
Income Research & Management	422,822,448	13.70	<u>-3.19</u> (61)	<u>-0.72</u> (41)	1.07 (37)	-	-	-	<u>-6.27</u> (35)	Jul-21	
Blmbg. U.S. Aggregate Index			<u>-3.23</u> (67)	<u>-1.21</u> (78)	<u>0.64</u> (70)	-	-	-	<u>-6.49</u> (58)		
Over/Under			0.04	0.49	0.43	-	-	-	0.22		
eV US Core Fixed Inc Median			<u>-3.11</u>	<u>-0.85</u>	0.91	-	-	-	<u>-6.43</u>		

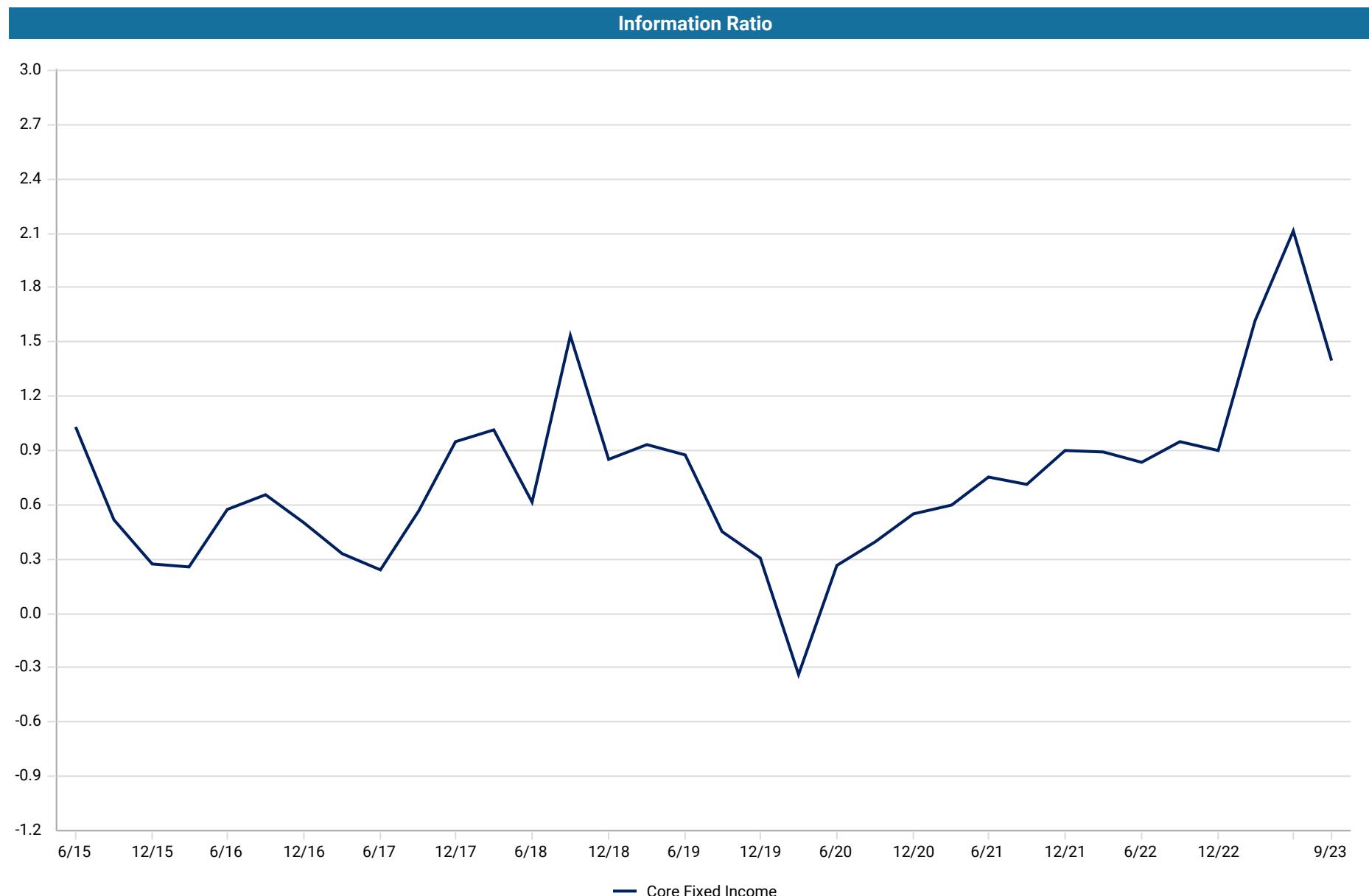
Note: All portfolios in Core Fixed Income have mid-month inception dates. Since inception return is calculated from the first full month of performance.

- Core Fixed Income Blend = 100% Bloomberg U.S. Aggregate Index

Refer to appendix for blended benchmark definitions.

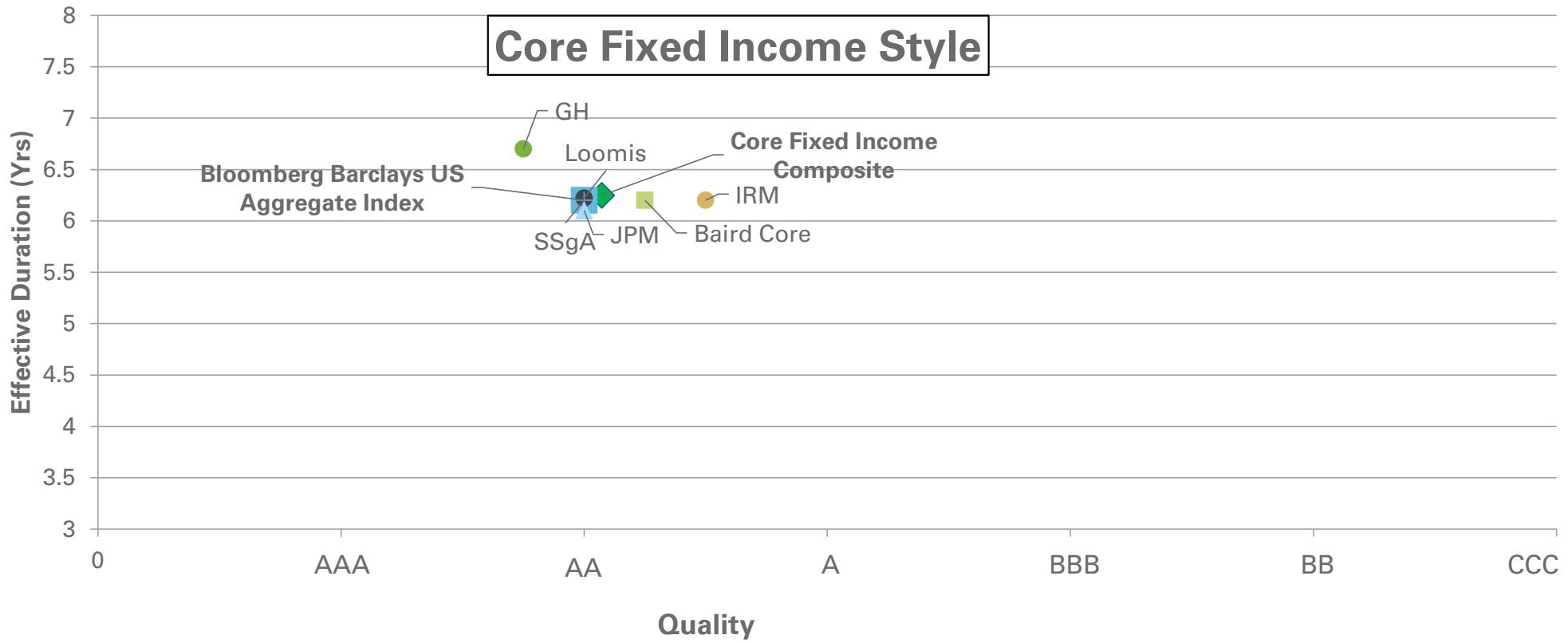


CORE FIXED INCOME 3 YEAR INFORMATION RATIO



CORE FIXED INCOME

STYLE ANALYSIS



- LACERS Core Fixed Income Composite duration (interest rate risk) is slightly higher than its benchmark.
- The Core Fixed Income Composite has slightly lower average quality rating than its benchmark.

INVESTMENT MANAGER REPORT CARD

CORE FIXED INCOME

Core Fixed Income Managers	Inception Date	Mandate	Current Quarter (Net)		One Year (Net)		Three Years (Net)		Five Years (Net)		Since Inception (Net)	Annual Mgt Fee Paid \$ (000)	Comments
			Index	Universe	Index	Universe	Index	Universe	Index	Universe			
Loomis Sayles	Jul-80	Core	✗	✗	✓	✗	✓	✓	✓	✓	✓✓	773.1	Performance compliant with LACERS' Manager Monitoring Policy
Baird Advisors	Jul-21	Core	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓	602.6	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Garcia Hamilton	Jul-21	Core	✗	✗	✗	✗	N/A	N/A	N/A	N/A	✓	480.4	Placed on Watch on 3/22/23 due to organizational reasons.
IR&M	Jul-21	Core	✓	✗	✓	✓	N/A	N/A	N/A	N/A	✓	485.3	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
J.P. Morgan	Jul-21	Core	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓	470.3	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
SSgA (Passive)	Aug-14	Core	✓	✗	✓	✗	=	✗	✓	✗	✗	193.3	Performance compliant with LACERS' Manager Monitoring Policy

Note: Managers are placed on Watch List for concerns with organization, process and performance. Managers are normally on the Watch List for 12 months though may be longer if manager issues remain but not severe enough to warrant termination recommendation.

- Annual Management Fee Paid as of fiscal year ending June 30, 2023.
- * Where net of fees performance is not available gross of fee returns are evaluated.

Legend	
✓	Outperformed
✗	Underperformed
=	Equal to
✓✓	Gross Return





CREDIT OPPORTUNITIES MANAGER PERFORMANCE

CREDIT OPPORTUNITIES (GROSS)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Credit Opportunities	1,930,512,720	100.0		-0.13	6.18	11.69	0.56	2.32	3.70	3.84	Jul-13
Credit Opportunities Blend				0.19	6.09	11.95	0.34	2.31	3.86	3.99	
Over/Under				-0.32	0.09	-0.26	0.22	0.01	-0.16	-0.15	
PGIM Blended	447,311,198	23.2		-1.95	4.06	12.54				-4.82	Feb-21
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified				-2.74	3.04	11.58				-6.30	
Over/Under				0.79	1.02	0.96				1.48	
Wellington	437,092,305	22.6		-3.18	3.64	12.65				-5.18	Feb-21
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified				-2.74	3.04	11.58				-6.30	
Over/Under				-0.44	0.60	1.07				1.12	
Bain Capital Senior Loan Fund, LP	262,149,688	13.6		3.71	11.04	12.87	6.27	4.71		4.52	Jul-15
Credit Suisse Leveraged Loan Index				3.37	9.91	12.47	5.91	4.31		4.43	
Over/Under				0.34	1.13	0.40	0.36	0.40		0.09	
Polen Capital	242,934,424	12.6		2.65	10.94	12.44				3.40	Nov-20
50% BBgBarc US High Yield 2% Issuer Cap / 50% Credit Suisse Leveraged Loan Index				1.91	7.89	11.40				3.85	
Over/Under				0.74	3.05	1.04				-0.45	
Loomis Sayles & Co. High Yield	326,999,915	16.9		0.54	4.65	8.79				1.40	Nov-20
Blmbg. U.S. High Yield - 2% Issuer Cap				0.46	5.87	10.28				1.63	
Over/Under				0.08	-1.22	-1.49				-0.23	
Benefit Street Partners LLC	96,643,471	5.0		0.26	5.28	6.64				4.67	Dec-20
Credit Suisse Leveraged Loan Qtr Lag				3.12	8.81	10.10				5.28	
Over/Under				-2.86	-3.53	-3.46				-0.61	
Crescent	27,293,325	1.4		2.11	10.46	7.19				-0.21	Dec-21
Credit Suisse Leveraged Loan Qtr Lag				3.12	8.81	10.10				3.57	
Over/Under				-1.01	1.65	-2.91				-3.78	
Monroe	89,755,991	4.6		2.33	6.07	7.19				4.54	Dec-21
Credit Suisse Leveraged Loan Qtr Lag				3.12	8.81	10.10				3.57	
Over/Under				-0.79	-2.74	-2.91				0.97	

Note: All portfolios within Credit Opportunities have mid-month inception dates. Since inception return is calculated from the first full month of performance.
eA = eVestment

Refer to appendix for blended benchmark definitions.



CREDIT OPPORTUNITIES (NET)

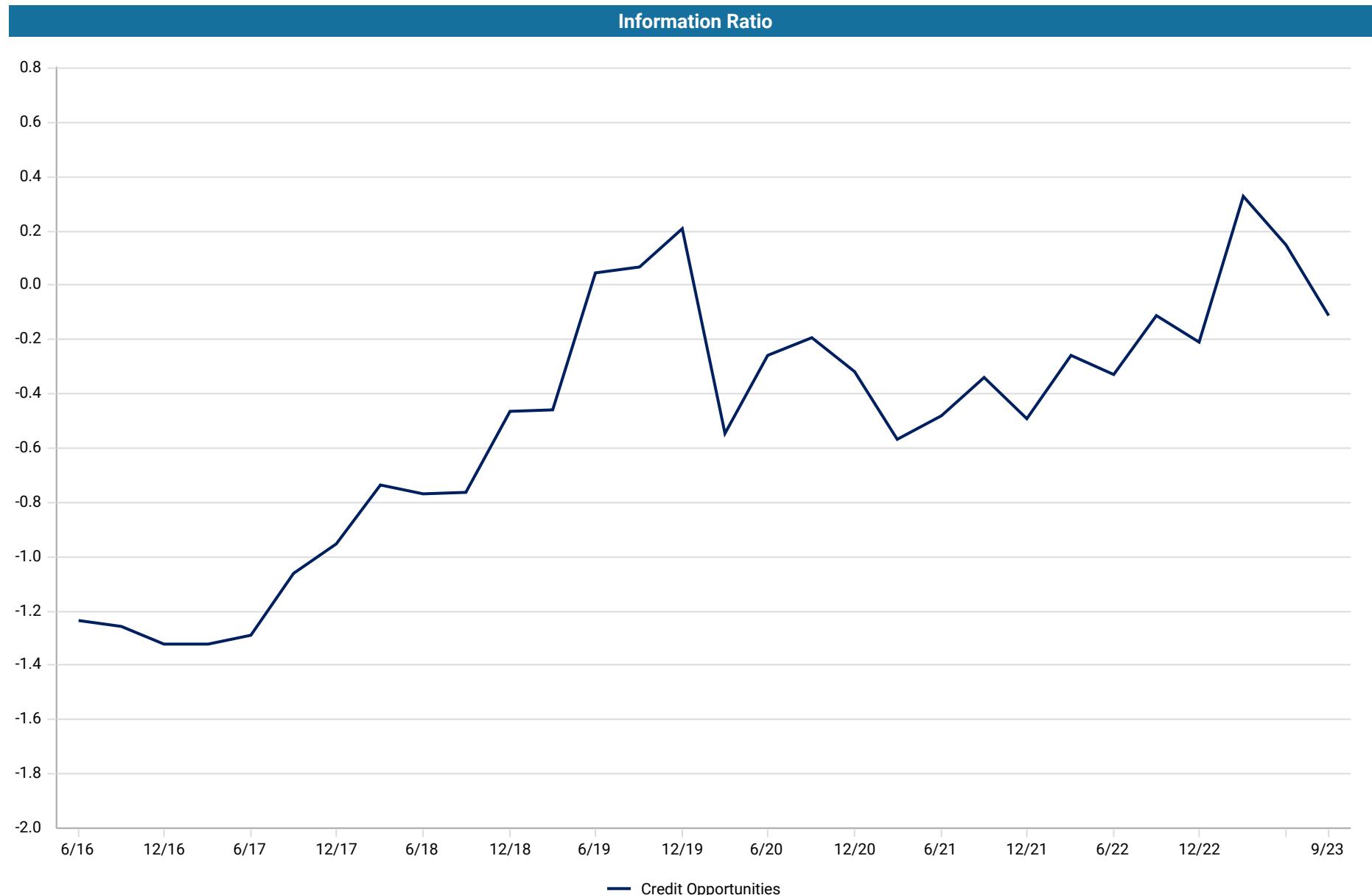
	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Credit Opportunities	1,930,512,720	100.0		-0.21	5.94	11.34	0.25	2.01	3.37	3.51	Jul-13
Credit Opportunities Blend				0.19	6.09	11.95	0.34	2.31	3.86	3.99	
Over/Under				-0.40	-0.15	-0.61	-0.09	-0.30	-0.49	-0.48	
PGIM Blended	447,311,198	23.2		-2.03 (47)	3.81 (31)	12.17 (36)				-5.11 (49)	Feb-21
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified				-2.74 (66)	3.04 (44)	11.58 (43)				-6.30 (74)	
Over/Under				0.71	0.77	0.59				1.19	
eV All Emg Mkts Fixed Inc Median				-2.14	2.65	11.16				-5.17	
Wellington	437,092,305	22.6		-3.30 (77)	3.26 (41)	12.11 (37)				-5.59 (58)	Feb-21
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified				-2.74 (66)	3.04 (44)	11.58 (43)				-6.30 (74)	
Over/Under				-0.56	0.22	0.53				0.71	
eV All Emg Mkts Fixed Inc Median				-2.14	2.65	11.16				-5.17	
Bain Capital Senior Loan Fund, LP	262,149,688	13.6		3.71 (8)	11.04 (10)	12.87 (24)	6.27 (9)	4.71 (3)		4.52 (11)	Jul-15
Credit Suisse Leveraged Loan Index				3.37 (20)	9.91 (28)	12.47 (34)	5.91 (20)	4.31 (14)		4.43 (12)	
Over/Under				0.34	1.13	0.40	0.36	0.40		0.09	
eV US Float-Rate Bank Loan Fixed Inc Median				3.06	9.13	12.01	5.13	3.79		3.87	
Polen Capital	242,934,424	12.6		2.52 (2)	10.53 (1)	11.88 (5)				2.92 (23)	Nov-20
50% BBgBarc US High Yield 2% Issuer Cap / 50% Credit Suisse Leveraged Loan Index				1.91 (6)	7.89 (5)	11.40 (9)				3.85 (13)	
Over/Under				0.61	2.64	0.48				-0.93	
eV US High Yield Fixed Inc Median				0.56	5.36	9.52				1.78	
Loomis Sayles & Co. High Yield	326,999,915	16.9		0.48 (56)	4.40 (80)	8.43 (76)				1.07 (75)	Nov-20
BImbg. U.S. High Yield - 2% Issuer Cap				0.46 (56)	5.87 (32)	10.28 (33)				1.63 (56)	
Over/Under				0.02	-1.47	-1.85				-0.56	
eV US High Yield Fixed Inc Median				0.56	5.36	9.52				1.78	
Benefit Street Partners LLC	96,643,471	5.0		0.26	5.28	6.64				4.67	Dec-20
Credit Suisse Leveraged Loan Qtr Lag				3.12	8.81	10.10				5.28	
Over/Under				-2.86	-3.53	-3.46				-0.61	
Crescent	27,293,325	1.4		2.11	10.46	7.19				-0.21	Dec-21
Credit Suisse Leveraged Loan Qtr Lag				3.12	8.81	10.10				3.57	
Over/Under				-1.01	1.65	-2.91				-3.78	
Monroe	89,755,991	4.6		2.33	6.07	7.19				4.54	Dec-21
Credit Suisse Leveraged Loan Qtr Lag				3.12	8.81	10.10				3.57	
Over/Under				-0.79	-2.74	-2.91				0.97	

Note: All portfolios within Credit Opportunities have mid-month inception dates. Since inception return is calculated from the first full month of performance.
eA = eVestment

Refer to appendix for blended benchmark definitions.



CREDIT OPPORTUNITIES ROLLING 3 YEAR INFORMATION RATIO



INVESTMENT MANAGER REPORT CARD

CREDIT OPPORTUNITIES

Credit Opportunities Managers	Inception Date	Mandate	Current Quarter (Net)		One Year (Net)		Three Years (Net)		Five Years (Net)		Since Inception (Net)	Annual Mgt Fee Paid \$ (000)	Comments
			Index	Universe	Index	Universe	Index	Universe	Index	Universe			
PGIM	Feb-21	Emerging Market Debt Blended	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓	1,451.0	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Wellington	Feb-21	Emerging Market Debt Blended	✗	✗	✓	✓	N/A	N/A	N/A	N/A	✓	2,075.0	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Bain	Jun-15	Bank Loans	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	Performance compliant with LACERS' Manager Monitoring Policy
Benefit Street Partners	Dec-20	Private Credit	✗	N/A	✗	N/A	N/A	N/A	N/A	N/A	✗	N/A	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Crescent	Dec-21	Private Credit	✗	N/A	✗	N/A	N/A	N/A	N/A	N/A	✗	N/A	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Monroe	Dec-21	Private Credit	✗	N/A	✗	N/A	N/A	N/A	N/A	N/A	✓	N/A	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Loomis Sayles	Nov-20	High Yield	✓	✗	✗	✗	N/A	N/A	N/A	N/A	✗	800.1	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Polen Capital	Nov-20	High Yield/Bank Loan	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✗	1,150.2	Watch status lifted on 2/15/23.

Note: Managers are placed on Watch List for concerns with organization, process and performance. Managers are normally on the Watch List for 12 months though may be longer if manager issues remain but not severe enough to warrant termination recommendation.

- Annual Management Fee Paid as of fiscal year ending June 30, 2023.
- * Where net of fees performance is not available gross of fee returns are evaluated.

Legend	
✓	Outperformed
✗	Underperformed
=	Equal to
✓✓	Gross Return





REAL ASSETS MANAGER PERFORMANCE



REAL ASSETS (GROSS)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Assets	2,771,467,498	100.00		-2.99	-4.57	-3.07	2.74	3.21	5.29	5.76	Dec-94
Real Assets Policy Benchmark				-3.22	-4.01	-4.38	1.77	3.68	5.13	7.23	
Over/Under				0.23	-0.56	1.31	0.97	-0.47	0.16	-1.47	
Public Real Assets	1,446,794,634	52.20		-4.38	-2.05	0.67	0.07	2.24	-	1.59	Jul-14
Public Real Assets Blend				-4.66	-2.29	0.56	1.79	1.68	-	0.30	
Over/Under				0.28	0.24	0.11	-1.72	0.56	-	1.29	
TIPS	996,479,242	35.95		-2.55	-0.76	1.50	-2.11	2.33	-	1.55	Aug-14
Blmbg. U.S. TIPS				-2.60	-0.78	1.25	-1.98	2.12	-	1.50	
Over/Under				0.05	0.02	0.25	-0.13	0.21	-	0.05	
DFA US TIPS	996,479,242	35.95		-2.55	-0.76	1.50	-2.11	2.33	-	1.63	Aug-14
Blmbg. U.S. TIPS				-2.60	-0.78	1.25	-1.98	2.12	-	1.50	
Over/Under				0.05	0.02	0.25	-0.13	0.21	-	0.13	
REITs	450,315,392	16.25		-8.24	-4.65	-0.98	4.38	4.85	-	5.65	Apr-15
FTSE NAREIT All Equity REITs				-8.33	-5.61	-1.71	2.68	2.79	-	3.76	
Over/Under				0.09	0.96	0.73	1.70	2.06	-	1.89	
CenterSquare US Real Estate	450,315,392	16.25		-8.24	-4.65	-0.98	4.38	4.85	-	6.10	May-15
FTSE NAREIT All Equity REITs				-8.33	-5.61	-1.71	2.68	2.79	-	4.43	
Over/Under				0.09	0.96	0.73	1.70	2.06	-	1.67	
Private Real Estate	1,304,318,138	47.06		-1.42	-7.43	-7.19	7.33	4.94	7.69	6.58	Nov-94
Real Estate Blend				-1.70	-6.99	-11.43	7.98	6.49	8.95	9.37	
Over/Under				0.28	-0.44	4.24	-0.65	-1.55	-1.26	-2.79	
Timber	20,354,727	0.73		-0.02	6.39	6.61	5.53	4.74	5.53	8.58	Oct-99

Note: The DFA U.S. TIPS and CenterSquare US Real Estate portfolios have mid-month inception dates. Since inception return is calculated from the first full month of performance.

Refer to appendix for blended benchmark definitions.

REAL ASSETS (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Assets	2,771,467,498	100.00		-3.02	-4.65	-3.18	2.61	3.07	5.14	4.57	Jun-01
Real Assets Policy Benchmark				<u>-3.22</u>	<u>-4.01</u>	<u>-4.38</u>	<u>1.77</u>	<u>3.68</u>	<u>5.13</u>	<u>5.74</u>	
Over/Under				0.20	-0.64	1.20	0.84	-0.61	0.01	-1.17	
Public Real Assets	1,446,794,634	52.20		-4.42	-2.17	0.51	-0.08	2.06	-	1.40	Jul-14
Public Real Assets Blend				<u>-4.66</u>	<u>-2.29</u>	<u>0.56</u>	<u>1.79</u>	<u>1.68</u>	-	<u>0.30</u>	
Over/Under				0.24	0.12	-0.05	-1.87	0.38	-	1.10	
TIPS	996,479,242	35.95		-2.57	-0.80	1.45	-2.16	2.28	-	1.50	Aug-14
Blmbg. U.S. TIPS				<u>-2.60</u>	<u>-0.78</u>	<u>1.25</u>	<u>-1.98</u>	<u>2.12</u>	-	<u>1.50</u>	
Over/Under				0.03	-0.02	0.20	-0.18	0.16	-	0.00	
DFA US TIPS	996,479,242	35.95		-2.57 (66)	-0.80 (61)	1.45 (51)	-2.16 (72)	2.28 (40)	-	1.58 (28)	Aug-14
Blmbg. U.S. TIPS				<u>-2.60</u> (72)	<u>-0.78</u> (60)	<u>1.25</u> (62)	<u>-1.98</u> (56)	<u>2.12</u> (58)	-	<u>1.50</u> (42)	
Over/Under				0.03	-0.02	0.20	-0.18	0.16	-	0.08	
eV US TIPS / Inflation Fixed Inc Median				<u>-2.22</u>	<u>-0.65</u>	<u>1.52</u>	<u>-1.88</u>	<u>2.20</u>	-	<u>1.46</u>	
REITS	450,315,392	16.25		-8.33	-4.93	-1.35	3.99	4.45	-	5.23	Apr-15
FTSE NAREIT All Equity REITs				<u>-8.33</u>	<u>-5.61</u>	<u>-1.71</u>	<u>2.68</u>	<u>2.79</u>	-	<u>3.76</u>	
Over/Under				0.00	0.68	0.36	1.31	1.66	-	1.47	
CenterSquare US Real Estate	450,315,392	16.25		-8.33 (75)	-4.93 (82)	-1.35 (84)	3.99 (45)	4.45 (20)	-	5.67 (8)	May-15
FTSE NAREIT All Equity REITs				<u>-8.33</u> (77)	<u>-5.61</u> (91)	<u>-1.71</u> (86)	<u>2.68</u> (75)	<u>2.79</u> (68)	-	<u>4.43</u> (44)	
Over/Under				0.00	0.68	0.36	1.31	1.66	-	1.24	
eV US REIT Median				<u>-7.75</u>	<u>-3.29</u>	<u>0.67</u>	<u>3.88</u>	<u>3.55</u>	-	<u>4.28</u>	
Private Real Estate	1,304,318,138	47.06		-1.44	-7.48	-7.25	7.25	4.85	7.59	5.68	Jul-01
Real Estate Blend				<u>-1.70</u>	<u>-6.99</u>	<u>-11.43</u>	<u>7.98</u>	<u>6.49</u>	<u>8.95</u>	<u>8.66</u>	
Over/Under				0.26	-0.49	4.18	-0.73	-1.64	-1.36	-2.98	
Timber	20,354,727	0.73		-0.02	6.39	6.61	5.53	4.74	5.53	7.67	Sep-01

Note: The DFA U.S. TIPS and CenterSquare US Real Estate portfolios have mid-month inception dates. Since inception return is calculated from the first full month of performance.

Refer to appendix for blended benchmark definitions.



INVESTMENT MANAGER REPORT CARD

REAL ASSETS

Real Assets Managers	Inception Date	Mandate	Current Quarter (Net)		One Year (Net)		Three Years (Net)		Five Years (Net)		Since Inception (Net)	Annual Mgt Fee Paid \$ (000)	Comments
			Index	Universe	Index	Universe	Index	Universe	Index	Universe			
DFA	Jul-14	U.S. TIPS	✓	✗	✓	✗	✗	✗	✓	✓	✓	492.4	Performance compliant with LACERS' Manager Monitoring Policy
CenterSquare	Apr-15	REITS	=	✗	✓	✗	✓	✓	✓	✓	✓	1,820.7	Performance compliant with LACERS' Manager Monitoring Policy

Note: Managers are placed on Watch List for concerns with organization, process and performance. Managers are normally on the Watch List for 12 months though may be longer if manager issues remain but not severe enough to warrant termination recommendation.

- Annual Management Fee Paid as of fiscal year ending June 30, 2023.
- * Where net of fees performance is not available gross of fee returns are evaluated.

Legend	
✓	Outperformed
✗	Underperformed
=	Equal to
✓✓	Gross Return



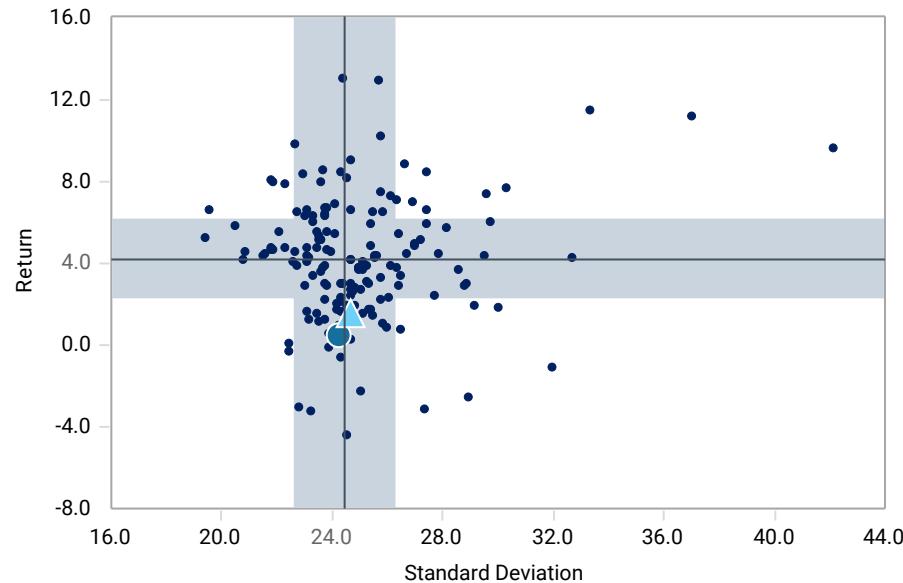
APPENDIX



U.S. EQUITY MANAGER PERFORMANCE

EAM INVESTORS

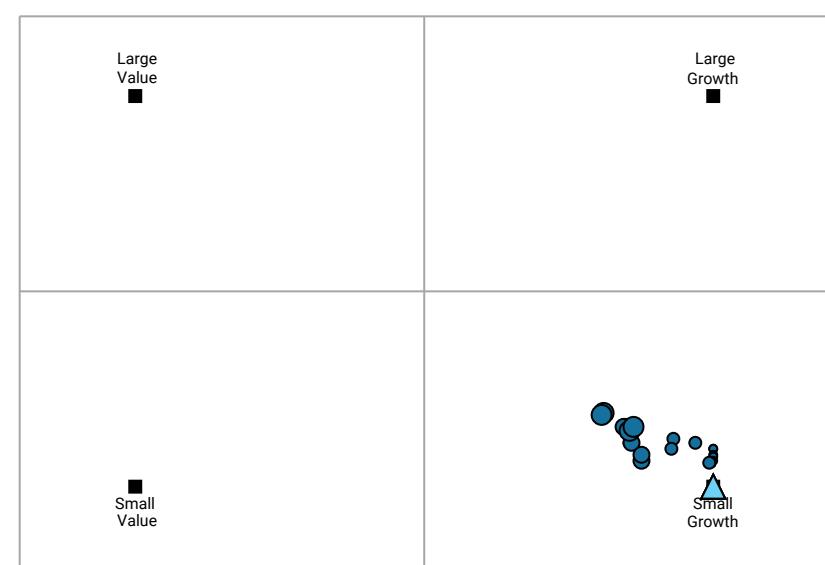
5 Years Return vs. Standard Deviation



● EAM Investors

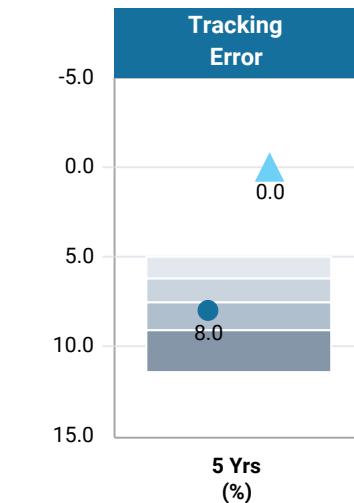
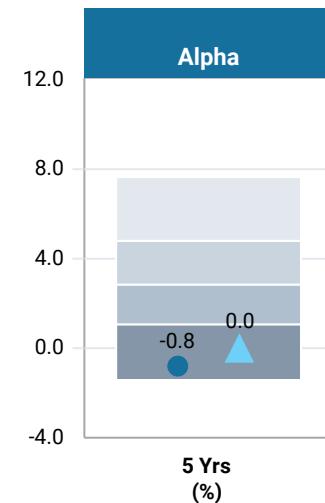
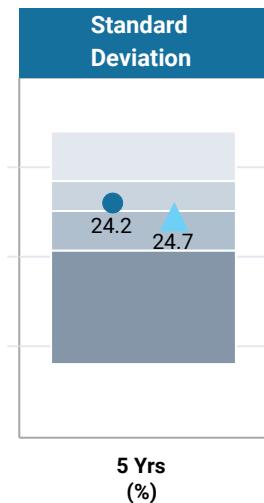
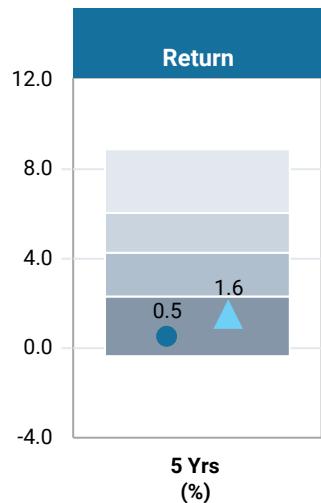
▲ Russell 2000 Growth Index

Rolling 3 Years Style Map

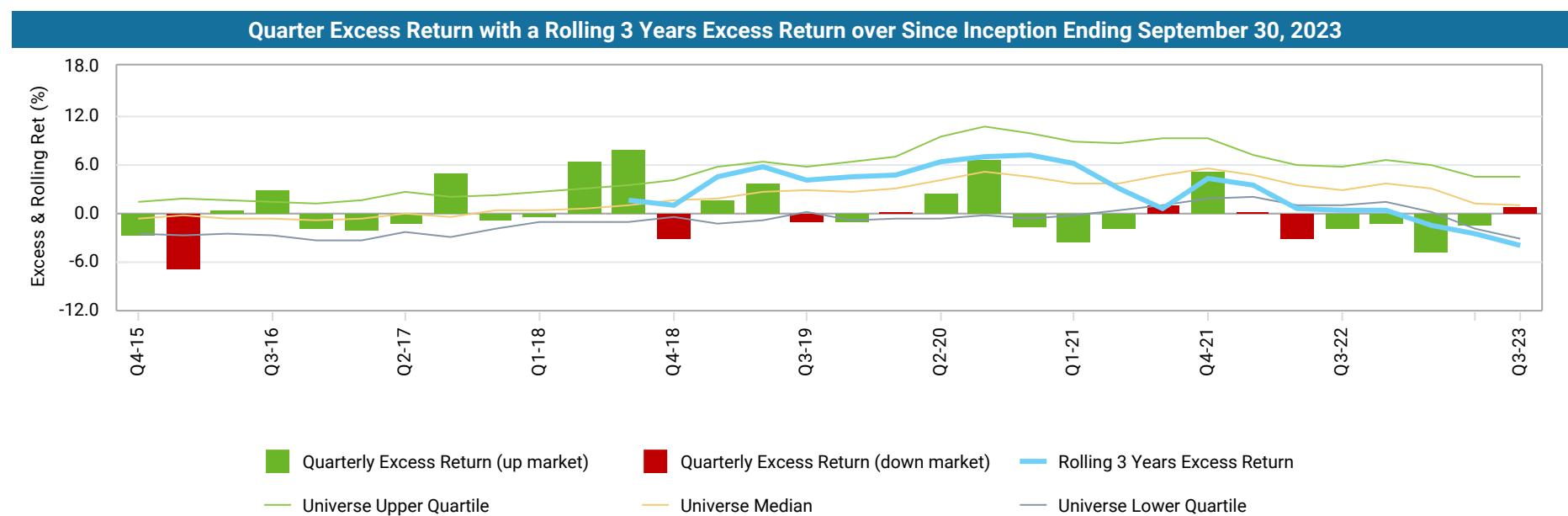
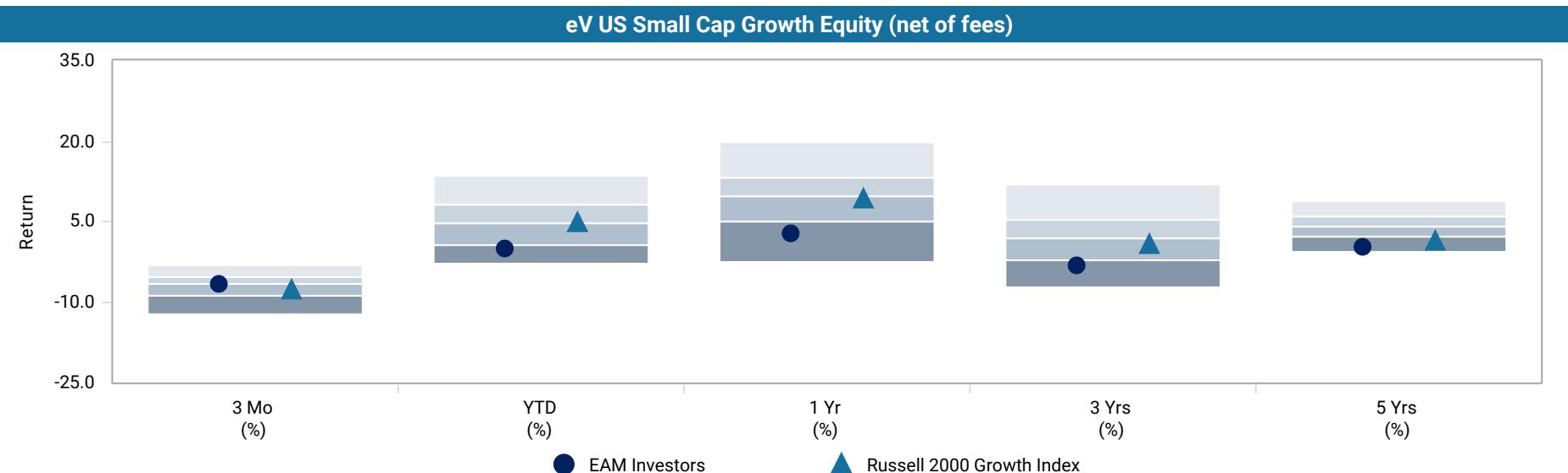


● EAM Investors

▲ Russell 2000 Growth Index

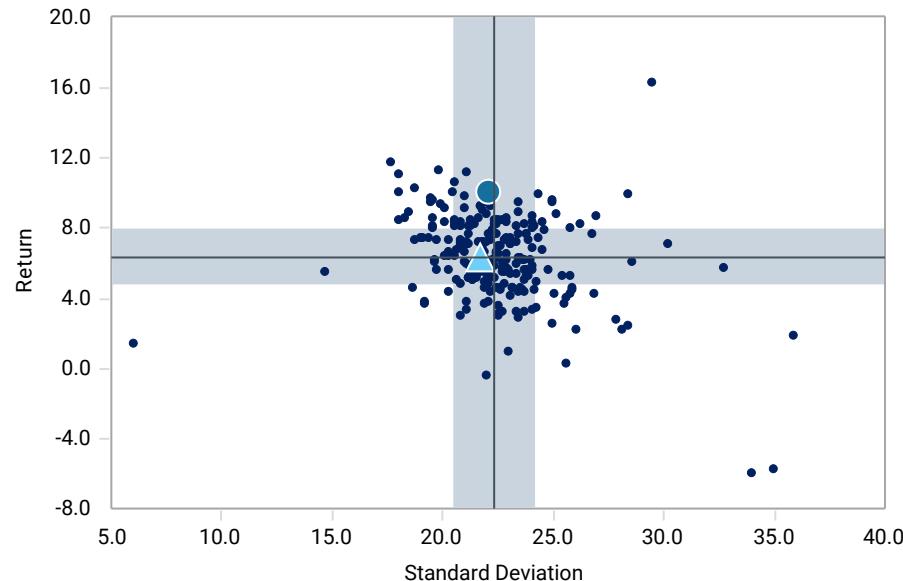


EAM INVESTORS

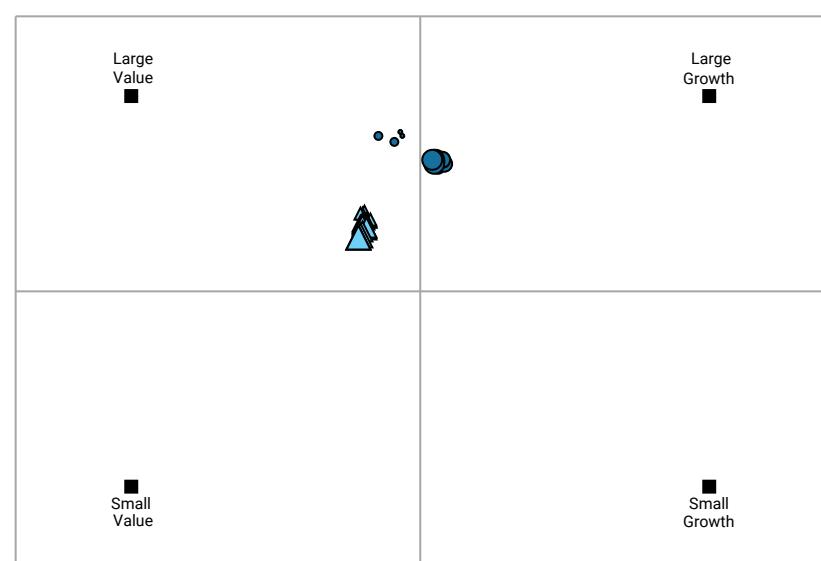


PRINCIPAL GLOBAL INVESTORS

5 Years Return vs. Standard Deviation

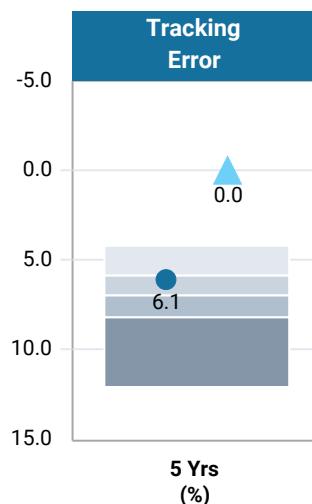
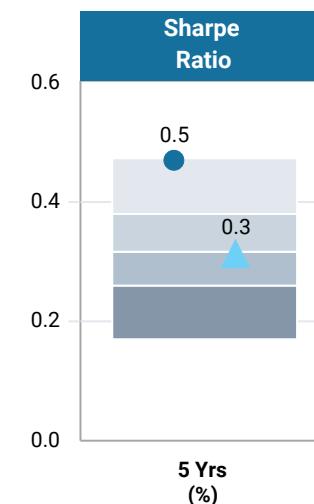
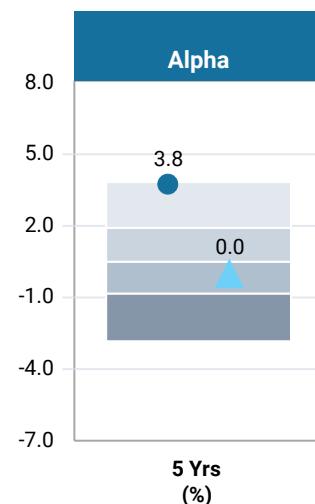
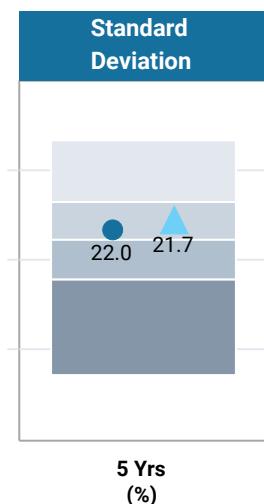
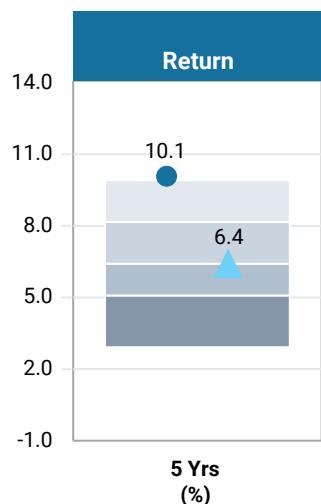


Rolling 5 Years Style Map

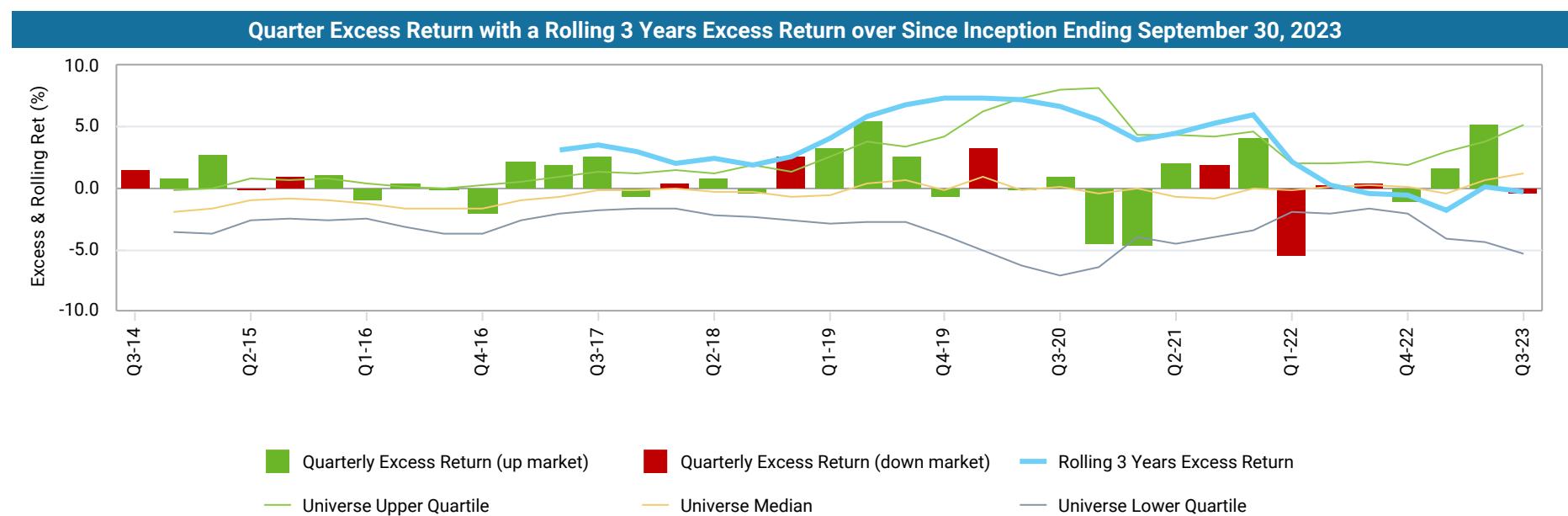
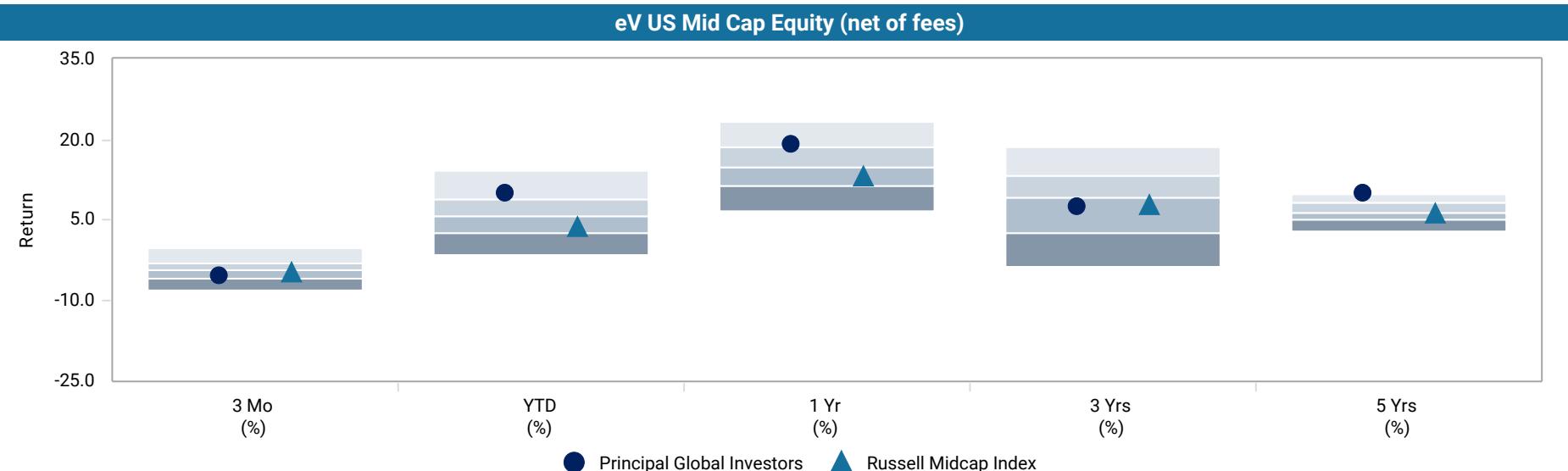


● Principal Global Investors ▲ Russell Midcap Index

● Principal Global Investors ▲ Russell Midcap Index

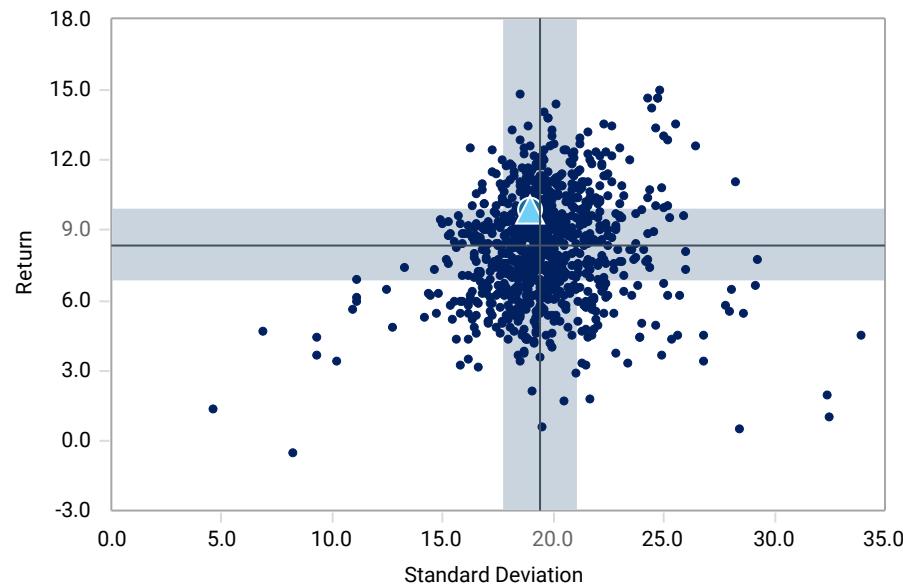


PRINCIPAL GLOBAL INVESTORS



RHUMBLINE ADVISORS S&P 500

5 Years Return vs. Standard Deviation

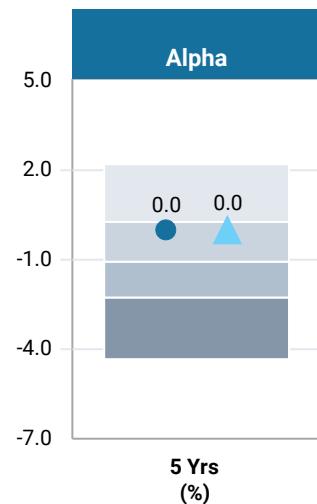
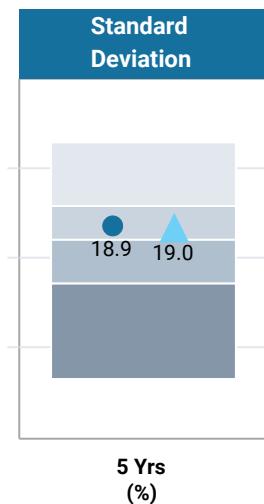
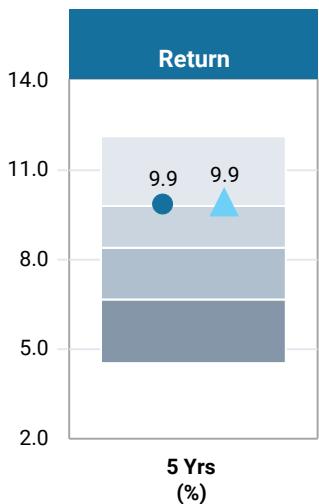


● RhumbLine Advisers S&P 500 ▲ S&P 500 Index

Rolling 5 Years Style Map

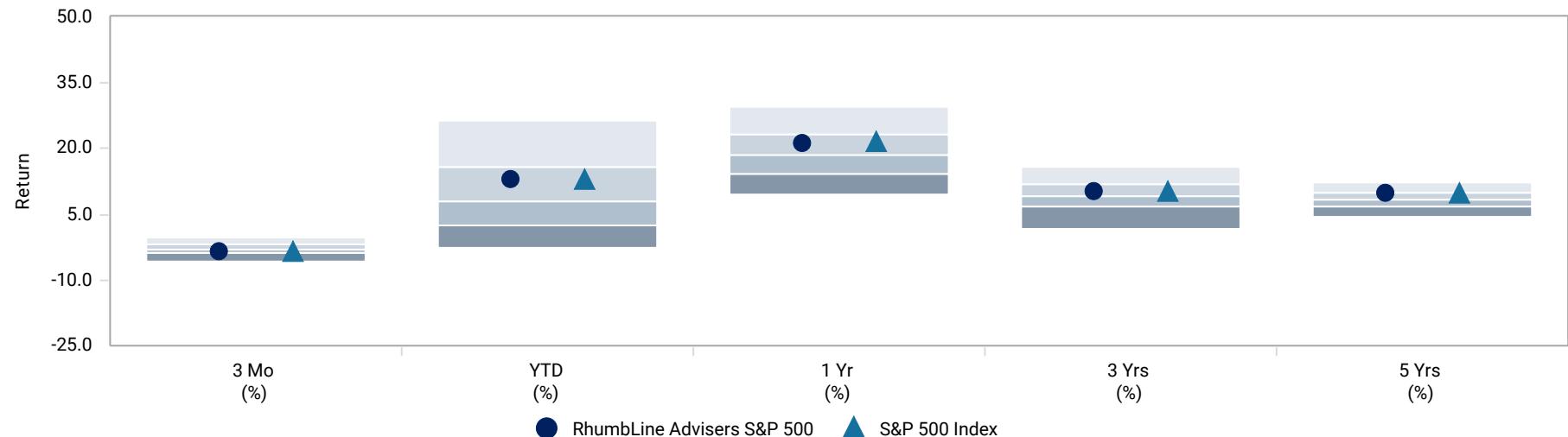


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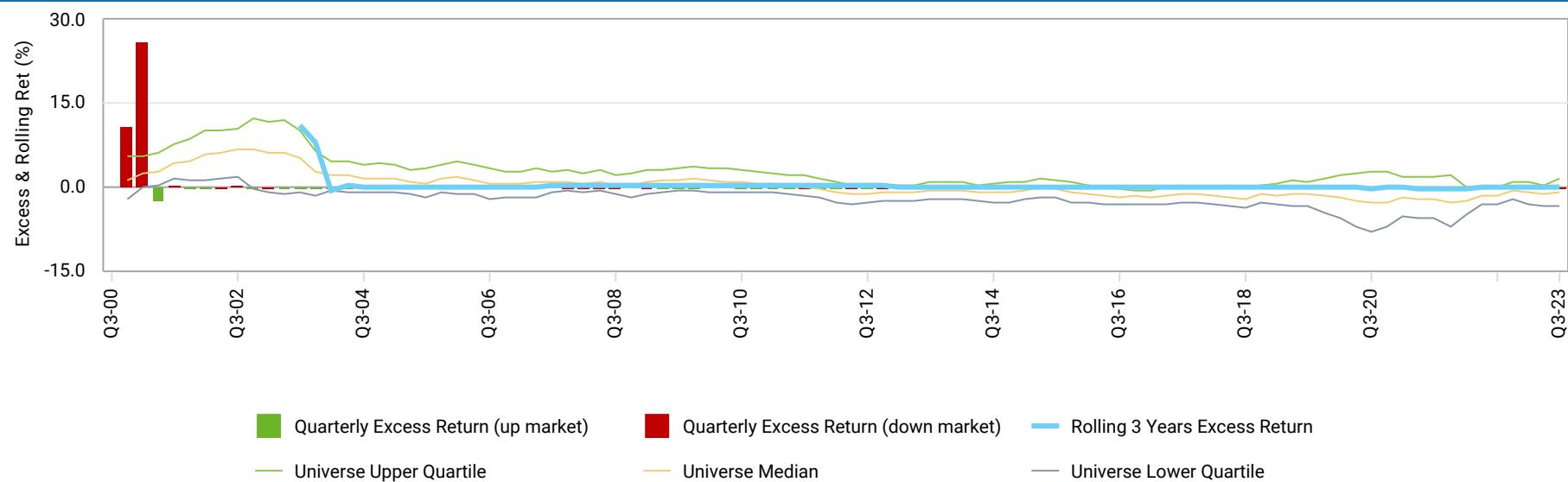


RHUMBLINE ADVISORS S&P 500

eV US Large Cap Equity (net of fees)

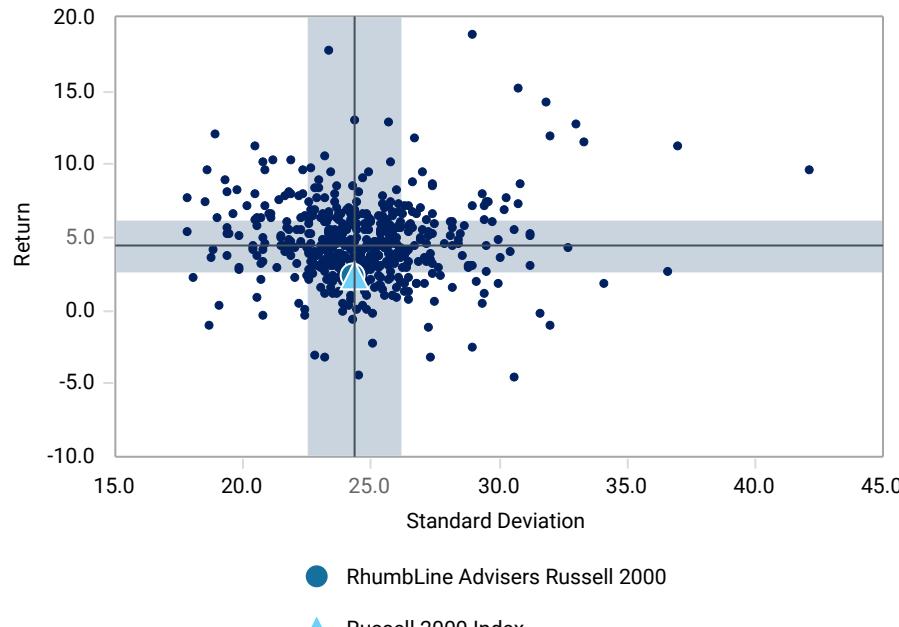


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending September 30, 2023

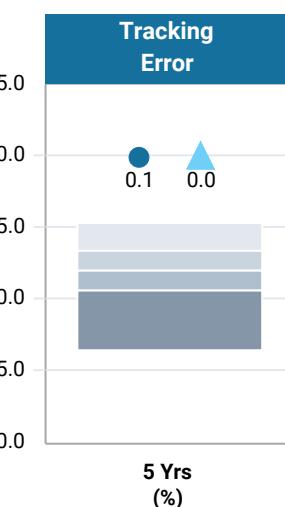
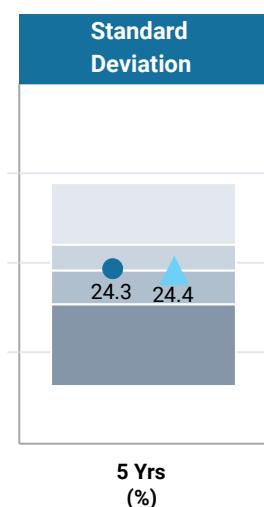
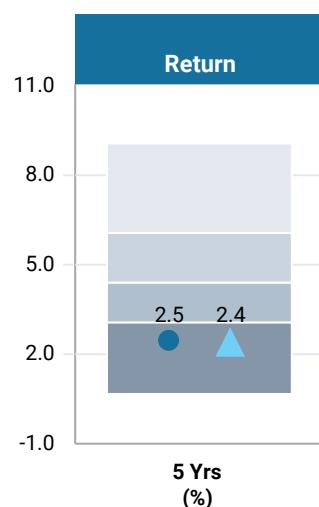
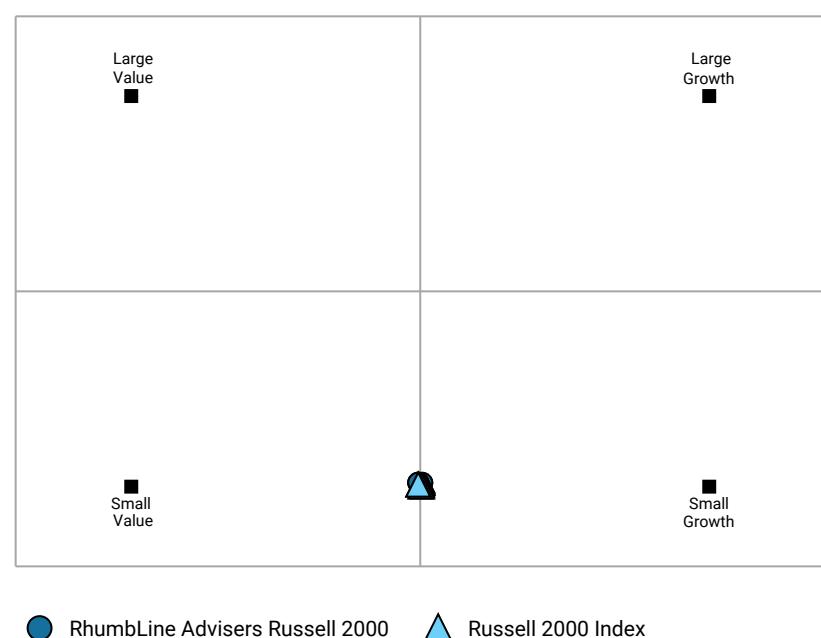


RHUMBLINE ADVISORS RUSSELL 2000

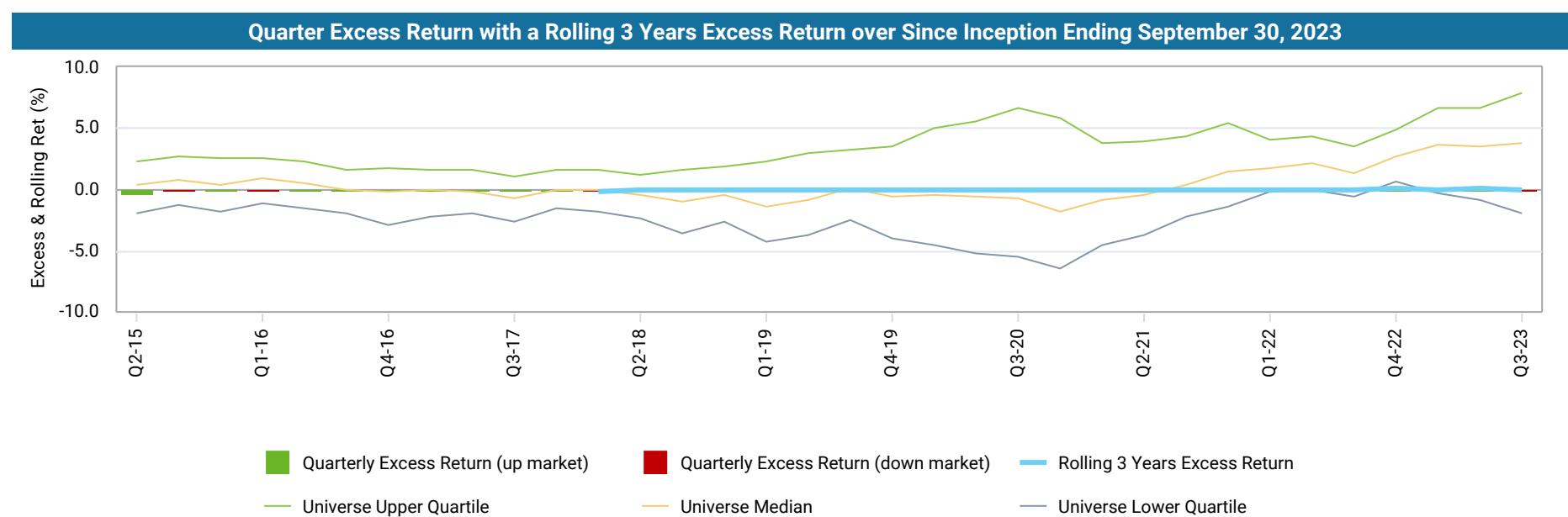
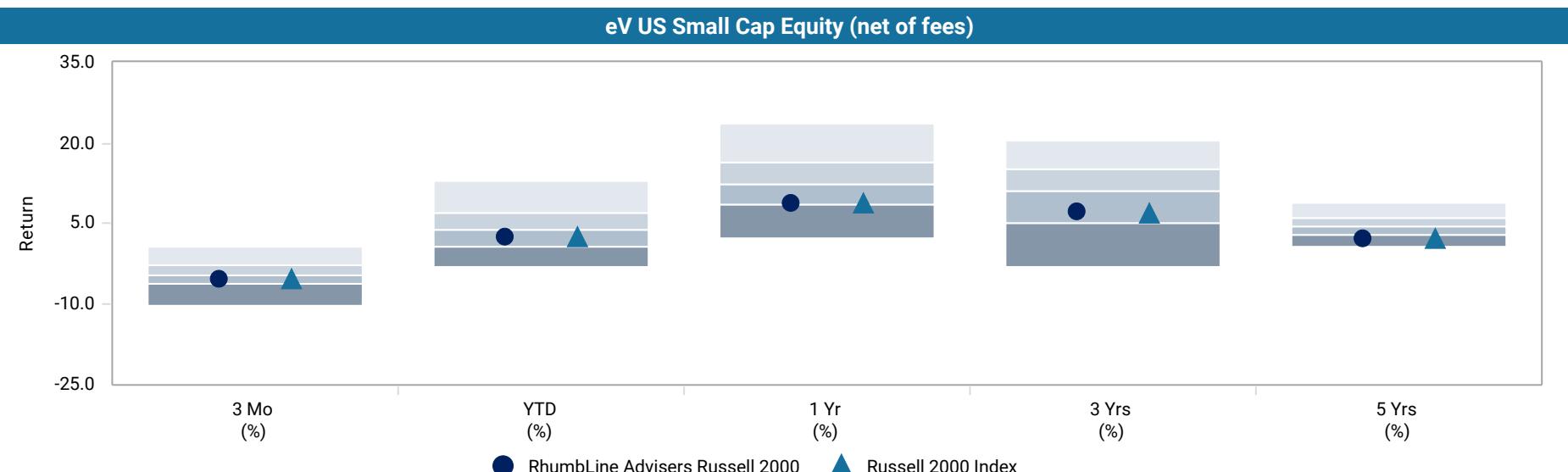
5 Years Return vs. Standard Deviation



Rolling 3 Years Style Map

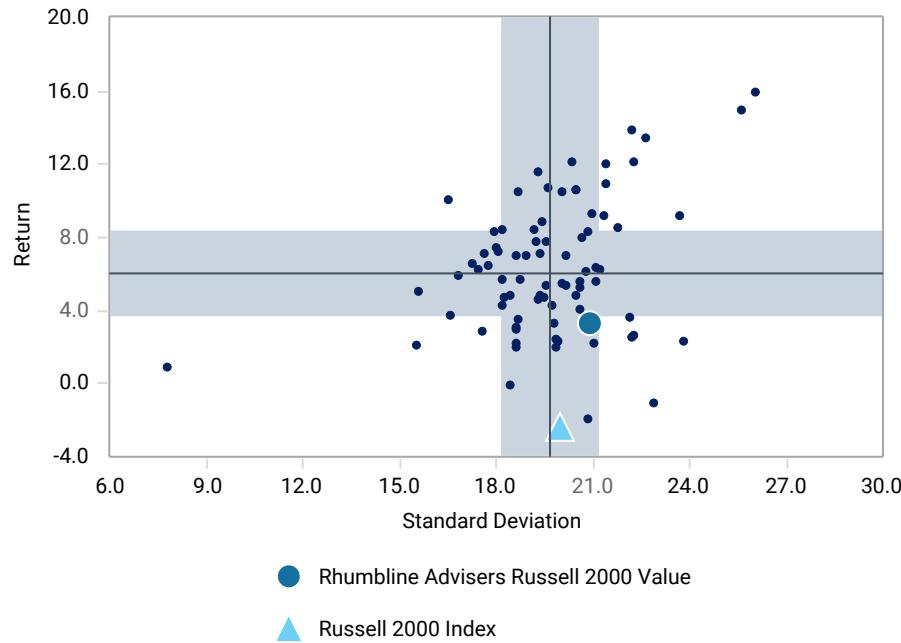


RHUMBLINE ADVISORS RUSSELL 2000

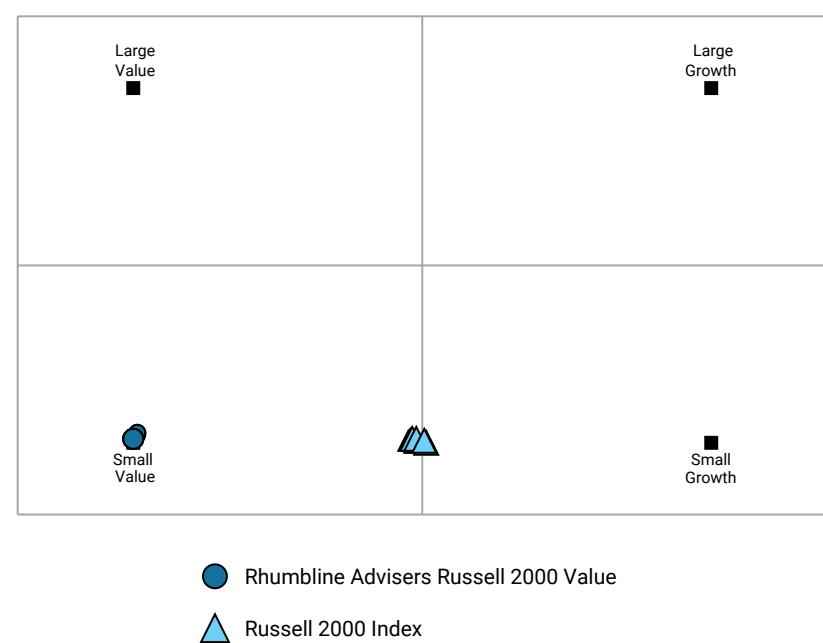


RHUMBLINE ADVISORS RUSSELL 2000 VALUE

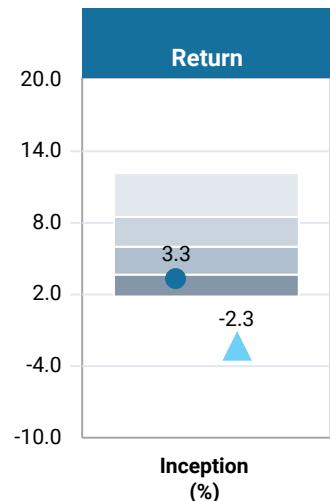
Since Inception Return vs. Standard Deviation



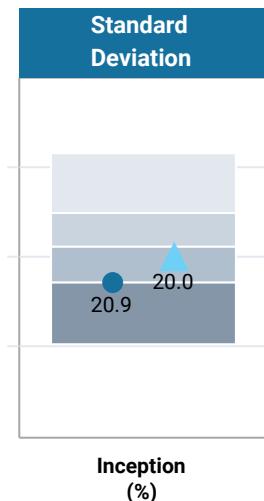
Rolling 1 Year Style Map



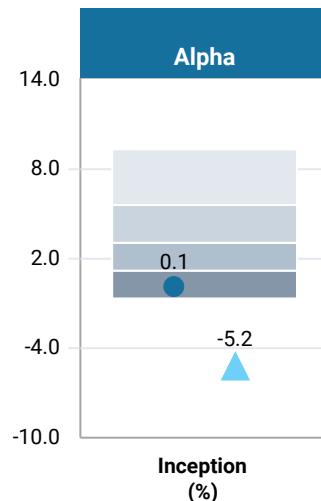
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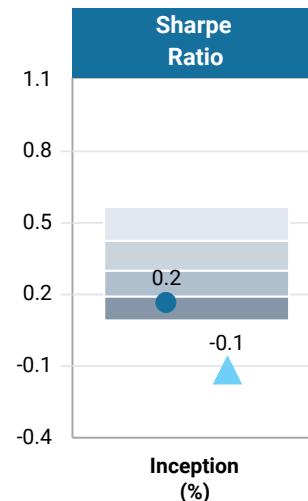
Standard Deviation



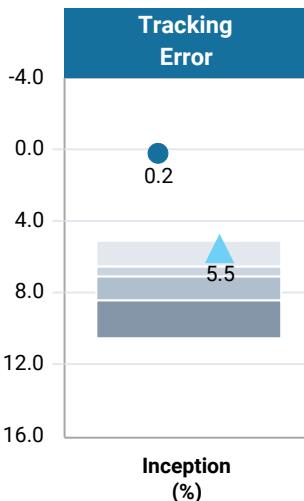
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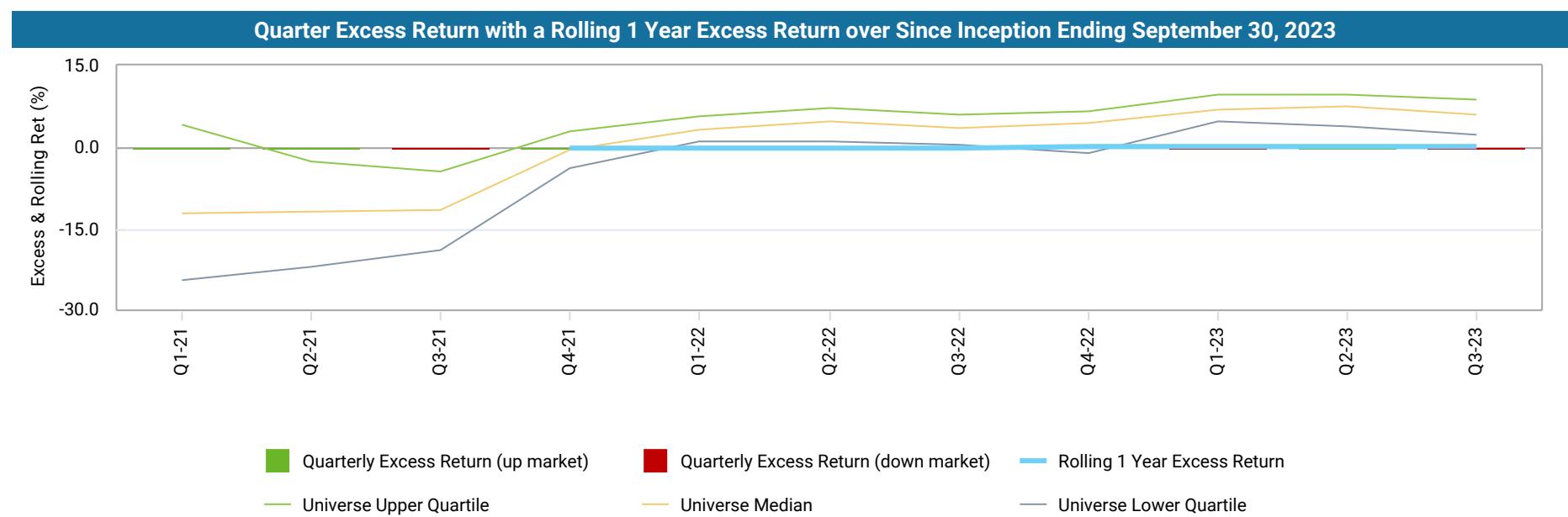
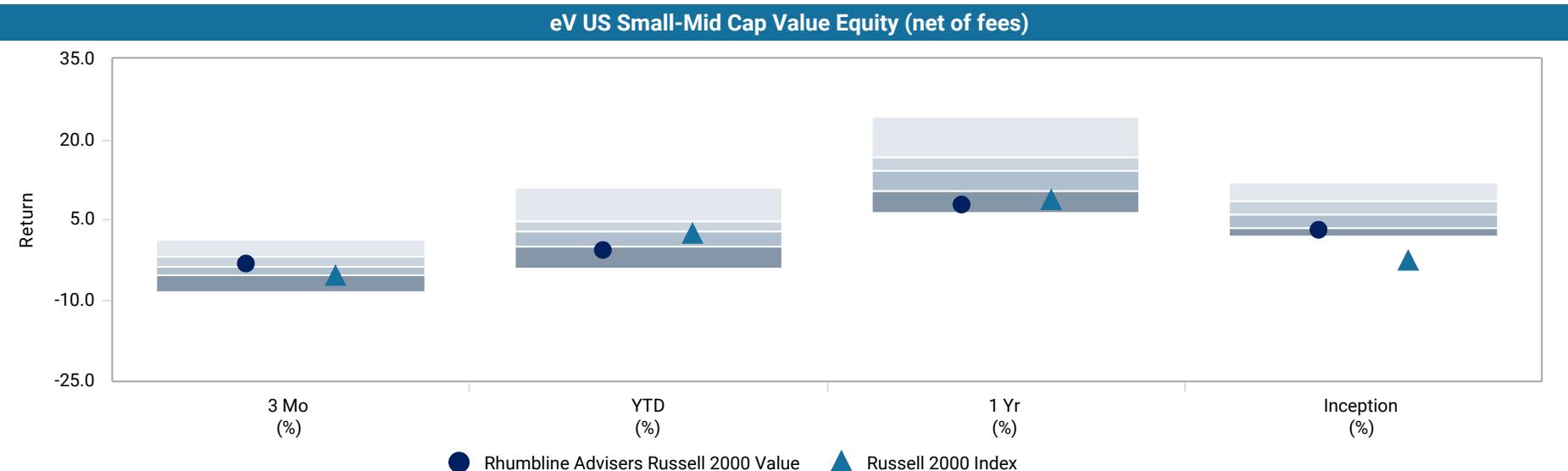
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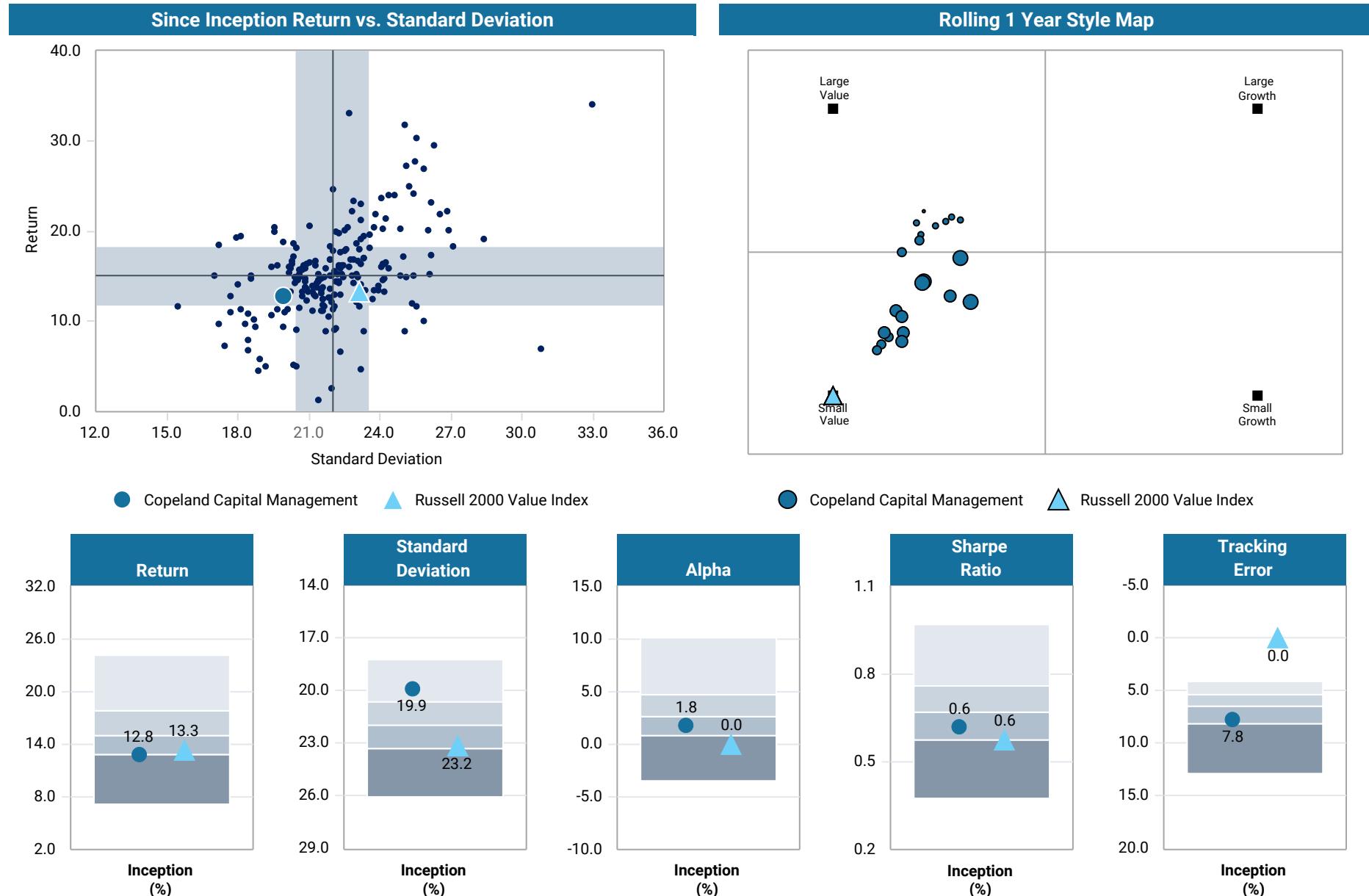
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RHUMBLINE ADVISORS RUSSELL 2000 VALUE

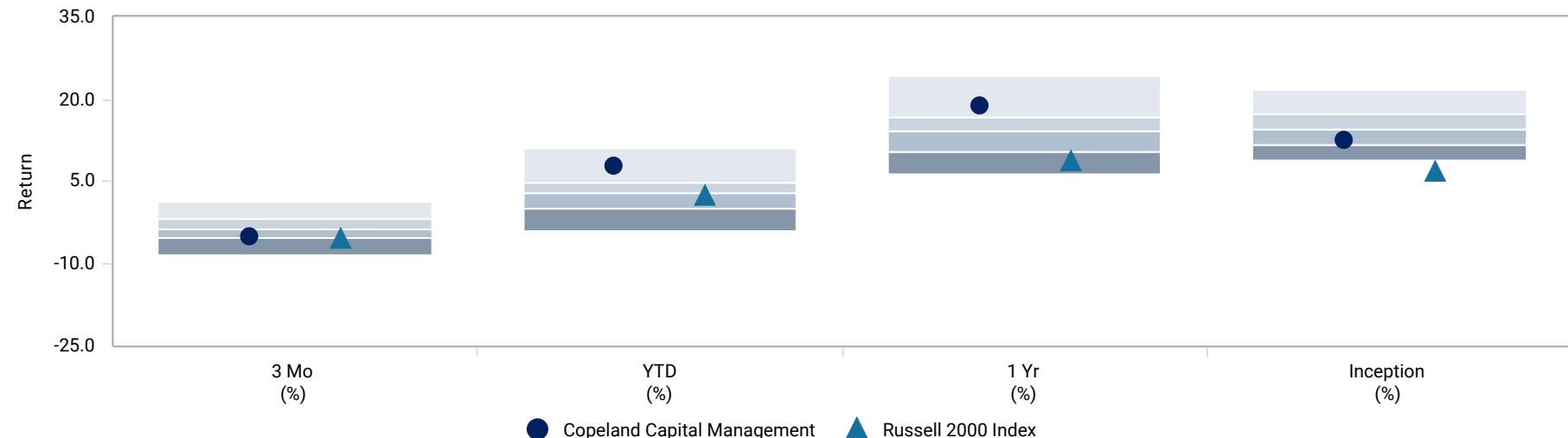


COPELAND CAPITAL MANAGEMENT

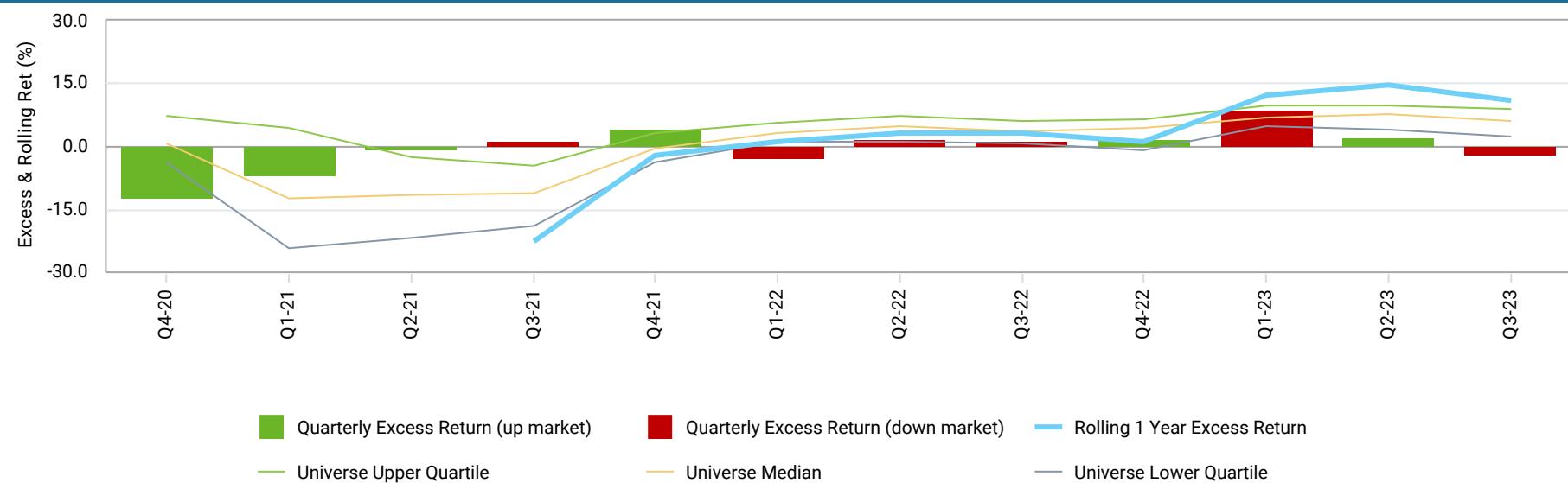


COPELAND CAPITAL MANAGEMENT

eV US Small-Mid Cap Value Equity (net of fees)

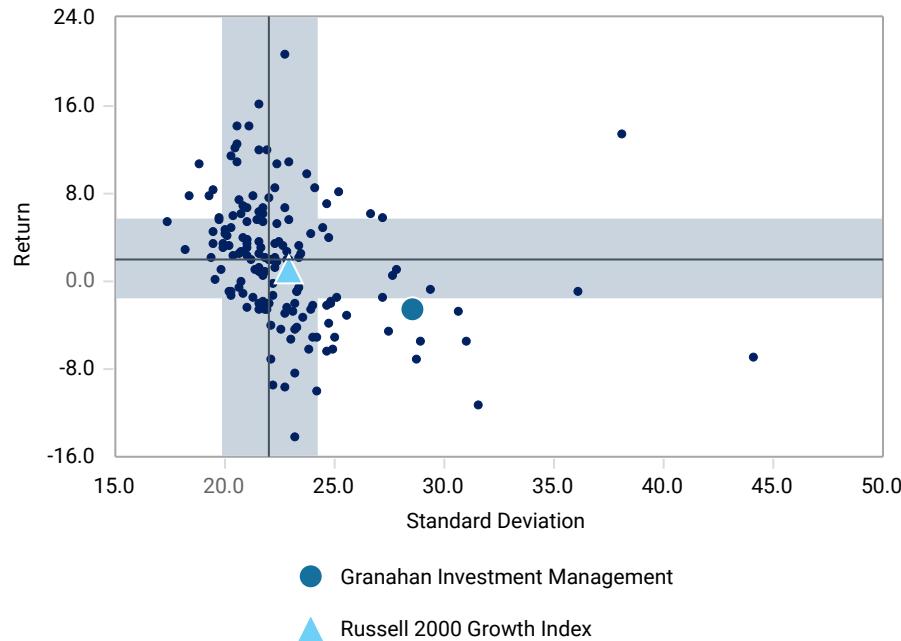


Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2023

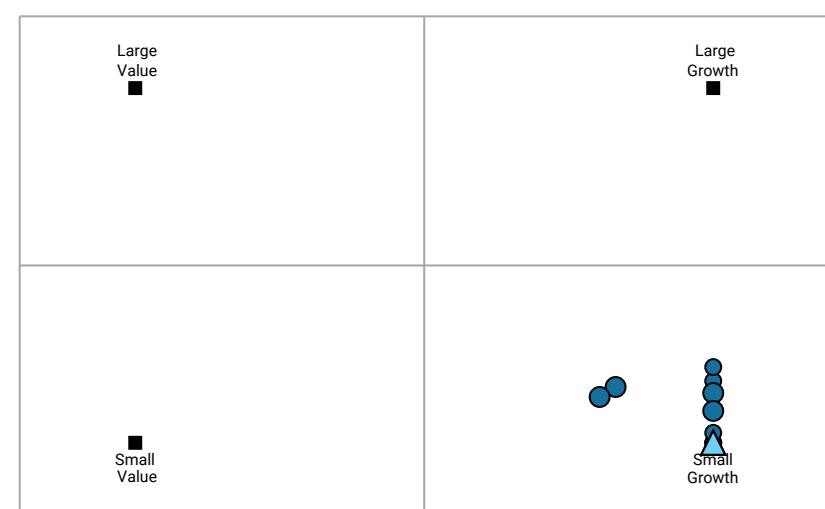


GRANAHAN INVESTMENT MANAGEMENT

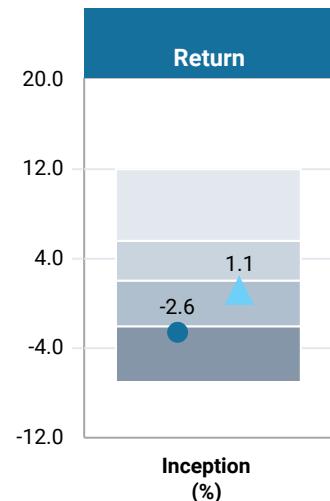
Since Inception Return vs. Standard Deviation



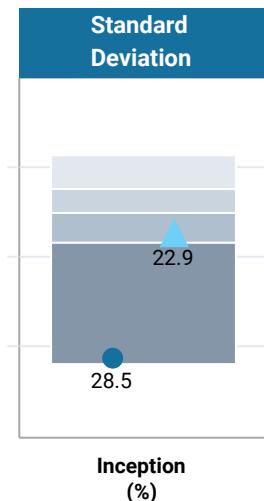
Rolling 1 Year Style Map



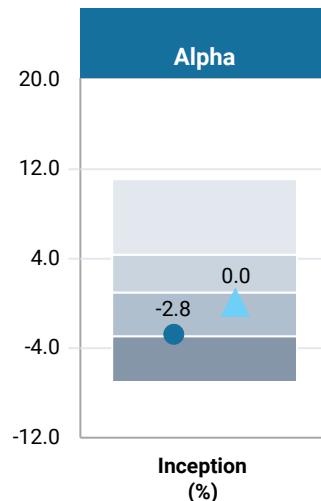
Return



Standard Deviation



Alpha



Sharpe Ratio

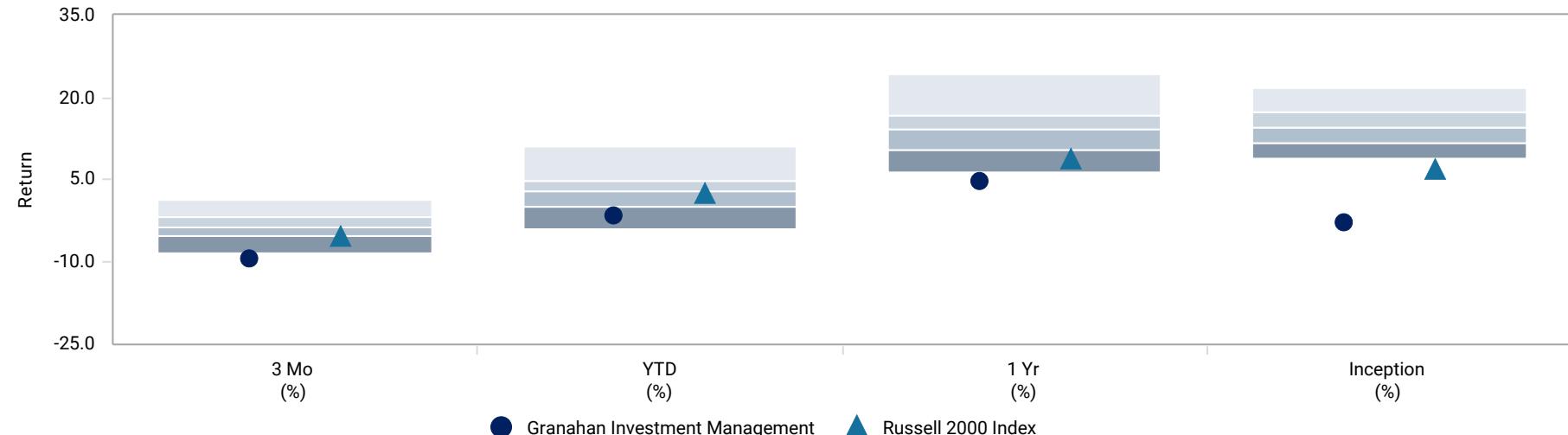


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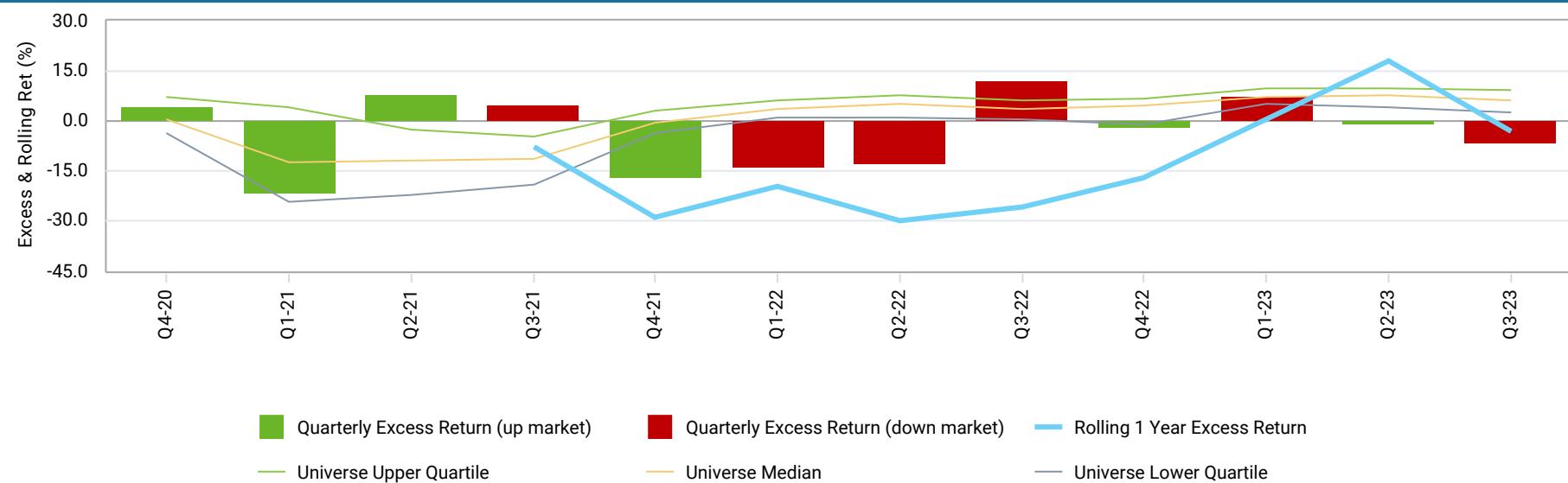


GRANAHAN INVESTMENT MANAGEMENT

eV US Small-Mid Cap Value Equity (net of fees)

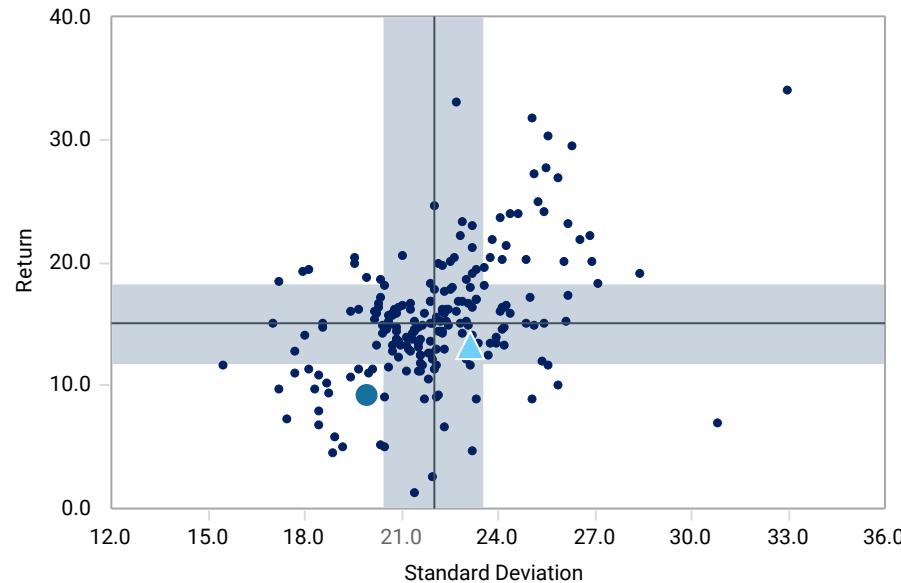


Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2023

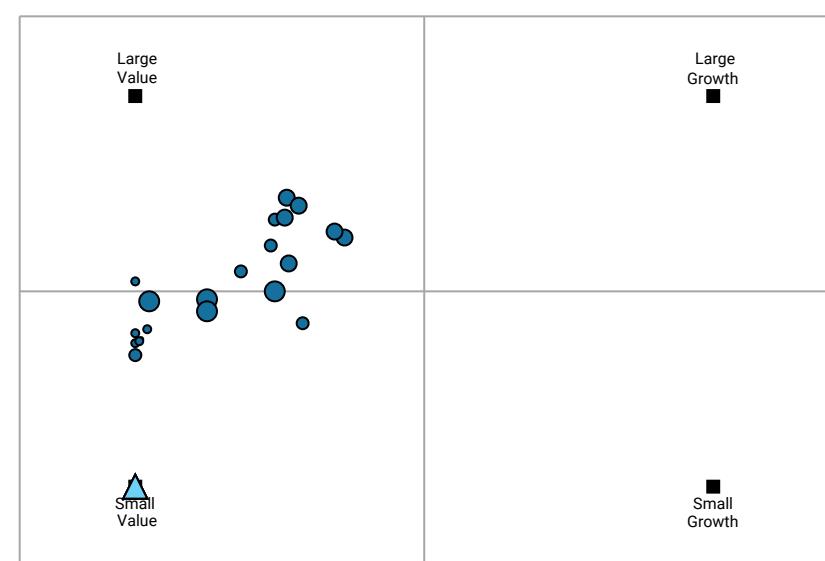


SEGALL, BRYANT & HAMILL

Since Inception Return vs. Standard Deviation



Rolling 1 Year Style Map

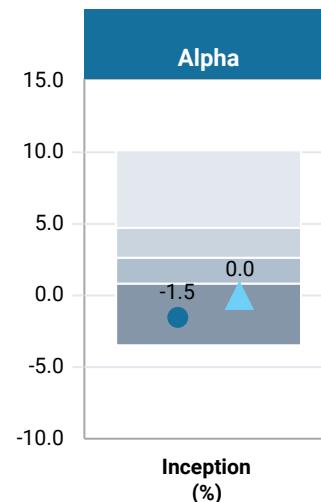
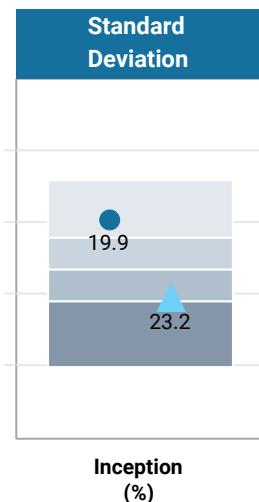
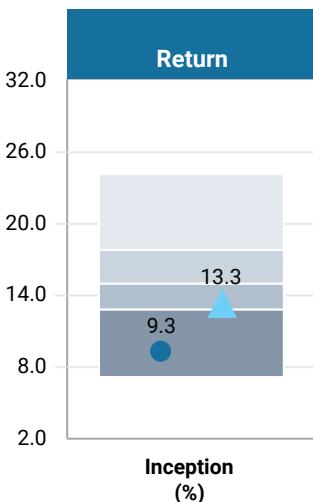


● Segall, Bryant & Hamill

▲ Russell 2000 Value Index

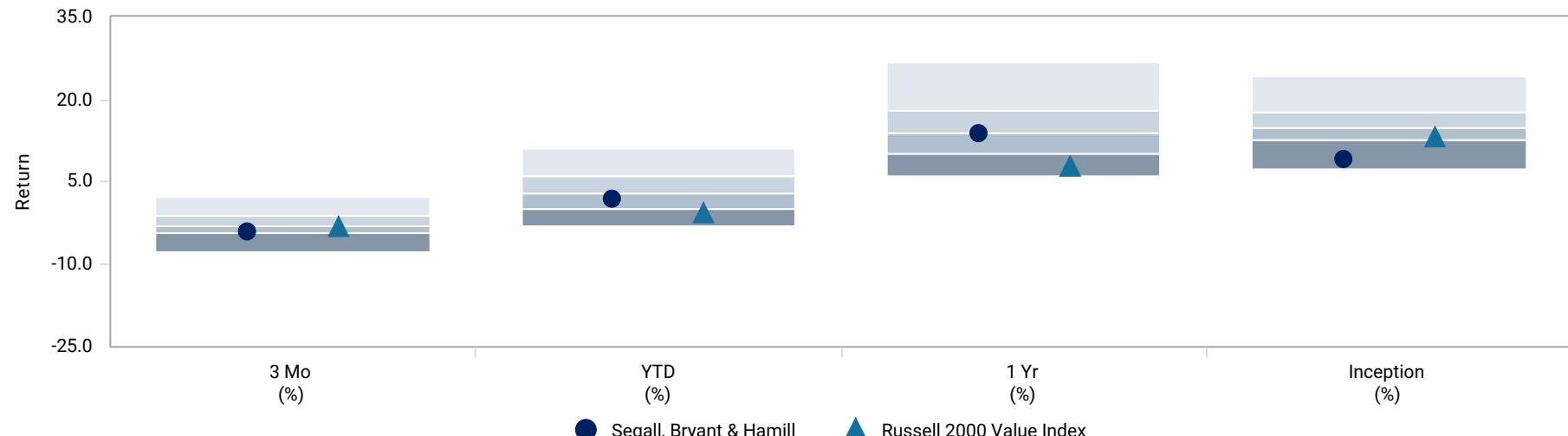
● Segall, Bryant & Hamill

▲ Russell 2000 Value Index

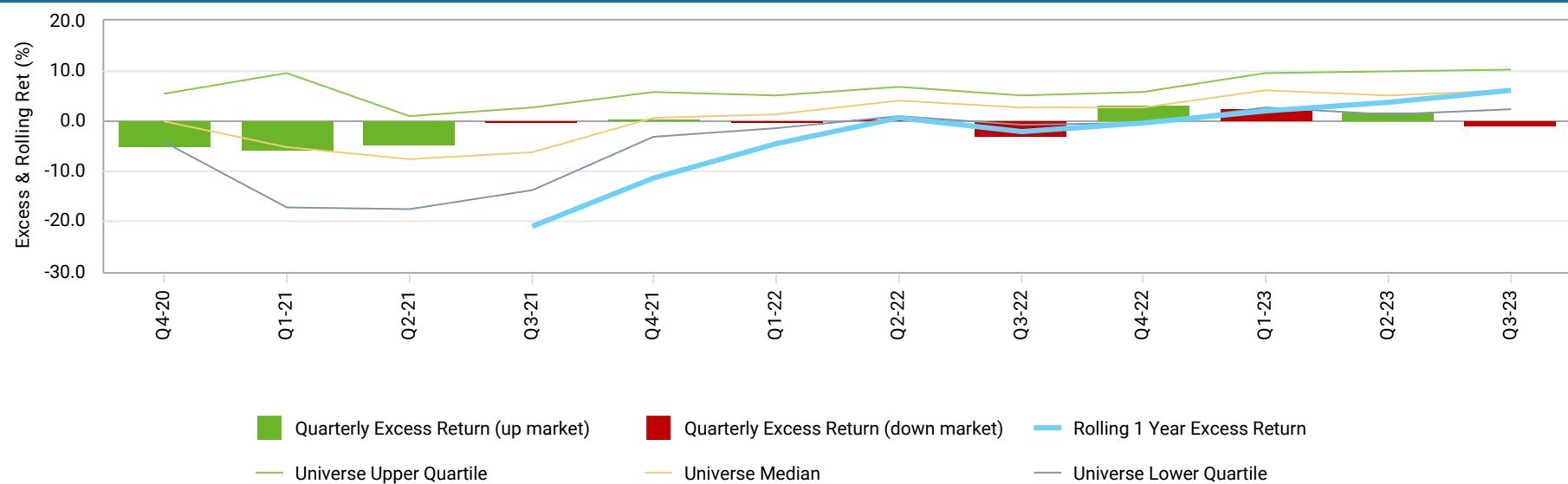


SEGALL, BRYANT & HAMILL

eV US Small Cap Value Equity (net of fees)



Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2023

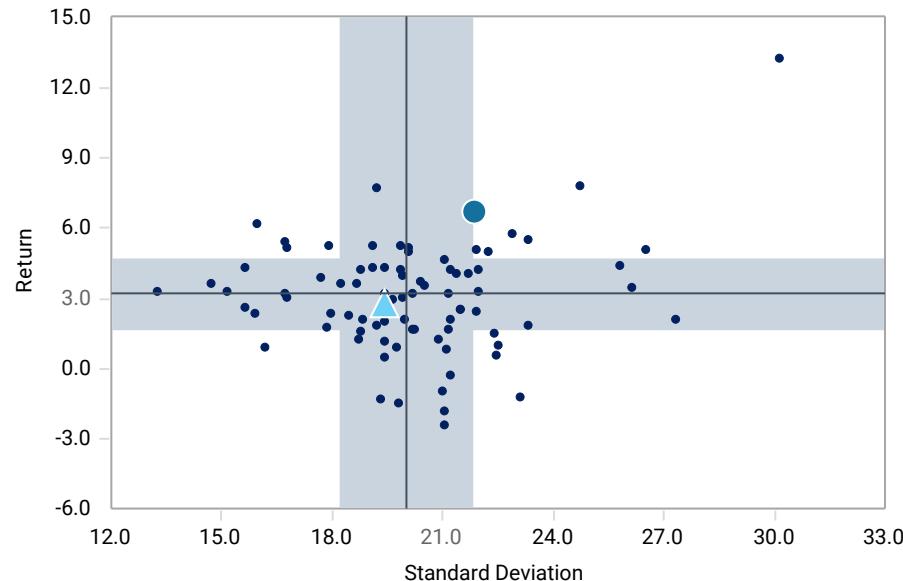




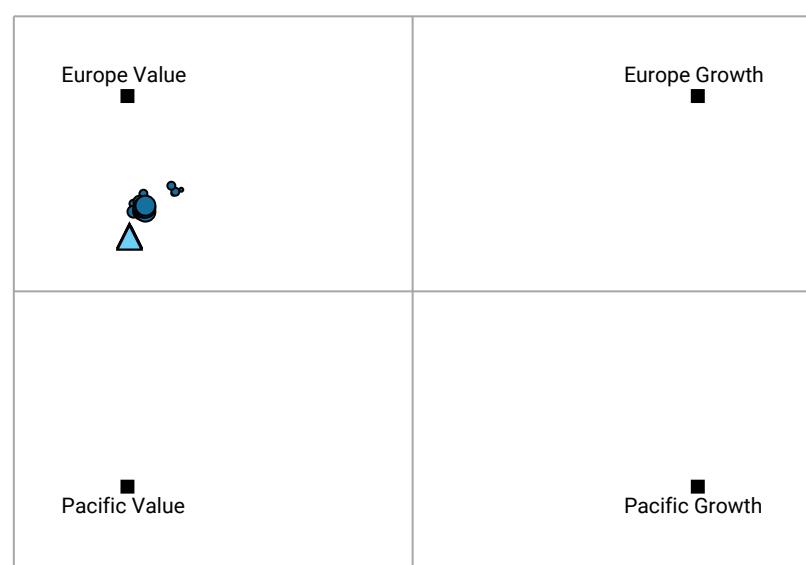
NON-U.S. EQUITY MANAGER PERFORMANCE

BARROW HANLEY

5 Years Return vs. Standard Deviation



Rolling 5 Years Style Map

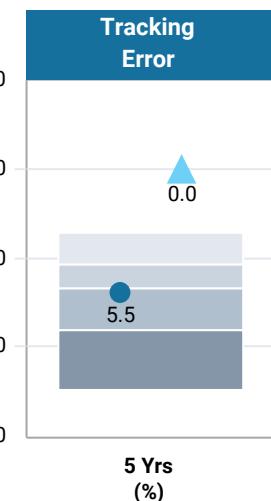
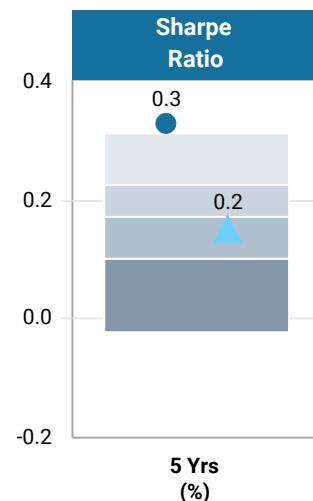
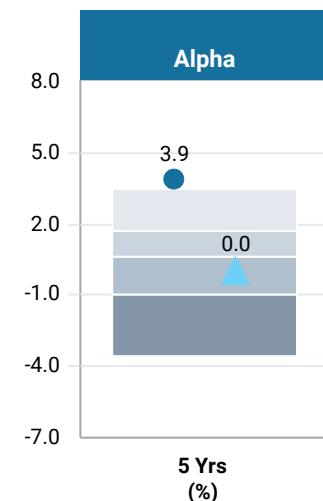
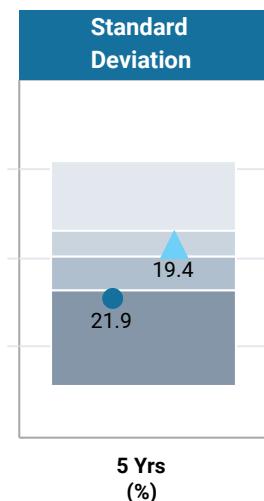
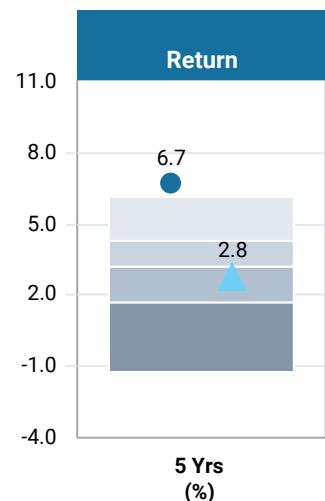


● Barrow Hanley

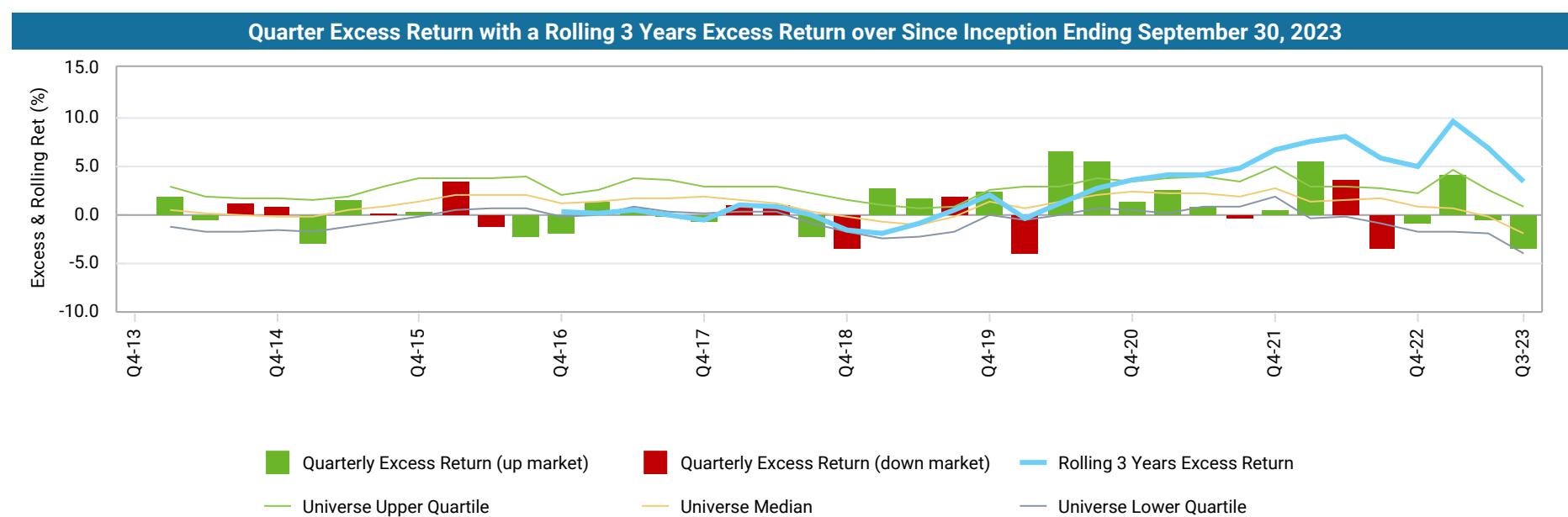
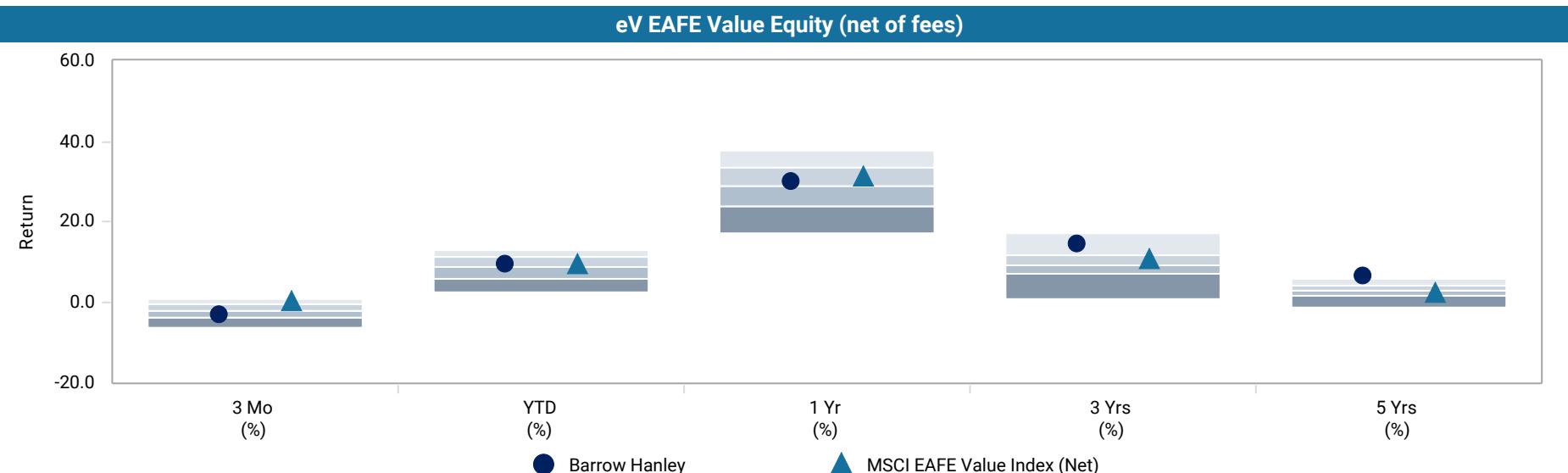
▲ MSCI EAFE Value Index (Net)

● Barrow Hanley

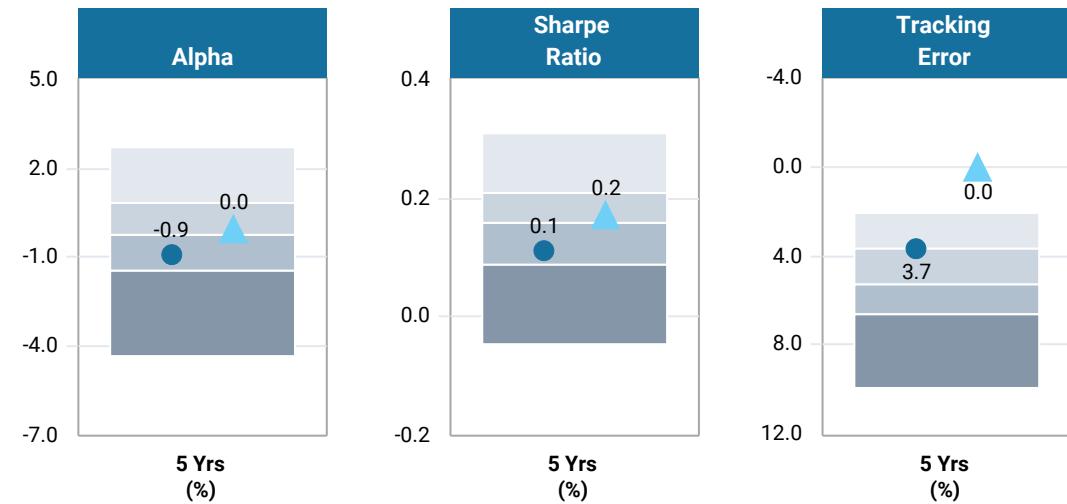
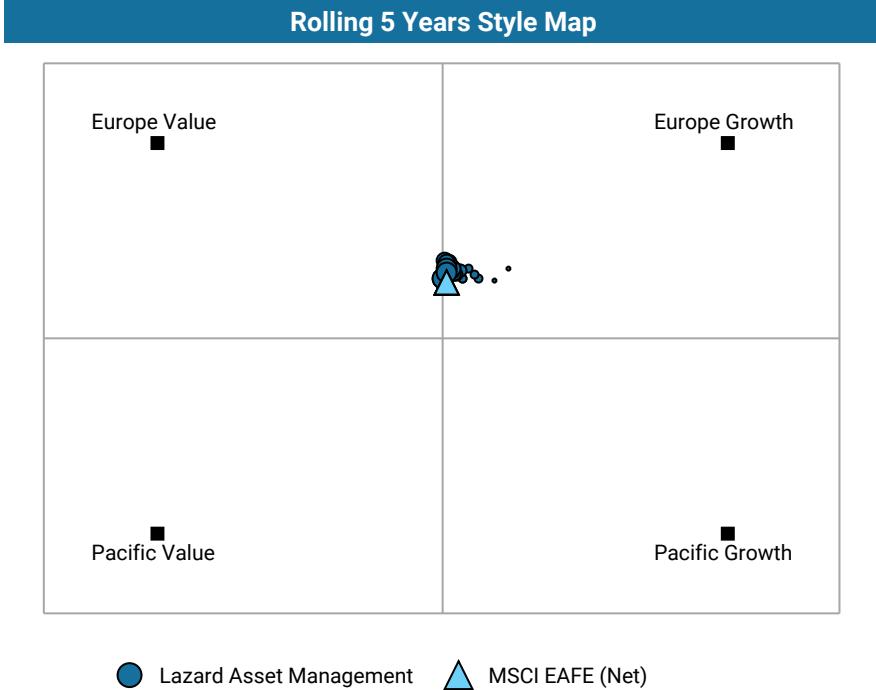
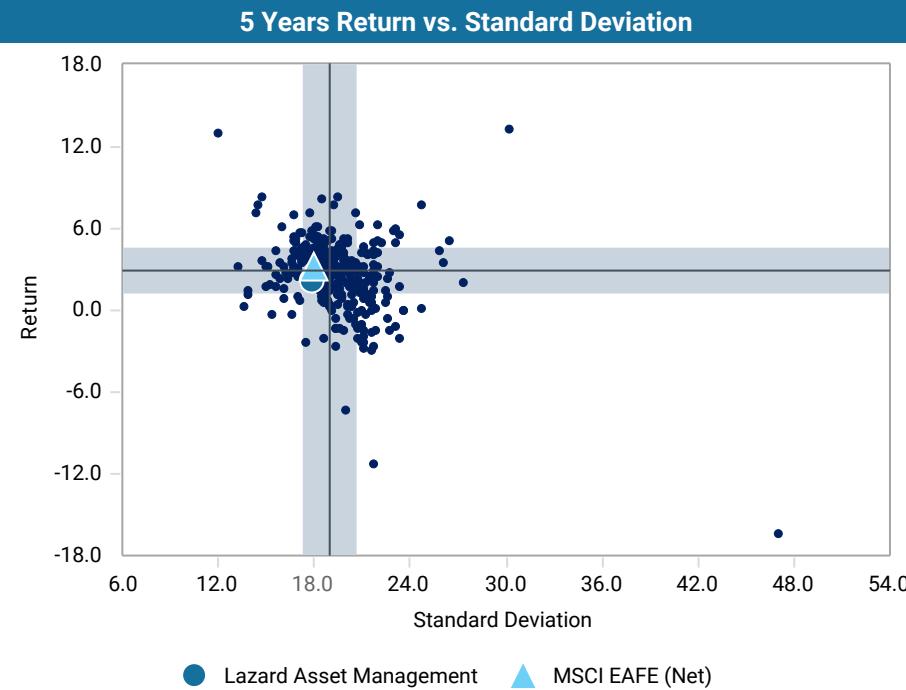
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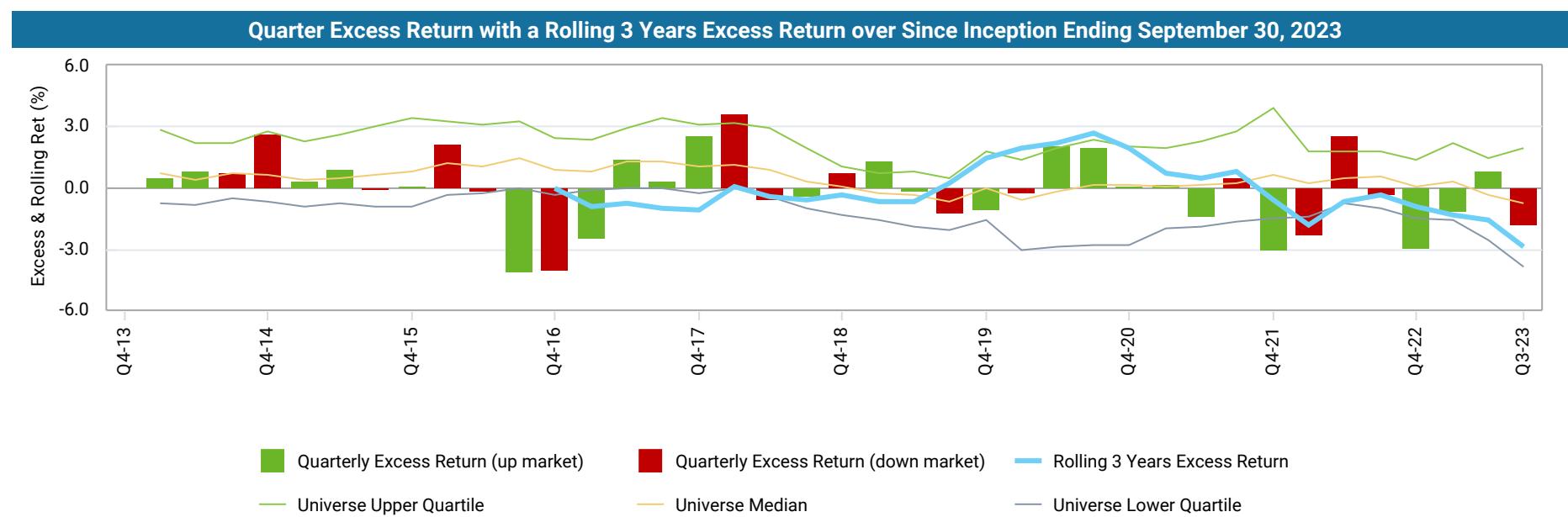
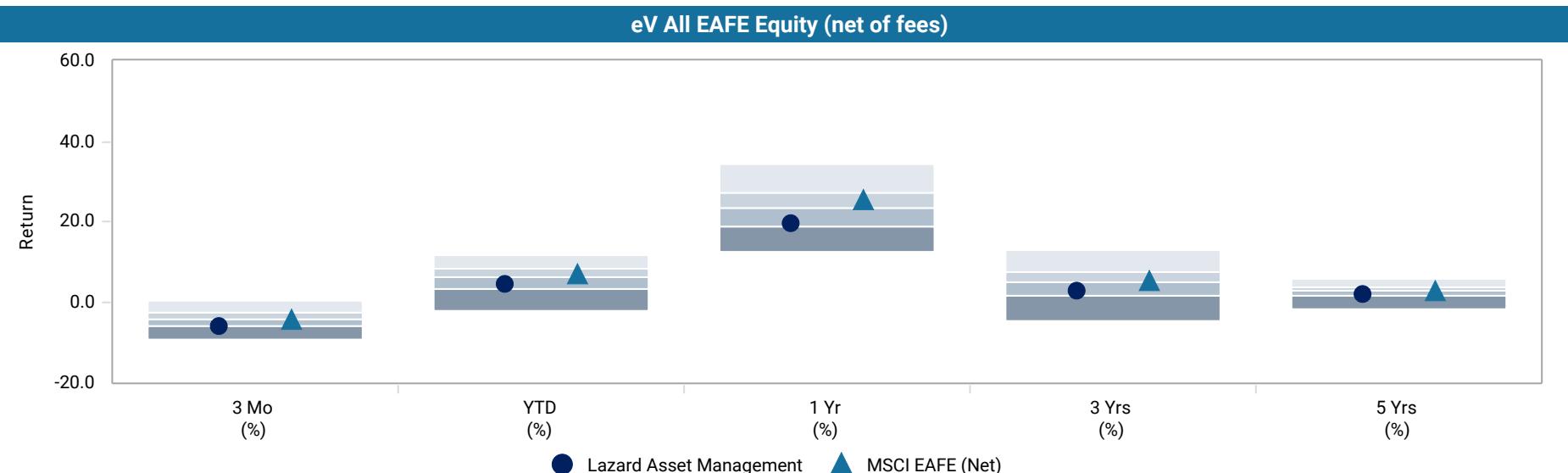
BARROW HANLEY



LAZARD ASSET MANAGEMENT

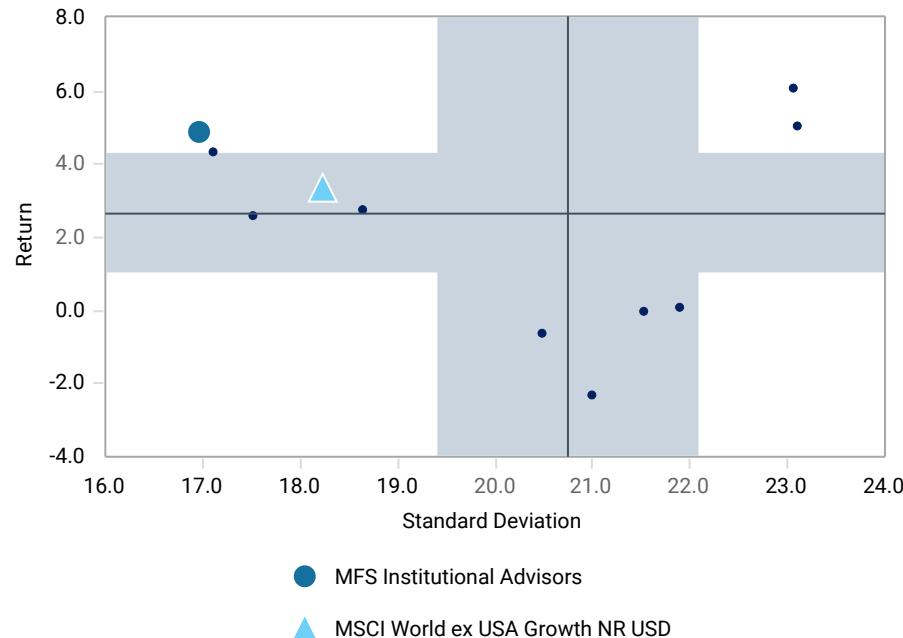


LAZARD ASSET MANAGEMENT

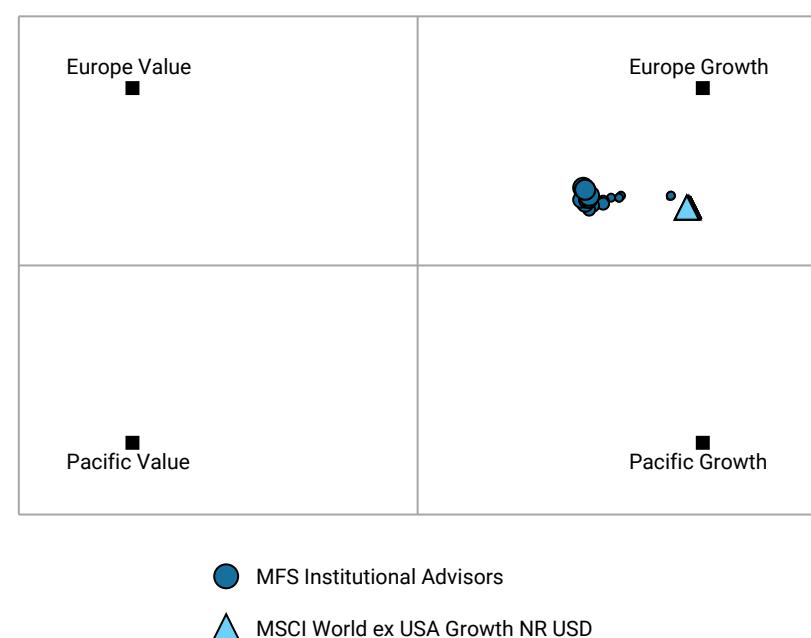


MFS INSTITUTIONAL ADVISORS

5 Years Return vs. Standard Deviation



Rolling 5 Years Style Map

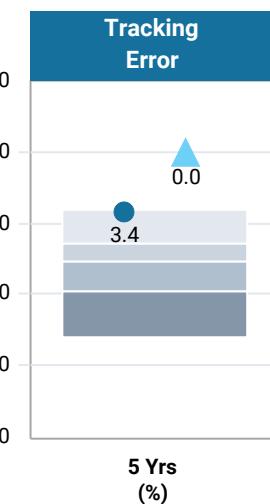
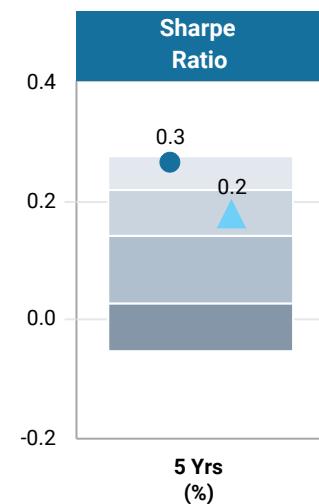
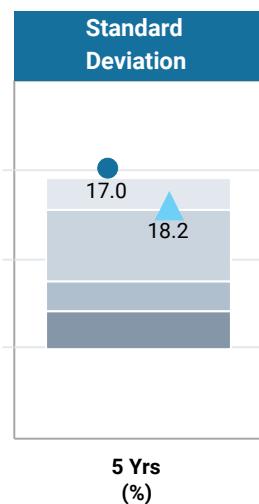
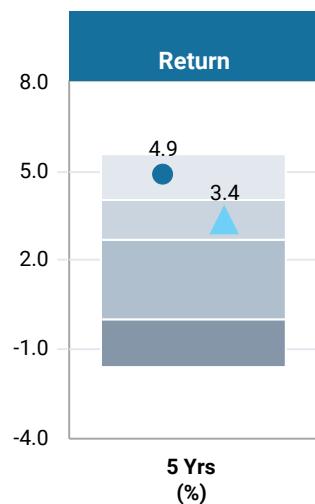


● MFS Institutional Advisors

▲ MSCI World ex USA Growth NR USD

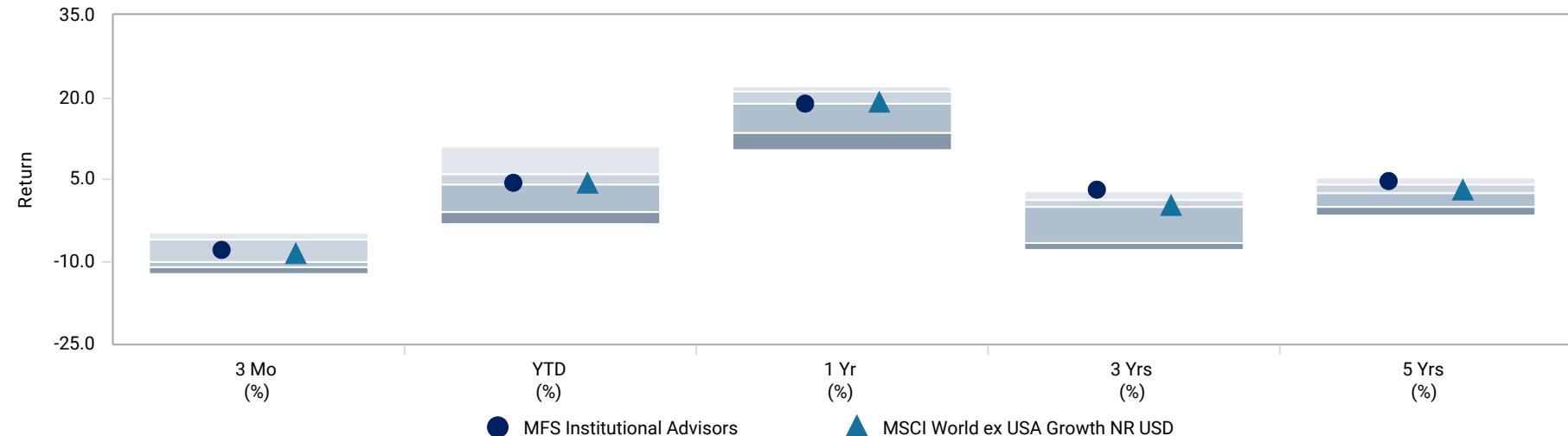
● MFS Institutional Advisors

▲ MSCI World ex USA Growth NR USD

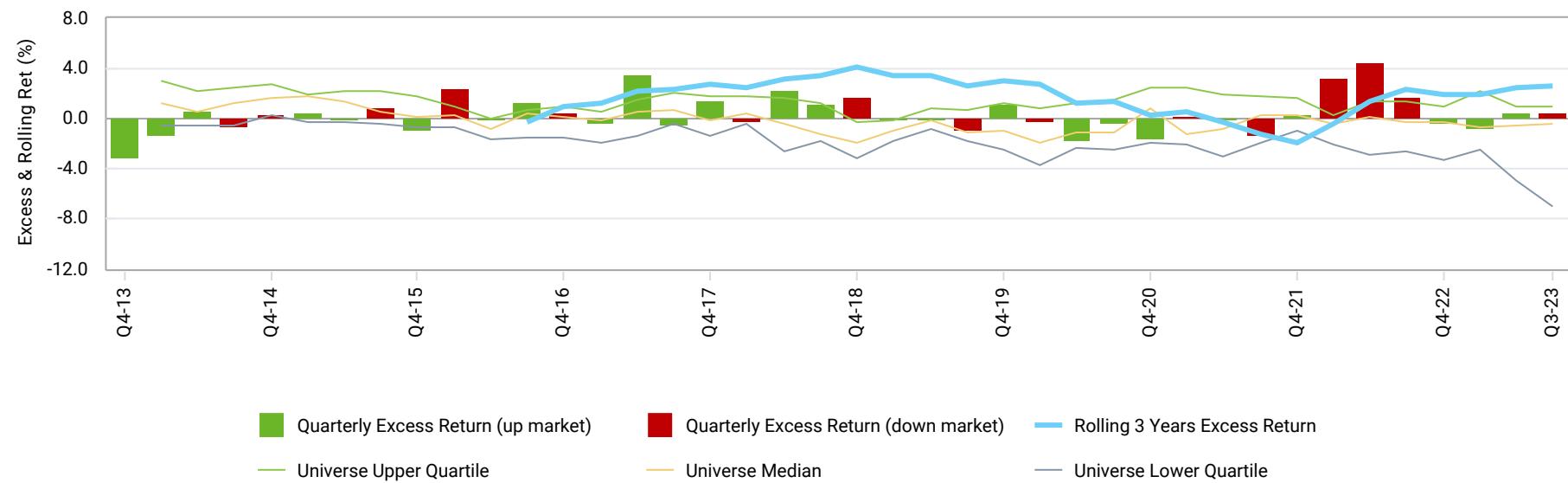


MFS INSTITUTIONAL ADVISORS

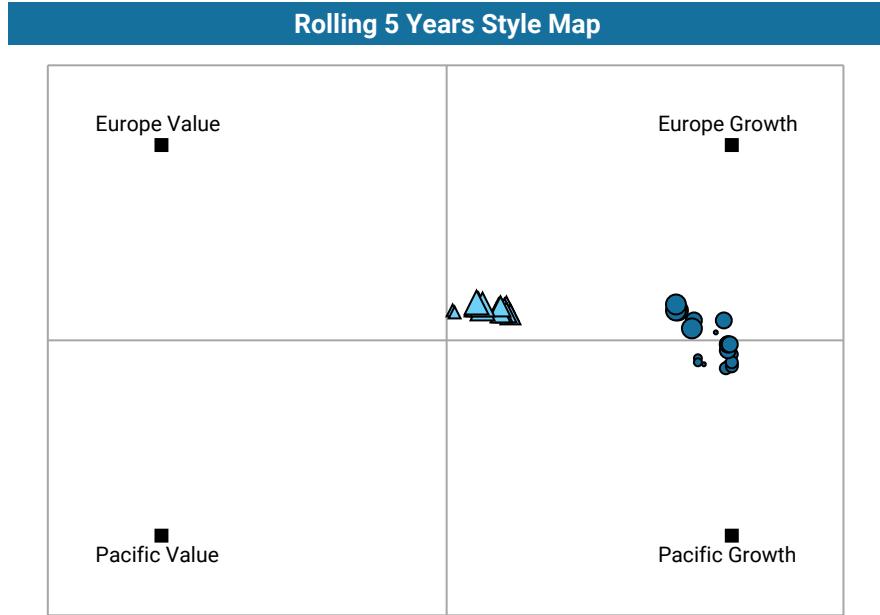
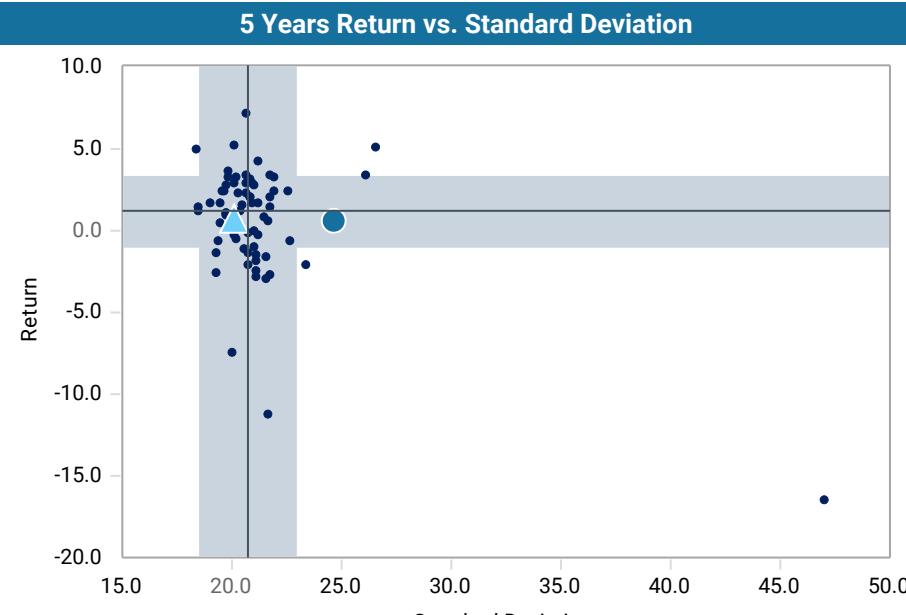
eV EAFE All Cap Growth (net of fees)



Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending September 30, 2023



OBERWEIS ASSET MGMT

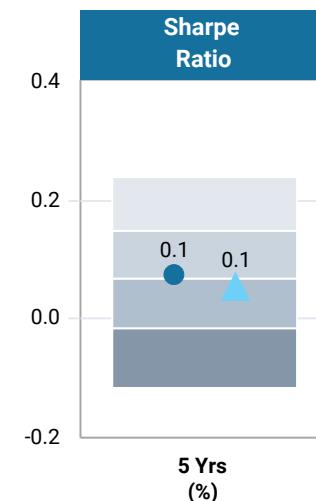
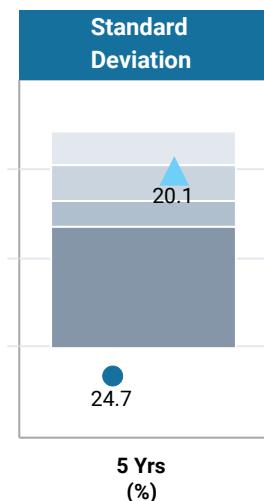
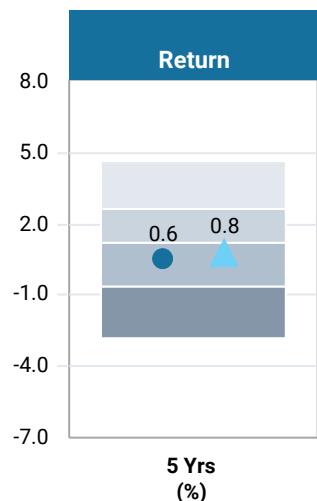


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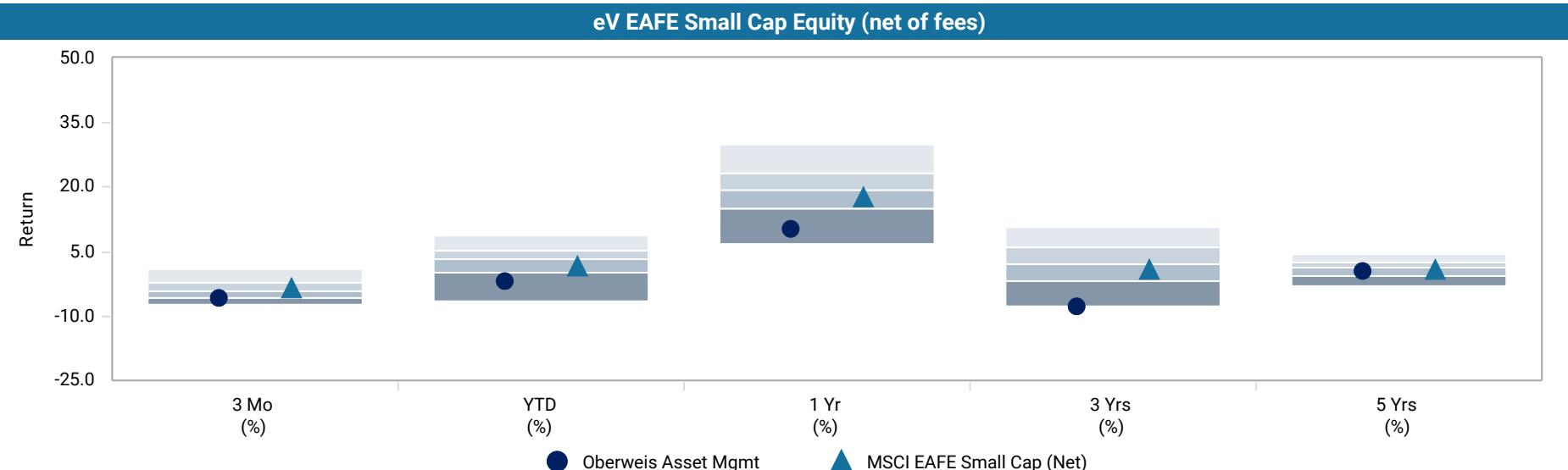
▲ MSCI EAFE Small Cap (Net)

● Oberweis Asset Mgmt

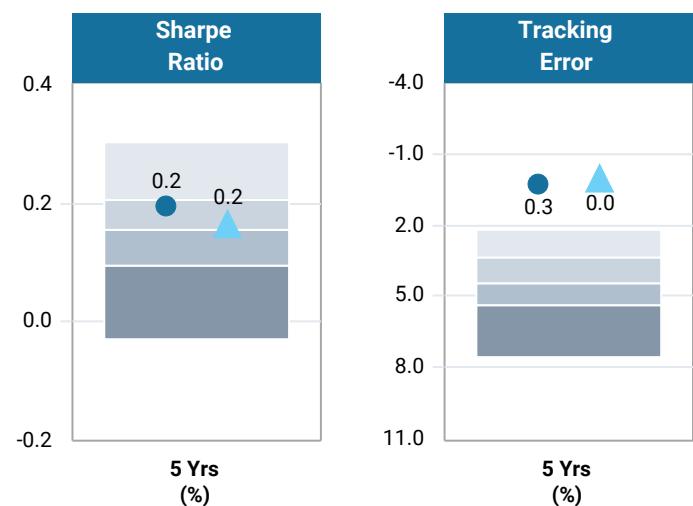
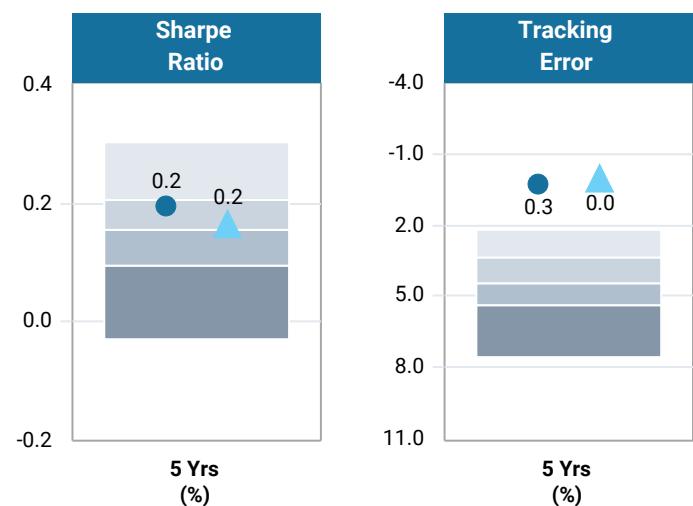
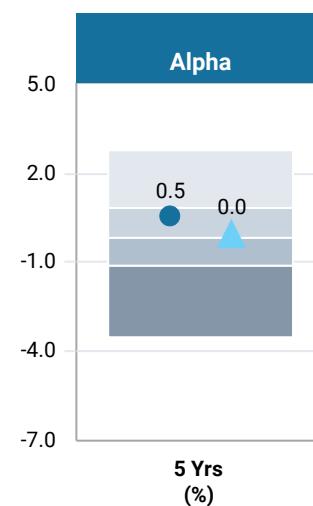
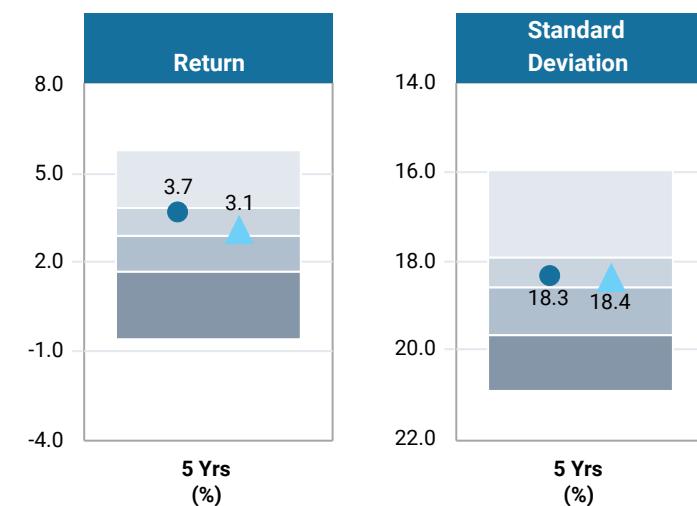
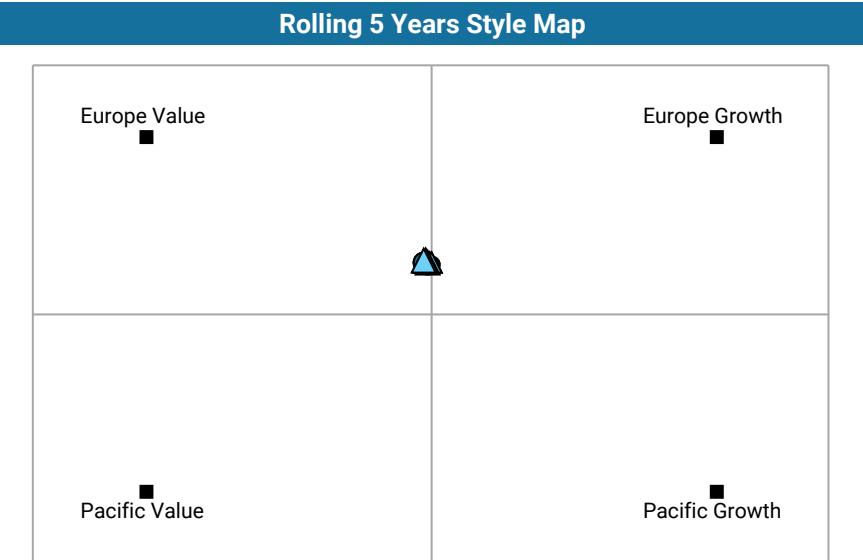
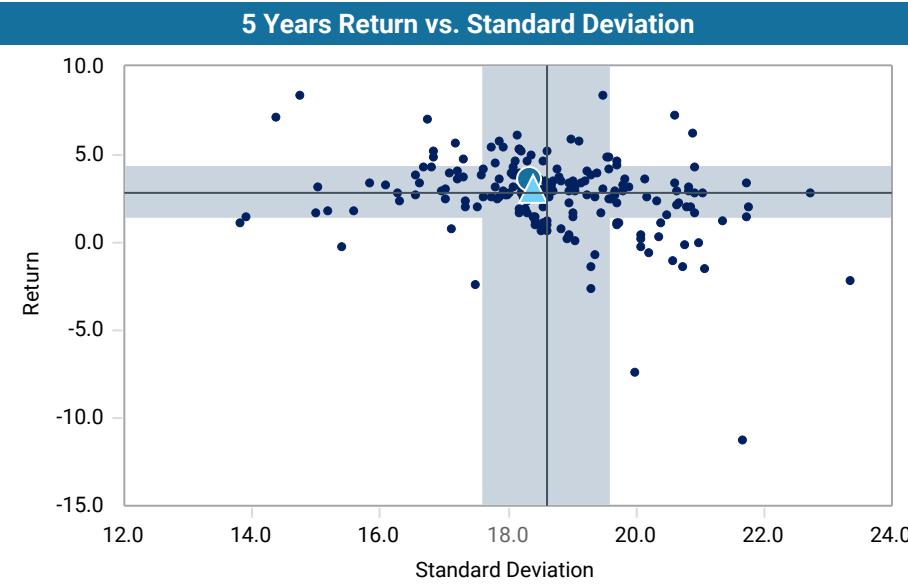
▲ MSCI EAFE Small Cap (Net)



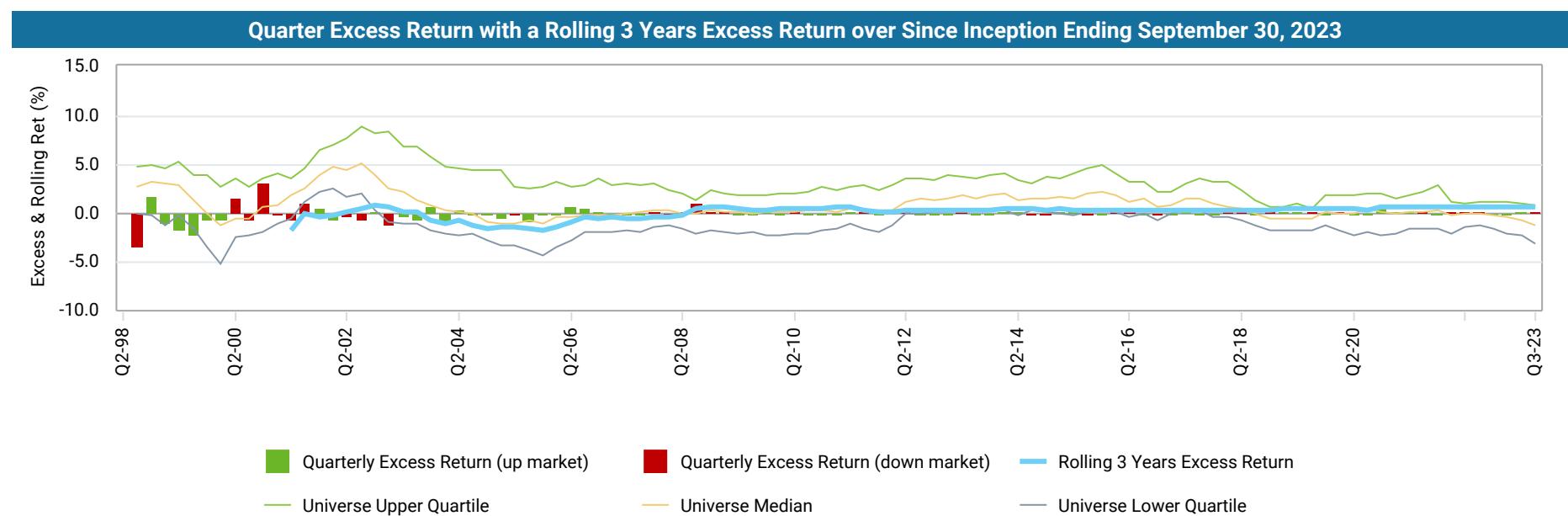
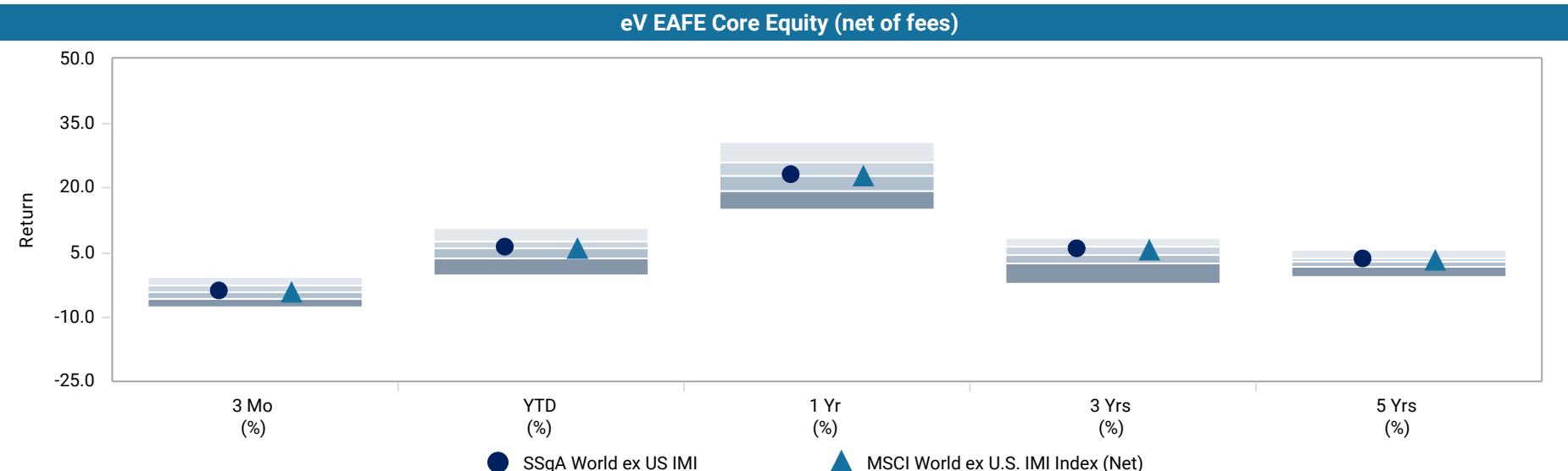
OBERWEIS ASSET MGMT



SSGA WORLD EX US IMI

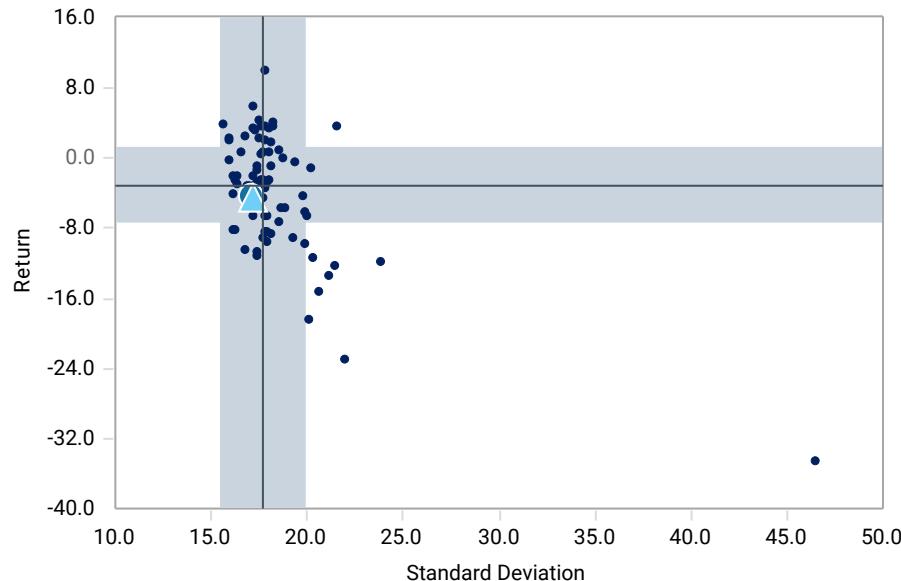


SSGA WORLD EX US IMI



SSGA EAFE SC

Since Inception Return vs. Standard Deviation



Rolling 1 Year Style Map

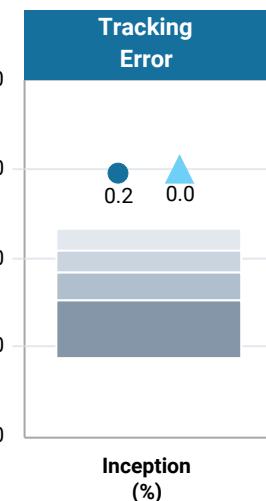
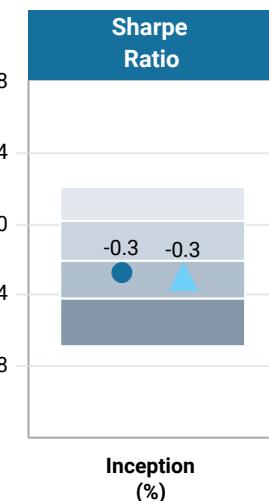
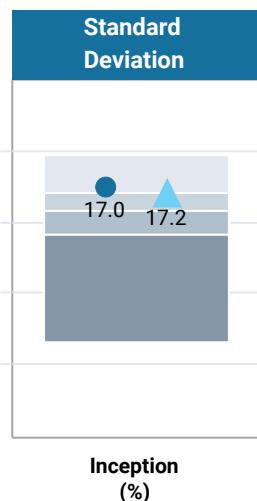
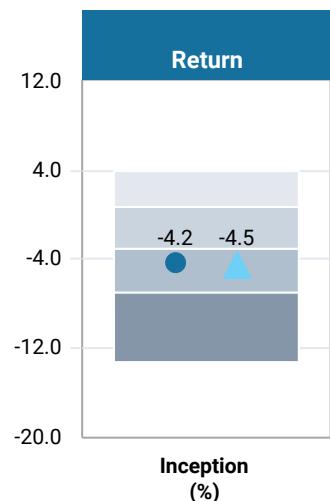


● State Street EAFE SC

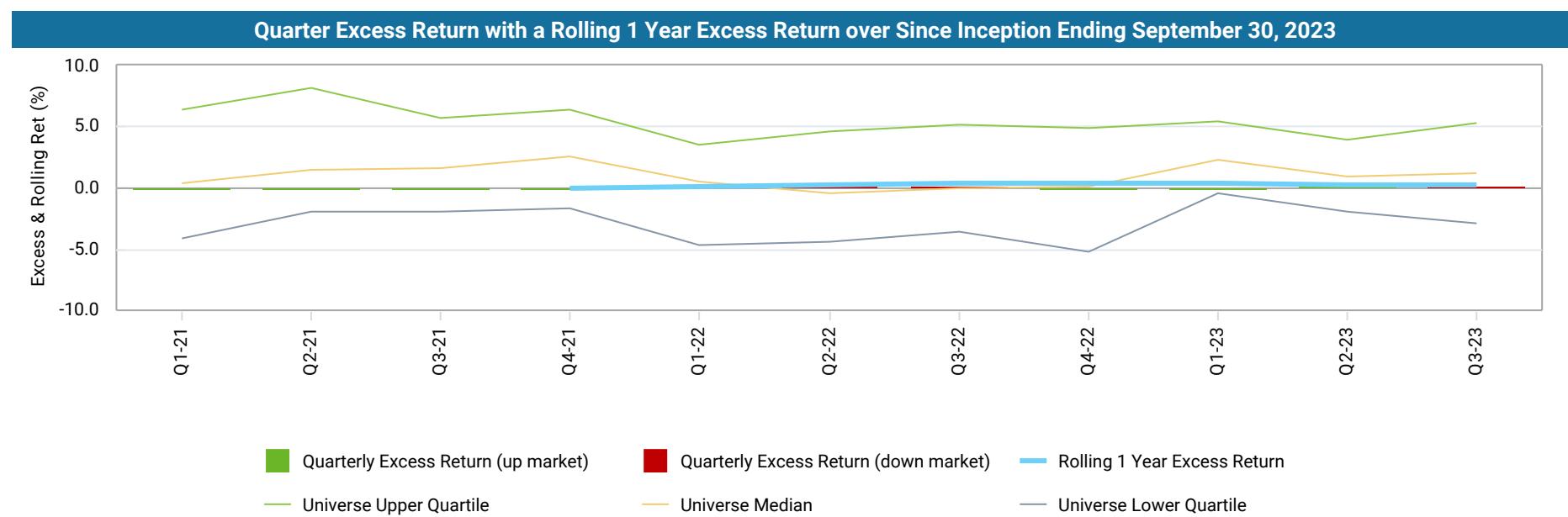
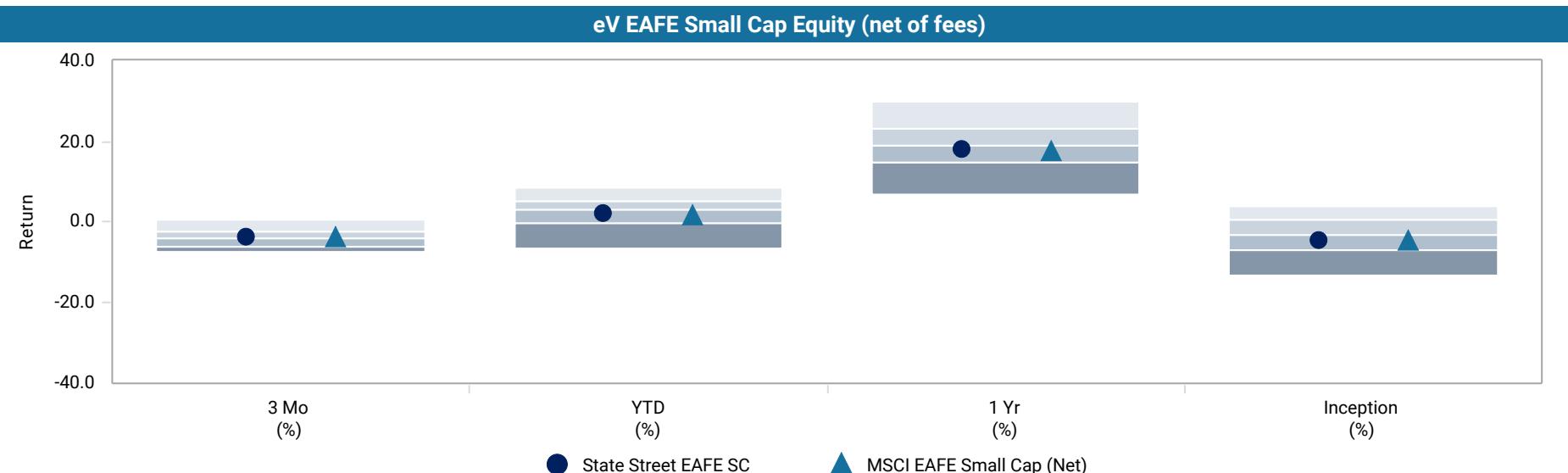
▲ MSCI EAFE Small Cap (Net)

● State Street EAFE SC

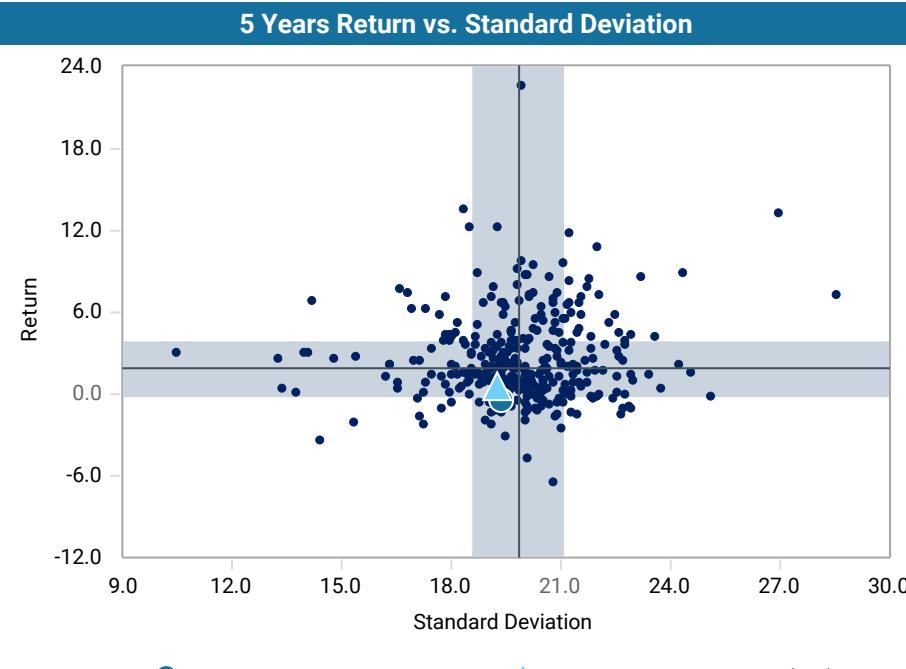
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SSGA EAFE SC

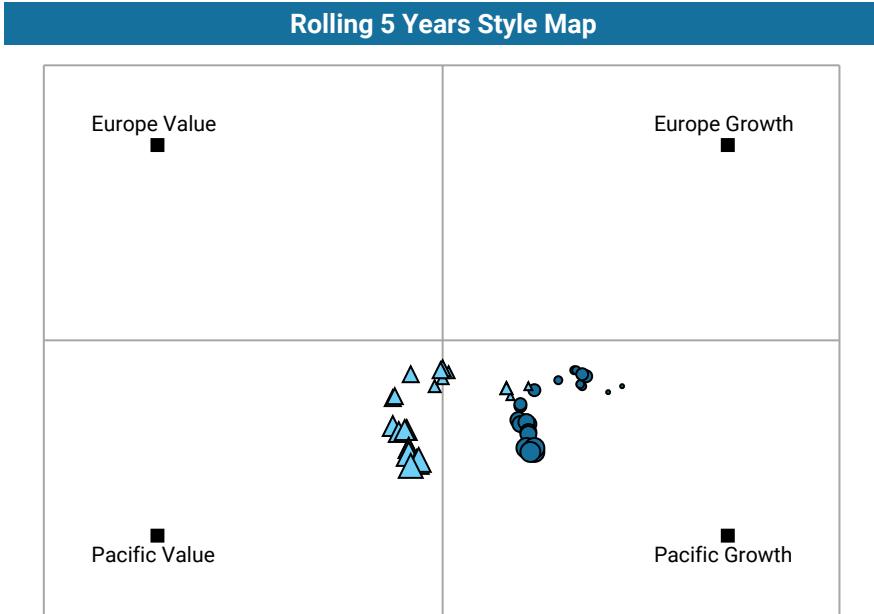


AXIOM EMERGING MARKETS



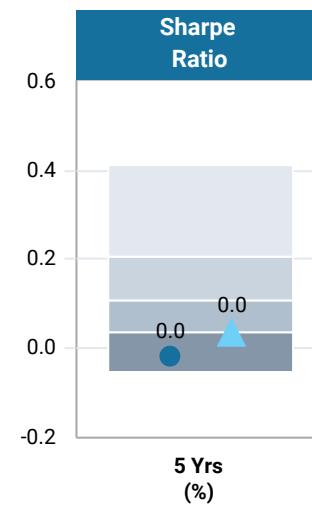
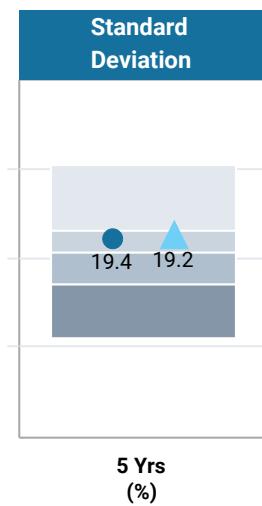
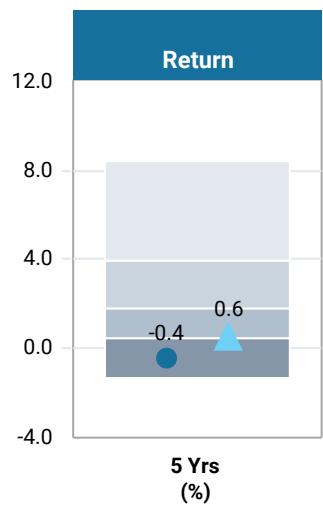
● Axiom Emerging Markets

▲ MSCI Emerging Markets (Net)

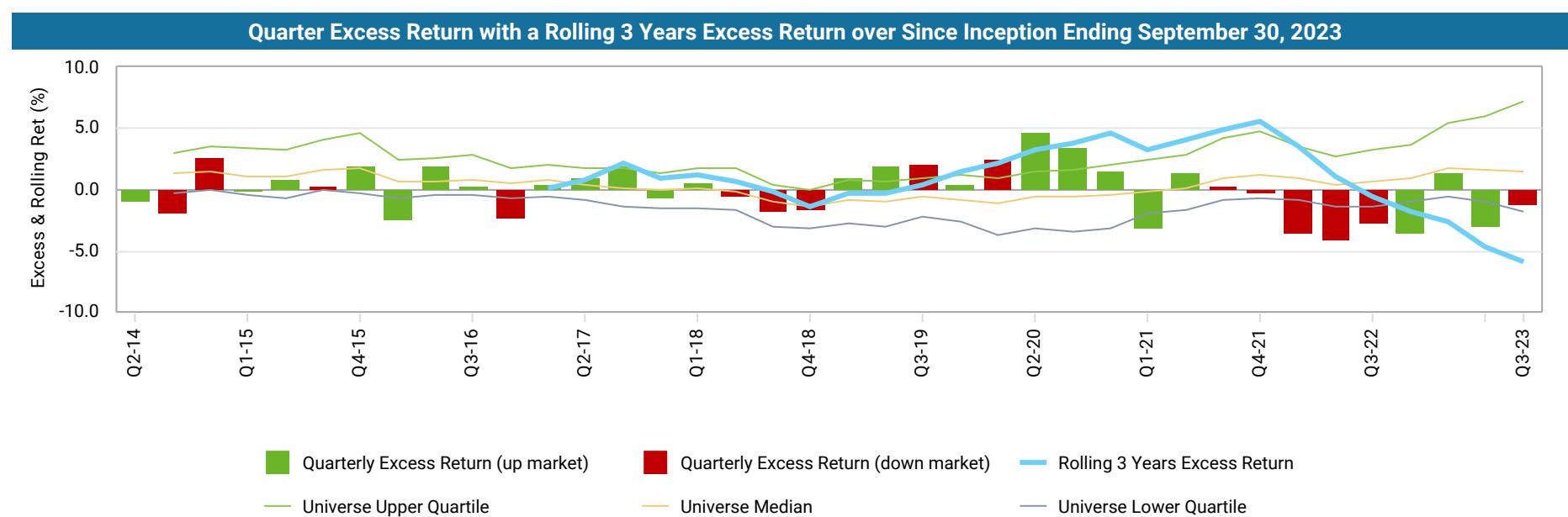
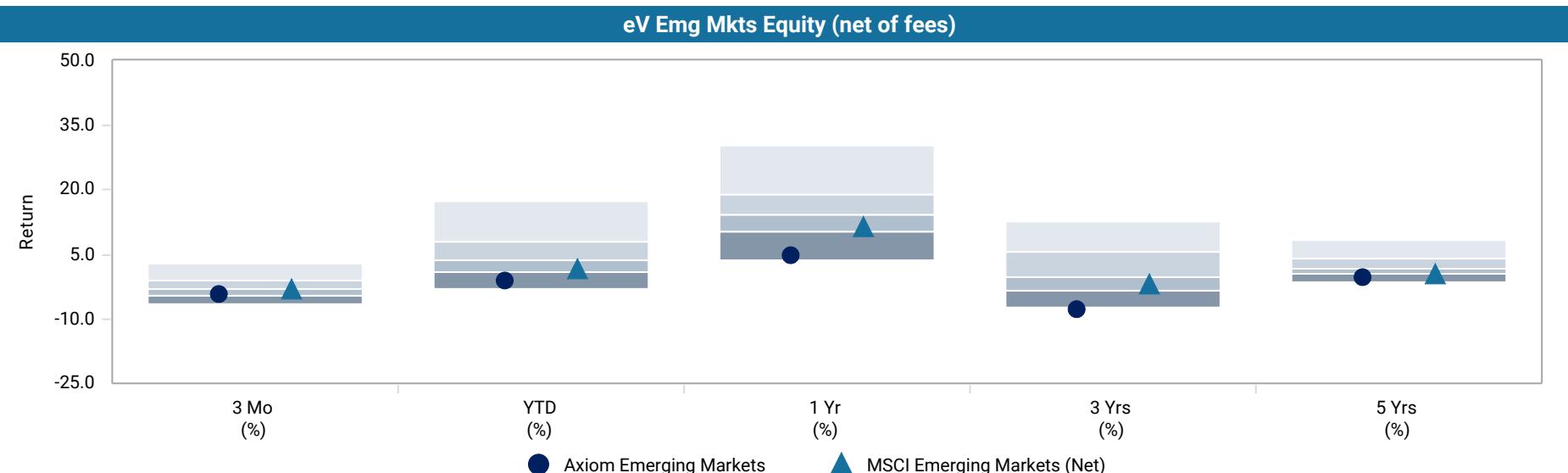


● Axiom Emerging Markets

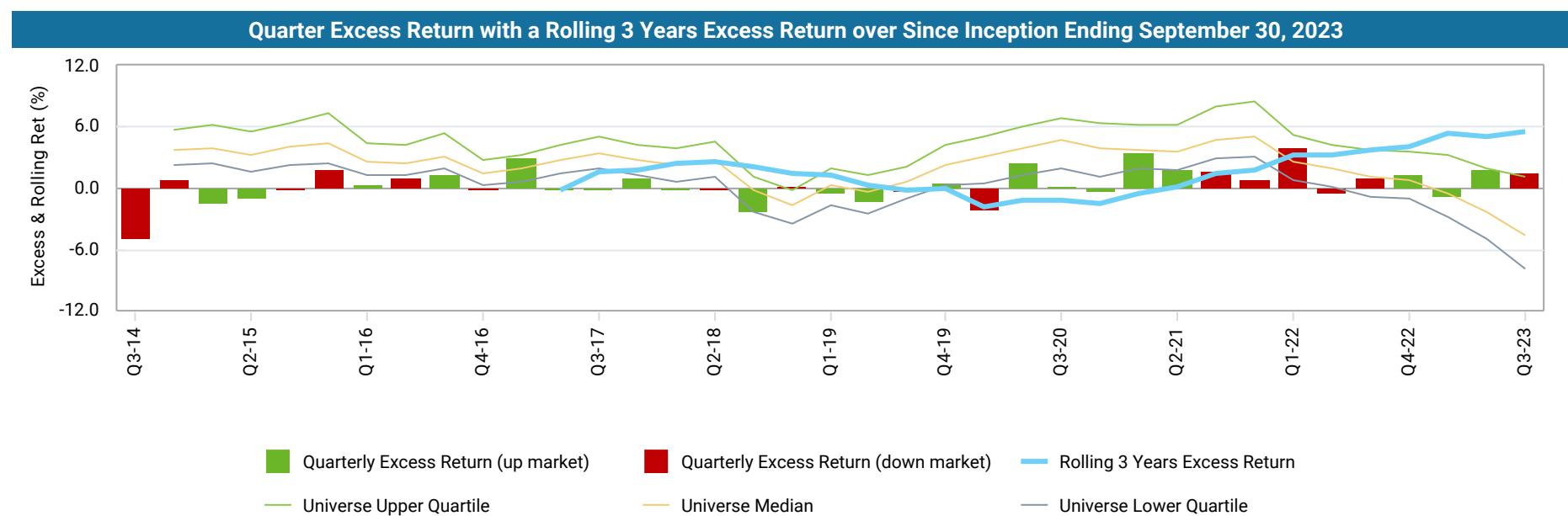
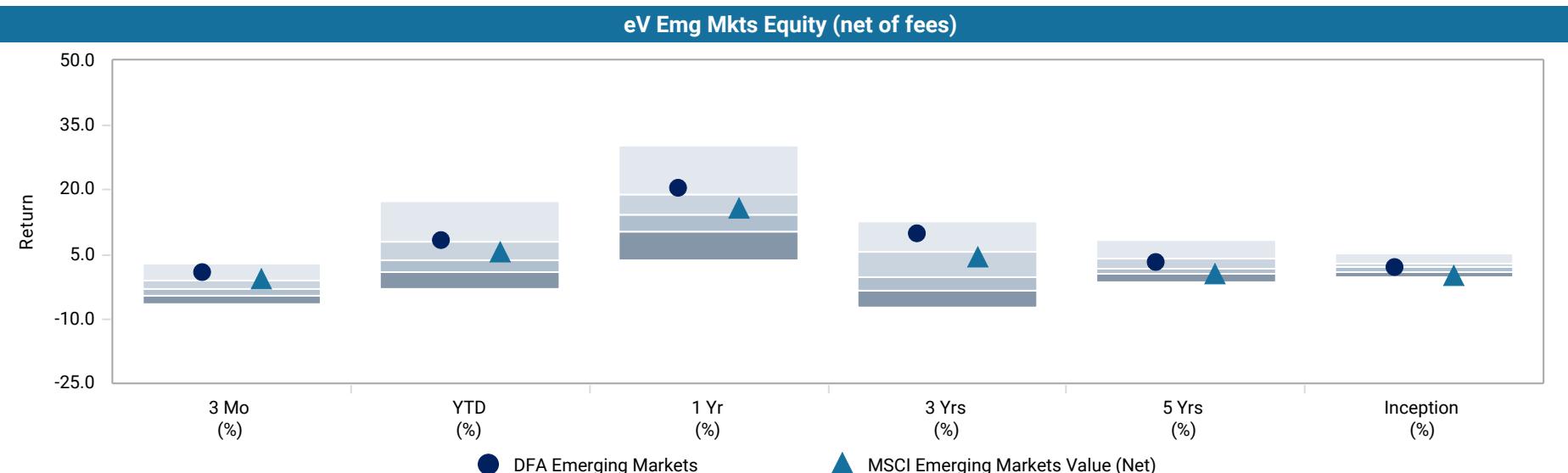
▲ MSCI Emerging Markets (Net)



AXIOM EMERGING MARKETS

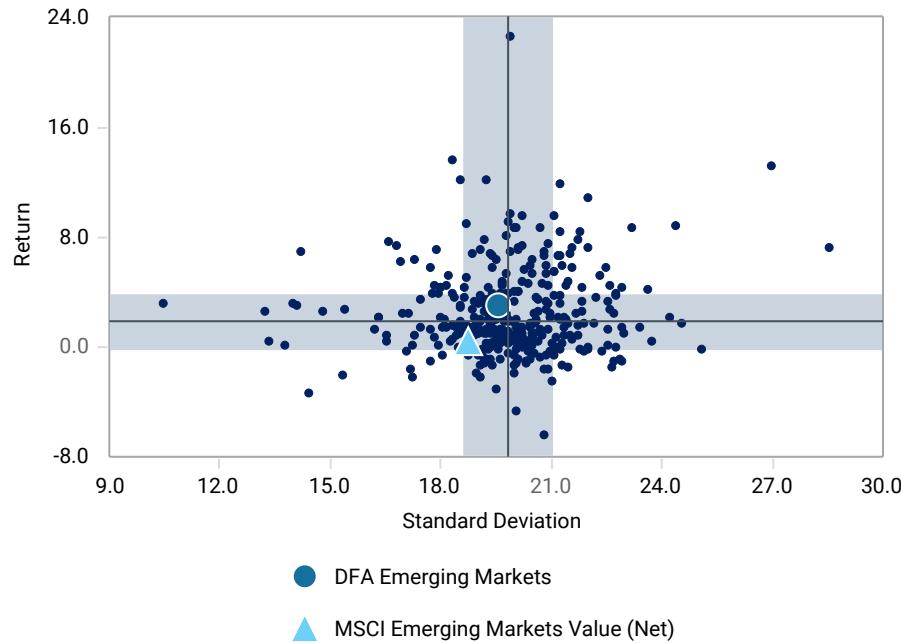


DFA EMERGING MARKETS

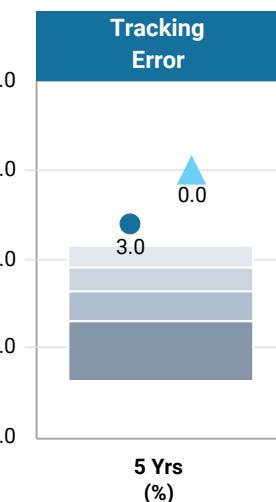
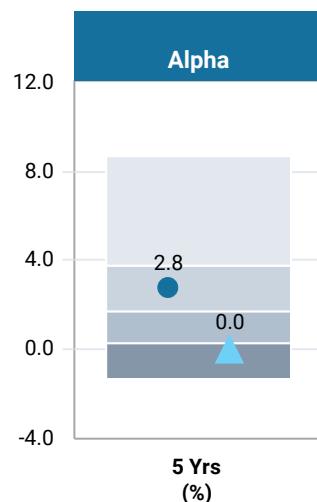
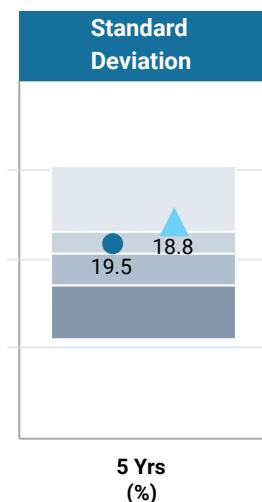
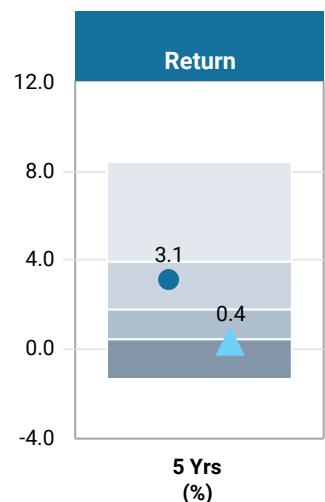
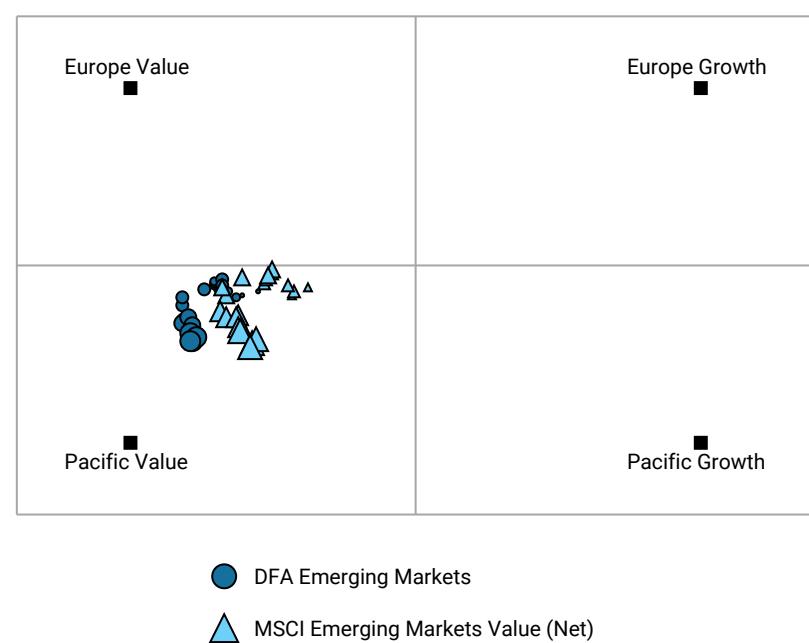


DFA EMERGING MARKETS

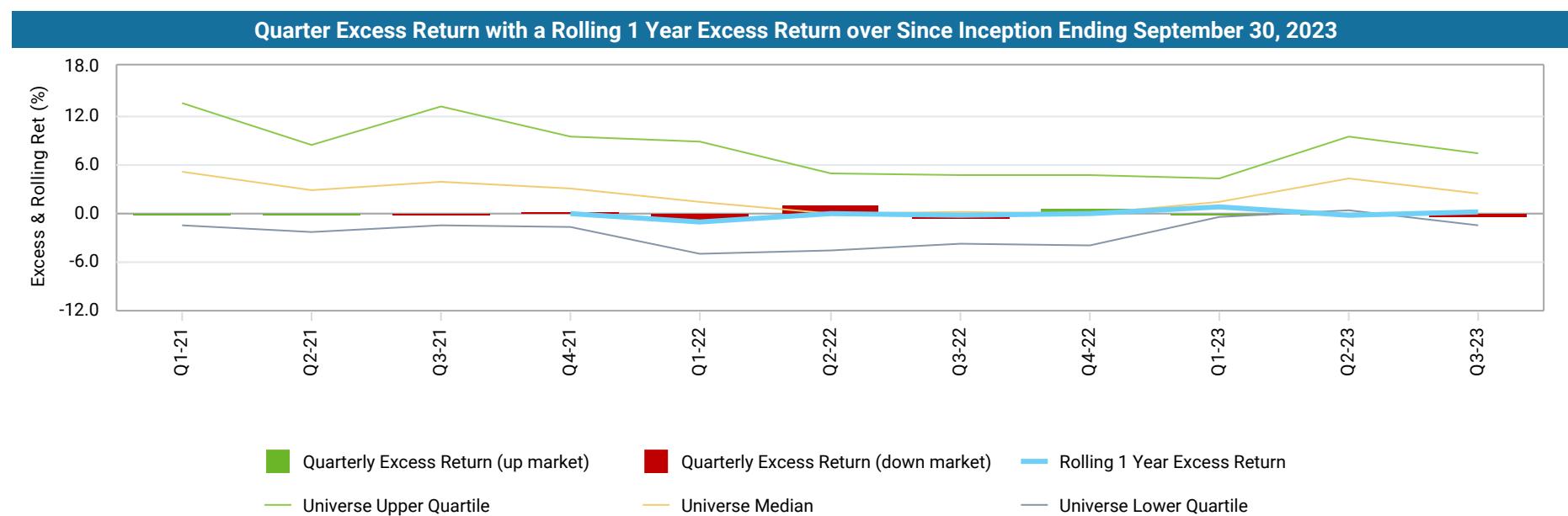
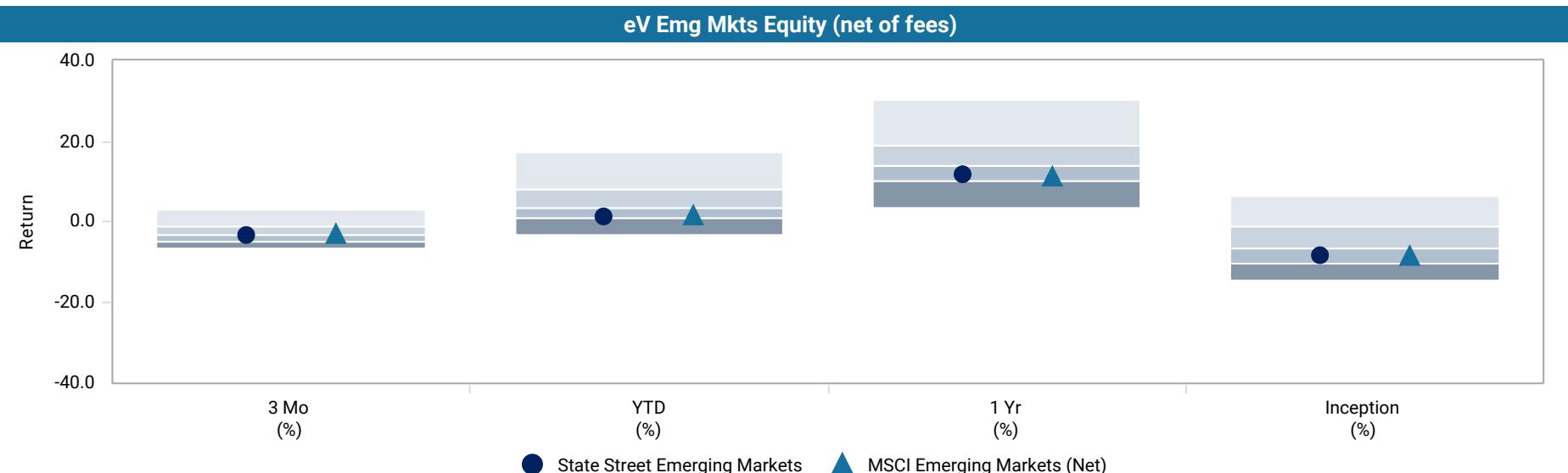
5 Years Return vs. Standard Deviation



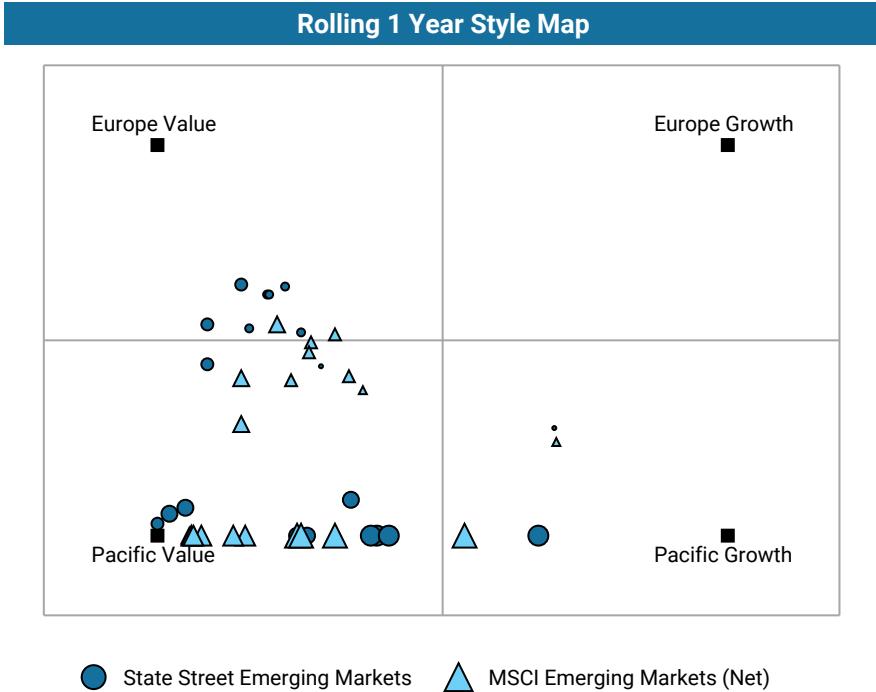
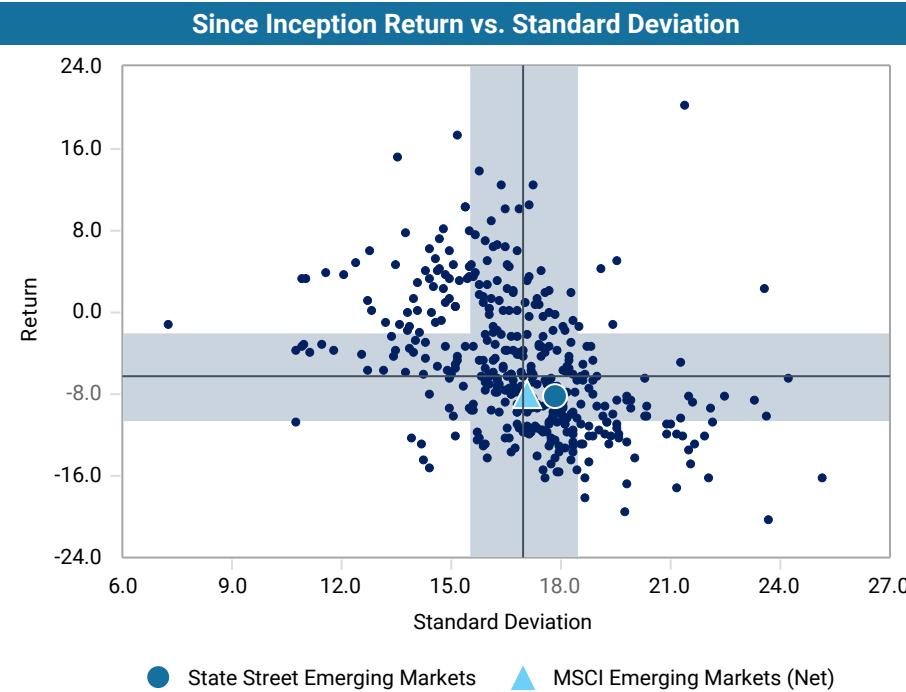
Rolling 5 Years Style Map



SSGA EMERGING MARKETS

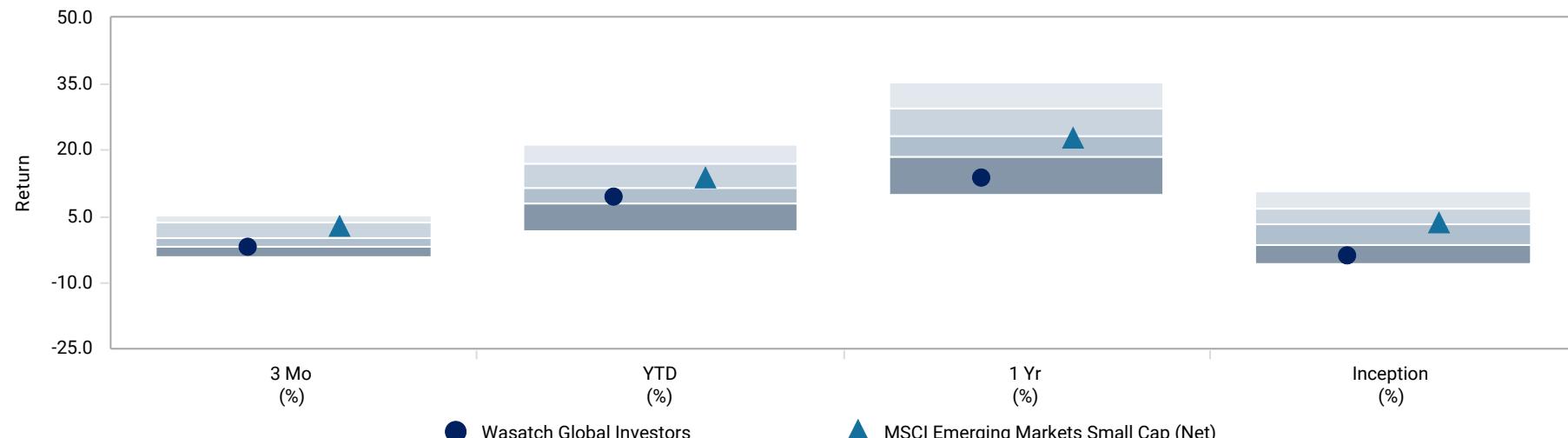


SSGA EMERGING MARKETS



WASATCH GLOBAL INVESTORS

eV Emg Mkts Small Cap Equity (net of fees)

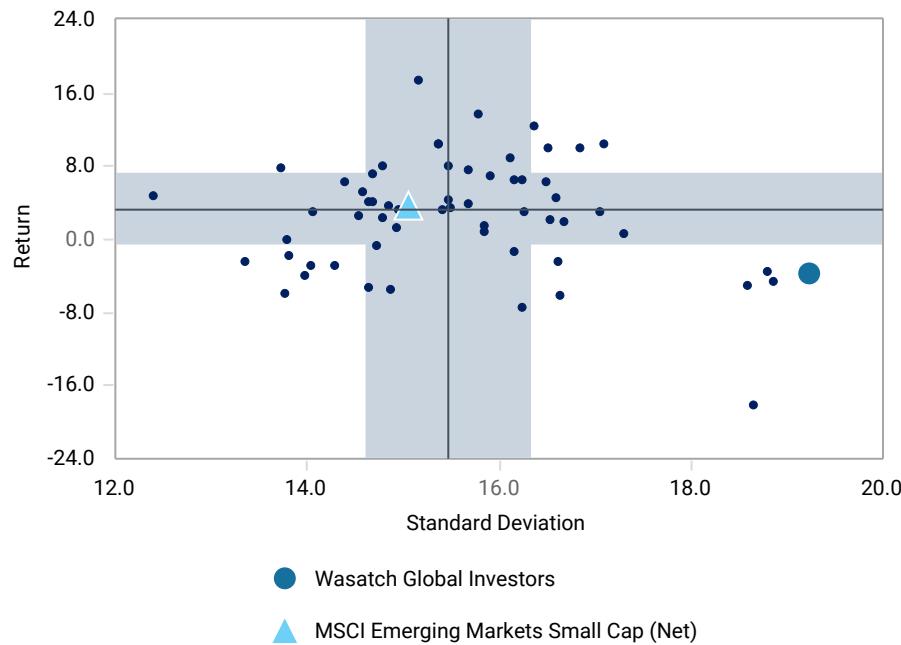


Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2023

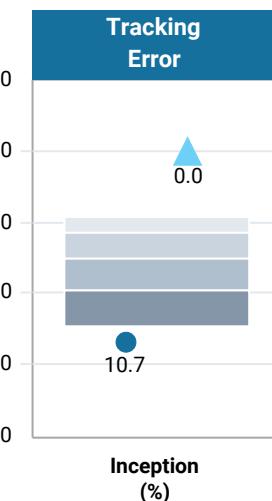
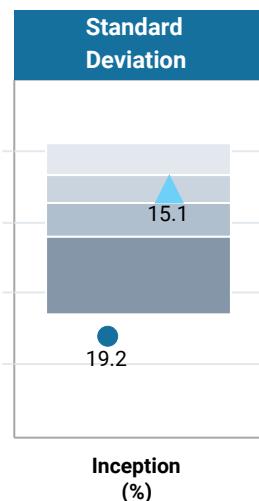
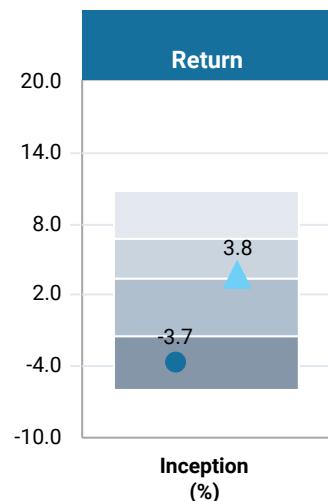
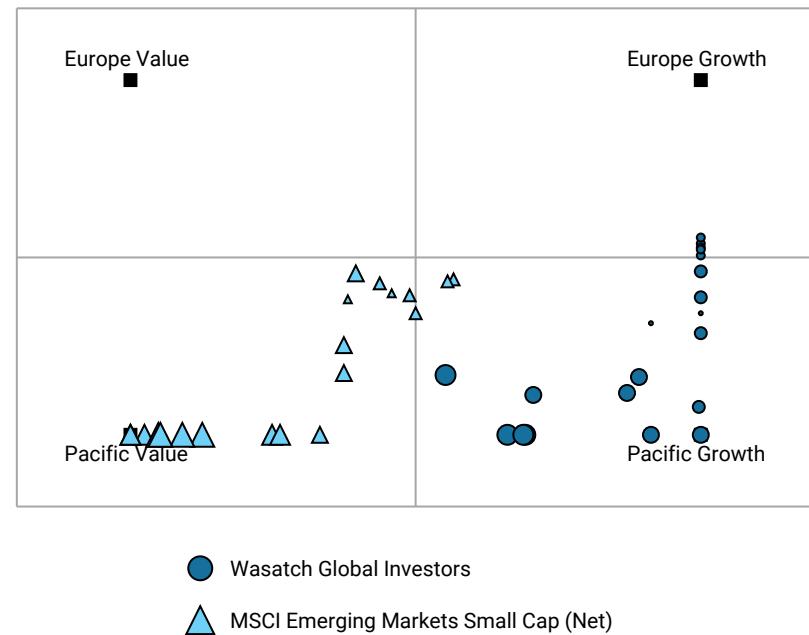


WASATCH GLOBAL INVESTORS

Since Inception Return vs. Standard Deviation



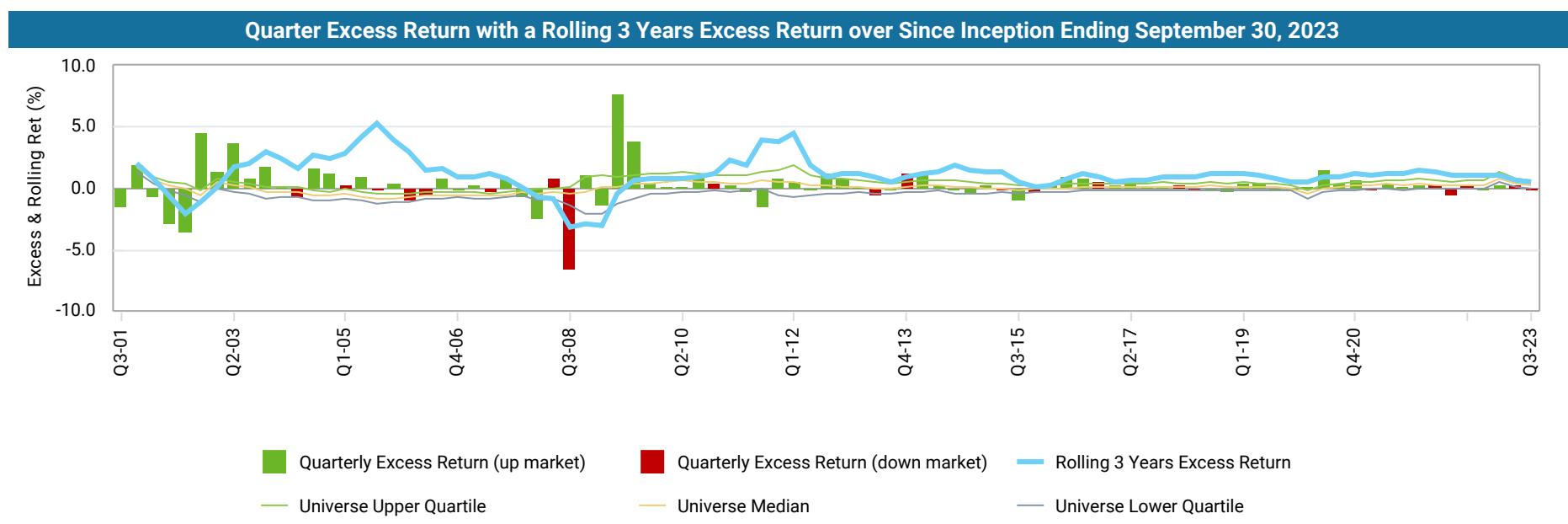
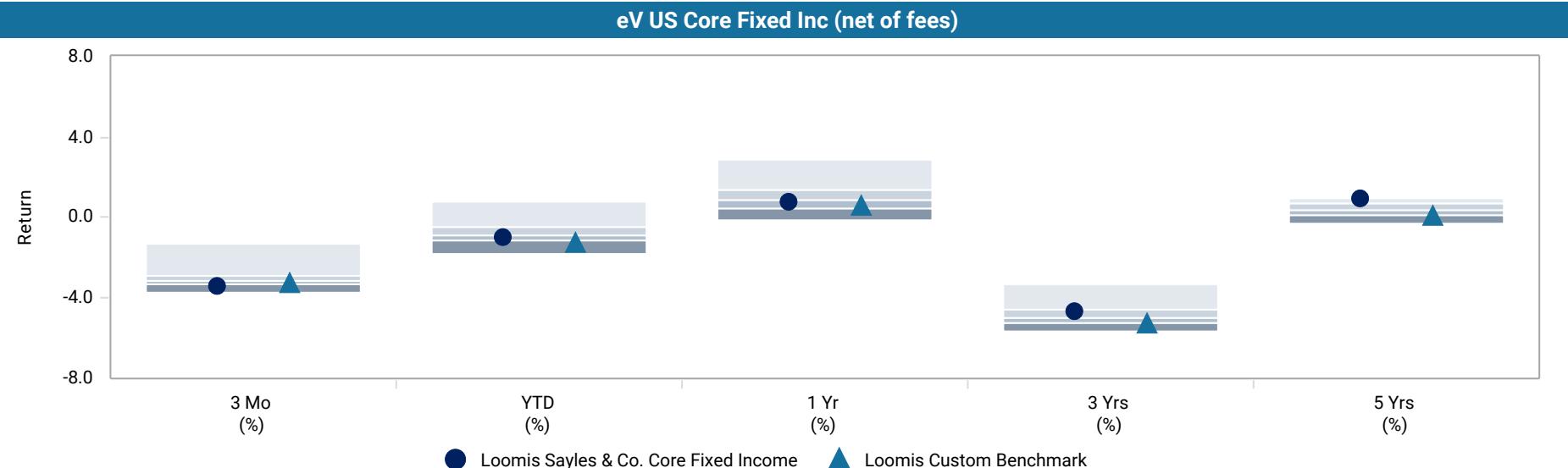
Rolling 1 Year Style Map





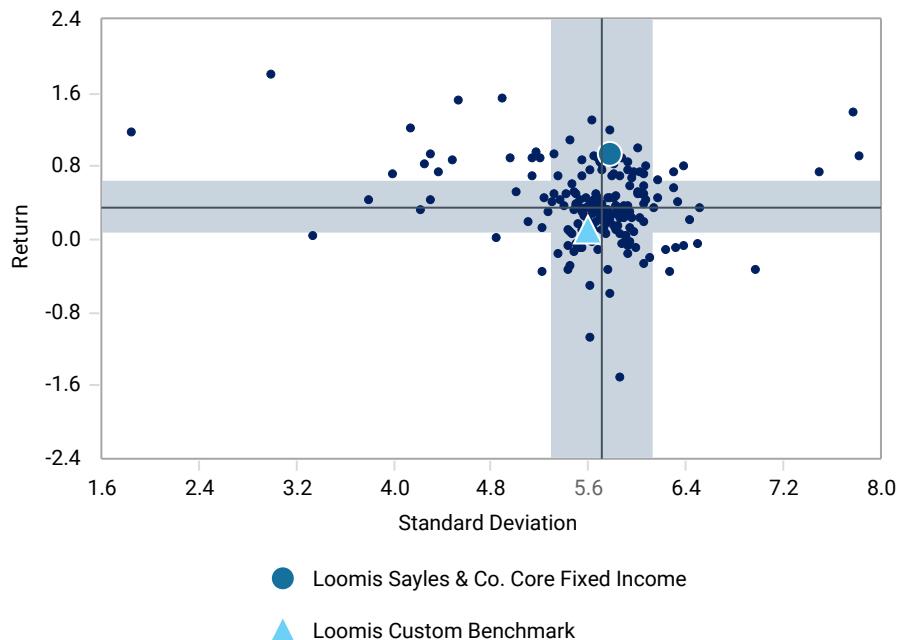
CORE FIXED INCOME MANAGER PERFORMANCE

LOOMIS SAYLES & CO. CORE FIXED INCOME



LOOMIS SAYLES & CO. CORE FIXED INCOME

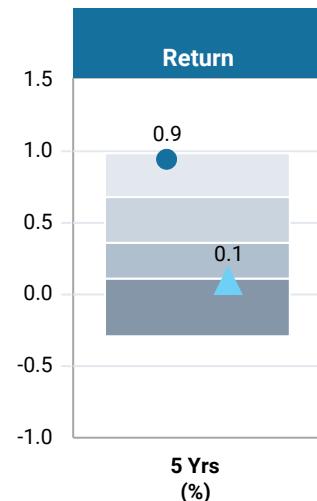
5 Years Return vs. Standard Deviation



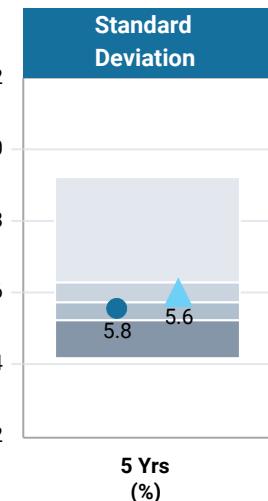
Style Map: (5 Years)



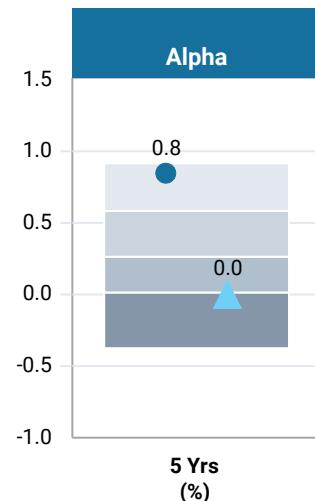
Return



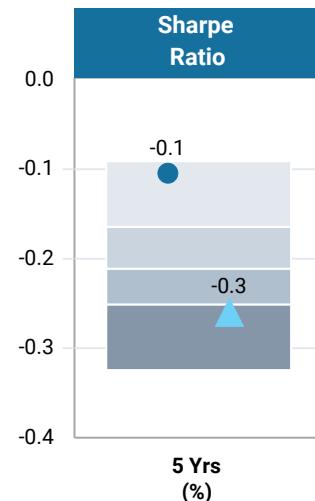
Standard Deviation



Alpha



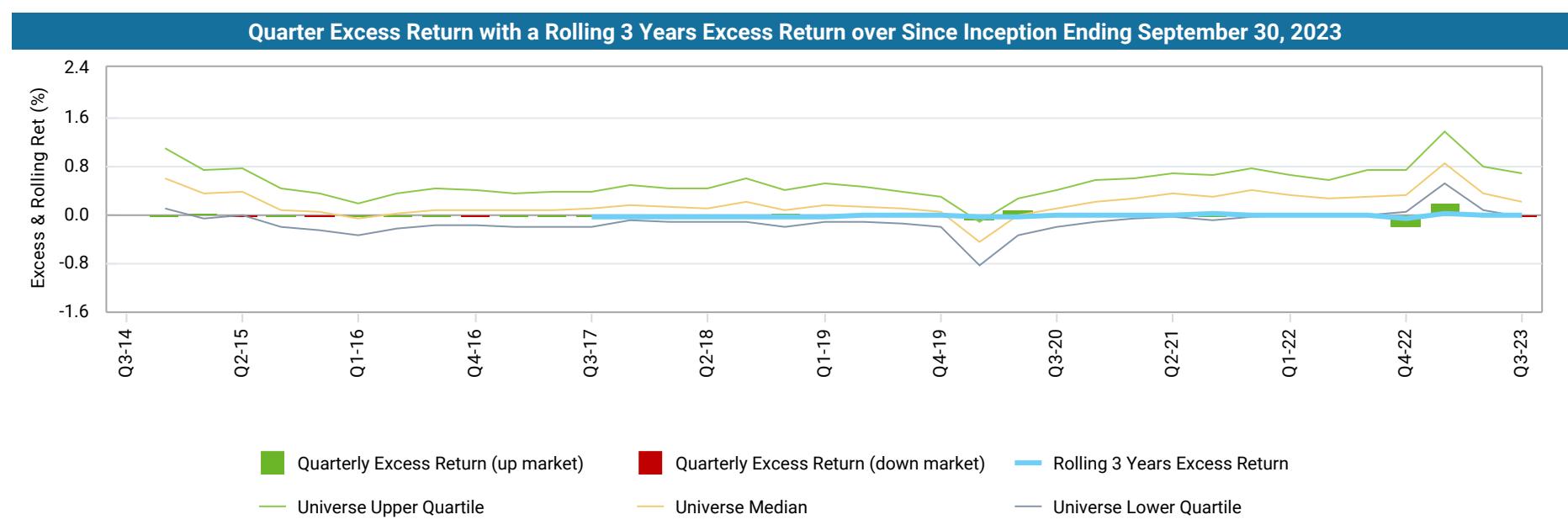
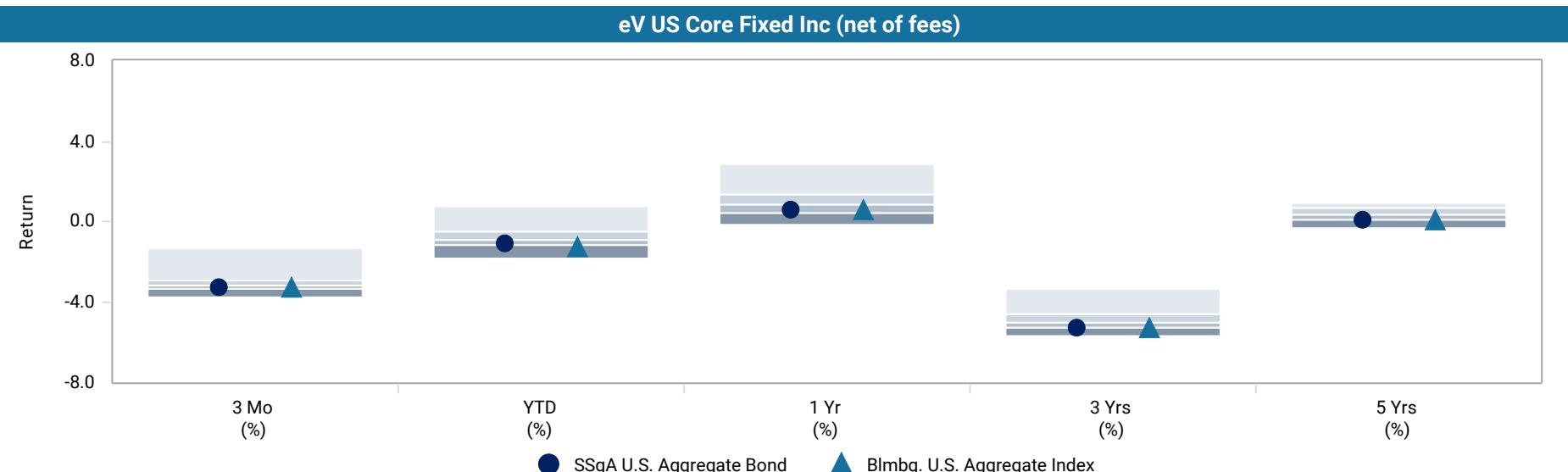
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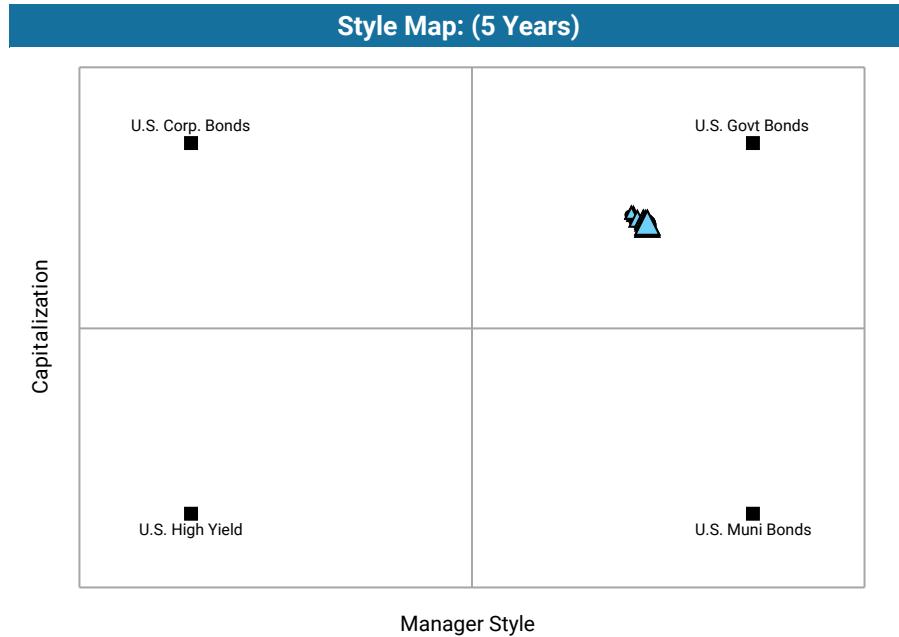
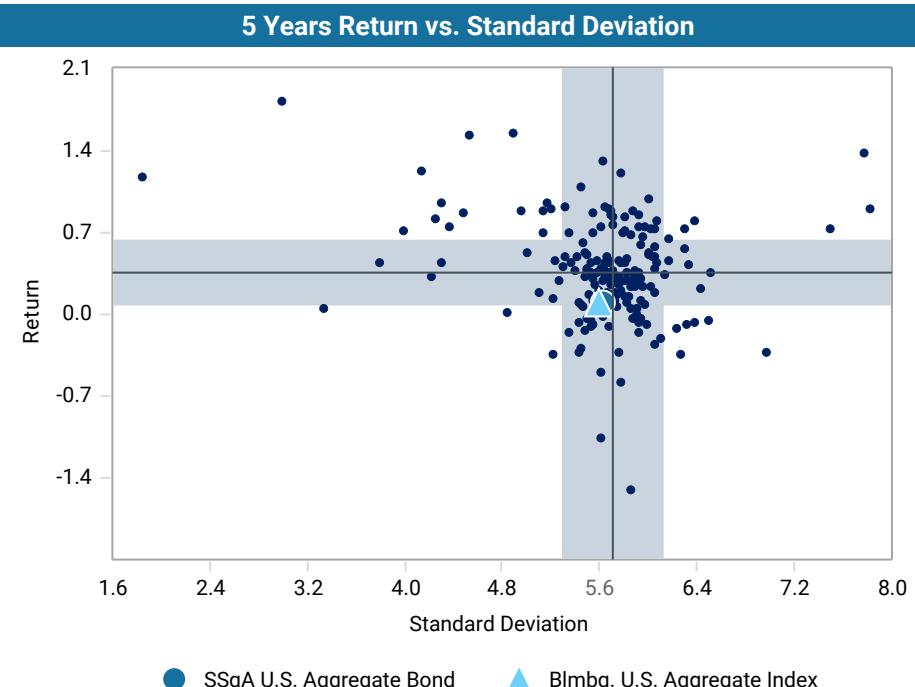
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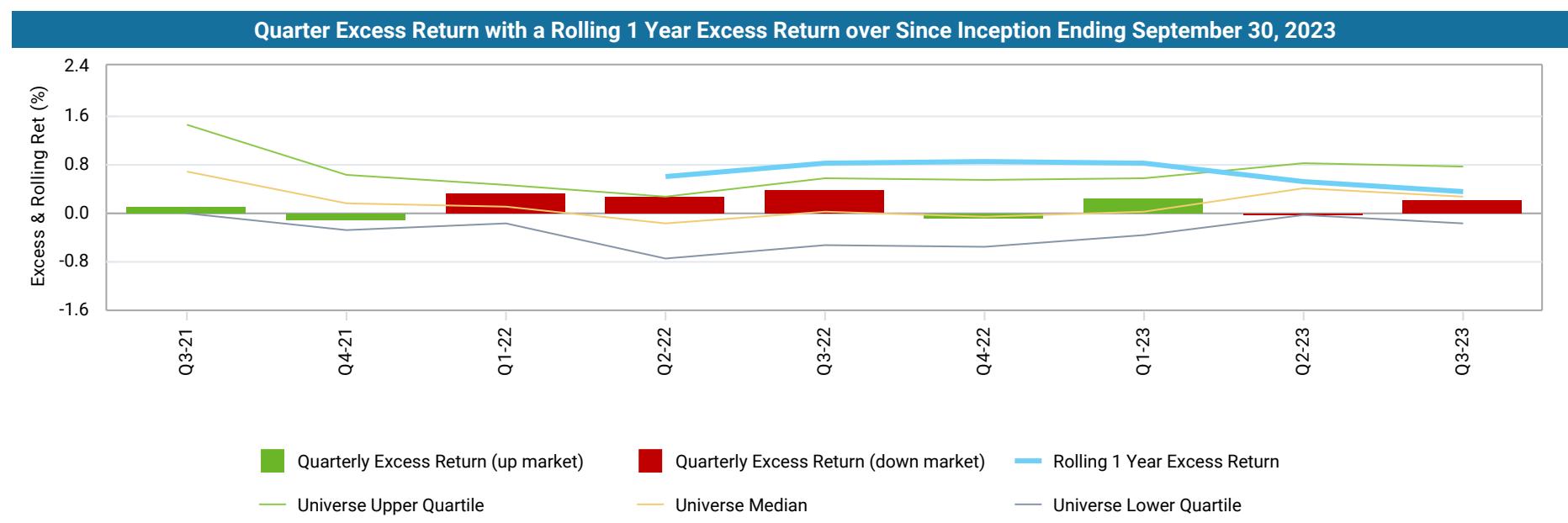
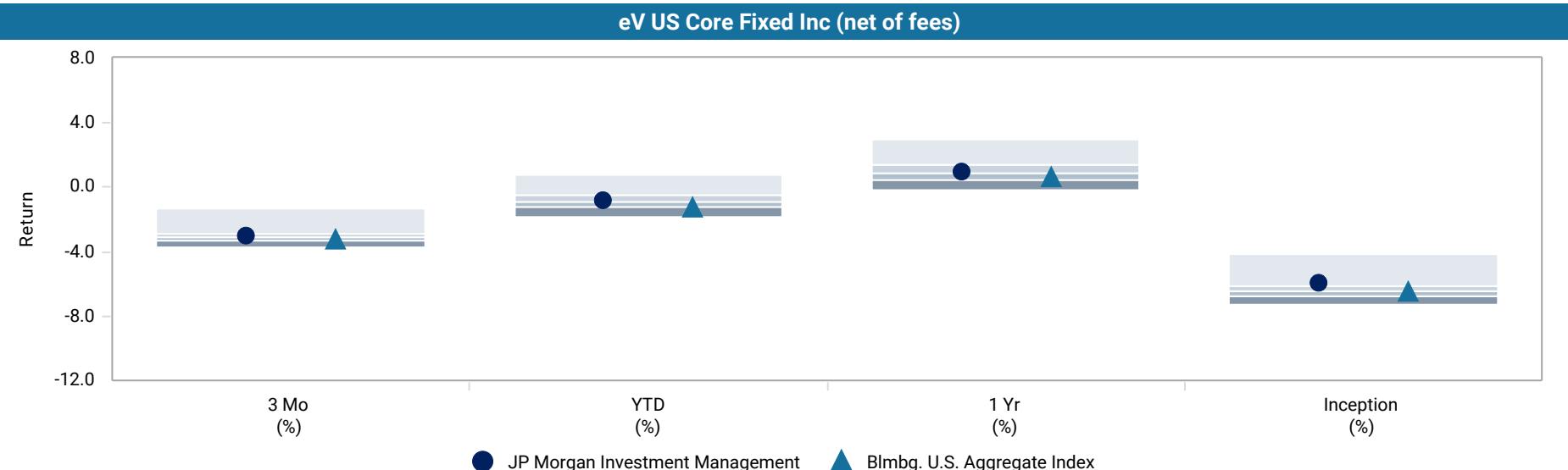
SSGA U.S. AGGREGATE BOND



SSGA U.S. AGGREGATE BOND

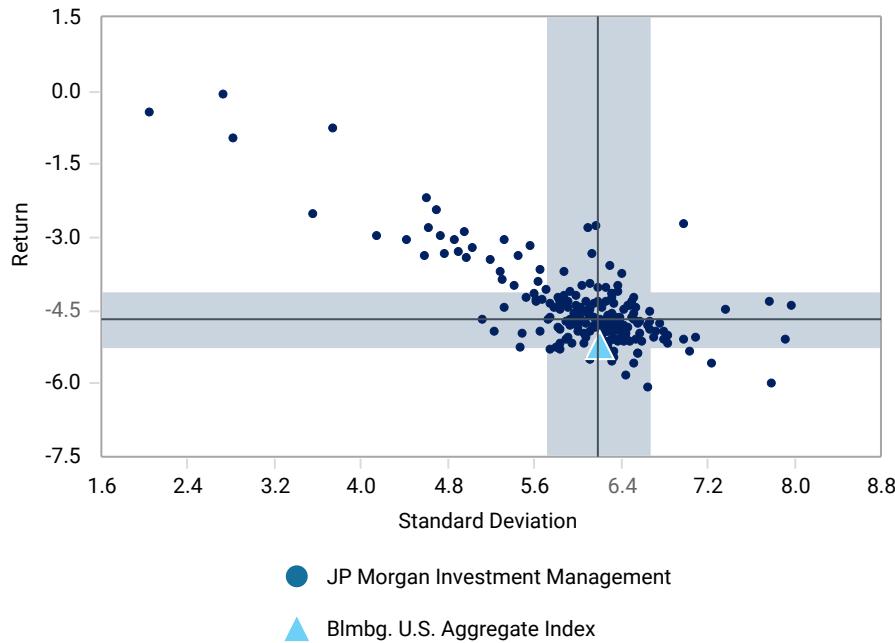


JP MORGAN INVESTMENT MANAGEMENT

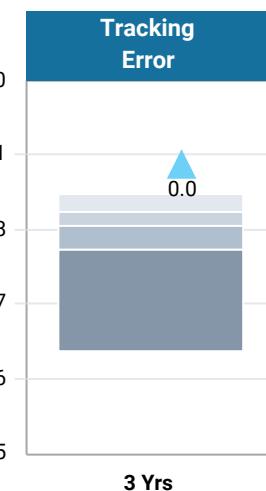
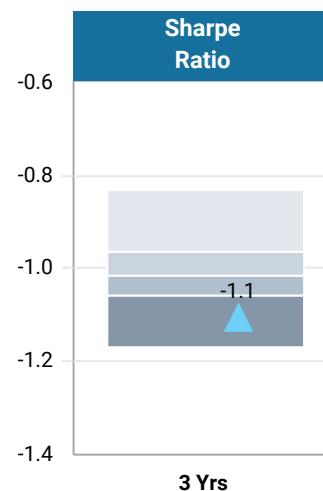
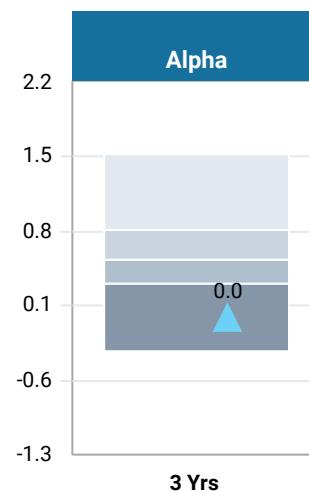
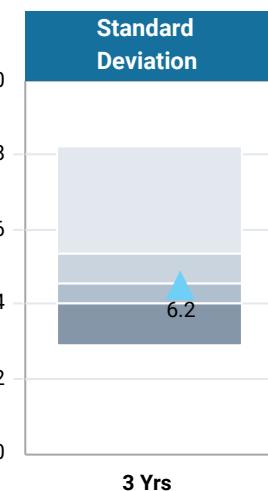
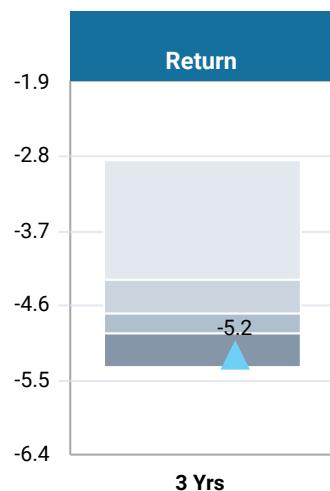


JP MORGAN INVESTMENT MANAGEMENT

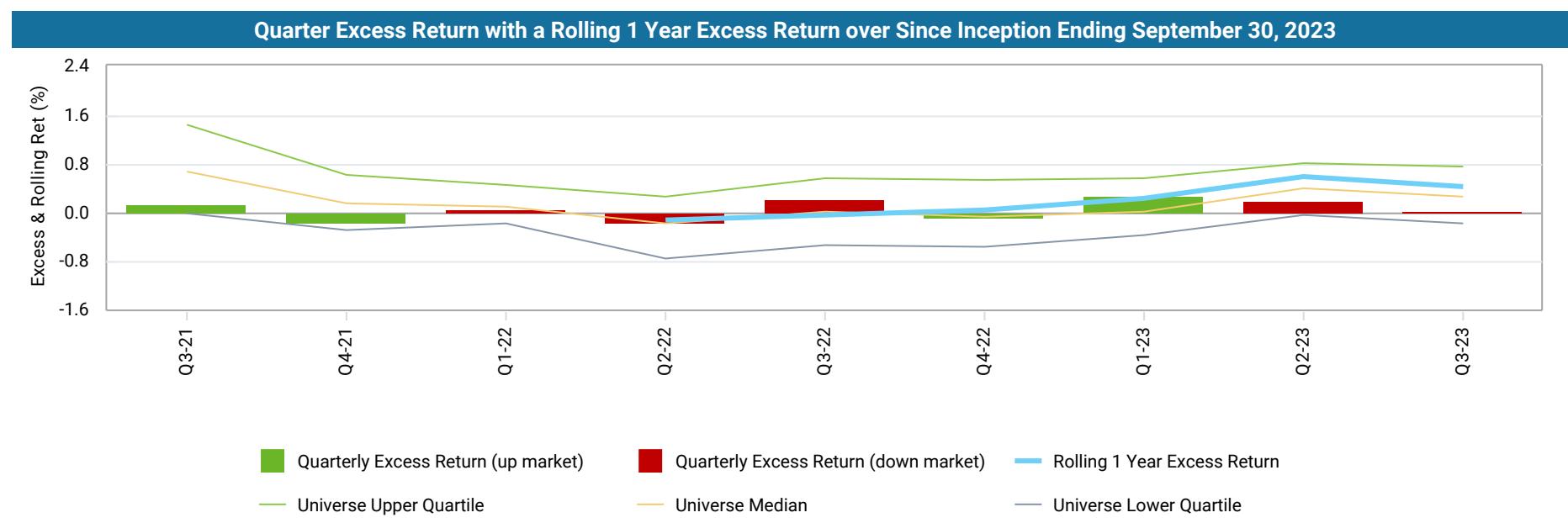
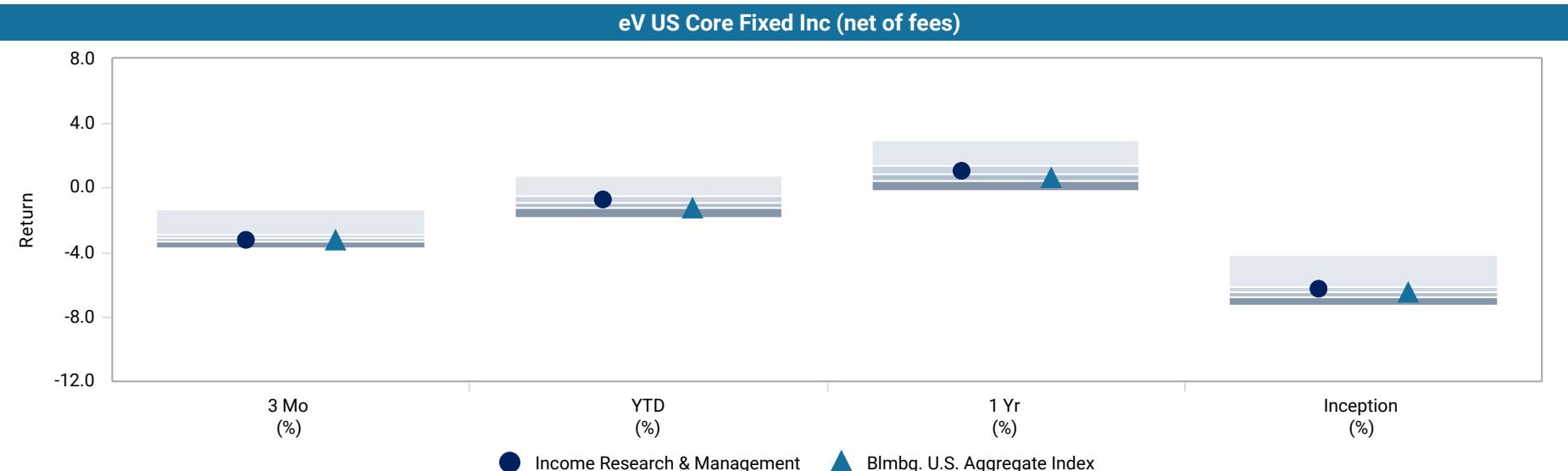
3 Years Return vs. Standard Deviation



Style Map: (1 Year)

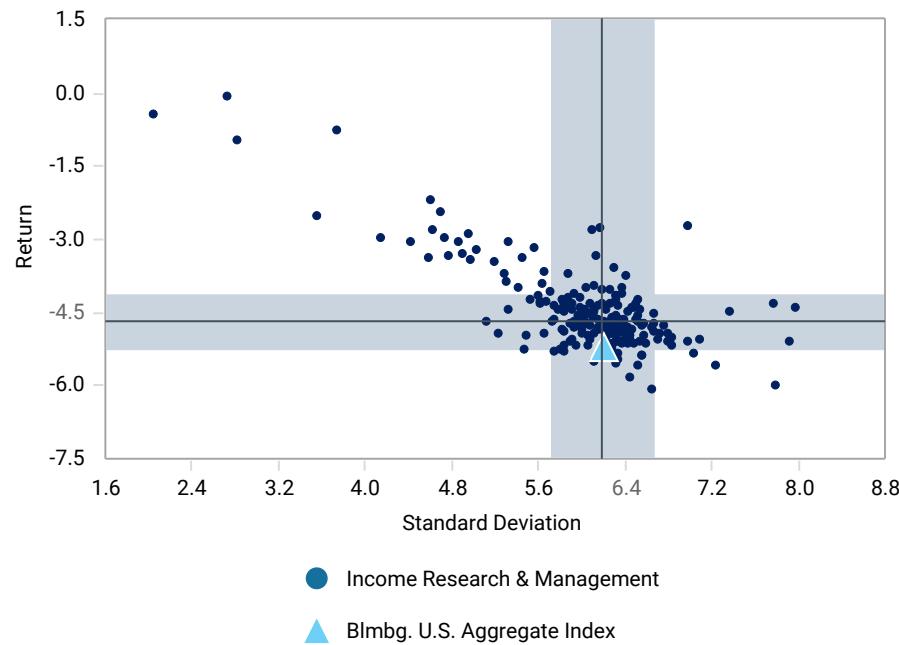


INCOME RESEARCH AND MGMT

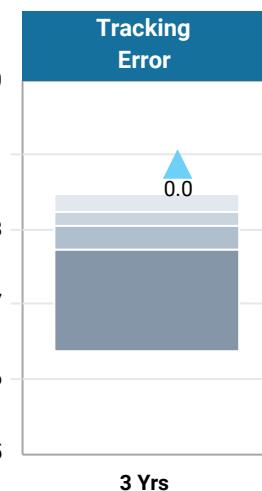
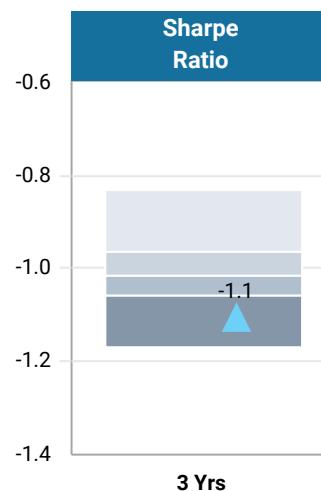
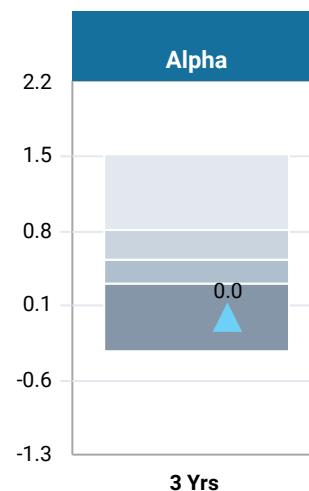
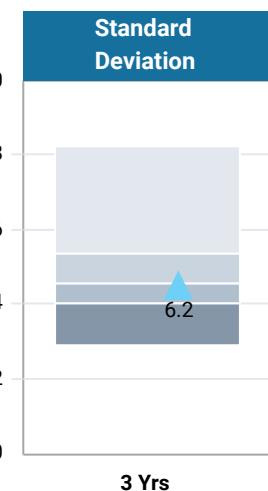
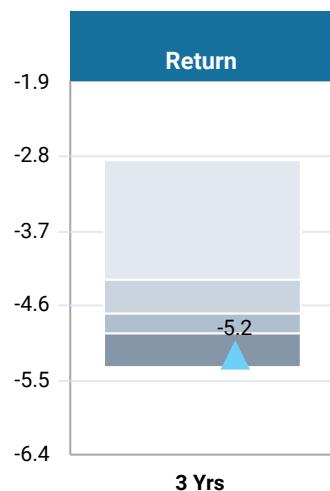


INCOME RESEARCH & MANAGEMENT

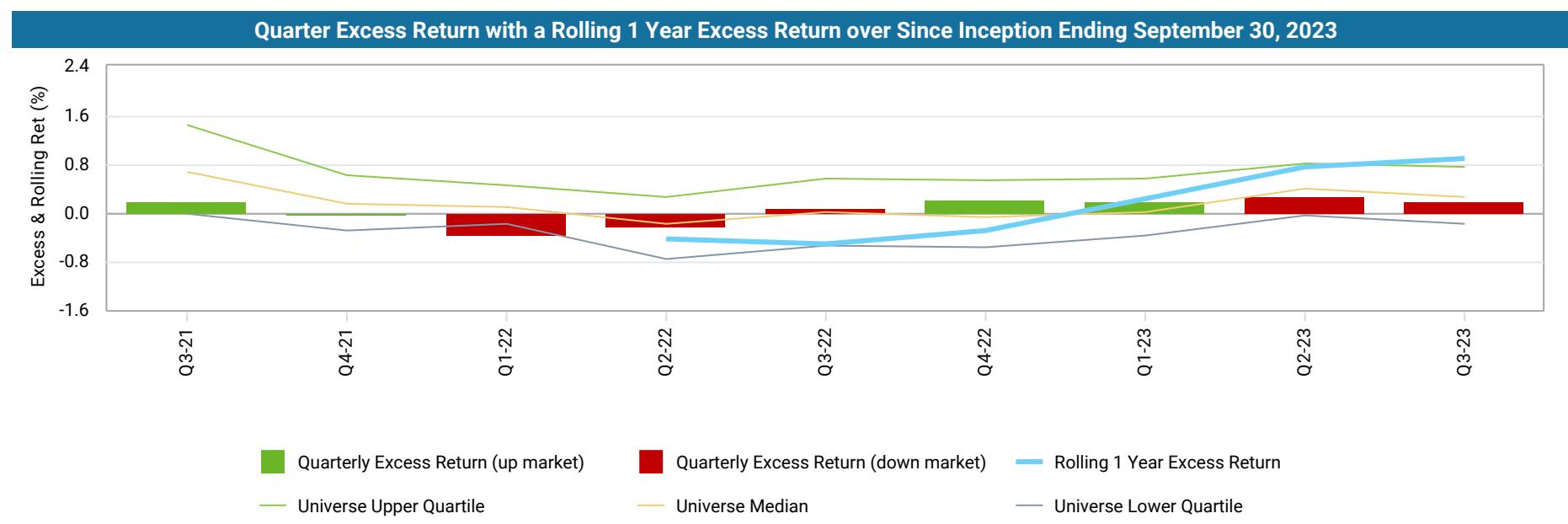
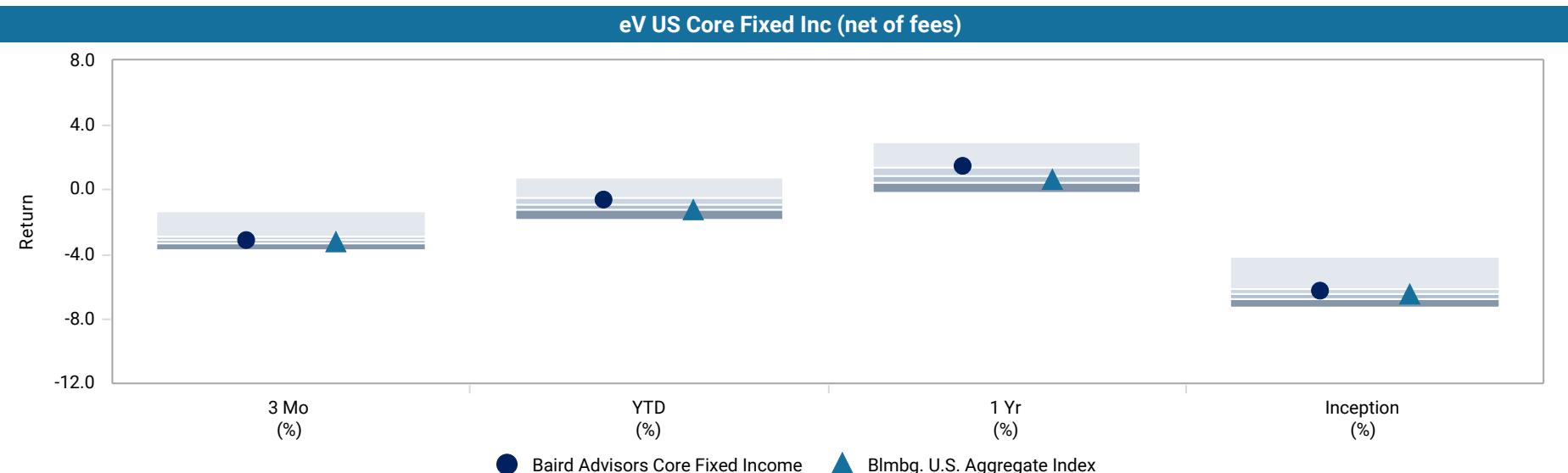
3 Years Return vs. Standard Deviation



Style Map: (1 Year)

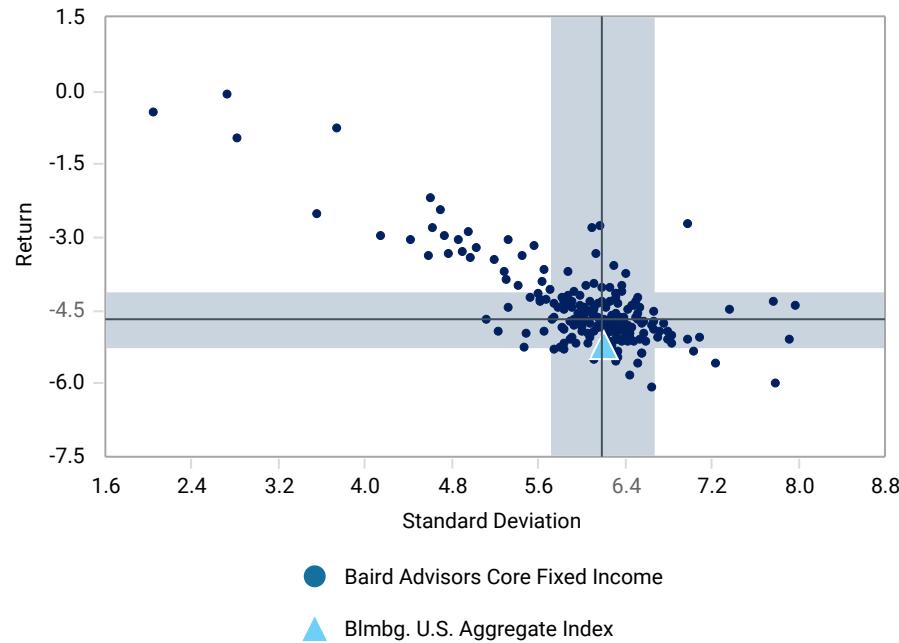


BAIRD ADVISORS CORE FIXED INCOME

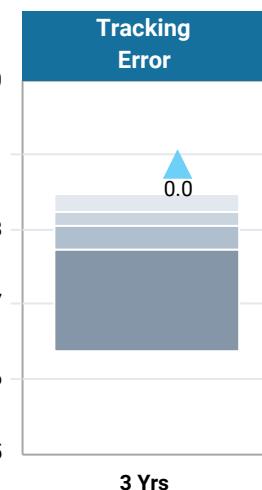
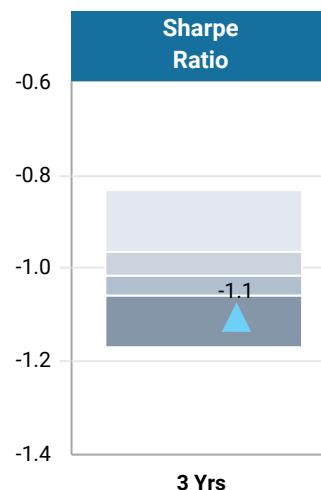
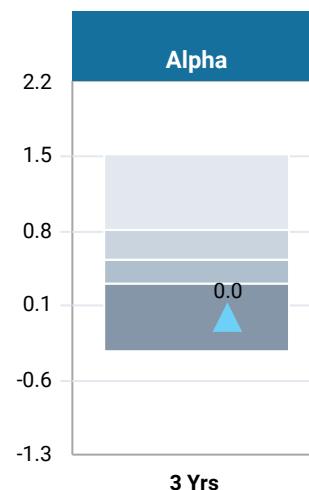
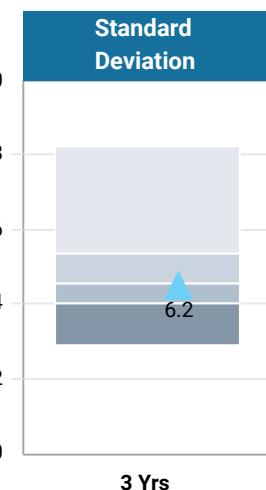
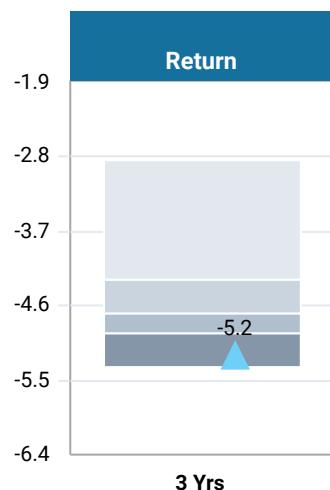


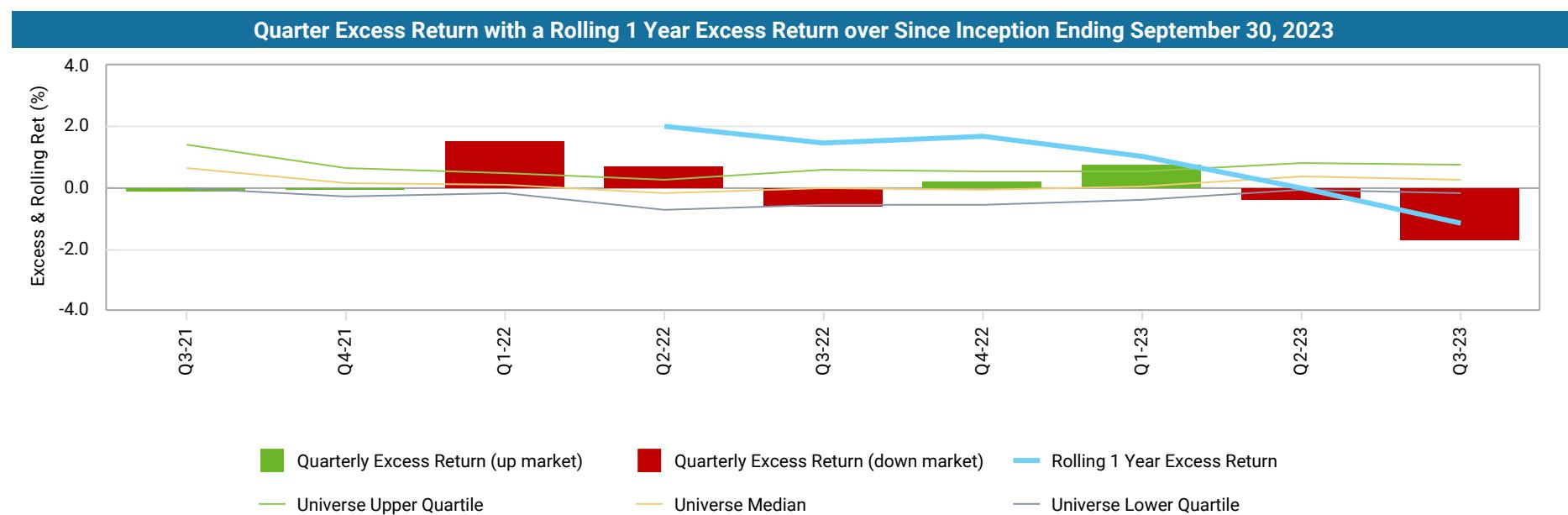
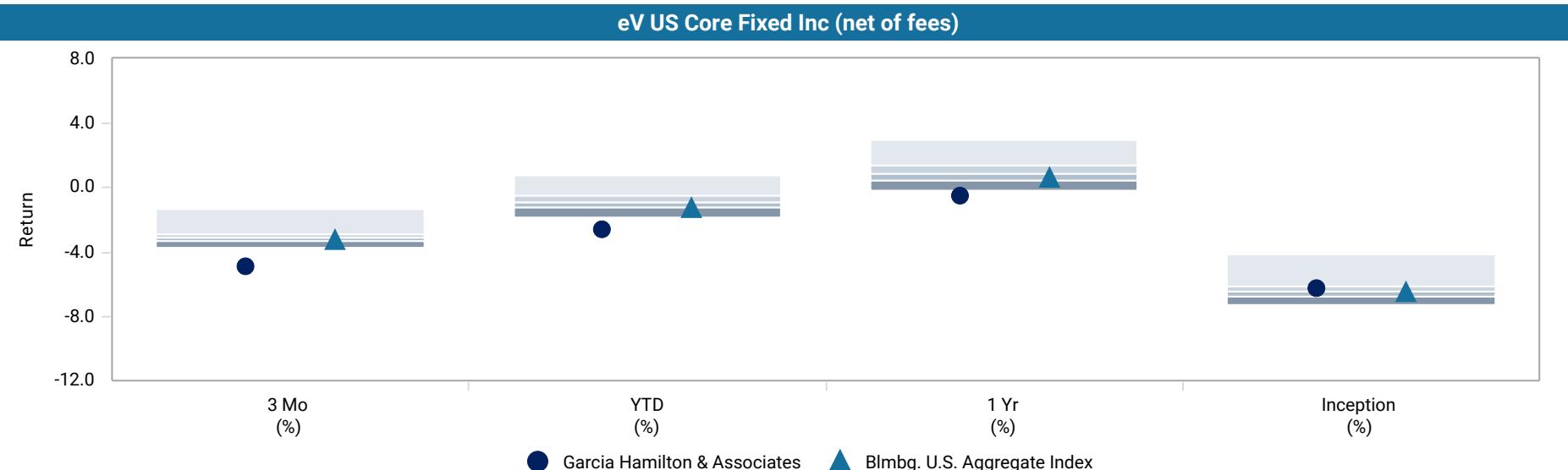
BAIRD ADVISORS CORE FIXED INCOME

3 Years Return vs. Standard Deviation



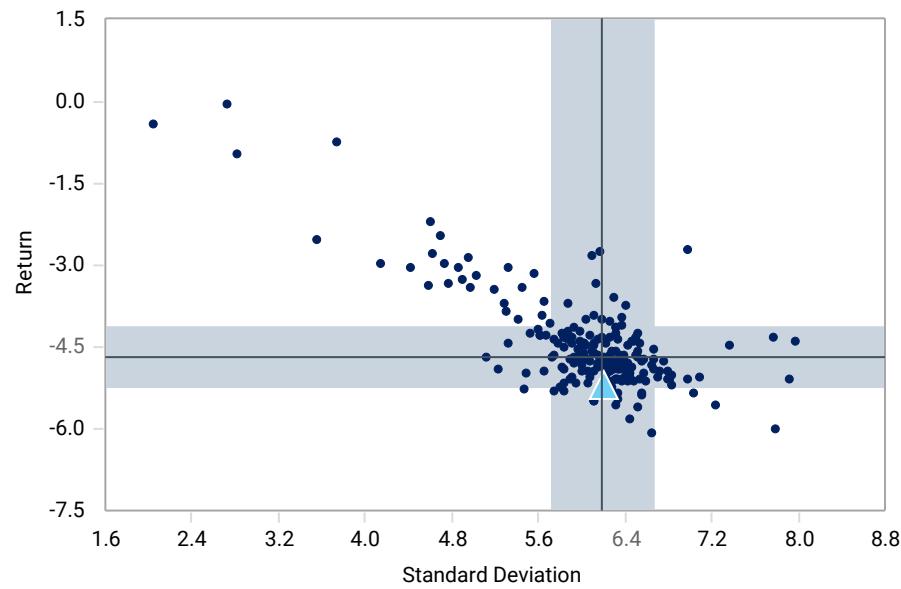
Style Map: (1 Year)



GARCIA HAMILTON & ASSOCIATES

GARCIA HAMILTON & ASSOCIATES

3 Years Return vs. Standard Deviation

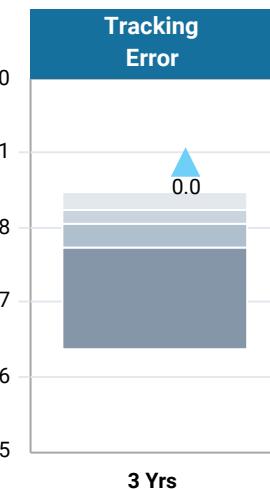
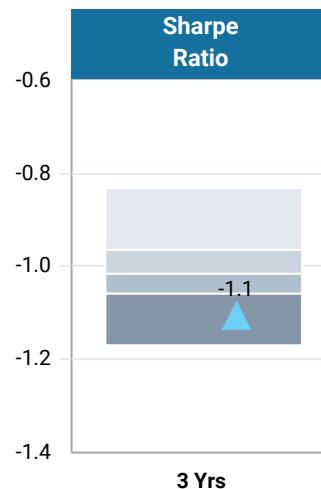
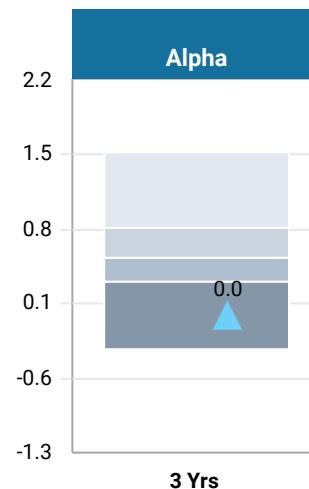
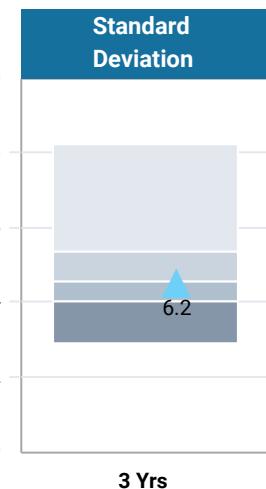
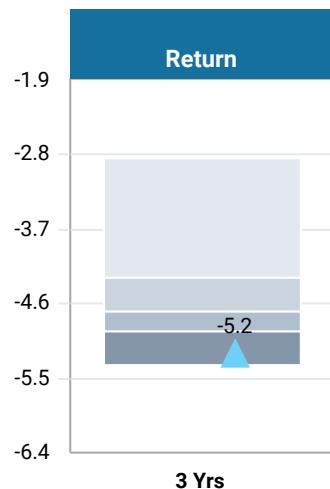


● Garcia Hamilton & Associates ▲ Blmbg. U.S. Aggregate Index

Style Map: (1 Year)



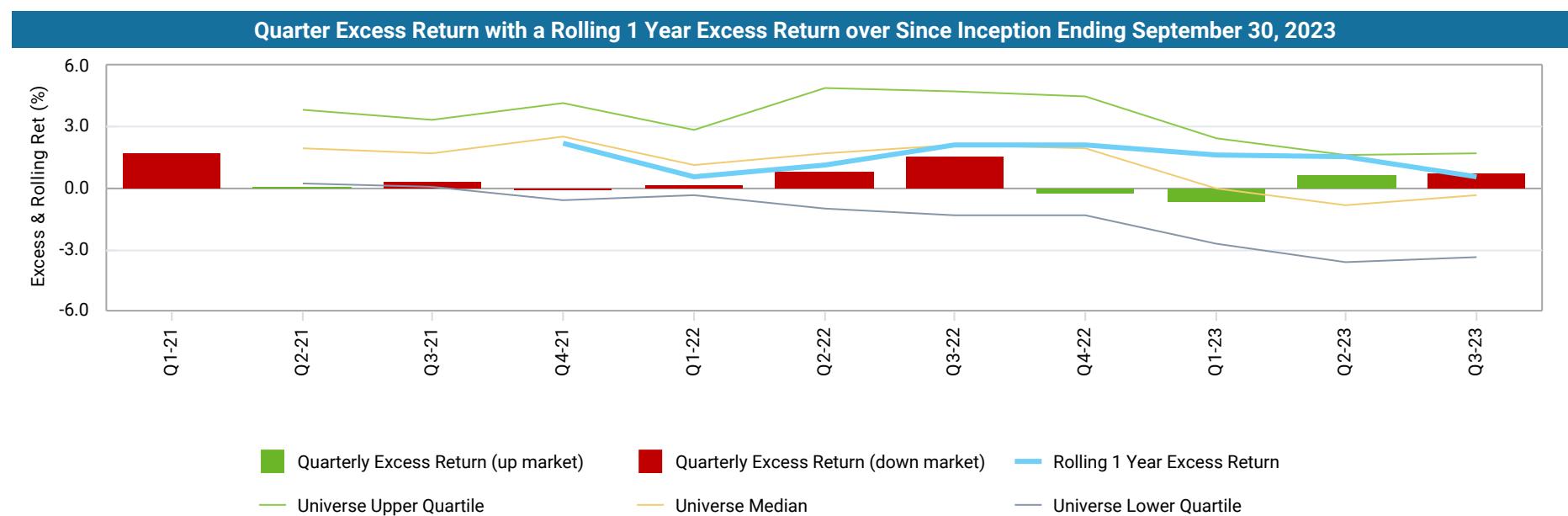
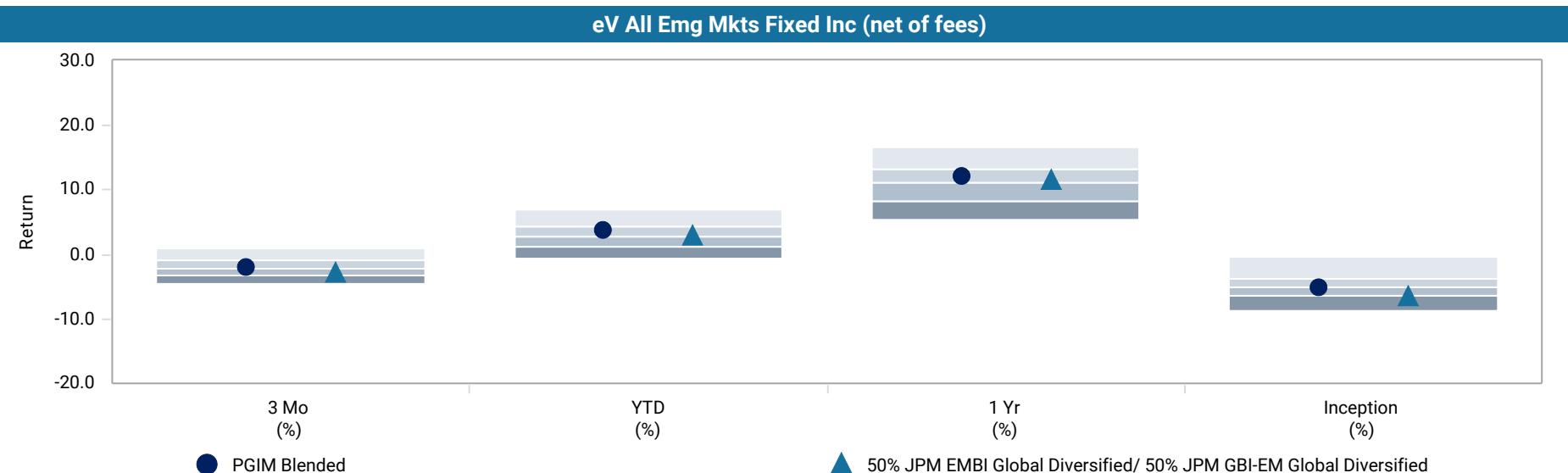
● Garcia Hamilton & Associates ▲ Blmbg. U.S. Aggregate Index





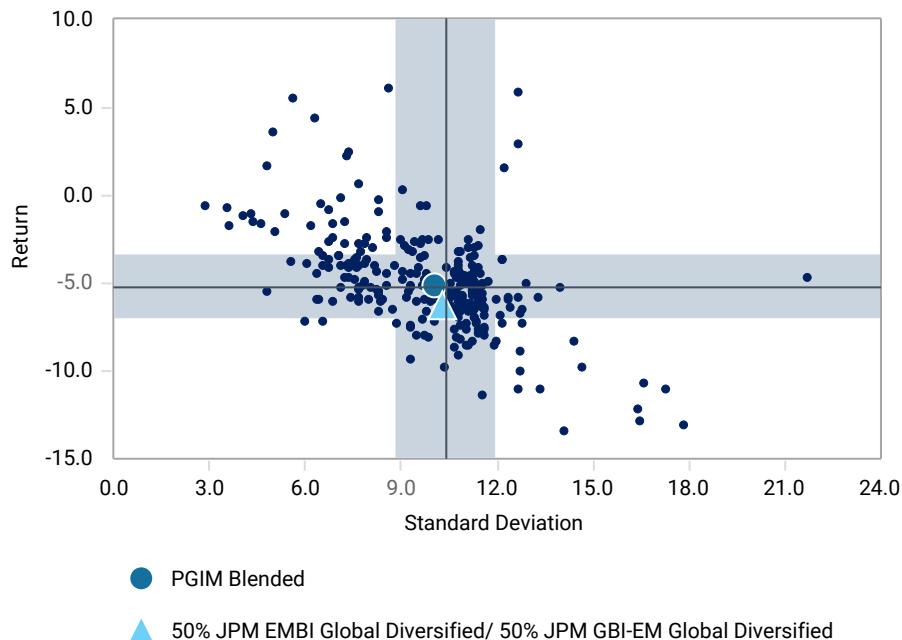
CREDIT OPPORTUNITIES MANAGER PERFORMANCE

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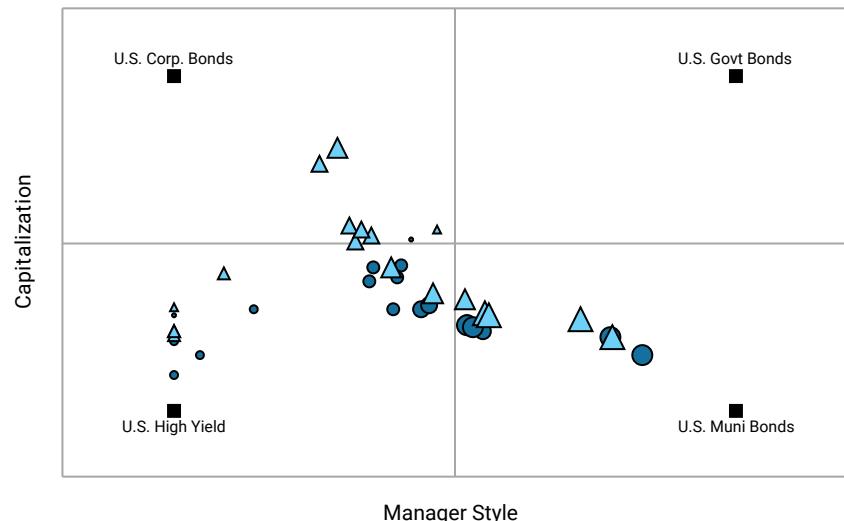


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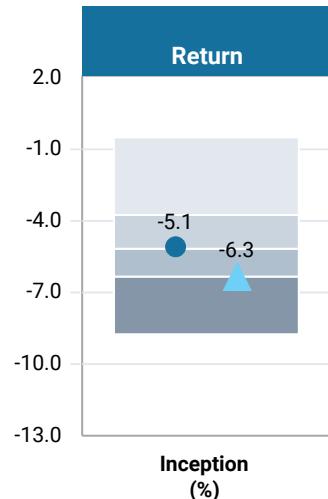
Since Inception Return vs. Standard Deviation



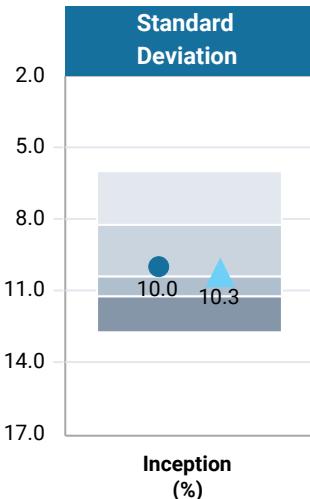
Style Map: (1 Year)



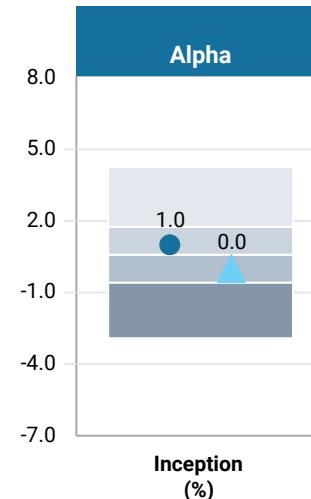
Return



Standard Deviation



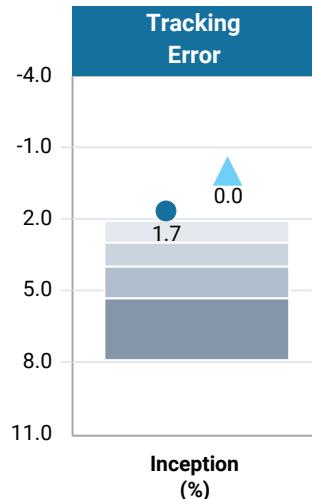
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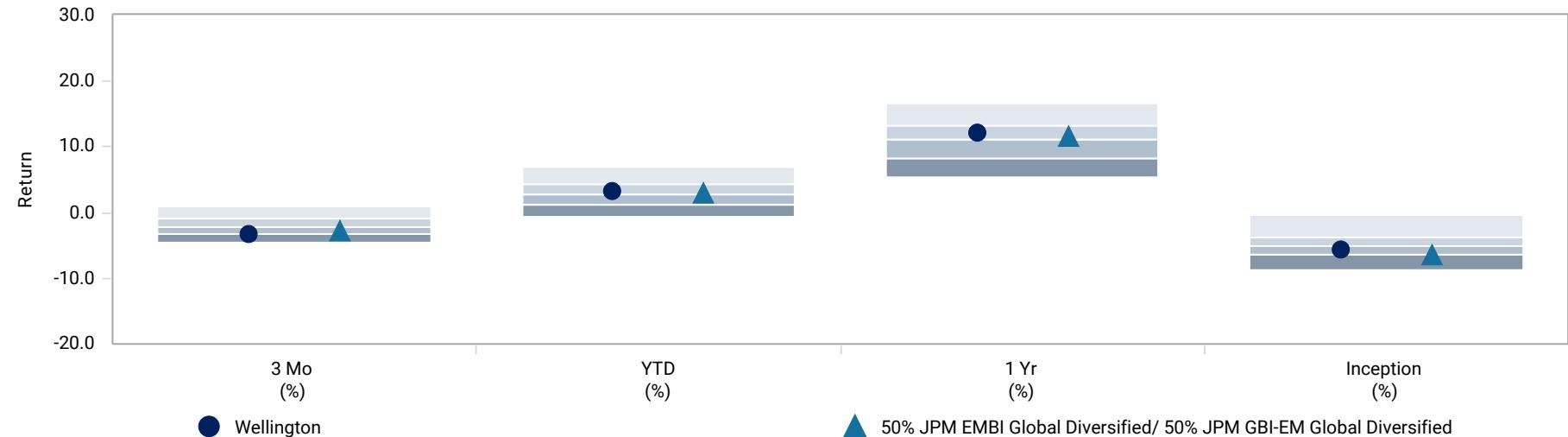


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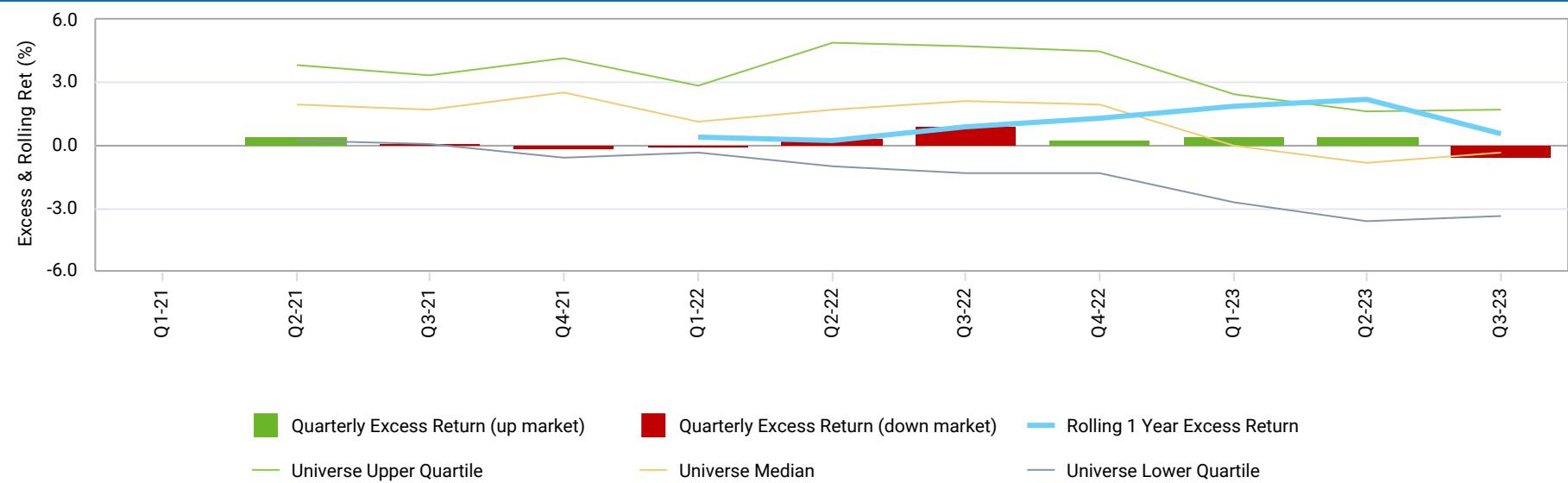


WELLINGTON

eV All Emg Mkts Fixed Inc (net of fees)

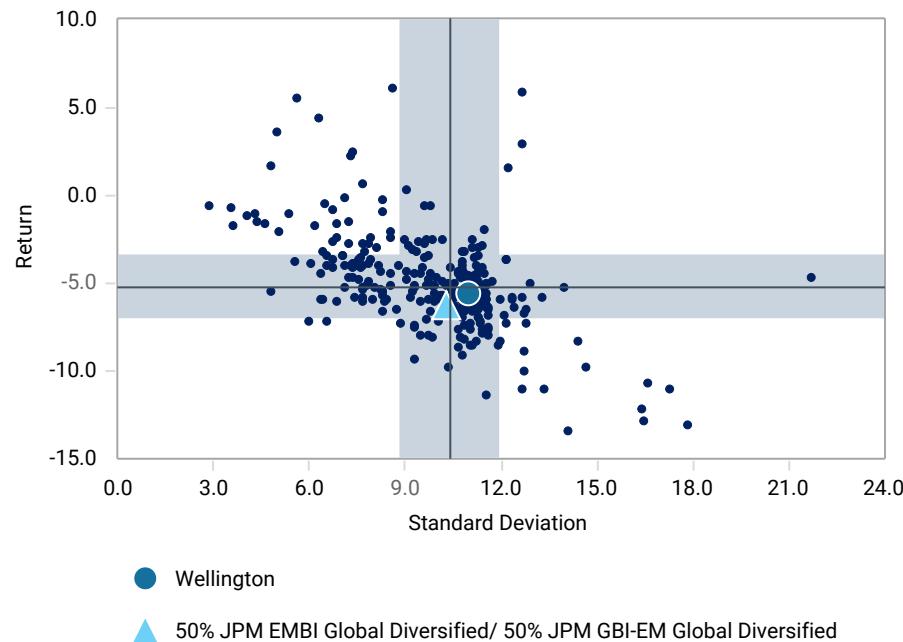


Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2023

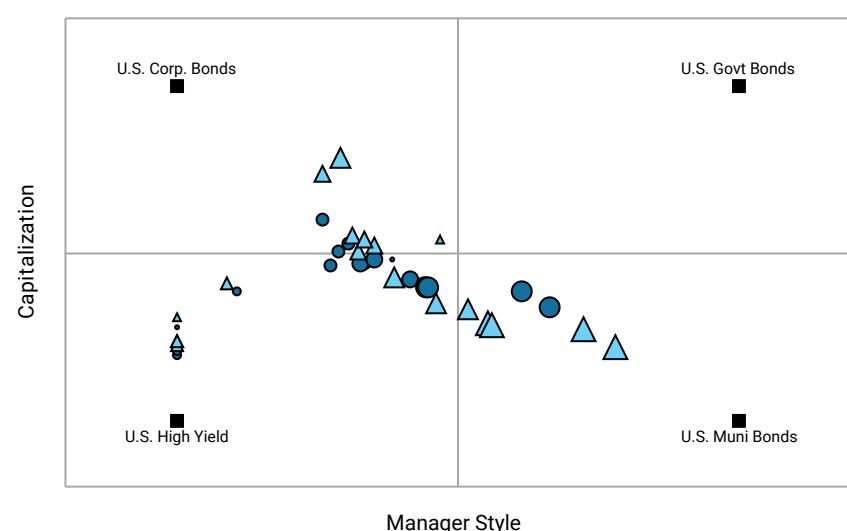


WELLINGTON

Since Inception Return vs. Standard Deviation

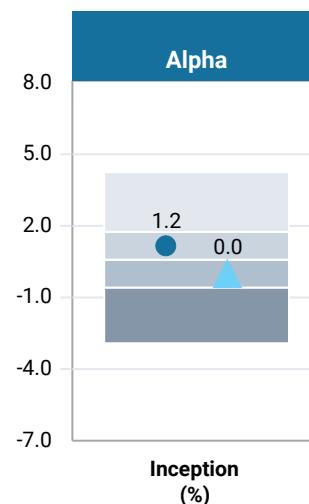
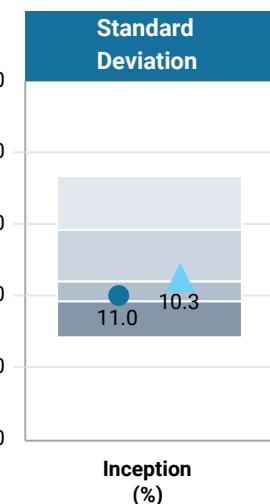
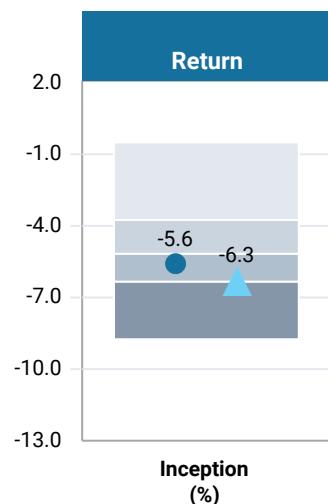


Style Map: (1 Year)



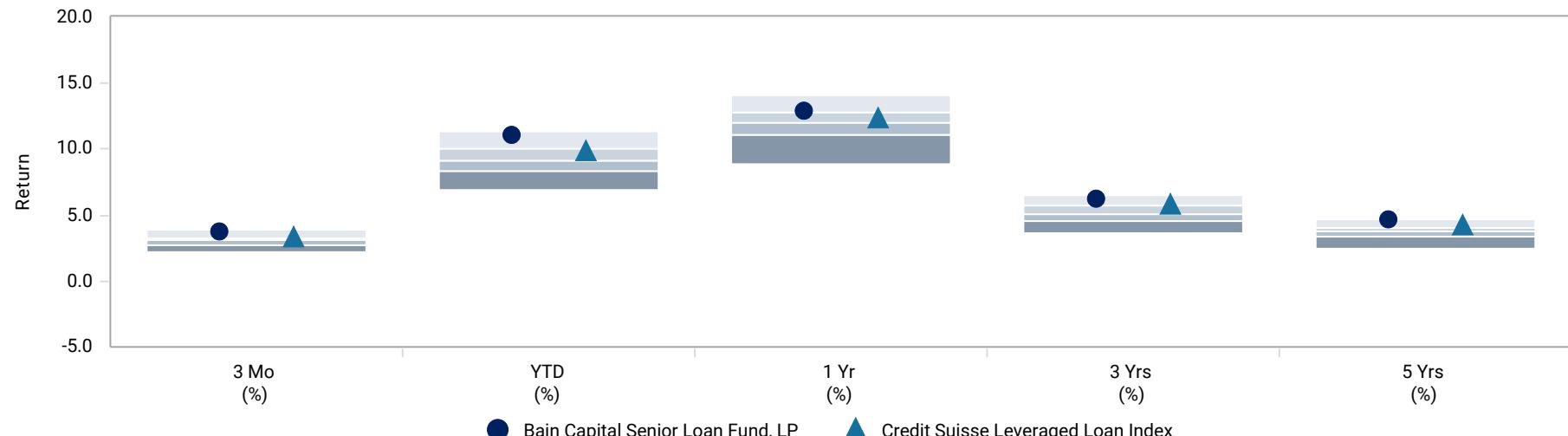
● Wellington

△ 50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified

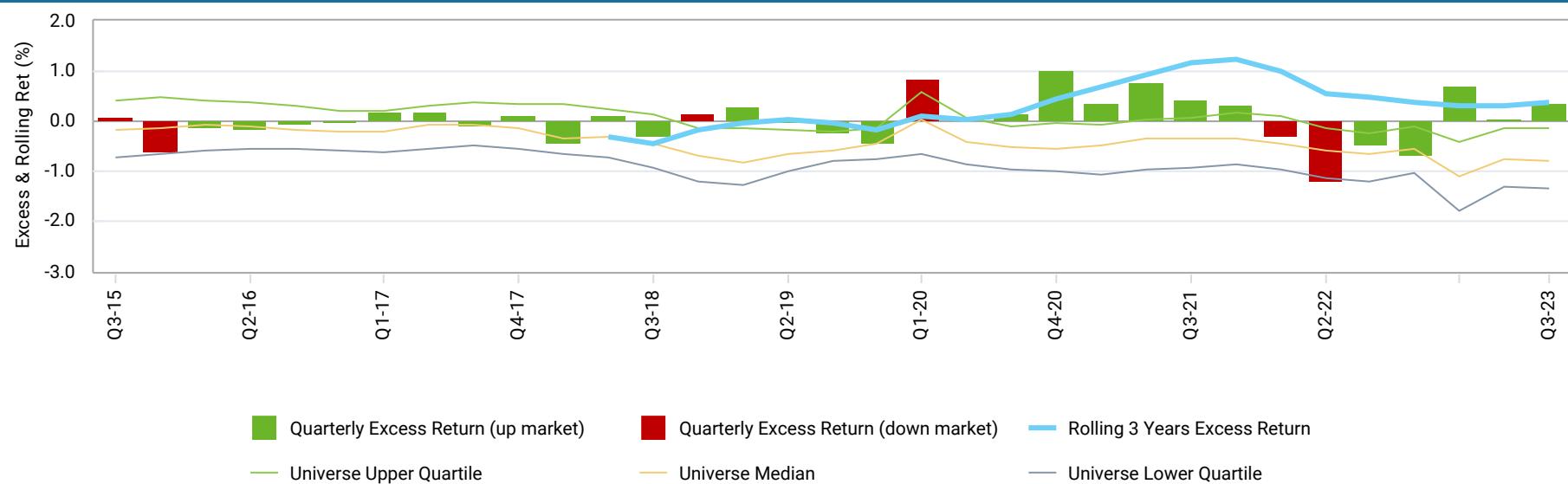


BAIN CAPITAL SENIOR LOAN FUND, LP

eV US Float-Rate Bank Loan Fixed Inc (net of fees)

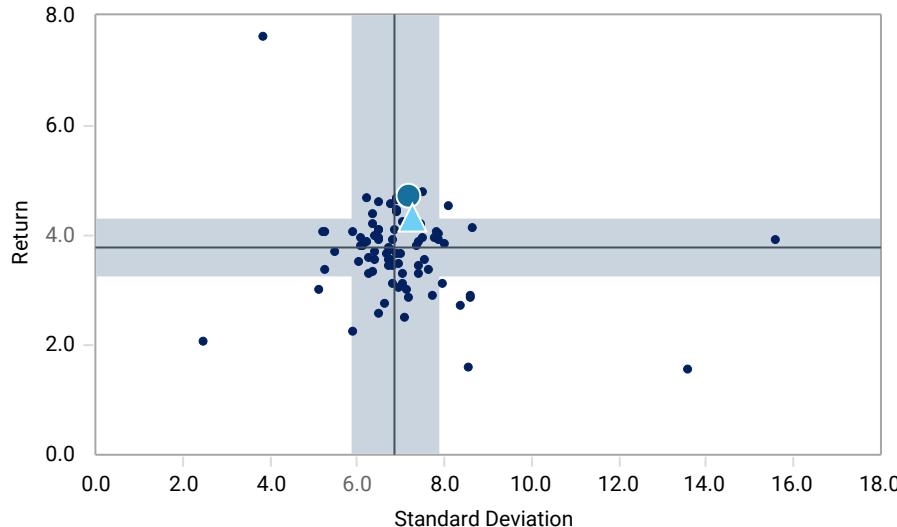


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending September 30, 2023



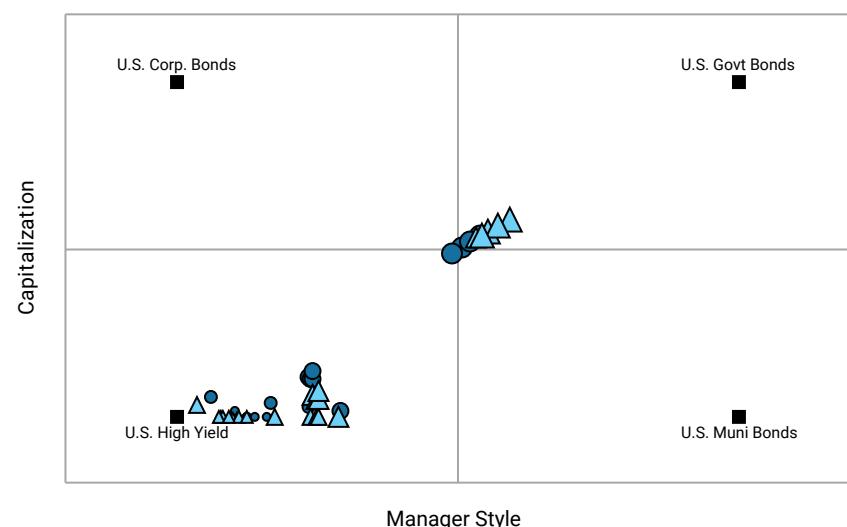
BAIN CAPITAL SENIOR LOAN FUND, LP

5 Years Return vs. Standard Deviation

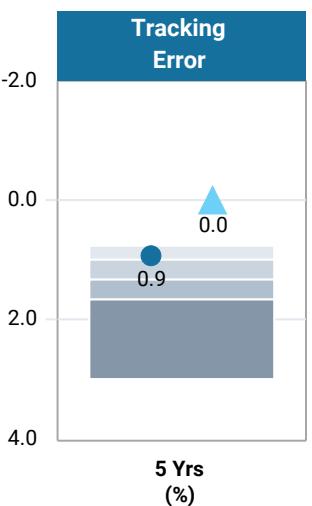
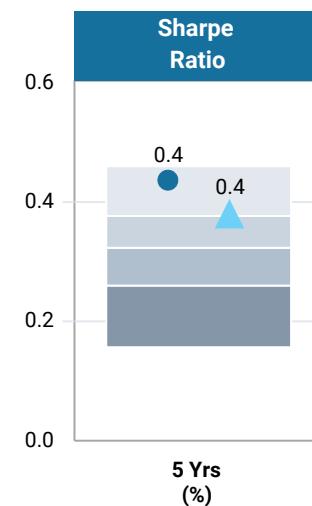
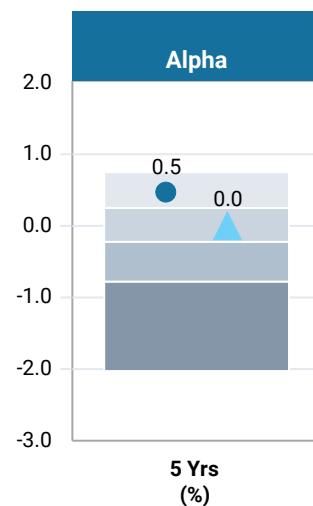
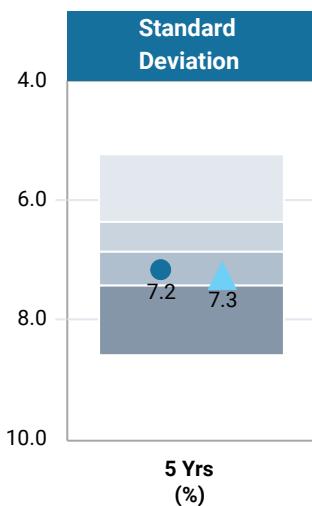
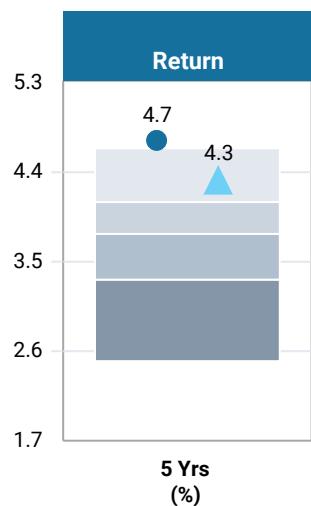


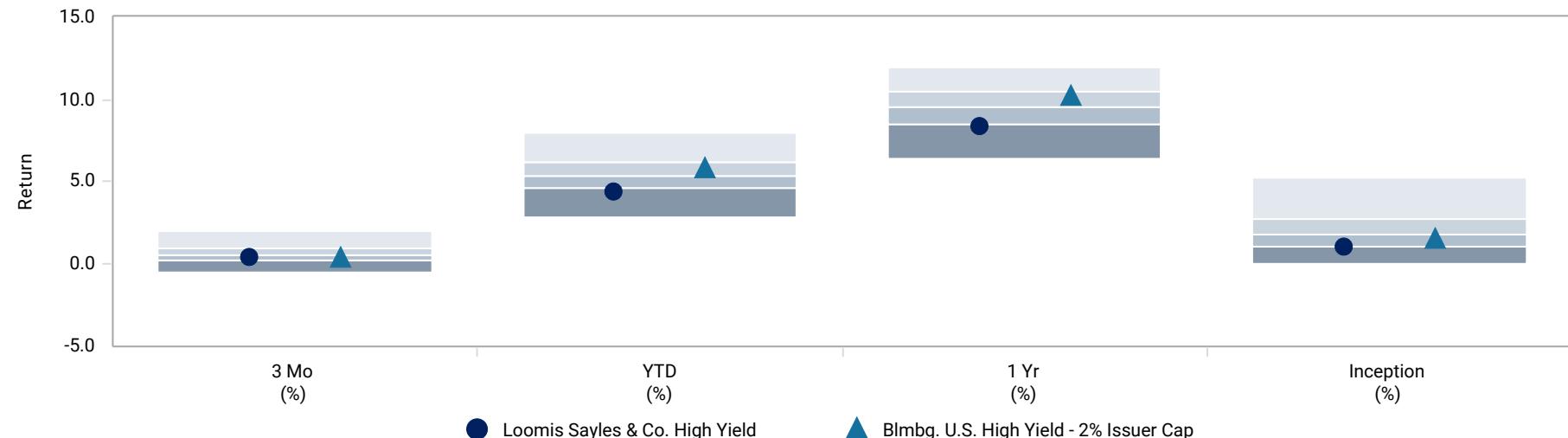
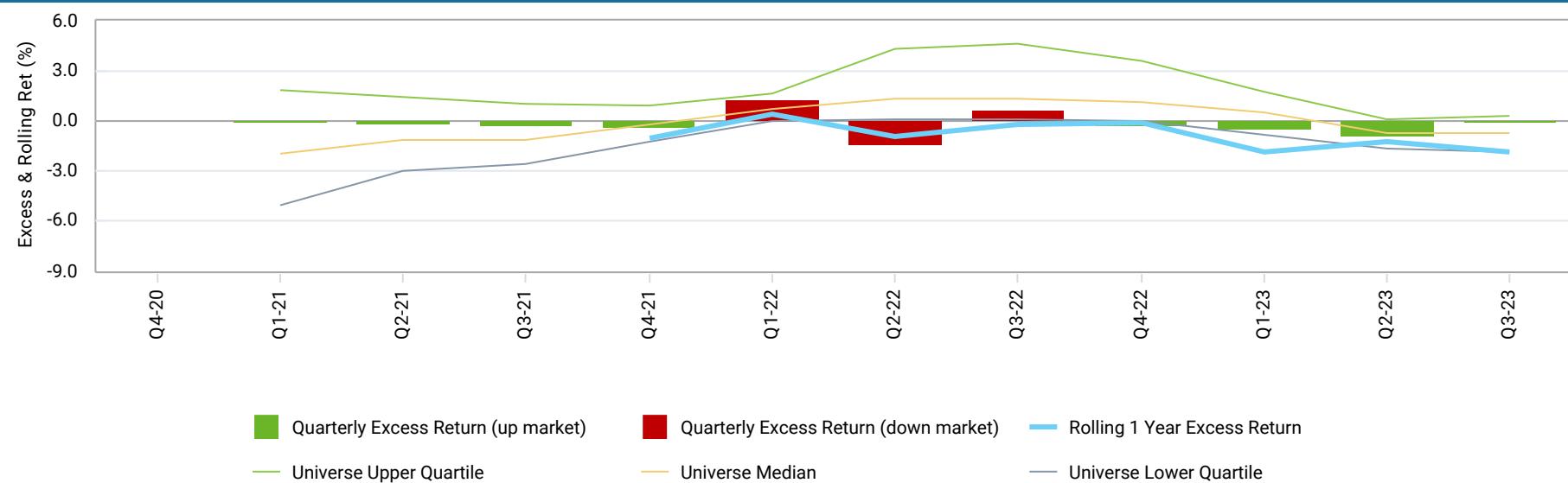
- Bain Capital Senior Loan Fund, LP
- ▲ Credit Suisse Leveraged Loan Index

Style Map: (3 Years)



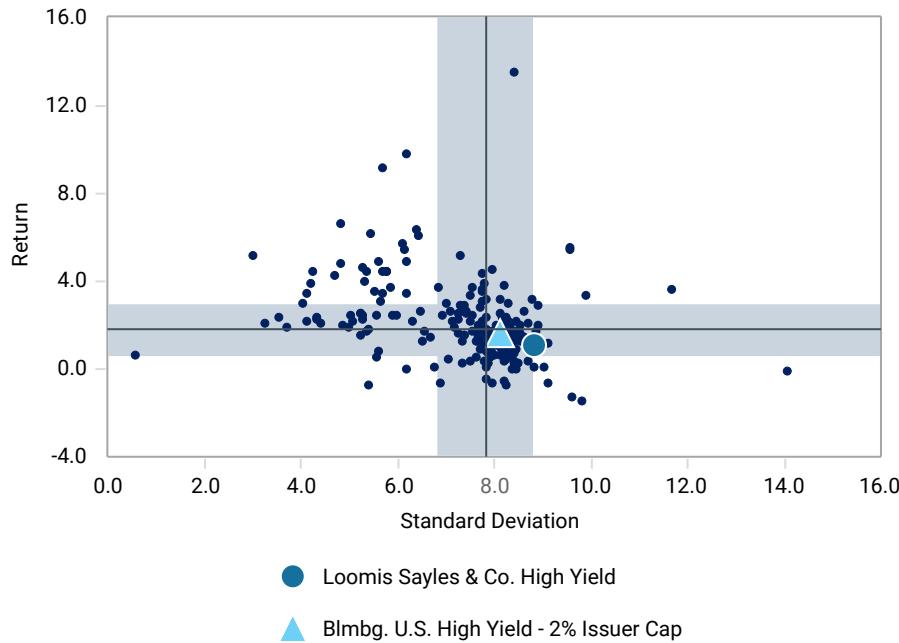
- Bain Capital Senior Loan Fund, LP
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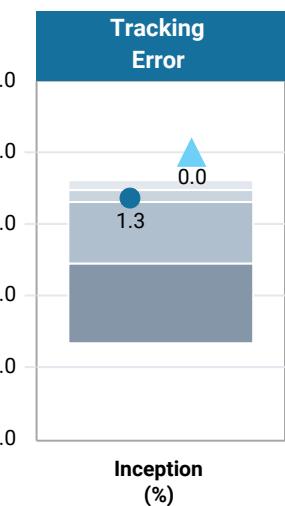
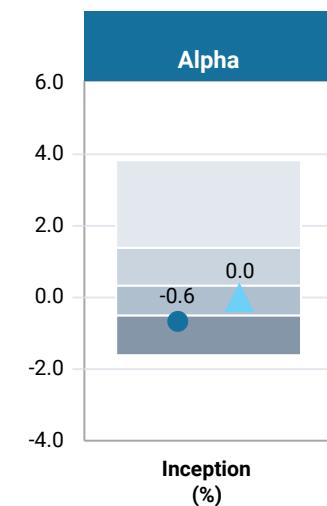
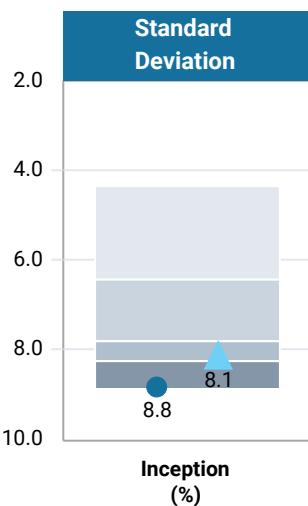
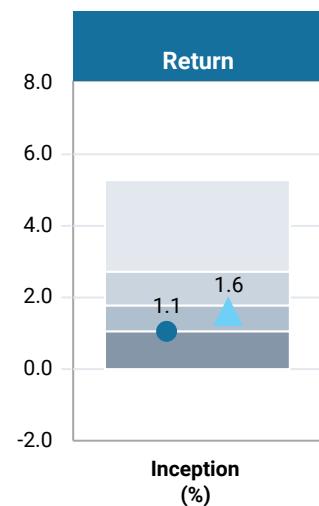
LOOMIS SAYLES & CO. HIGH YIELD**eV US High Yield Fixed Inc (net of fees)****Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2023**

LOOMIS SAYLES & CO. HIGH YIELD

Since Inception Return vs. Standard Deviation



Style Map: (1 Year)

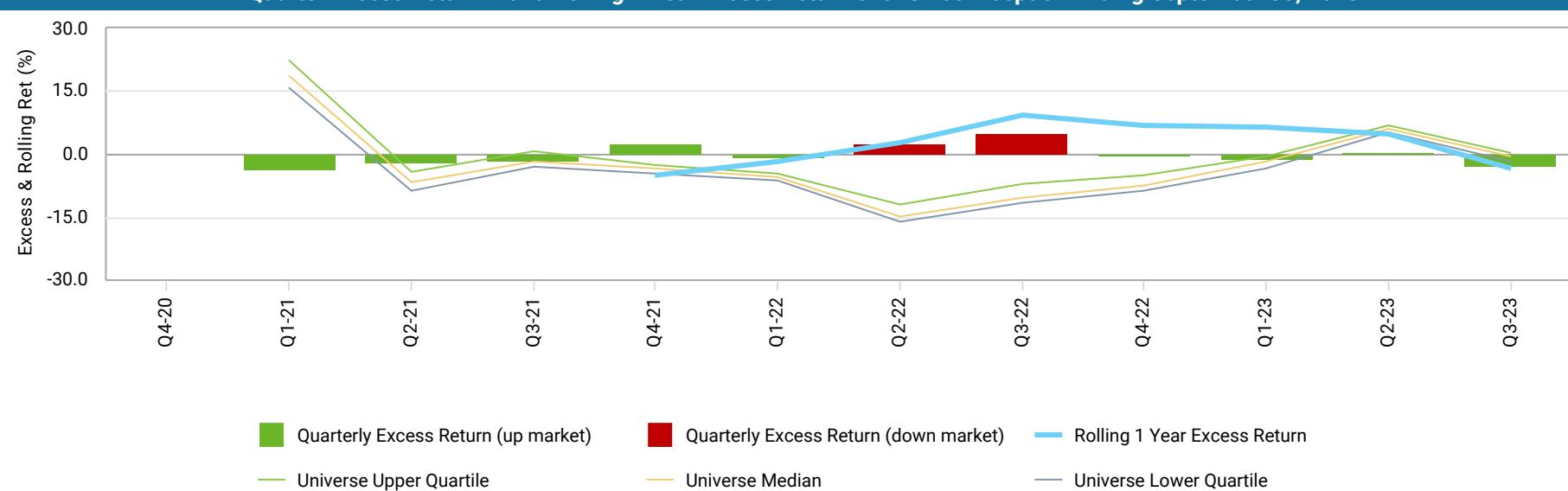


BENEFIT STREET PARTNERS LLC

eV US High Yield Fixed Inc (net of fees)

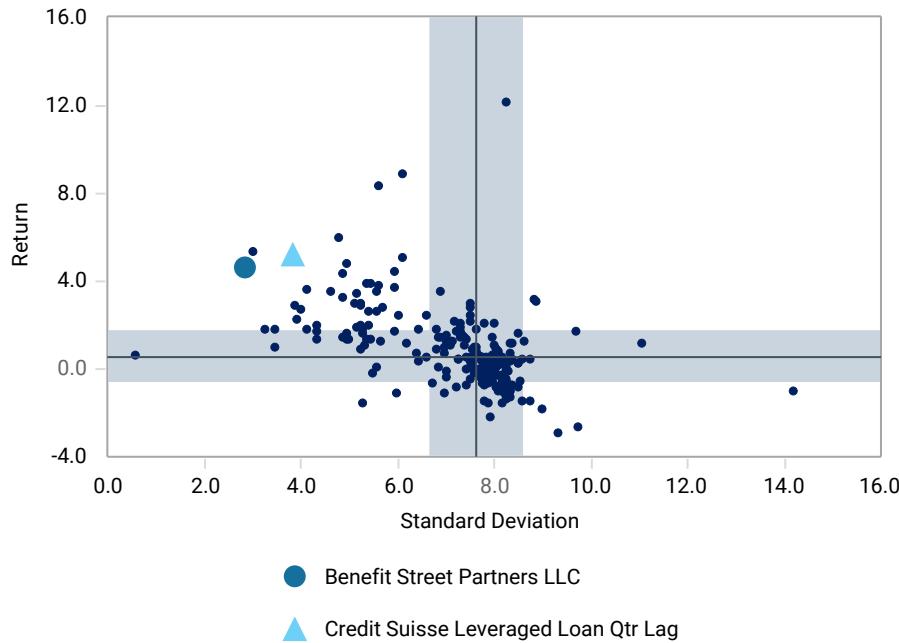


Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2023

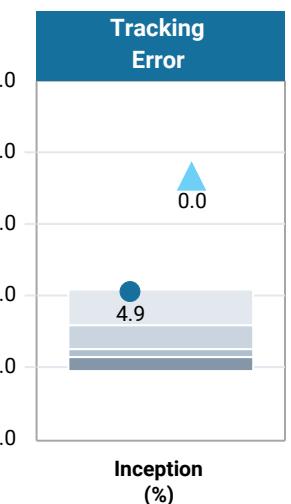
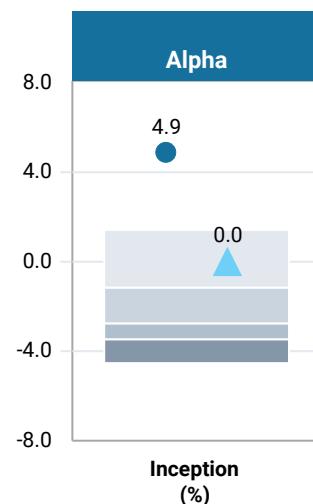
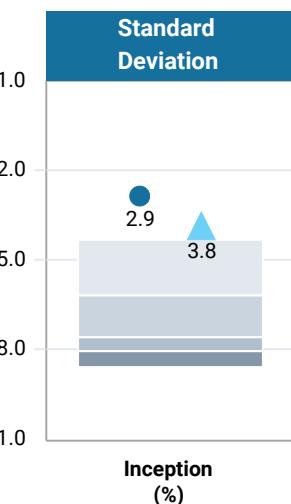
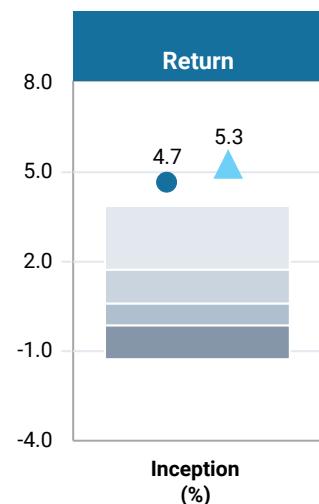


BENEFIT STREET PARTNERS LLC

Since Inception Return vs. Standard Deviation

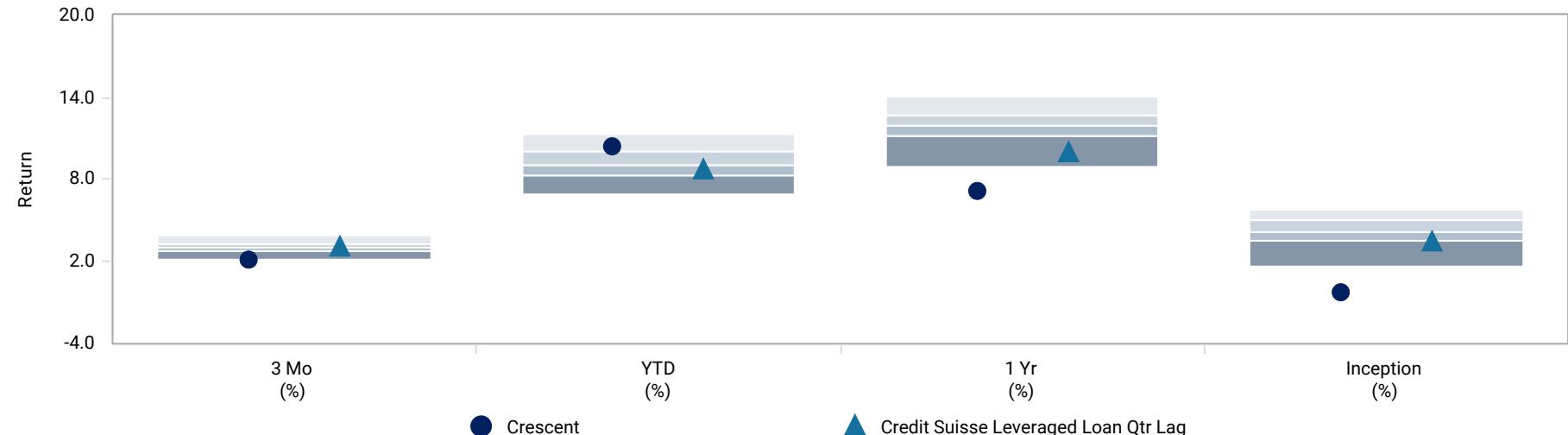


Style Map: (1 Year)

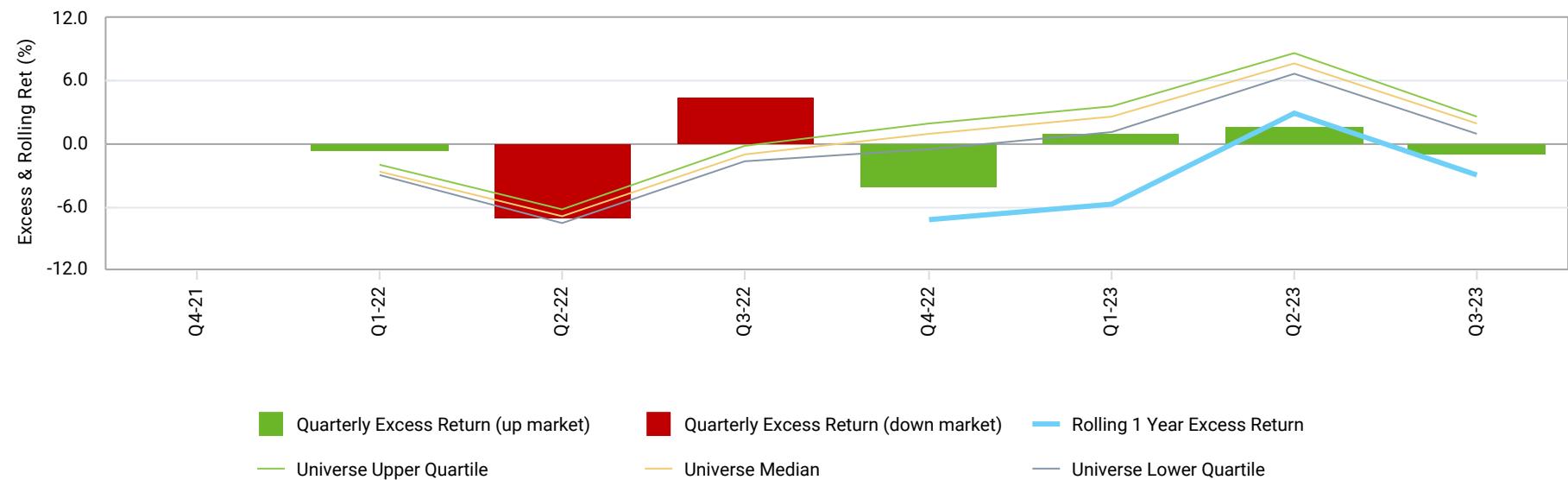


CRESCE

eV US Float-Rate Bank Loan Fixed Inc (net of fees)

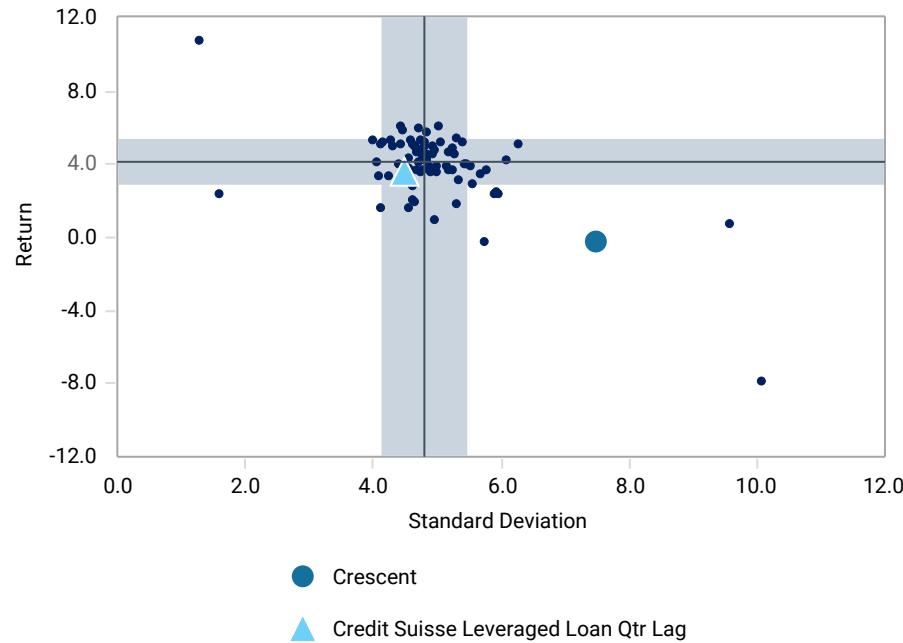


Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2023

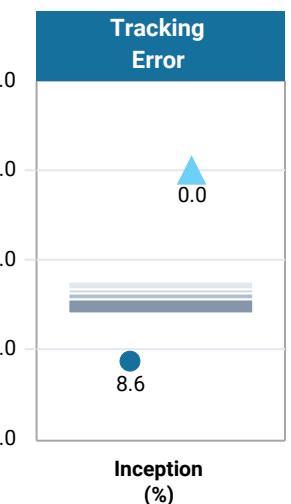
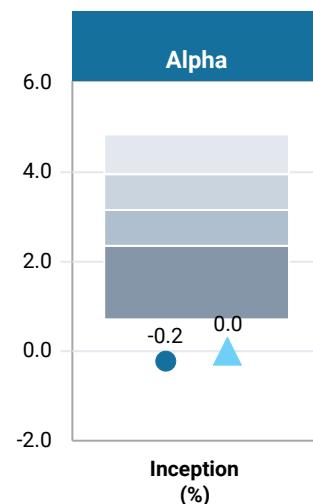
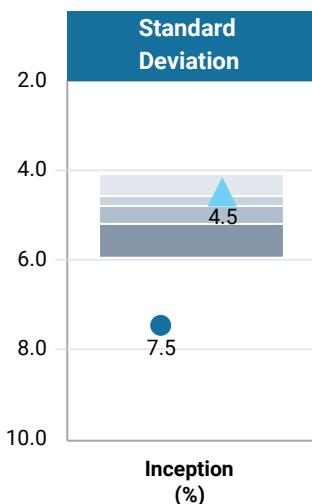
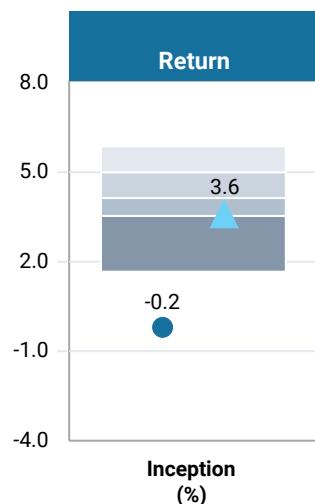


CRESCENT

Since Inception Return vs. Standard Deviation

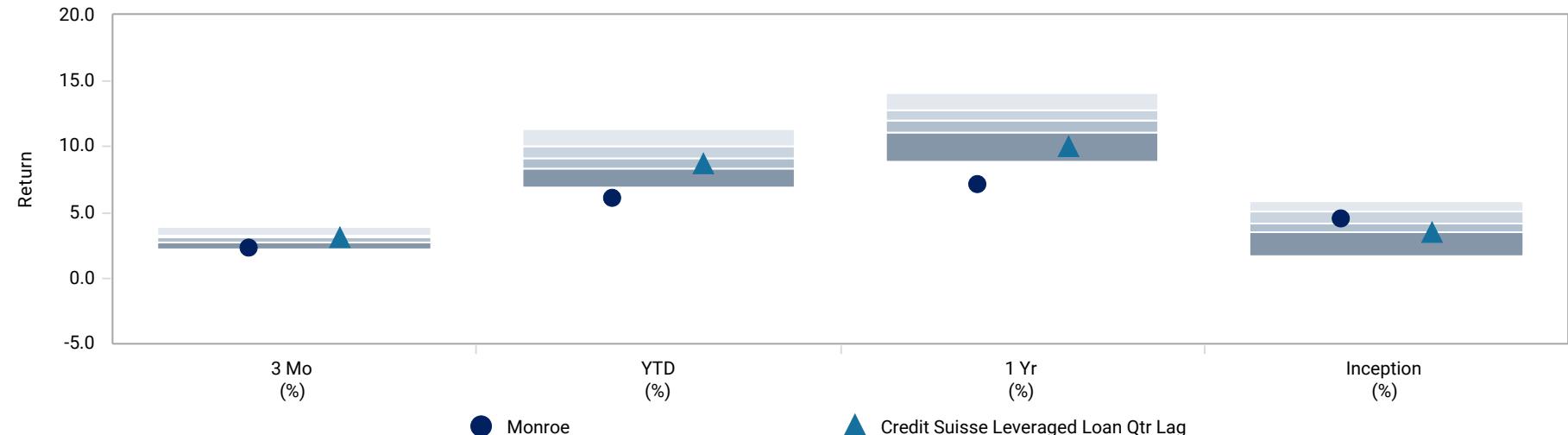


Style Map: (1 Year)

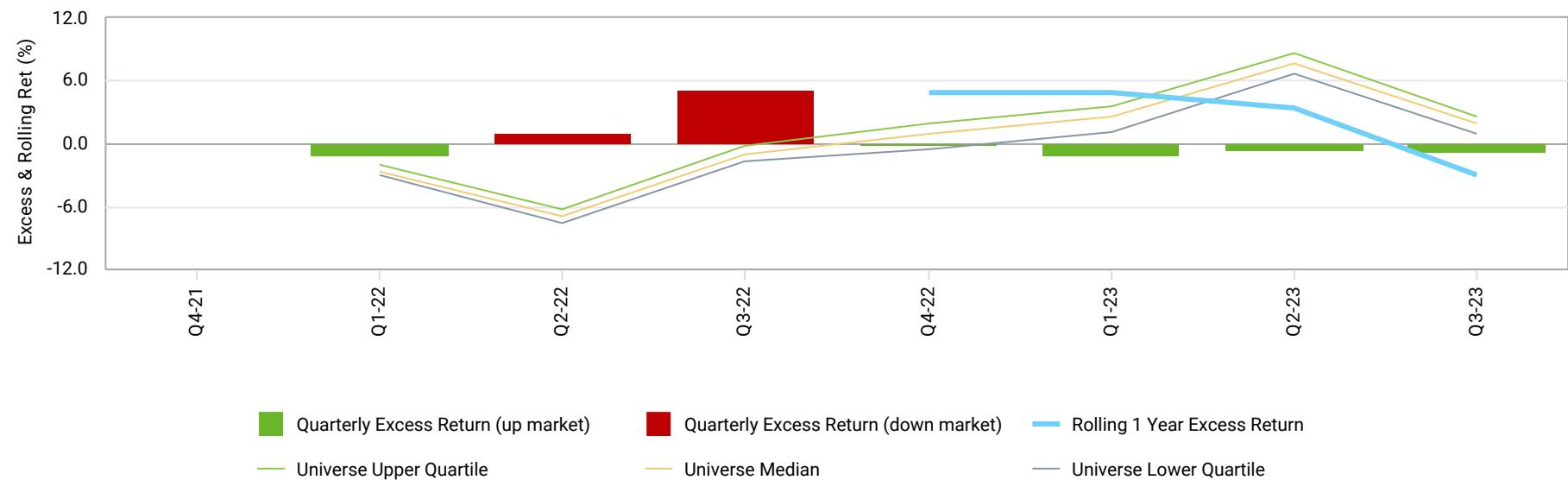


MONROE

eV US Float-Rate Bank Loan Fixed Inc (net of fees)

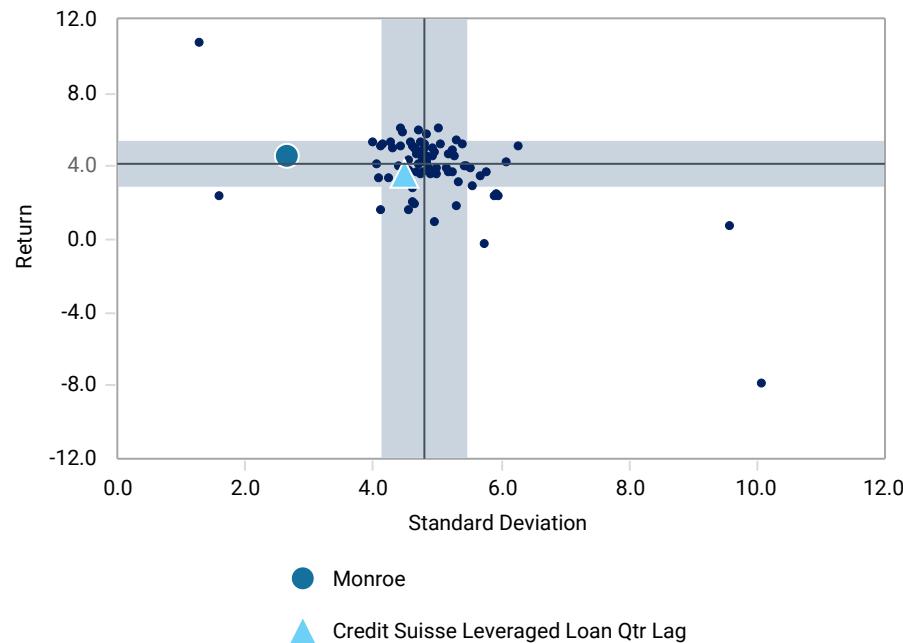


Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2023

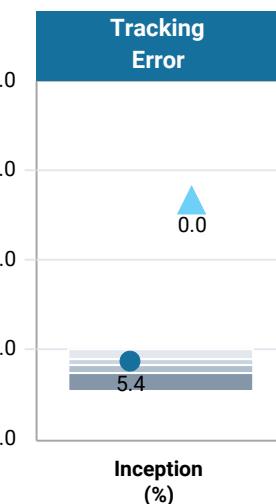
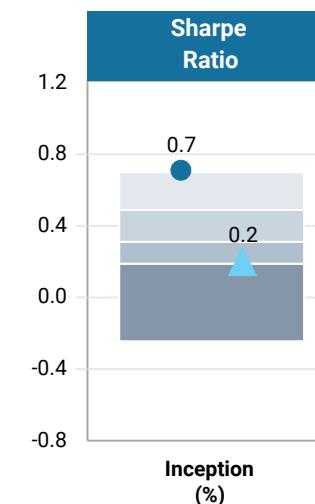
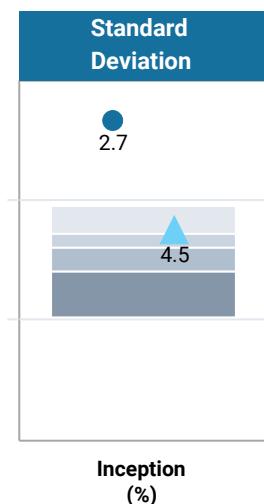
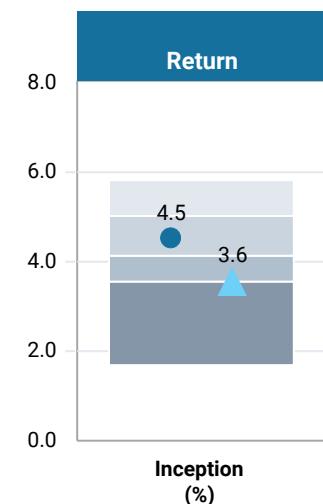
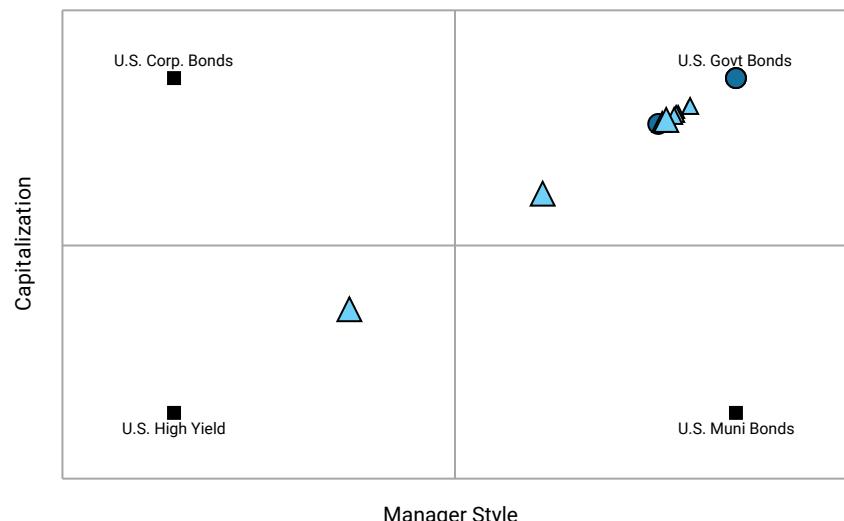


MONROE

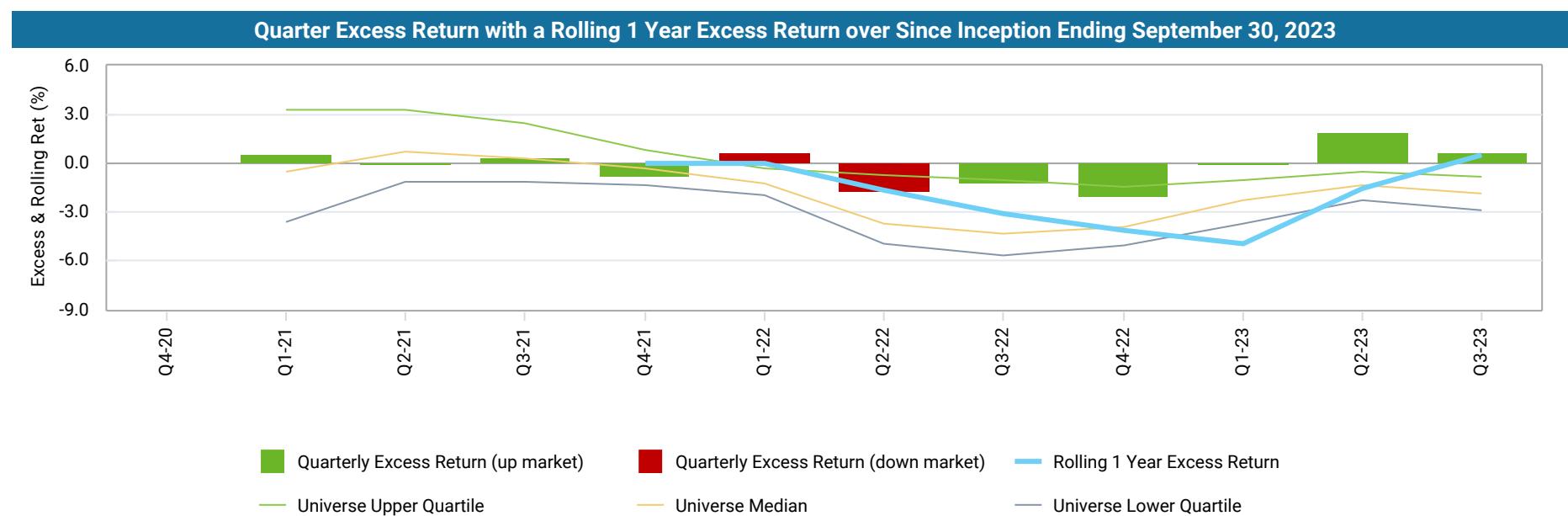
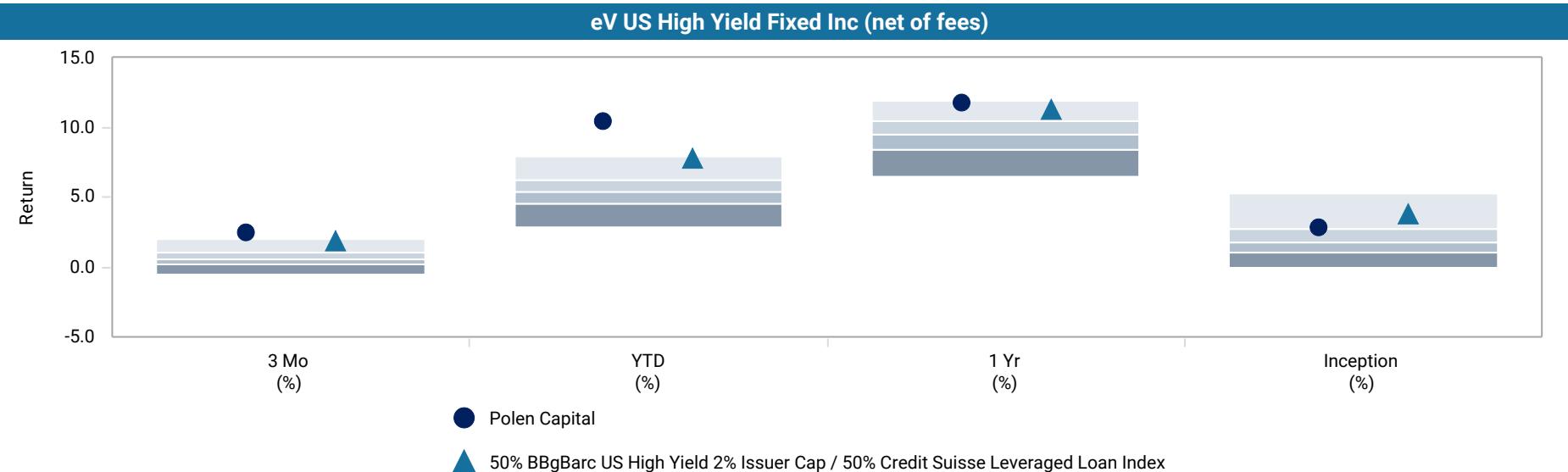
Since Inception Return vs. Standard Deviation



Style Map: (1 Year)

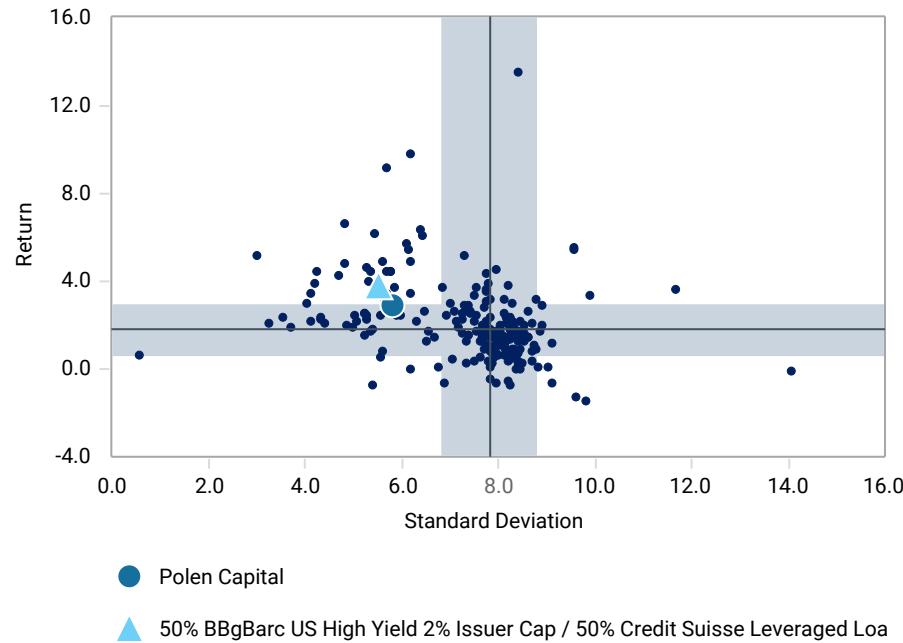


POLEN CAPITAL

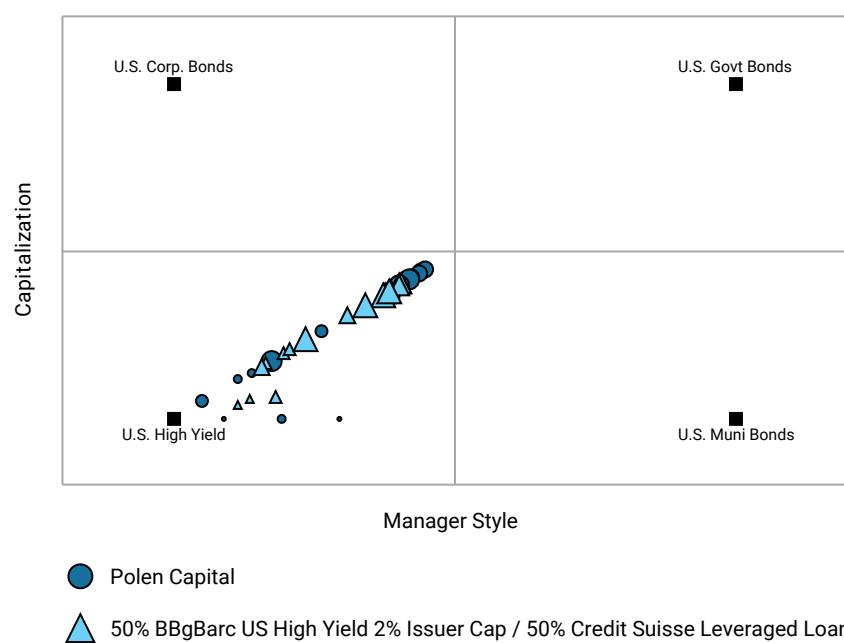


POLEN CAPITAL

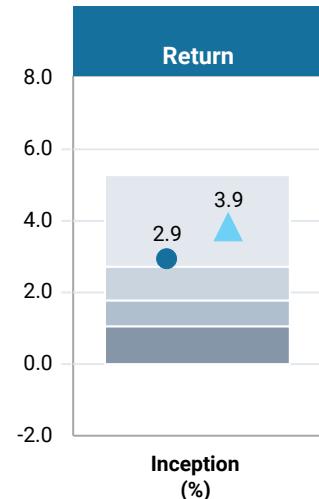
Since Inception Return vs. Standard Deviation



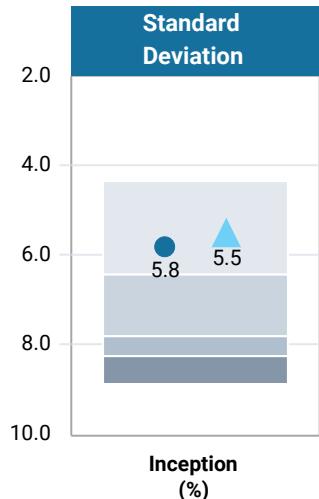
Style Map: (1 Year)



Return



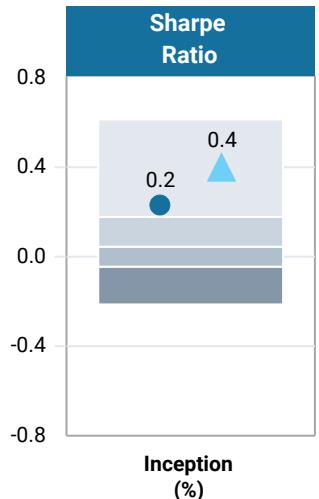
Standard Deviation



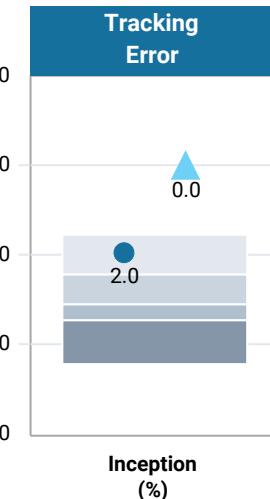
Alpha



Sharpe Ratio



Tracking Error

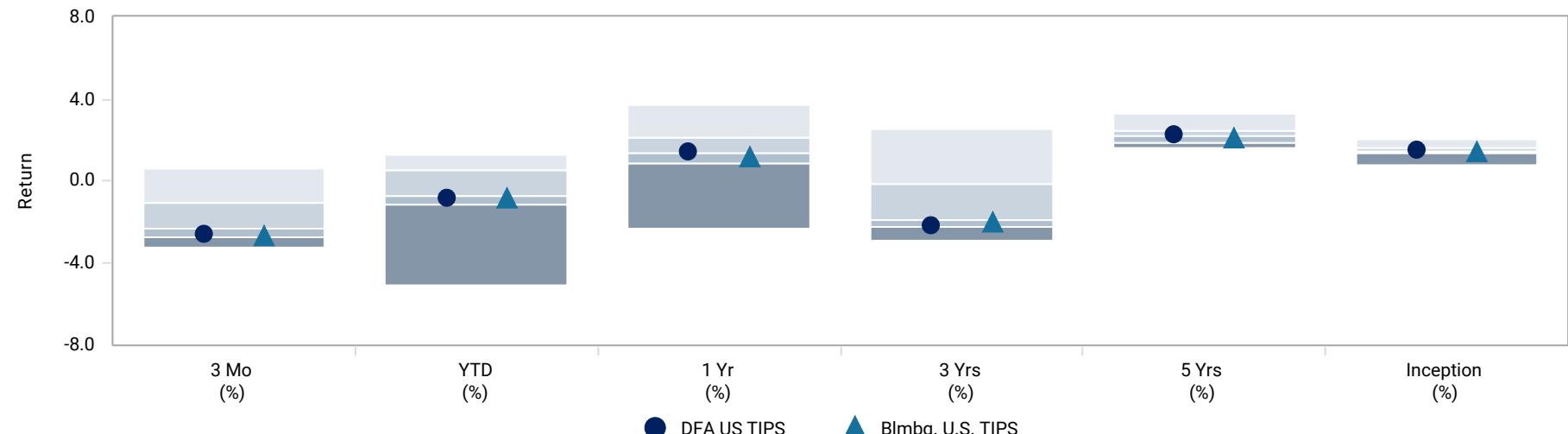




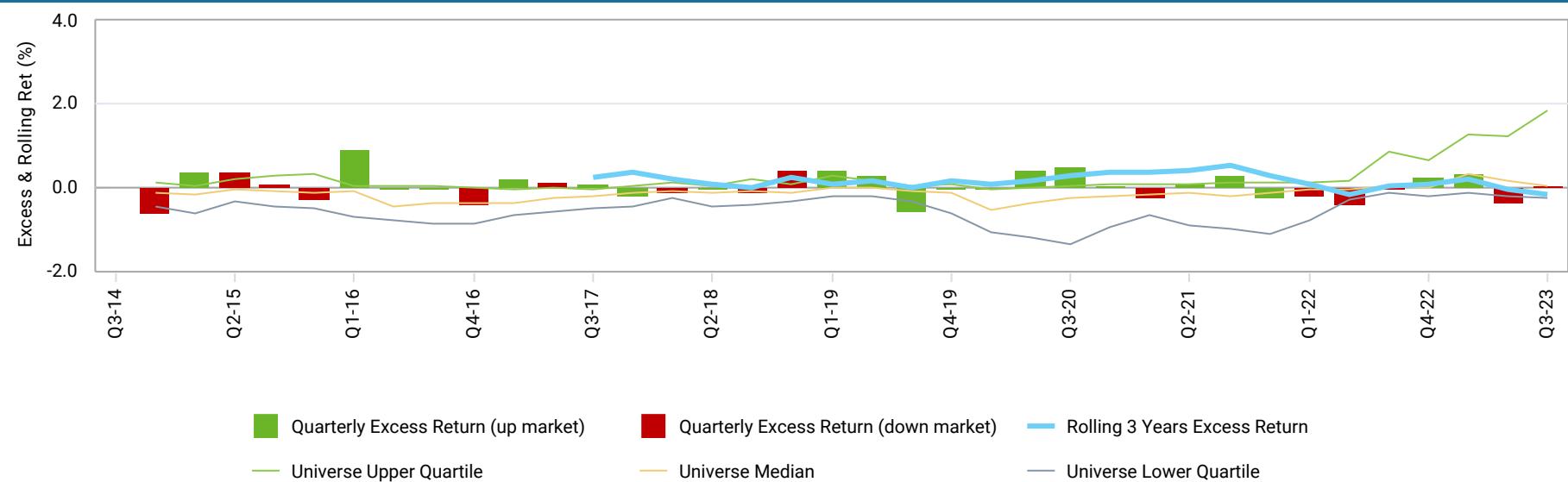
REAL ASSETS MANAGER PERFORMANCE

DFA US TIPS

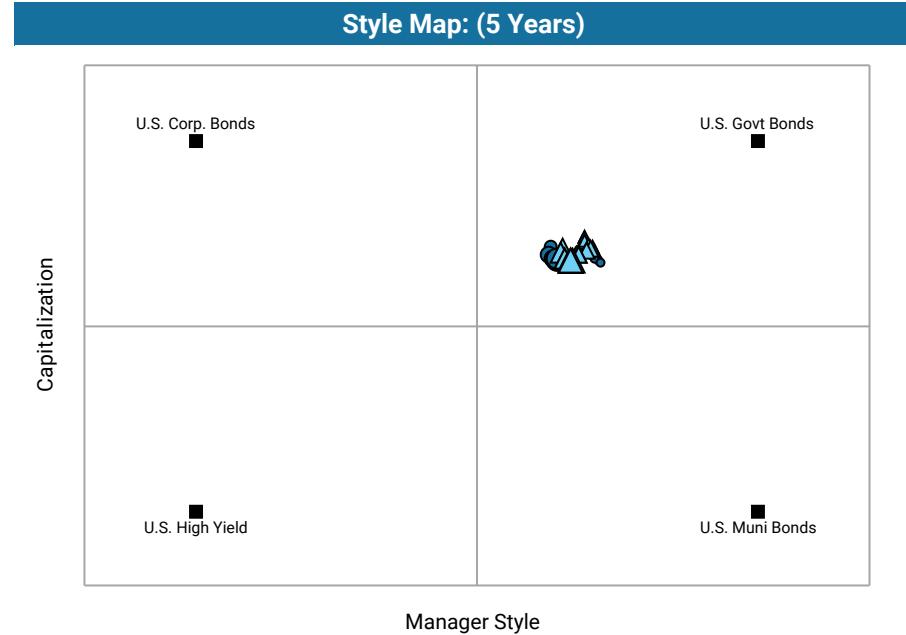
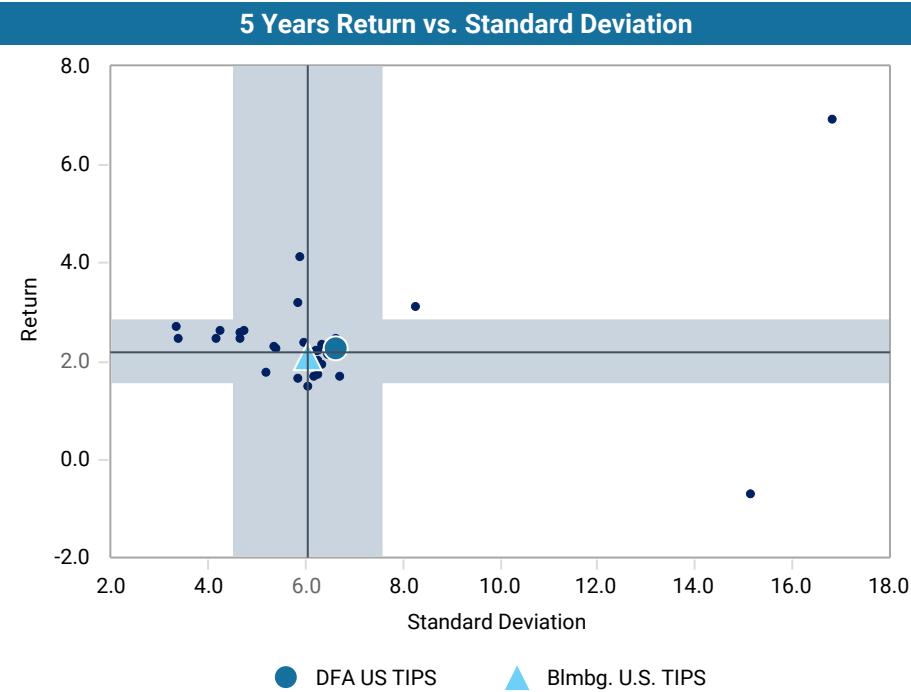
eV US TIPS / Inflation Fixed Inc (net of fees)



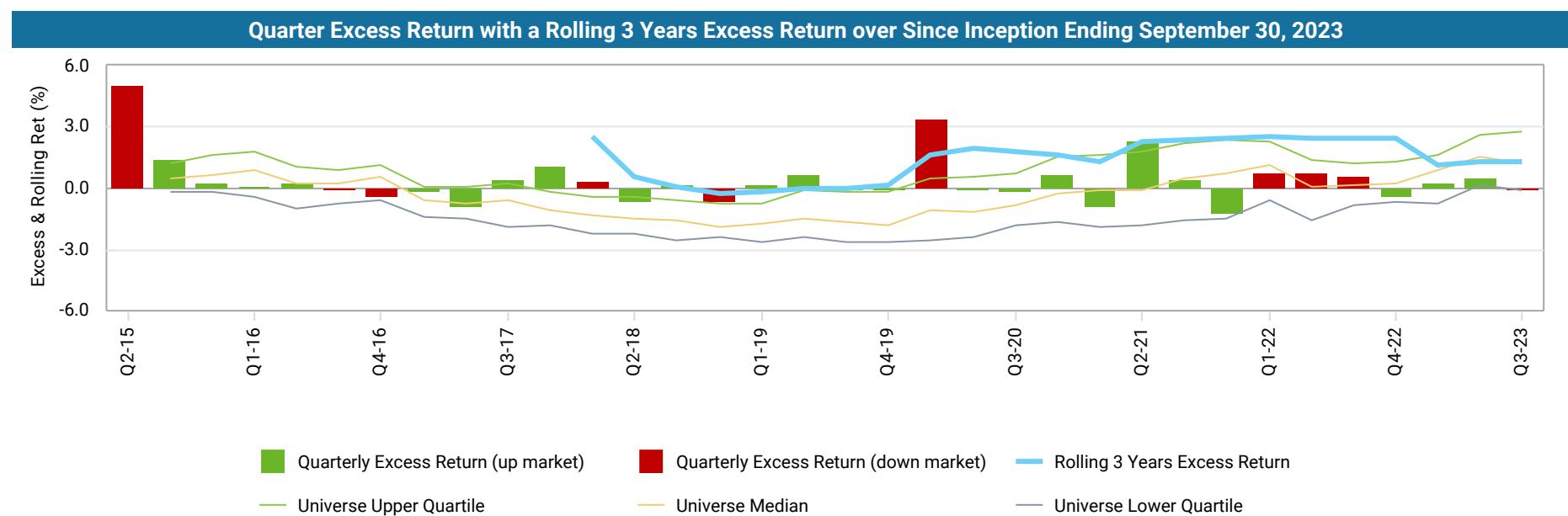
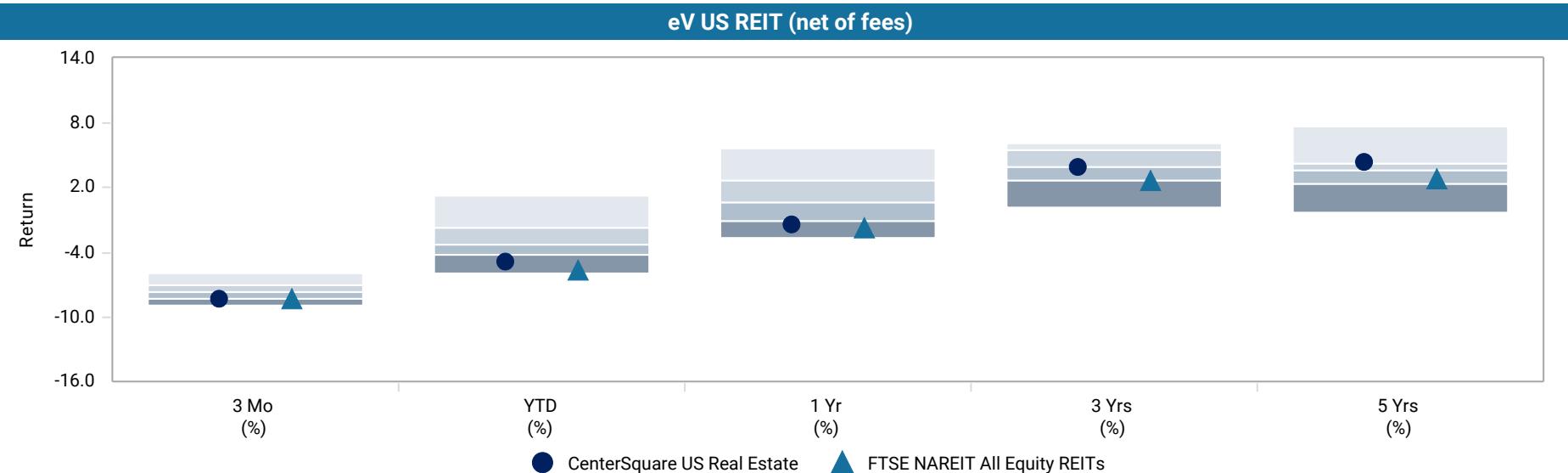
Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending September 30, 2023



DFA US TIPS

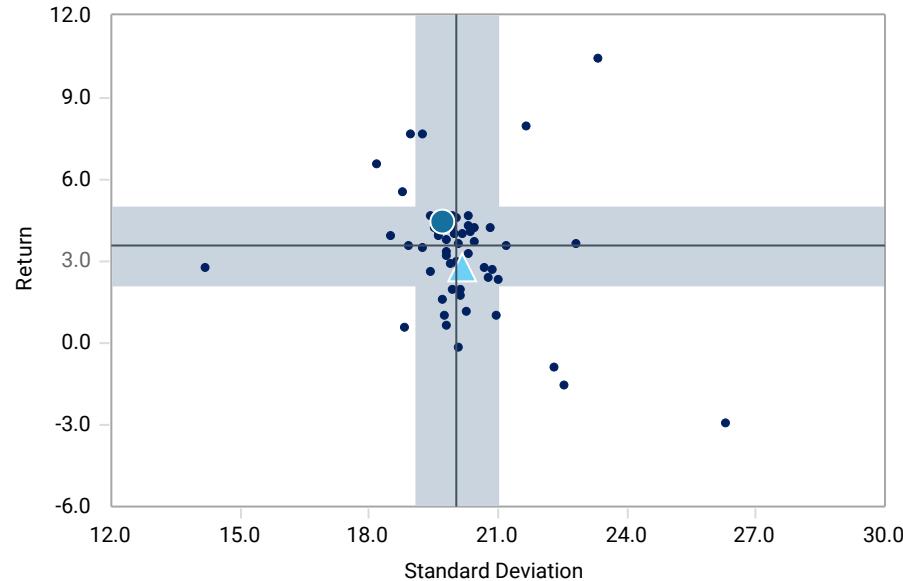


CENTERSQUARE US REAL ESTATE

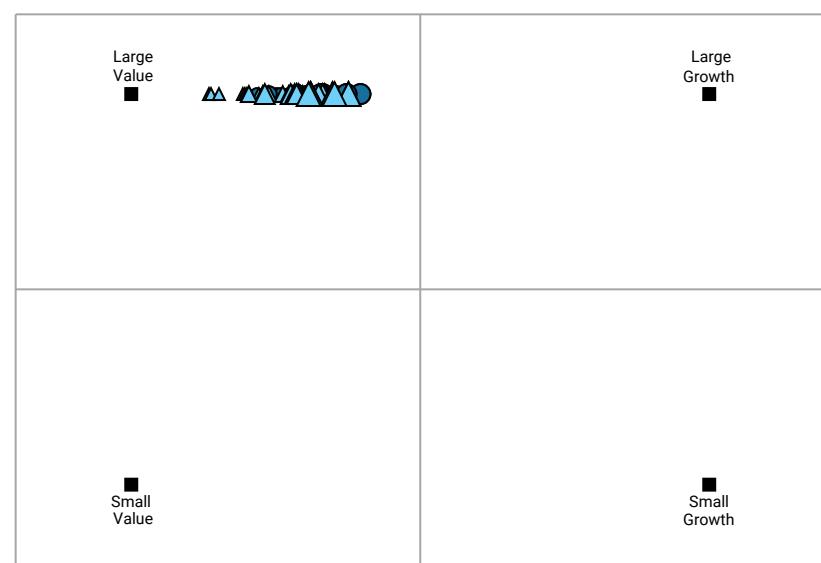


CENTERSQUARE US REAL ESTATE

5 Years Return vs. Standard Deviation

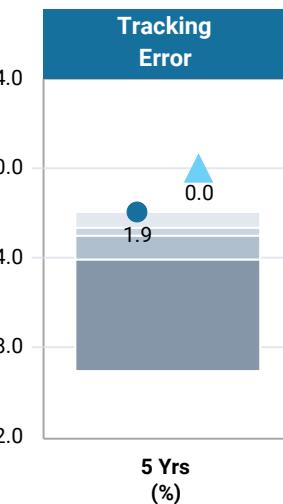
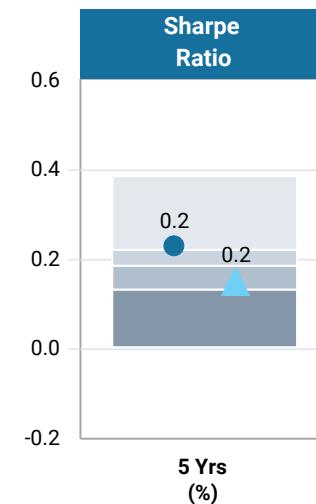
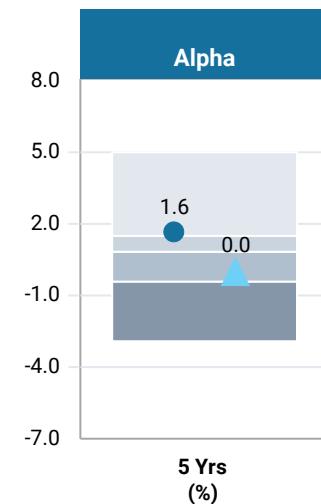
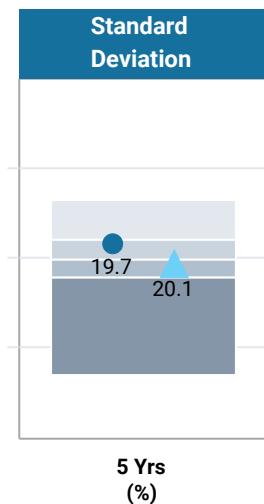
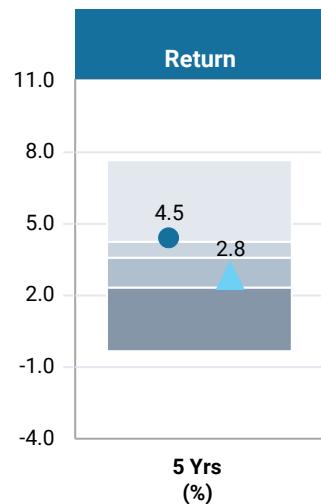


Rolling 5 Years Style Map



● CenterSquare US Real Estate ▲ FTSE NAREIT All Equity REITs

● CenterSquare US Real Estate ▲ FTSE NAREIT All Equity REITs





DEFINITIONS

POLICY INDEX DEFINITIONS

EFFECTIVE JULY 1, 2023

Policy Index: 20.5% Russell 3000 Index, 25.5% MSCI ACWI ex USA Net Index, 14% Bloomberg U.S. Aggregate Bond Index, 9.25% Credit Opportunities Blend, 6.25% Public Real Assets Blend, 6% Real Estate Blend, 17.5% Private Equity Blend, 1% Citi 3 Month T-Bill Index

U.S. Equity Blend: July 1, 2011 - Current: Russell 3000 Index; September 30, 1994 - December 31, 1999 S&P 500 Index 33.75, Russell 1000 Value Index 35%, Russell 1000 Growth 12.5%, Russell 2000 Value 12.5%, Russell 2000 Growth 6.25%

Core Fixed Income Blend: July 1, 2013 – Current: Bloomberg U.S. Aggregate Bond Index

Credit Opportunities Blend: 16.2% Bloomberg US High Yield 2% Issuer Capped Index, 16.2% Credit Suisse Leveraged Loan Index, 43.2% Blended Emerging Markets Debt Blend, 24.3% Credit Suisse Leveraged Loan Index One Quarter Lagged

Emerging Markets Debt Blend: 50% JPM EMBI Global Diversified, 50% JPM GBI-EM Global Diversified

Real Assets Policy Benchmark Blend: 32.65% Bloomberg US TIPS Index, 18.37% FTSE NAREIT All Equity Index, 48.98% Real Estate Blend

Public Real Assets Blend: 64% Bloomberg US TIPS Index, 36% FTSE NAREIT All Equity Index

Real Estate Blend: July 1, 2014 - Current NCREIF ODCE + 0.80%; July 1, 2012 - June 30, 2014 NCREIF Property Index Lagged +1%; October 1, 1994 - June 30, 2012 NCREIF Property Index Lagged

Private Equity Blend: January 1, 2022 Cambridge Global PE and VC Index; February 1, 2012 – December 31, 2021 Russell 3000 + 3%; Inception – January 31, 2012 Russell 3000 + 4%

Note: See Investment Policy for a full description of the indices listed.

POLICY INDEX DEFINITIONS

INTERIM POLICY TARGETS ADOPTED ON JULY 12, 2022

	Policy Target %
Total Portfolio	100.00%
U.S. Equity	21.00%
Large Cap	15.00%
Small/Mid Cap	6.00%
Non-U.S. Equity	26.00%
Developed	15.00%
Developed Small Cap	3.00%
Emerging Markets	6.67%
Emerging Markets Small Cap	1.33%
Private Equity	16.00%
Core Fixed Income	11.25%
Credit Opportunities	12.75%
Bank Loans/High Yield	3.00%
Emerging Market Debt	4.00%
Private Credit	5.75%
Public Real Assets	5.00%
TIPS	3.60%
REITS	1.40%
Real Estate	7.00%
Cash	1.00%

	2022	2023	2024	2025
100.00%	100.00%	100.00%	100.00%	100.00%
19.50%	20.50%	20.50%	21.00%	
14.00%	14.50%	14.50%	15.00%	
5.50%	6.00%	6.00%	6.00%	
25.50%	25.50%	25.50%	26.00%	
14.40%	14.40%	14.40%	15.00%	
3.00%	3.00%	3.00%	3.00%	
6.75%	6.75%	6.75%	6.67%	
1.35%	1.35%	1.35%	1.33%	
18.00%	17.50%	17.00%	16.00%	
15.00%	14.00%	12.75%	11.25%	
8.00%	9.25%	10.75%	12.75%	
3.00%	3.00%	3.00%	3.00%	
4.00%	4.00%	4.00%	4.00%	
1.00%	2.25%	3.75%	5.75%	
7.50%	6.25%	6.00%	5.00%	
4.50%	4.00%	4.00%	3.60%	
3.00%	2.25%	2.00%	1.40%	
5.50%	6.00%	6.50%	7.00%	
1.00%	1.00%	1.00%	1.00%	

Note: Policy target changes coincide with beginning of fiscal year.





DISCLOSURES

Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
- This report is provided as a management aid for the client's internal use only. Information contained in this report does not constitute a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.

